

Controls – Contactors and Contactor Assemblies



| | | | |
|------|--|-------|--|
| | | | |
| 3/2 | Introduction | 3/78 | 3RH11 coupling relays for switching auxiliary circuits, 4-pole |
| | 3RT, 3TB, 3TF Contactors for Switching Motors | 3/79 | 3RT Coupling Relays 3RT10 coupling relays (interface), for switching motors, 3-pole, 3 ... 11 kW |
| 3/5 | General data | | 3TX7, 3RS18 Coupling Relays |
| 3/11 | 3RT10 contactors, 3-pole, 3 ... 250 kW | | <u>3TX7 Coupling Relays, Narrow Design</u> |
| 3/27 | 3RT12 vacuum contactors, 3-pole, 110 ... 250 kW | 3/82 | Relay couplers |
| 3/28 | 3TF6 vacuum contactors, 3-pole, 335 ... 450 kW | 3/84 | Relay couplers with plug-in connection |
| 3/29 | 3TB5 contactors with DC solenoid system, 3-pole, 55 ... 200 kW | 3/86 | Semiconductor couplers |
| 3/30 | 3TF2 contactors, 3-pole, 2.2 ... 4 kW | 3/88 | 3RS18 Coupling Relays with <u>Industrial Housing</u> Relay couplers |
| | 3RA13, 3RA14 Contactor Assemblies | | Coupling Relays with LZS/LZX Plug-In Relays |
| | <u>3RA13 Reversing Contactor Assemblies</u> | 3/89 | Plug-in relay couplers |
| 3/32 | 3RA13 complete units, 3 ... 45 kW | | 3TG10 Power Relays/ Miniature Contactors |
| 3/37 | Components for customer assembly | 3/96 | 4-pole, 4 kW |
| | <u>3RA14 Contactor Assemblies for Wye-Delta Starting</u> | | Accessories and Spare Parts |
| 3/40 | 3RA14 complete units, 3 ... 75 kW | | <u>For 3RT, 3RH Contactors and Contactor Relays</u> |
| 3/47 | Components for customer assembly | 3/97 | Accessories for 3RT, 3RH contactors and contactor relays |
| | 3TD, 3TE Contactor Assemblies | 3/114 | Spare parts for 3RT, 3RH contactors and contactor relays |
| 3/48 | 3TD6 reversing contactor assemblies, 335 kW | | <u>For 3T Contactors and Contactor Relays</u> |
| 3/49 | 3TE6 contactor assemblies for wye-delta starting, 630 kW | 3/119 | Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors |
| | 3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications | 3/124 | Accessories for 3TH contactor relays |
| | <u>3RT14 Contactors for Switching Resistive Loads (AC-1)</u> | 3/127 | Spare parts for 3TB, 3TC, 3TF, 3TK contactors |
| 3/50 | 3-pole, 140 ... 690 A | | |
| | <u>3RT13 Contactors for Switching Resistive Loads (AC-1)</u> | | |
| 3/52 | 4-pole, 4 NO, 18 ... 140 A | | |
| | <u>3TK1 Contactors for Switching Resistive Loads (AC-1)</u> | | |
| 3/54 | 4-pole, 4 NO, 200 ... 1000 A | | |
| | <u>3TK20 Contactors</u> | | |
| 3/55 | 4-pole, 4 kW | | |
| | <u>3RT15 Contactors</u> | | |
| 3/57 | 4-pole, 2 NO + 2 NC, 4 ... 18.5 kW | | |
| | <u>3RT16 Capacitor Contactors</u> | | |
| 3/58 | 12.5 ... 50 kvar | | |
| | <u>Contactors with Extended Operating Range $0.7 \dots 1.25 \times U_{s1}$ for Railway Applications</u> | | |
| 3/59 | 3RH11 contactor relays | | |
| 3/60 | 3TH4 contactor relays | | |
| 3/61 | 3RT10 motor contactors, 5.5 ... 45 kW | | |
| 3/64 | 3TB5 motor contactors, 55 ... 200 kW | | |
| 3/65 | 3TC contactors for switching DC voltage, 2-pole | | |
| | <u>3TC Contactors for Switching DC Voltage</u> | | |
| 3/66 | 1- and 2-pole, 32 ... 400 A | | |
| | 3RH, 3TH Contactor Relays | | |
| 3/69 | 3RH1 contactor relays, 4- and 8-pole | | |
| 3/72 | 3RH14 latched contactor relays, 4-pole | | |
| 3/73 | 3TH4 contactor relays, 8- and 10-pole | | |
| 3/75 | 3TH2 contactor relays, 4- and 8-pole | | |

Note:
For safety characteristics for contactors see "Appendix" --> "Standards and Approvals" --> "Overview".

Controls – Contactors and Contactor Assemblies

Introduction

Overview



Size
Type

S00
3RT10 1

S0
3RT10 2

S2
3RT10 3

3RT10 contactors • 3RT12 and 3TF68/69 vacuum contactors

| Type | | 3RT10 15 | 3RT10 16 | 3RT10 17 | 3RT10 23 | 3RT10 24 | 3RT10 25 | 3RT10 26 | 3RT10 34 | 3RT10 35 | 3RT10 36 |
|---|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| AC, DC operation | | (p. 3/15, 3/19) | | | (p. 3/16, 3/20) | | | | (p. 3/17, 3/21) | | |
| Type | | -- | | | -- | | | | -- | | |
| AC-3 | | | | | | | | | | | |
| $I_e/AC-3/400\text{ V}$ | A | 7 | 9 | 12 | 9 | 12 | 17 | 25 | 32 | 40 | 50 |
| 400 V | kW | 3 | 4 | 5.5 | 4 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 |
| 230 V | kW | 2.2 | 3 | 3 | 3 | 3 | 4 | 5.5 | 7.5 | 11 | 15 |
| 500 V | kW | 3.5 | 4.5 | 5.5 | 4.5 | 7.5 | 10 | 11 | 18.5 | 22 | 30 |
| 690 V | 3RT10/12 kW | 4 | 5.5 | 5.5 | 5.5 | 7.5 | 11 | 11 | 18.5 | 22 | 22 |
| 1 000 V | 3RT10/12 kW | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| AC-4 (for $I_a = 6 \times I_e$) | | | | | | | | | | | |
| 400 V | kW | 3 | 4 | 4 | 4 | 5.5 | 7.5 | 7.5 | 15 | 18.5 | 22 |
| 400 V | 3RT10/12 kW | 1.15 | 2 | 2 | 2 | 2.6 | 3.5 | 4.4 | 8.2 | 9.5 | 12.6 |
| (200 000 operating cycles) | | | | | | | | | | | |
| AC-1 (40 °C, ≤ 690 V) | | | | | | | | | | | |
| I_e | 3RT10/12 A | 18 | 22 | 22 | 40 | 40 | 40 | 40 | 50 | 60 | 60 |

3RT14 AC-1 contactors

| | | | | | | |
|---|---|----|--|----|--|----|
| Type | | -- | | -- | | -- |
| $I_e/AC-1/40\text{ °C} \leq 690\text{ V}$ | A | -- | | -- | | -- |

Accessories for contactors

| | | | | | | | |
|--------------------------------|---------------|-----------------|------------|-----------------|------------|----------------------|------------|
| Auxiliary switch blocks | front lateral | 3RH19 11 | (p. 3/100) | 3RH19 21 | (p. 3/100) | 3RH19 21 | (p. 3/103) |
| Terminal covers | | -- | | -- | | 3RT19 36-4EA2 | (p. 3/112) |
| Box terminal blocks | | -- | | -- | | -- | |
| Surge suppressors | | 3RT19 16 | (p. 3/107) | 3RT19 26 | (p. 3/107) | 3RT19 26/36 | (p. 3/107) |

3RU1 and 3RB2 overload relays (Protection Equipment --> Overload Relays)

| | | | | | | |
|---|--|------------------------|--|------------------------|------------------------------------|------------------------|
| 3RU11 , thermal, CLASS 10 | 3RU11 16 | 0.1 ... 12 A (Chap. 5) | 3RU11 26 | 1.8 ... 25 A (Chap. 5) | 3RU11 36 | 5.5 ... 50 A (Chap. 5) |
| 3RB20/21 , solid-state, CLASS 5, 10, 20 and 30 | 3RB20 16 3RB21 16 | 0.1 ... 12 A (Chap. 5) | 3RB20 26 3RB21 26 | 3 ... 25 A (Chap. 5) | 3RB20 36 3RB21 36 | 6 ... 50 A (Chap. 5) |
| 3RB22/23 , solid-state, CLASS 5, 10, 20 and 30 | 3RB2. 83 + 3RB29 06 0.3 ... 25 A (Chap. 5) | | 3RB2. 83 + 3RB29 06 10 ... 100 A (Chap. 5) | | | |

3RV10 motor starter protectors (Protection Equipment --> Motor Starter Protectors)

| | | | | | | |
|---------------------|-----------------|-------------------------|-----------------|----------------------|-----------------|-----------------------|
| Type | 3RV10 11 | 0.18 ... 12 A (Chap. 5) | 3RV10 21 | 9 ... 25 A (Chap. 5) | 3RV10 31 | 22 ... 50 A (Chap. 5) |
| Link modules | 3RA19 11 | (Chap. 5) | 3RA19 21 | (Chap. 5) | 3RA19 31 | (Chap. 5) |

3RA13 reversing contactor assemblies

| | | | | | | | | | | |
|-------------------------------------|-----------|--------------------|-----------------|-----------------|------------------------|-----------------|-----------------|--------------------|-----------------|-----------------|
| Complete units | Type | 3RA13 15 | 3RA13 16 | 3RA13 17 | 3RA13 24 | 3RA13 25 | 3RA13 26 | 3RA13 34 | 3RA13 35 | 3RA13 36 |
| | | (p. 3/33) | | | (p. 3/34) | | | (p. 3/35) | | |
| 400 V | kW | 3 | 4 | 5.5 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 |
| Assembly kits/wiring modules | | 3RA19 13-2A | | | 3RA19 23-2A | | | 3RA19 33-2A | | |
| | | (p. 3/38) | | | (p. 3/38) | | | (p. 3/38) | | |
| Mechanical interlocks | | 3RA19 12-2H | | | 3RA19 24-1A/-2B | | | | | |
| | | (p. 3/39) | | | (p. 3/37) | | | | | |

3RA14 contactor assemblies for wye-delta starting

| | | | | | | | | |
|-------------------------------------|-----------|--------------------|-----------------|--------------------|--------------------|------------------------|-----------------|-----------------|
| Complete units | Type | 3RA14 15 | 3RA14 16 | 3RA14 23 | 3RA14 25 | 3RA14 34 | 3RA14 35 | 3RA14 36 |
| | | (p. 3/42) | | (p. 3/43) | | (p. 3/44) | (p. 3/45) | |
| 400 V | kW | 5.5 | 7.5 | 11 | 15/18.5 | 22/30 | 37 | 45 |
| Assembly kits/wiring modules | | 3RA19 13-2B | | 3RA19 23-2B | 3RA19 25-2B | 3RA19 33-2B/-2C | | |
| | | (p. 3/47) | | (p. 3/47) | (p. 3/47) | (p. 3/47) | | |

Note:

For safety characteristics for contactors see "Appendix" --> "Standards and Approvals" --> "Overview".



S3
3RT1. 4



S6
3RT1. 5



S10
3RT1. 6



S12
3RT1. 7



S14
3TF6

| | | | | | | | | | | | | | | |
|------------------------------------|-----------------|-----------------|------------------------------|-----------------|-------------------------|------------------------------|-----------------|-----------------|------------------------------|-----------------|---------------------------|---------------------|-----------------|---------------|
| 3RT10 44 (p. 3/18, 3/21) | 3RT10 45 | 3RT10 46 | 3RT10 54 (p. 3/23) | 3RT10 55 | 3RT10 56 | 3RT10 64 (p. 3/23) | 3RT10 65 | 3RT10 66 | 3RT10 75 (p. 3/23) | 3RT10 76 | -- | | | |
| -- | | | -- | | | 3RT12 64 (p. 3/27) | 3RT12 65 | 3RT12 66 | 3RT12 75 (p. 3/27) | 3RT12 76 | 3TF68 (p. 3/27) | 3TF69 | | |
| 65 | 80 | 95 | 115 | 150 | 185 | 225 | 265 | 300 | 400 | 500 | 630 | 820 | | |
| 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | 200 | 250 | 335 | 450 | | |
| 18.5 | 22 | 22 | 37 | 45 | 55 | 55 | 75 | 90 | 132 | 160 | 200 | 260 | | |
| 37 | 45 | 55 | 75 | 90 | 110 | 160 | 160 | 200 | 250 | 355 | 434 | 600 | | |
| 45 | 55 | 55 | 110 | 132 | 160 | 200 | 250 | 250 | 400 | 400/500 | 600 | 800 | | |
| 30 | 37 | 37 | 75 | 90 | 90 | 90/315 | 132/355 | 132/400 | 250/560 | 250/710 | 600 | 800 | | |
| 30 | 37 | 45 | 55 | 75 | 90 | 110 | 132 | 160 | 200 | 250 | 355 | 400 | | |
| 15.1 | 17.9 | 22 | 29 | 38 | 45 | 54/78 | 66/93 | 71/112 | 84/140 | 98/161 | 168 | 191 | | |
| 100 | 120 | 120 | 160 | 185 | 215 | 275/330 | 330 | 330 | 430/610 | 610 | 700 | 910 | | |
| 3RT14 46 | | (p. 3/50) | 3RT14 56 | | (p. 3/51) | 3RT14 66 | | (p. 3/51) | 3RT14 76 | | (p. 3/51) | -- | | |
| 140 | | | 275 | | | 400 | | | 690 | | -- | | | |
| | | | | | | | | | | | -- | | | |
| | | | | | | | | | | | 3TY7 561 | | (p. 3/120) | |
| 3RT19 46-4EA1/2 | | (p. 3/112) | 3RT19 56-4EA1/2/3 | | (p. 3/112) | 3RT19 66-4EA1/2/3 | | (p. 3/112) | 3RT19 76 | | (p. 3/112) | 3TX7 686/696 | | (p. 3/120) |
| -- | | | 3RT19 55/56-4G | | (p. 3/112) | 3RT19 66-4G | | (p. 3/112) | -- | | -- | | | |
| | | | 3RT19 56-1C | | (RC element) (p. 3/108) | | | | | | 3TX7 572 | | (p. 3/119) | |
| 3RU11 46 | 18 ... 100 A | (Chap. 5) | -- | | | -- | | | -- | | -- | | | |
| 3RB20 46 | 12.5 ... 100 A | (Chap. 5) | 3RB20 56 | 50 ... 200 A | (Chap. 5) | 3RB20 66 | 55 ... 630 A | (Chap. 5) | 3RB20 66 | 160 ... 630 A | 3RB20 66 | 160 ... 630 A | 3RB20 66 | 160 ... 630 A |
| 3RB21 46 | | | 3RB21 56 | | | 3RB21 66 | | | 3RB21 66 | | 3RB21 66 | | 3RB21 66 | (Chap. 5) |
| | | | 3RB2. 83 + 3RB29 56 | 20 ... 200 A | (Chap. 5) | 3RB2. 83 + 3RB29 66 | 63 ... 630 A | (Chap. 5) | | | | | | |
| 3RV10 41 | 45 ... 100 A | (Chap. 5) | -- | | | -- | | | -- | | -- | | | |
| 3RA19 41 | | (Chap. 5) | -- | | | -- | | | -- | | -- | | | |
| 3RA13 44 | 3RA13 45 | 3RA13 46 | -- | | | -- | | | -- | | 3TD68 04 | | (p. 3/48) | |
| (p. 3/36) | | | 55 | 75 | 90 | 110 | 132 | 160 | 200 | 250 | 335 | | | |
| 30 | 37 | 45 | | | | | | | | | | | | |
| 3RA19 43-2A | | (p. 3/38) | 3RA19 53-2A | | (p. 3/38) | 3RA19 63-2A | | (p. 3/38) | 3RA19 73-2A | | (p. 3/38) | 3TX7 680-1A | | |
| | | | 3RA19 54-2A | | (p. 3/37) | | | | | | | 3TX7 686-1A | | |
| 3RA14 44 | 3RA14 45 | | -- | | | -- | | | -- | | 3TE68 04 | | (p. 3/48) | |
| (p. 3/46) | | | 55 | 75 | | -- | | | -- | | 630 | | | |
| 3RA19 43-2B/-2C | | (p. 3/47) | 3RA19 53-2B | | (p. 3/47) | 3RA19 63-2B | | (p. 3/47) | 3RA19 73-2B | | (p. 3/47) | 3TX7 680-1B | | |

Controls – Contactors and Contactor Assemblies

Introduction

The advantages at a glance



3TX7



3RS18



LZS/LZX



3TG10

| | Order No. | Page |
|--|---|--|
| Coupling links, narrow design | | |
| Relay couplers | <ul style="list-style-type: none"> Width 6.2 mm (1 NO, 1 CO), 12.5 mm and 17.5 mm Output coupling links Input coupling links with hard gold-plating | 3TX7 002, 3TX7 003, 3TX7 004, 3TX7 005 |
| Plug-in base couplers, complete with relay | <ul style="list-style-type: none"> Width 6.2 mm (1 NO, 1 CO) Relays, replaceable | 3TX7 014-1..00 |
| Plug-in base couplers, complete with relay and hard gold-plating | <ul style="list-style-type: none"> Width 6.2 mm (1 CO) | 3TX7 014-1..02 |
| Semiconductor couplers | <ul style="list-style-type: none"> Output 1 semiconductor, triac or transistor | 3TX7 002, 3TX7 004, 3TX7 005 |
| Coupling relays in industrial housing | | |
| Relay couplers | <ul style="list-style-type: none"> Protective separation up to 300 V between contacts and relay circuits 1, 2 and 3 changeover contacts Hard gold-plated contacts in combination and wide voltage range versions | 3RS18 |
| Coupling relays with plug-in relays | | |
| Plug-in relay couplers with 2, 3 and 4 changeover contacts | <ul style="list-style-type: none"> Switching capacity 12 A/10 A/6 A Width 27 mm Base optionally with or without logical isolation | LZS/LZX:PT |
| Plug-in relay couplers with 3 changeover contacts and circular base | <ul style="list-style-type: none"> Switching capacity 6 A 11-pole circular base Width 38 mm | LZS/LZX:MT |
| Plug-in relay couplers with 1, 2 changeover contacts | <ul style="list-style-type: none"> Switching capacity 16 A/8 A Width 15.5 mm Base optionally with or without logical isolation | LZS/LZX:RT |
| Power relays/minature contactors | | |
| With screw and flat connectors | | 3TG10 |

Connection methods

The contactors and relays are available with screw terminals (box terminals and connecting bars) or with Cage Clamp terminals or spring-type terminals. Some device types are also available with plug-type connectors.



Screw terminals



Cage Clamp terminals or spring-type terminals



Flat connectors



Plug-in terminals



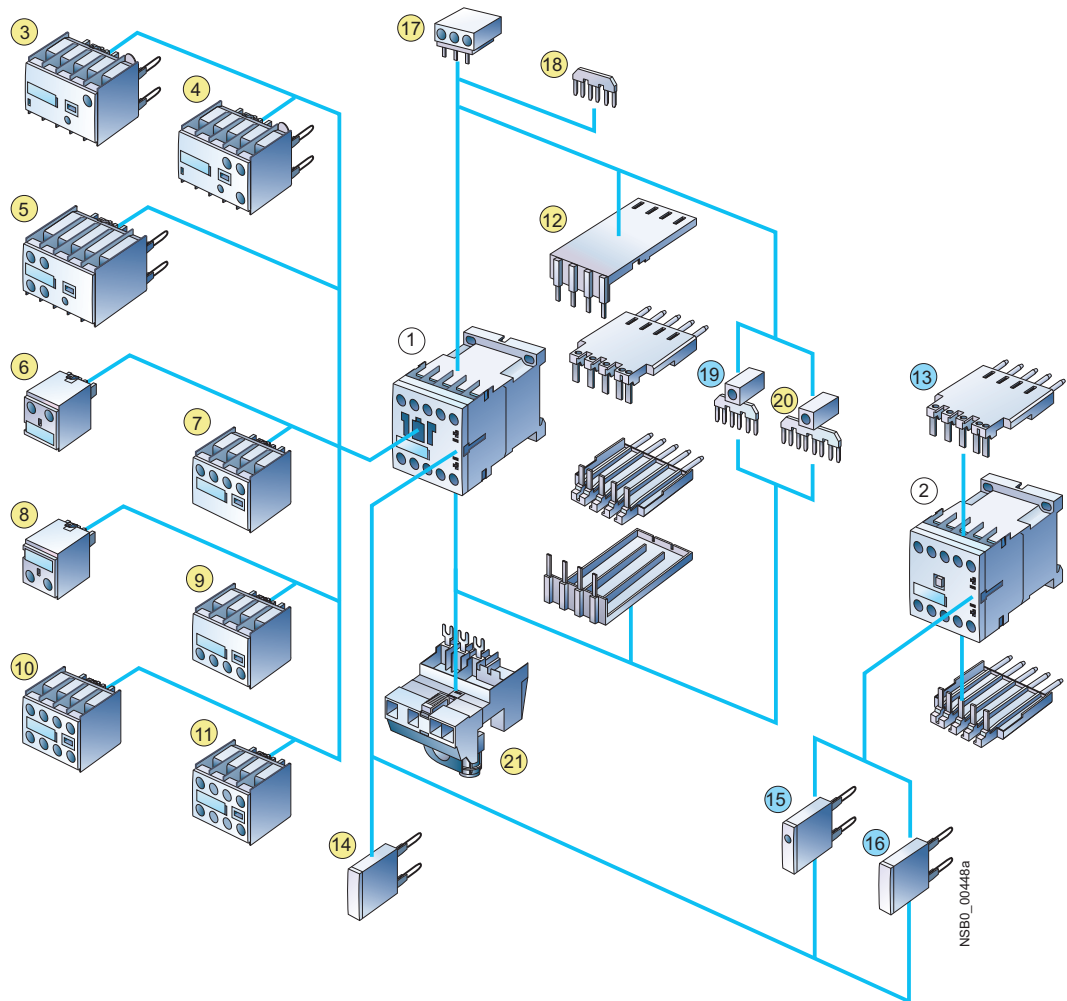
Solder pin connections

The terminals are indicated in the selection and ordering data by orange backgrounds.

Overview

3RT1 contactors and coupling relays
Size S00 with mountable accessories

The SIRIUS generation of controls is a complete, modular system family, logically designed right down to the last detail, from the basic units to the accessories.



- ① Contactor (page 3/15)
- ② Coupling relay (page 3/79)

- ③ Solid-state time-delay block, ON-delay (page 3/106)
- ④ Solid-state time-delay block, OFF-delay (page 3/106)
- ⑤ Auxiliary switch block with solid-state time delay (page 3/105)
(ON or OFF-delay or wye-delta function)
- ⑥ 1-pole auxiliary switch block, cable entry from above (page 3/100)
- ⑦ 2-pole auxiliary switch block, cable entry from above (page 3/100)
- ⑧ 1-pole auxiliary switch block, cable entry from below (page 3/100)
- ⑨ 2-pole auxiliary switch block, cable entry from below (page 3/100)
- ⑩ 4-pole auxiliary switch block (page 3/100) (terminal designations according to EN 50012 or EN 50005)
- ⑪ 2-pole auxiliary switch block, standard version or solid-state compatible version (pages 3/100, 3/105)
(terminal designations according to EN 50005)
- ⑫ Solder pin adapter for contactors with 4-pole auxiliary switch block (page 3/111)
- ⑬ Solder pin adapter for contactors and coupling relays (page 3/110)

- ⑭ Additional load module for increasing the permissible residual current (page 3/109)
- ⑮ Surge suppressor with LED (page 3/108)
- ⑯ Surge suppressor without LED (page 3/108)
- ⑰ 3-phase feeder terminal (page 3/47)
- ⑱ Link for paralleling (star jumper), 3-pole, without connection terminal (page 3/47)
- ⑲ Link for paralleling, 3-pole, with terminal (page 3/111)
- ⑳ Link for paralleling, 4-pole, with terminal (page 3/111)
- ㉑ Connection module (adapter and plug) for contactors with screw-type connection (page 3/110)

- For contactors
- For contactors and coupling relays (interface)

For contactor assemblies see pages 3/32 to 3/39.
For assembly kit for reversing contactor assemblies (mech. interlocking, wiring modules) see page 3/38.
For mountable overload relays see "Protection Equipment --> Overload Relays".

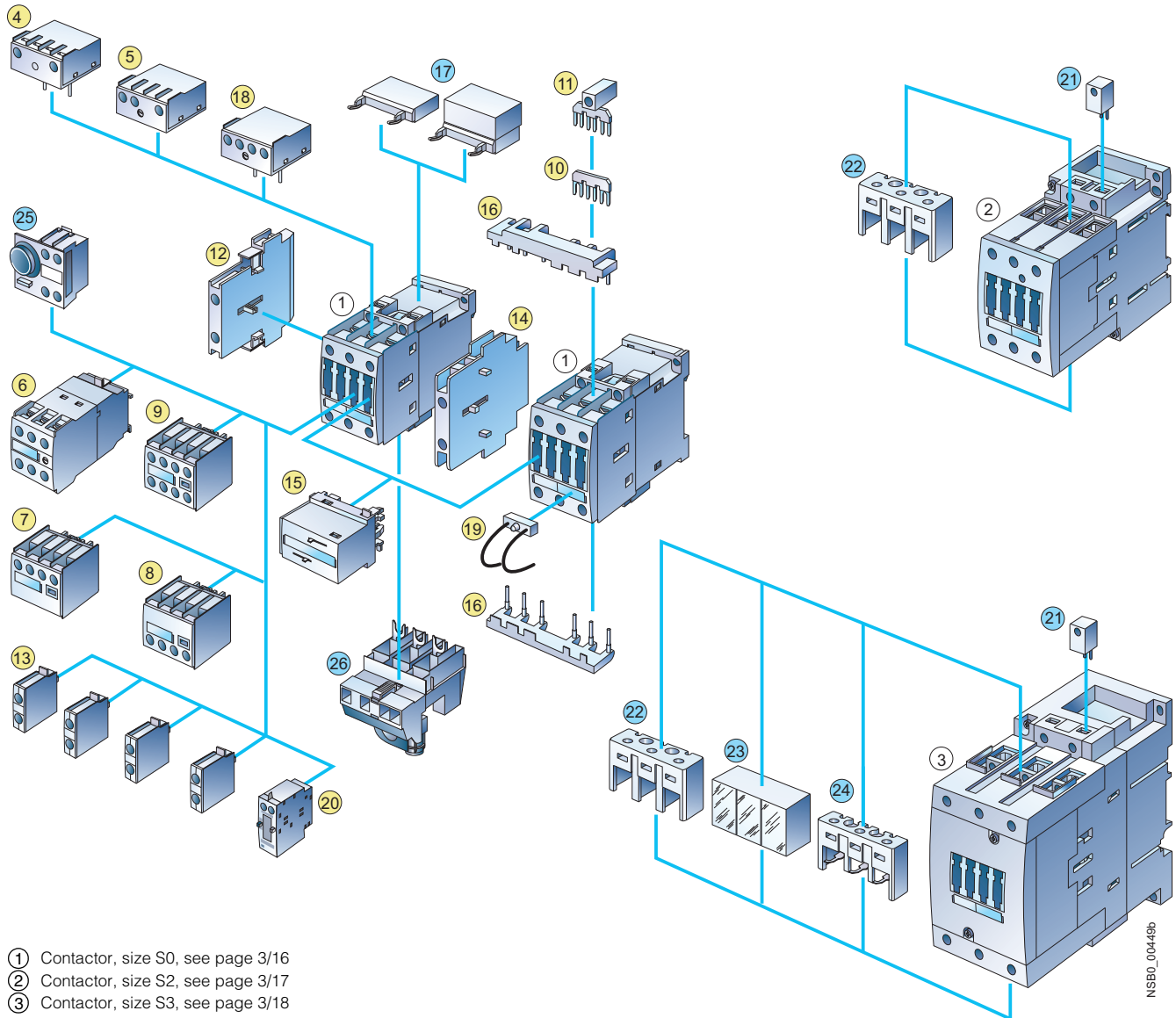
For fuseless load feeders, see "Load Feeders, Motor Starters and Soft Starters -> 3RA Fuseless Load Feeders".

3RT, 3TB, 3TF Contactors for Switching Motors

General data

3RT1 contactors

Sizes S0 to S3 with mountable accessories



NSB0_00449b

- ① Contactor, size S0, see page 3/16
- ② Contactor, size S2, see page 3/17
- ③ Contactor, size S3, see page 3/18

For sizes S0 to S3:

- ④ Solid-state time-delay block, ON-delay (page 3/106)
- ⑤ Solid-state time-delay block, OFF-delay (page 3/106)
- ⑥ Auxiliary switch block with solid-state time delay (page 3/105) (ON or OFF-delay or wye-delta function)
- ⑦ 2-pole auxiliary switch block, cable entry from above (page 3/101)
- ⑧ 2-pole auxiliary switch block, cable entry from below (page 3/101)
- ⑨ 4-pole auxiliary switch block (page 3/101) (terminal designations according to EN 50012 or EN 50005)
- ⑩ Link for paralleling (star jumper), 3-pole, without connection terminal (page 3/47)
- ⑪ Link for paralleling, 3-pole, with terminal (page 3/111)
- ⑫ 2-pole auxiliary switch block, laterally mountable left or right (page 3/103) (terminal designations according to EN 50012 or EN 50005)
- ⑬ Single-pole auxiliary switch block (up to 4 can be snapped on) (page 3/101)
- ⑭ Mechanical interlock, laterally mountable (page 3/37)
- ⑮ Mechanical interlock, mountable on the front (page 3/37)
- ⑯ Wiring modules on the top and bottom (reversing duty) (page 3/39)
- ⑰ Surge suppressor (page 3/107) (varistor, RC element, diode assembly), can be mounted on the top or bottom (different for S0 and S2/S3)

- ⑱ Coupling link for mounting directly onto contactor coil (page 3/110)
- ⑲ LED module for indicating contactor operation (page 3/110)

Only for size S0:

- ⑳ Pneumatic delay block (page 3/106)
- ㉑ Connection module (adapter and plug) for contactors with screw-type connection (page 3/110)

Only for sizes S0 and S2:

- ㉒ Mechanical latching (page 3/106)

Only for sizes S2 and S3:

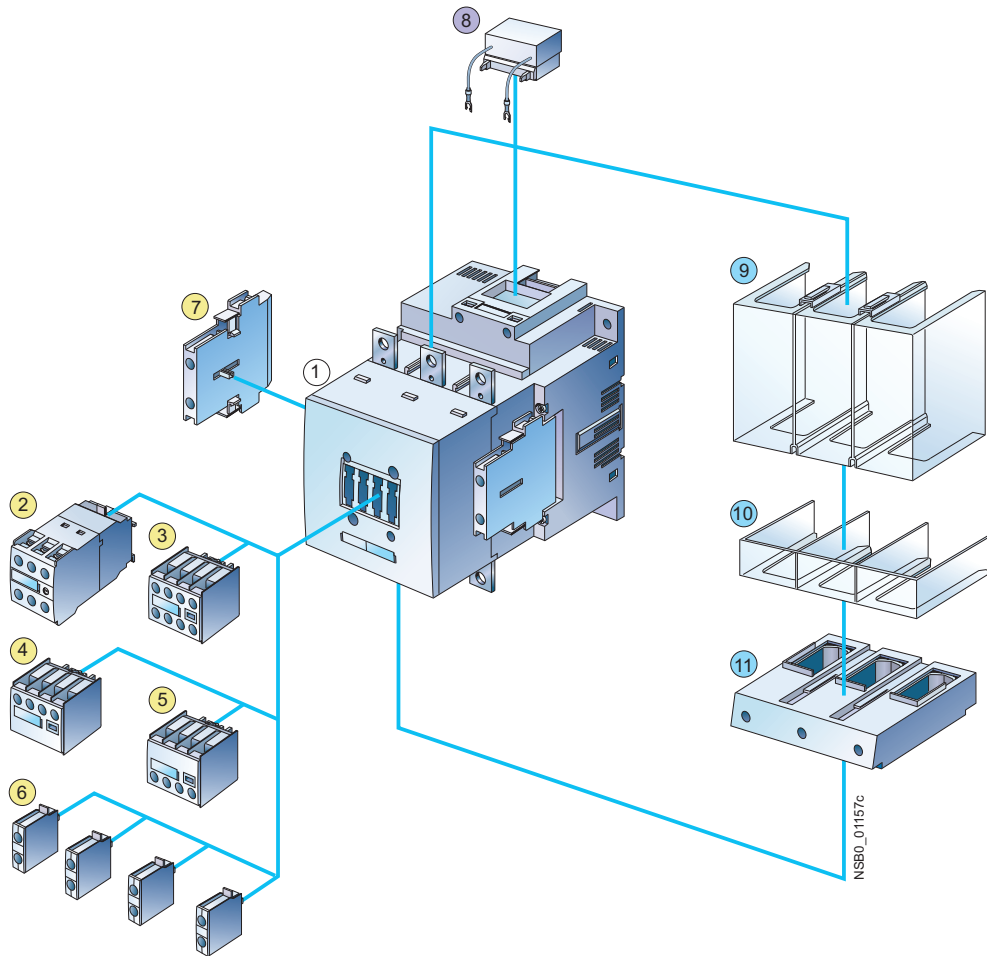
- ㉓ Coil repeat terminal for making contactor assemblies (page 3/37)
- ㉔ Terminal cover for box terminals (page 3/112)

Only for size S3:

- ㉕ Terminal cover for cable lugs and busbar connections (page 3/112)
- ㉖ Auxiliary conductor terminal, 3-pole (page 3/110)

- Accessories identical for sizes S0 to S3
- Accessories differ according to size

3RT1 contactors
Sizes S6 to S12 with accessories
(illustration for basic unit)



① 3RT10 and 3RT14 air-break contactor, sizes S6, S10 and S12
 (page 3/23 and 3/51)

② Auxiliary switch block with solid-state time delay (page 3/105)
 (ON or OFF-delay or wye-delta function)

③ 4-pole auxiliary switch block (page 3/100)
 (terminal designations according to EN 50012 or EN 50005)

④ 2-pole auxiliary switch block, cable entry from above (page 3/101)

⑤ 2-pole auxiliary switch block, cable entry from below (page 3/101)

⑥ Single-pole auxiliary switch block (up to 4 can be snapped on)
 (page 3/101)

⑦ 2-pole auxiliary switch block, laterally mountable left or right (page 3/103)
 (terminal designations according to EN 50012 or EN 50005)
 (identical for S0 to S12)

⑧ Surge suppressor (RC element) (page 3/108), for plugging into top of
 withdrawable coil

⑨ Terminal cover for cable lug and busbar connection
 (page 3/112), different for sizes S6 and S10/S12

⑩ Terminal cover for box terminal, (page 3/112),
 different for sizes S6 and S10/S12

⑪ Box terminal block (page 3/112), different for sizes S6 and S10/S12

● Accessories identical for sizes S0 to S12

● Accessories identical for sizes S6 to S12

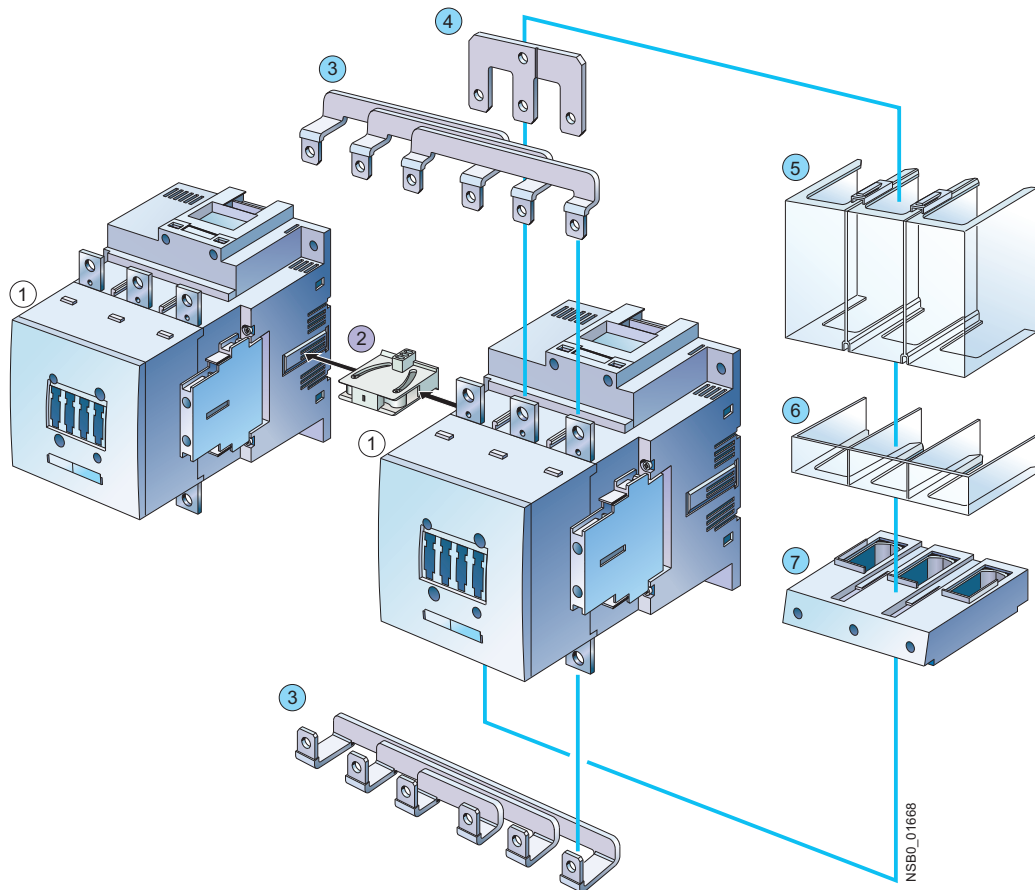
● Accessories differ according to size

For mountable overload relays see "Protection Equipment -->
 Overload Relays".

3RT, 3TB, 3TF Contactors for Switching Motors

General data

3RA1 contactor assemblies, 3RT1 contactors
Size S6 with accessories



① 3RT10 and 3RT14 air-break contactor, size S6 (page 3/23 and 3/51)

② 3RA19 54-2A mechanical interlock, laterally mountable (page 3/37)

③ 3RA19 53-2A wiring modules on the top and bottom (page 3/39)

④ 3RT19 56-4BA31 link for paralleling (star jumper), 3-pole, with through-hole (page 3/111)

⑤ Terminal cover for cable lug and busbar connection (page 3/112), different for sizes S6 and S10/S12

⑥ Terminal cover for box terminal, (page 3/112), different for sizes S6 and S10/S12

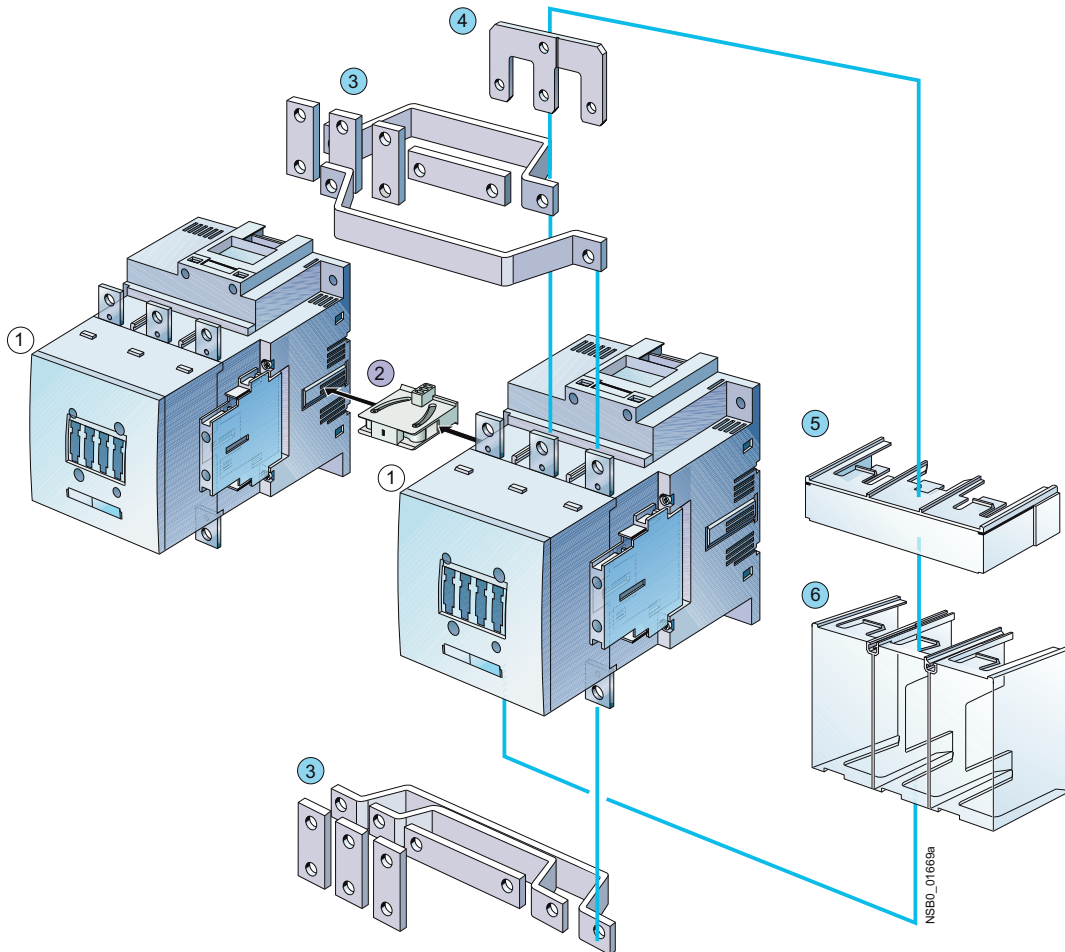
⑦ Box terminal block (page 3/112), different for sizes S6 and S10/S12

● Accessories identical for sizes S6 to S12

● Accessories differ according to size

For mountable overload relays see "Protection Equipment --> Overload Relays".

3RA1 contactor assemblies, 3RT1 contactors
Sizes S6, S10 and S12 with accessories



① 3RT10 and 3RT14 air-break contactor, sizes S6, S10 and S12
 (page 3/23 and 3/51) or
 3RT12 vacuum contactor, sizes S10 and S12 (page 3/27)

② Mechanical interlock, laterally mountable (page 3/37)

③ 3RA19 wiring modules on the top and bottom (page 3/38)

④ 3RT19 56-4BA31 link for paralleling (star jumper), 3-pole,
 with through-hole (page 3/111)

⑤ Terminal cover for box terminal, (page 3/112),
 different for sizes S6 and S10/S12

⑥ Terminal cover for cable lug and busbar connection (page 3/112),
 different for sizes S6 and S10/S12

● Accessories identical for sizes S6 to S12

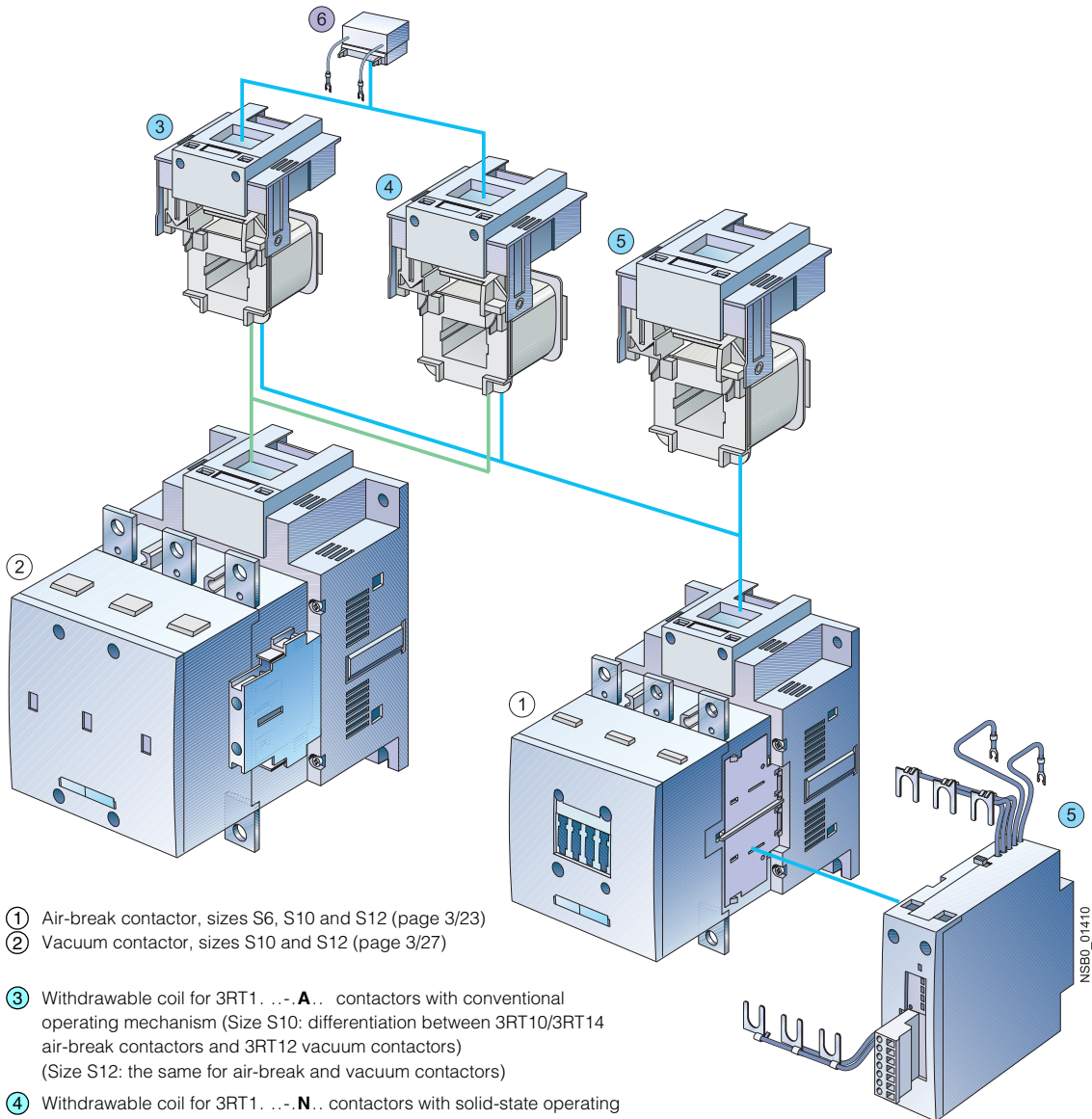
● Accessories differ according to size

For mountable overload relays see "Protection Equipment -->
 Overload Relays".

3RT, 3TB, 3TF Contactors for Switching Motors

General data

3RT1 contactors Sizes S6 to S12 with accessories



- ① Air-break contactor, sizes S6, S10 and S12 (page 3/23)
 ② Vacuum contactor, sizes S10 and S12 (page 3/27)
- ③ Withdrawable coil for 3RT1...-**A**.. contactors with conventional operating mechanism (Size S10: differentiation between 3RT10/3RT14 air-break contactors and 3RT12 vacuum contactors) (Size S12: the same for air-break and vacuum contactors)
- ④ Withdrawable coil for 3RT1...-**N**.. contactors with solid-state operating mechanism (Size S10: differentiation between 3RT10/3RT14 air-break contactors and 3RT12 vacuum contactors) (Size S12: the same for air-break and vacuum contactors)
- ⑤ Withdrawable coil and laterally mountable module (plug-on) for 3RT1...-**P**.. and 3RT1...-**Q**.. air-break contactors with solid-state operating mechanism and remaining lifetime indicator.
- ⑥ Surge suppressor (RC element) (page 3/107), plug-mountable on withdrawable coils
- 3RT1...-**A**..with conventional operating mechanism
 - 3RT1...-**N**.. with solid-state operating mechanism

- ① Identical for sizes S6 to S12
 ② Different according to size

For mountable overload relays see "Protection Equipment --> Overload Relays".

NSB0_01410

Overview

3RT10 contactors, 3-pole, sizes S00 to S3, up to 45 kW

AC and DC operation

IEC 60947, EN 60947 (VDE 0660)

The 3RT1 contactors are climate-proof. They are finger-safe according to EN 50274.

Size S00 contactors have an auxiliary contact integrated in the basic unit. The basic units of sizes S0 to S3 contain only the main current paths.

All basic units can be extended with auxiliary switch blocks. For size S0 and higher, complete units with 2 NO + 2 NC are available (connection designation according to EN 50012). The auxiliary switch block can be removed (for more information see [Technical Information LV 1 T](#)).

In addition, complete units with permanently mounted auxiliary switch block (2 NO + 2 NC according to EN 50012) are offered for sizes S00 and S0. These versions are built according to special Swiss regulations "SUVA" and are distinguished externally by a red labeling plate.

Connection methods

The 3RT1 contactors are available with screw terminals (box terminals and connecting bars) or with Cage Clamp terminals.

The size S3 contactors have removable box terminals for the main conductor connections. This permits connection of ring terminal lugs or busbars.

Contact reliability

If voltages ≤ 110 V and current ≤ 100 mA are to be switched, the auxiliary contacts of the 3RT1 contactor or 3RH11 contactor relay should be used as they guarantee a high level of contact reliability.

These auxiliary contacts are suitable for solid-state circuits with currents ≥ 1 mA at a voltage of 17 V.

Short-circuit protection of the contactors

For more information about short-circuit protection of contactors without overload relay, see [Technical specifications](#). For short-circuit protection of the contactors with overload relay, see ["Overload Relays"](#). To assemble fuseless motor feeders you must select combinations of motor starter protector and contactor as explained in ["Fuseless Load Feeders"](#).

Motor protection

3RU11 thermal overload relays or 3RB20 solid-state overload relays can be fitted to the 3RT1 contactors for protection against overload. The overload relays must be ordered separately.

Ratings of induction motors

The quoted rating (in kW) refers to the output power on the motor shaft (according to the nameplate).

Surge suppression

3RT1 contactors can be retrofitted with RC elements, varistors, diodes or diode assemblies (assembly of diode and Zener diode for short break times) for damping opening surges in the coil.

The surge suppressors are plugged onto the front of size S00 contactors. Space is provided for them next to a snap-on auxiliary switch block.

For size S0 to S3 contactors, varistors and RC elements can be snapped on either on the top or directly below the coil terminals. Diode assemblies are available in 2 different versions on account of their polarity. Depending on the application they can be connected either only at the bottom (assembly with motor starter protector) or only at the top (assembly with overload relay).

The plug-in direction of the diodes and diode assemblies is specified by coding.

Exceptions:

3RT19 26-1T.00 and

3RT19 36-1T.00, in this case the plug-in direction is marked with "+" and "-".

Coupling relays are supplied either without surge suppression or with a varistor or diode connected as standard, according to the version.

Note:

The OFF-delay times of the NO contacts and the ON-delay times of the NC contacts increase if the contactor coils are damped against voltage peaks (noise suppression diode 6 to 10 times; diode assemblies 2 to 6 times, varistor +2 to 5 ms).

3RT10 contactors, 3-pole, sizes S6 to S12, > 45 to 250 kW

- 3RT10, contactors for switching motors,
- 3RT12, vacuum contactors for switching motors,
- 3RT14, contactors for AC-1 applications.

Operating mechanism types

Two types of solenoid operation are available:

- Conventional operating mechanism
- Solid-state operating mechanism (with 3 performance levels)

AC/DC operation

The contactors can be operated with AC (40 to 60 Hz) as well as with DC.

Withdrawable coils

For simple coil replacement, e. g. if the application is replaced, the solenoid coil can be pulled out upwards after the release mechanism has been actuated and can be replaced by any other coil of the same size.

Auxiliary contact complement

For details of the auxiliary switch fittings per S0-S12 contactor see [Technical Information LV1 T 2009, page 3/16](#).

- 3RT10 and 3RT14 contactors:
Auxiliary contacts mounted laterally and on front
- 3RT12 vacuum contactors:
Auxiliary contacts mounted laterally

Note:

Auxiliary contact complement according to SUVA.

Contactors with permanently mounted auxiliary switch block for safety applications according to SUVA

Contactors with conventional operating mechanism

3RT1. ...-A version:

The solenoid coil is switched directly on and off with the control supply voltage U_s by way of terminals A1/A2.

Multi-voltage range for the control supply voltage U_s :

Several closely adjacent control supply voltages, available around the world, are covered by just one coil, for example 110-115-120-127 V AC/DC or 220-230-240 V AC/DC.

In addition, allowance is also made for a coil operating range of 0.8 times the lower ($U_{s \min}$) and 1.1 times the upper ($U_{s \max}$) rated control supply voltage within which the contactor switches reliably and no thermal overloading occurs.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

Contactors with solid-state operating mechanism

The solenoid coil is supplied selectively with the power required for reliable switching and holding by upstream control electronics.

- **Wide voltage range for the control supply voltage U_s :**
Compared with the conventional operating mechanism, the solid-state operating mechanism covers an even broader range of control supply voltages used worldwide within one coil variant. For example, the coil for 200 to 277 V UC ($U_{s \min}$ to $U_{s \max}$) covers the voltages 200-208-220-230-240-254-277 V used worldwide.
- **Extended operating range 0.7 to 1.25 x U_s :**
The wide range for the rated control supply voltage and the additionally allowed coil operating range of $0.8 \times U_{s \min}$ to $1.1 \times U_{s \max}$ results in an extended coil operating range of at least 0.7 to $1.25 \times U_s$, within which the contactors will operate reliably, for the most common control supply voltages of 24, 110 and 230 V.
- **Bridging temporary voltage dips:**
Control voltage failures dipping to 0 V (at A1/A2) are bridged for up to approx. 25 ms to avoid unintentional tripping.
- **Defined ON and OFF thresholds:**
For voltages of $\geq 0.8 \times U_{s \min}$ and higher the electronics will reliably switch the contactor ON, and as of $\leq 0.5 \times U_{s \min}$ it is reliably switched OFF. The hysteresis in the switching thresholds prevents the main contacts from chattering as well as increased wear or welding when operated in weak, unstable networks. This also prevents thermal overloading of the contactor coil if the voltage applied is too low (contactor does not close properly and is continuously operated with overexcitation).
- **Low control power consumption when closing and in the closed state.**

Electromagnetic compatibility (EMC)

The contactors with solid-state operating mechanism comply with the requirements for operation in industrial plants.

- Interference immunity
 - Burst (IEC 61000-4-4): 4 kV
 - Surge (IEC 61000-4-5): 4 kV
 - Electrostatic discharge, ESD (IEC 61000-4-2): 8/15 kV
 - Electromagnetic field (IEC 61000-4-3): 10 V/m
- Emitted interference
 - Limit value class A according to EN 55011

Note:

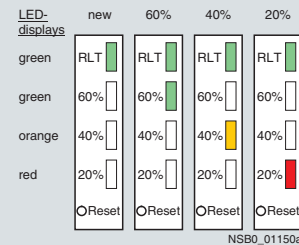
In connection with converters, the control cables should be installed separately from the load cables of the converter.

Remaining lifetime indicator (RLT)

Main contactor contacts are working parts which must be replaced in good time when the end of their service life has been reached. The degree of contact erosion and thus the electrical endurance (= number of operating cycles) depends on the loading, utilization category, operating mode, etc. Up to now, routine checks/visual inspections by the maintenance personnel were needed in order to gain an insight into the state of the main contacts. The indication of remaining lifetime function now takes over this task. It does not count the number of operating cycles – which does not provide information about contact erosion – but instead electronically identifies, evaluates and stores the actual progress of erosion of each one of the three main contacts, and outputs a warning when specified limits are reached. The stored data are not lost even if the control supply voltage for A1/A2 fails. After replacement of the main contacts, measurement the remaining lifetime must be reset using the "RESET" button (hold down RESET button for about 2 seconds using a pen or similar tool).

Advantages:

- Signaling through relay contact or AS-i when remaining lifetime is 20 %, i.e. contact material wear is 80 %
- Additional visual indication of various levels of erosion by means of LEDs on the laterally mounted solid-state module when remaining lifetime is 60 % (green), 40 % (orange) and 20 % (red)



- Early warning to replace contacts
- Optimum utilization of contact material
- Visual inspection of the condition of contacts no longer necessary
- Reduction of ongoing operating costs
- Optimum planning of maintenance measures
- Avoidance of unforeseen plant downtimes

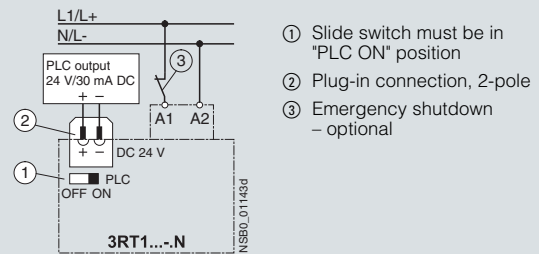
3RT1...-N version: for 24 V DC PLC output

2 control options:

- Control without a coupling link directly through a 24 V DC ≥ 30 mA PLC output (EN 61131-2). Connection by means of 2-pole plug-in connection. The screwless spring-type connection is part of the scope of supply. The control supply voltage which supplies the solenoid operating mechanism must be connected to A1/A2.

Note:

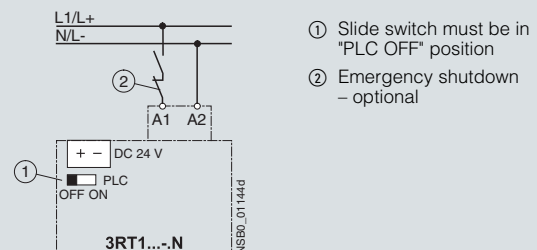
Before start-up, the slide switch for PLC operation must be moved to the "PLC ON" position (setting ex works: "PLC OFF").



- Conventional control by applying the control supply voltage at A1/A2 through a switching contact.

Note:

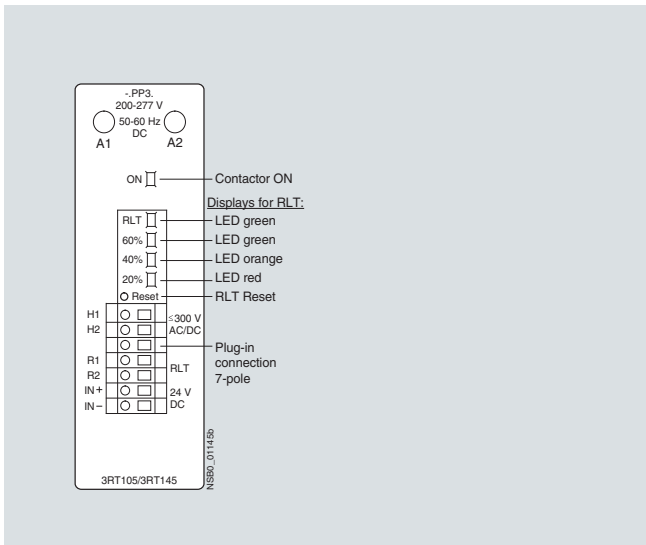
The slide switch must be in the "PLC OFF" position (= setting ex works).



3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

3RT1...-P version: For 24 V DC PLC output or PLC relay output, with remaining lifetime indicator (RLT).

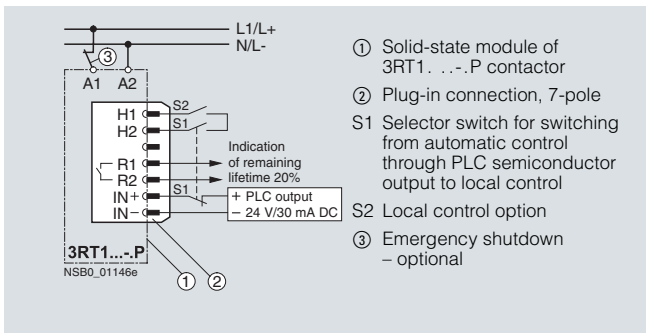


To supply the solenoid and the remaining lifetime indicator with power, the control supply voltage U_s must be connected to terminals A1/A2 of the laterally mounted solid-state module. The control inputs of the contactor are connected to a 7-pole plug-in connection; the screwless spring-operated connector is part of the scope of supply.

- The "Remaining Lifetime RLT" status signal is available at terminals R1/R2 through a floating relay contact (hard gold-plated, enclosed) and can be input to SIMOCODE, PLC or other devices for processing, for example. Permissible current-carrying capacity of the R1/R2 relay output:
 - I_e /AC-15/24 to 230 V: 3 A
 - I_e /DC-13/24 V: 1 A
- LED indications
The following states are indicated by means of LEDs on the laterally mounted solid-state module:
 - Contactor ON (energized state): Green LED ("ON")
 - Indication of remaining lifetime

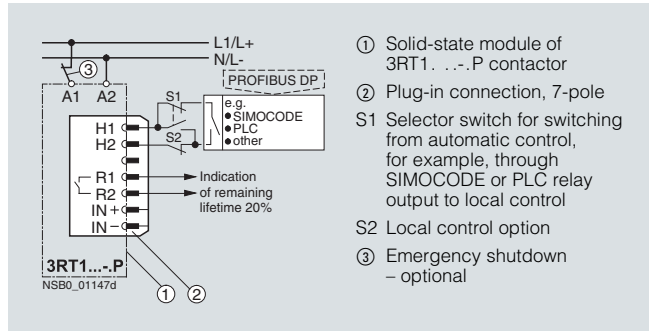
2 control options:

- Contactor control without a coupling link directly through a 24 V DC ≥ 30 mA PLC output (EN 61131-2) by way of terminals IN+/IN-.

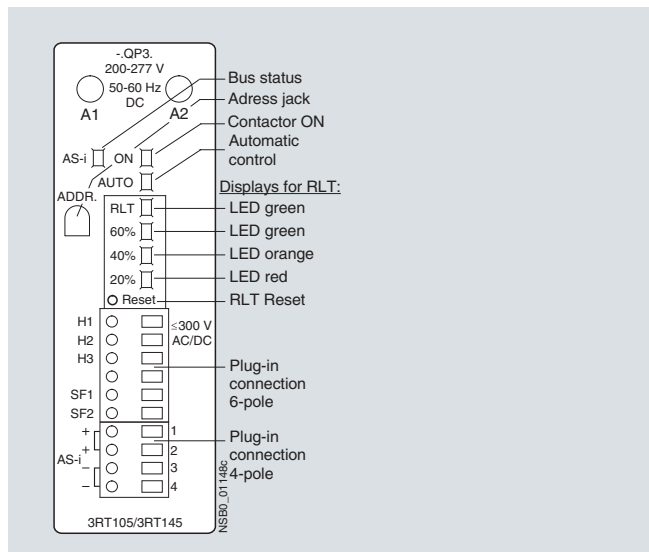


Possibility of switching from automatic control to local control by way of terminals H1/H2, i. e. automatic control through PLC or SIMOCODE/PROFIBUS DP can be deactivated e. g. at start-up or in the event of a fault and the contactor can be controlled manually.

- Contactor control through relay outputs, e. g. by
 - PLC
 - SIMOCODE
 by way of terminals H1/H2. Contact loading: U_s /approx. 5 mA. When operated through SIMOCODE, a communication link to PROFIBUS DP is also provided.



3RT1...-Q version: Communication-capable with integrated AS-Interface and indication of remaining lifetime (RLT)



To supply the solenoid and the remaining lifetime indicator with power, the control supply voltage U_s must be connected to terminals A1/A2 of the laterally mounted solid-state module. The contactor itself is controlled by way of the integrated AS-Interface interface. The inputs and outputs are connected to a 10-pole plug-in connection; the screwless spring-type connections (6-pole for external connection and 4-pole for AS-Interface connection) are part of the scope of supply.

- LED indications
The following states are indicated by means of LEDs on the laterally mounted solid-state module:
 - Contactor ON (energized state): green LED ("ON")
 - Automatic/local control: green LED ("AUTO")
 - Bus status: green/red dual LED ("AS-i")
 - Remaining lifetime indicator (RLT)
- AS-Interface addressing socket "ADDR":
The contactor address can be assigned after installation.

3RT, 3TB, 3TF Contactors for Switching Motors

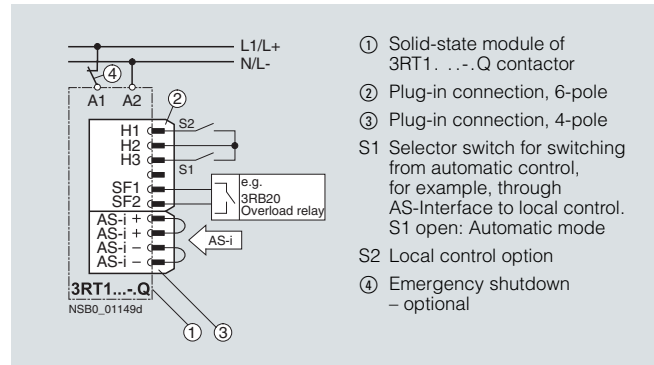
3RT10 contactors, 3-pole, 3 ... 250 kW

Control circuit:

- Contactor control through AS-Interface by way of terminals AS-i +/AS-i -. Each of these terminals is jumpered and connected twice to a 4-pole connector which is separate from the other control inputs.

Advantages:

- The AS-Interface cable is not interrupted if the plug is pulled out
- The contactor remains functional through the local control inputs and its own 6-pole connector
- Control signals through AS-i:
 - Contactor ON/OFF
- Status signals through AS-i:
 - Contactor ON/OFF
 - Automatic/Local control
 - Remaining lifetime indicator (RLT)
 - Signal through free input, e. g. overload relay tripped.



Possibility of switching from automatic control to local control by means of terminals H1/H2/H3, i.e. automatic control through AS-Interface can be deactivated e. g. during start-up or in the event of a fault and the contactor can be controlled manually.

| | |
|---|--|
| I/O configuration (hex) | 7 |
| ID code (hex) | F |
| Power supply | V 26.5 ... 31.6 (acc. to AS-Interface specification) |
| AS-Interface power consumption | mA max. 20 |
| Contact loading at SF1/2 | mA 3 ... 6 |
| Watchdog function (disconnects outputs in the event of AS-Interface fault) | Built-in |

Indication

During operation, the LEDs on the contactor indicate the states shown on the right.

| LEDs | States | Description of state |
|--------------|---------------------------|-------------------------------|
| AS-Interface | ON ON Flash-ing Flash-ing | Station address 0 |
| | | No AS-Interface communication |
| | | AS-Interface communication OK |

Contactor diagnostics using the user program

Inputs

| Input signals | Device status |
|--------------------------|--|
| DI0 "Ready" | 0 Device not ready/manual operation 1 Device ready/automatic mode |
| DI1 "Running" | 0 Contactor off 1 Contactor on |
| DI2 "Remaining lifetime" | 0 Remaining lifetime RLT > 20 % 1 Remaining lifetime RLT ≤ 20 % |
| DI3 "Free input" | 0 No input signal at SF1/2 1 Input signal at SF1/2 |

Outputs

| Output signals | Device status |
|----------------|-----------------------------------|
| DO0 "Running" | 0 Contactor off 1 Contactor on |
| DO1 | 0 -- 1 -- |
| DO2 | 0 -- 1 -- |
| DO3 | 0 -- 1 -- |

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

Selection and ordering data

AC operation

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



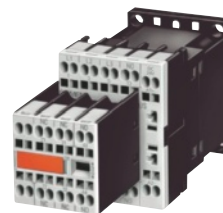
3RT10 1.-1A...



3RT10 1.-2A...



3RT10 1.-1AP04-3MA0



3RT10 1.-2AP04-3MA0

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s at 50/60 Hz | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|---------------------------------------|---|---------------------------------------|---------|--|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Ident. No. | Version | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| Operational current I_e up to 400 V | Rating of induction motors at 50 Hz and 400 V | Operational current I_e up to 690 V | NO NC | V AC | | | | | | | | |
| A | kW | A | | | | | | kg | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00¹⁾

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|-----|----|------|----|----|-----|---|----------------|-------|---|----------------|-------|
| 7 | 3 | 18 | 10 E | 1 | -- | 24 | ▶ | 3RT10 15-1AB01 | 0.200 | ▶ | 3RT10 15-2AB01 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 15-1AF01 | 0.200 | ▶ | 3RT10 15-2AF01 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 15-1AP01 | 0.200 | ▶ | 3RT10 15-2AP01 | 0.200 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 15-1AB02 | 0.200 | ▶ | 3RT10 15-2AB02 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 15-1AF02 | 0.200 | ▶ | 3RT10 15-2AF02 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 15-1AP02 | 0.200 | ▶ | 3RT10 15-2AP02 | 0.200 |
| 9 | 4 | 22 | 10 E | 1 | -- | 24 | ▶ | 3RT10 16-1AB01 | 0.200 | ▶ | 3RT10 16-2AB01 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 16-1AF01 | 0.200 | ▶ | 3RT10 16-2AF01 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 16-1AP01 | 0.200 | ▶ | 3RT10 16-2AP01 | 0.200 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 16-1AB02 | 0.200 | ▶ | 3RT10 16-2AB02 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 16-1AF02 | 0.200 | ▶ | 3RT10 16-2AF02 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 16-1AP02 | 0.200 | ▶ | 3RT10 16-2AP02 | 0.200 |
| 12 | 5.5 | 22 | 10 E | 1 | -- | 24 | ▶ | 3RT10 17-1AB01 | 0.200 | ▶ | 3RT10 17-2AB01 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 17-1AF01 | 0.200 | ▶ | 3RT10 17-2AF01 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 17-1AP01 | 0.200 | ▶ | 3RT10 17-2AP01 | 0.200 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 17-1AB02 | 0.200 | ▶ | 3RT10 17-2AB02 | 0.200 |
| | | | | | | 110 | ▶ | 3RT10 17-1AF02 | 0.200 | ▶ | 3RT10 17-2AF02 | 0.200 |
| | | | | | | 230 | ▶ | 3RT10 17-1AP02 | 0.200 | ▶ | 3RT10 17-2AP02 | 0.200 |

Size S00¹⁾

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|-----|----|------|---|---|-----|---|---------------------|-------|---|---------------------|-------|
| 7 | 3 | 18 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 15-1AP04-3MA0 | 0.250 | B | 3RT10 15-2AP04-3MA0 | 0.250 |
| 9 | 4 | 22 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 16-1AP04-3MA0 | 0.250 | B | 3RT10 16-2AP04-3MA0 | 0.250 |
| 12 | 5.5 | 22 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 17-1AP04-3MA0 | 0.250 | B | 3RT10 17-2AP04-3MA0 | 0.250 |

For other voltages see page 3/26, for contactors with permanently mounted auxiliary switch block please inquire.

For accessories, see page 3/100.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

¹⁾ For size S00: coil operating range
 at 50 Hz: 0.8 ... 1,1 x U_s ,
 at 60 Hz: 0.85 ... 1,1 x U_s .

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

AC operation

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 2.-1A.00



3RT10 2.-3A.00



3RT10 2.-1A.04



3RT10 2.-1AL24-3MA0

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s at 50 Hz | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|------------------------------------|---------------------|---------------------------------|------------|---|----|-----------------|-----------|-----------------------|----|----------------------|--------------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Operational current I_e up to | Ident. No. | | | Version | Order No. | | | Price per PU | For coil terminals | |
| 400 V | 400 V | 690 V | | | | | | | | | | |
| A | kW | A | | NO NC V AC | | | kg | | | | kg | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S0

| | | | | | | | | | | | |
|----|-----|------------------|----|----|----|------------------|---|--|-------------------------------|--|-------------------------|
| 9 | 4 | 40 ¹⁾ | -- | -- | -- | 24 110 230 | ▶ | 3RT10 23-1AB00 3RT10 23-1AF00 3RT10 23-1AP00 | 0.350 B 0.350 B 0.350 ▶ | 3RT10 23-3AB00 3RT10 23-3AF00 3RT10 23-3AP00 | 0.350 0.350 0.350 |
| 12 | 5.5 | 40 ¹⁾ | -- | -- | -- | 24 110 230 | ▶ | 3RT10 24-1AB00 3RT10 24-1AF00 3RT10 24-1AP00 | 0.350 B 0.350 B 0.350 ▶ | 3RT10 24-3AB00 3RT10 24-3AF00 3RT10 24-3AP00 | 0.350 0.350 0.350 |
| 17 | 7.5 | 40 ¹⁾ | -- | -- | -- | 24 110 230 | ▶ | 3RT10 25-1AB00 3RT10 25-1AF00 3RT10 25-1AP00 | 0.350 B 0.350 B 0.350 ▶ | 3RT10 25-3AB00 3RT10 25-3AF00 3RT10 25-3AP00 | 0.350 0.350 0.350 |
| 25 | 11 | 40 ¹⁾ | -- | -- | -- | 24 110 230 | ▶ | 3RT10 26-1AB00 3RT10 26-1AF00 3RT10 26-1AP00 | 0.350 B 0.350 B 0.350 ▶ | 3RT10 26-3AB00 3RT10 26-3AF00 3RT10 26-3AP00 | 0.350 0.350 0.350 |

Size S0

With mounted auxiliary switch block (removable)²⁾

Terminal designations according to EN 50012

| | | | | | | | | | | | |
|----|-----|------------------|------|---|---|------------------|---|--|-------------------------|----|----|
| 9 | 4 | 40 ¹⁾ | 22 E | 2 | 2 | 24 110 230 | ▶ | 3RT10 23-1AB04 3RT10 23-1AF04 3RT10 23-1AP04 | 0.400 0.400 0.400 | -- | -- |
| 12 | 5.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 110 230 | ▶ | 3RT10 24-1AB04 3RT10 24-1AF04 3RT10 24-1AP04 | 0.400 0.400 0.400 | -- | -- |
| 17 | 7.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 110 230 | ▶ | 3RT10 25-1AB04 3RT10 25-1AF04 3RT10 25-1AP04 | 0.400 0.400 0.400 | -- | -- |
| 25 | 11 | 40 ¹⁾ | 22 E | 2 | 2 | 24 110 230 | ▶ | 3RT10 26-1AB04 3RT10 26-1AF04 3RT10 26-1AP04 | 0.400 0.400 0.400 | -- | -- |

Size S0

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | | |
|----|-----|------------------|------|---|---|-----|---|---------------------|-------|----|----|
| 12 | 5.5 | 40 ¹⁾ | 22 E | 2 | 2 | 230 | B | 3RT10 24-1AL24-3MA0 | 0.420 | -- | -- |
| 17 | 7.5 | 40 ¹⁾ | 22 E | 2 | 2 | 230 | A | 3RT10 25-1AL24-3MA0 | 0.420 | -- | -- |
| 25 | 11 | 40 ¹⁾ | 22 E | 2 | 2 | 230 | A | 3RT10 26-1AL24-3MA0 | 0.420 | -- | -- |

For other voltages see page 3/26, for contactors with permanently mounted auxiliary switch block please inquire.

For accessories, see page 3/101.

For spare parts, see page 3/114.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

¹⁾ Minimum conductor cross-section 10 mm².

²⁾ Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

AC operation

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 3.-1A.00



3RT10 3.-3A.00



3RT10 3.-1A.04

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s at 50 Hz | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|---------------------------------------|---|--------------------|------------|---|----|-----------------|-----------------------|----|----------------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Ident. No. | Version | | | Order No. | Price per PU | | For coil terminals | Price per PU |
| Operational current I_e up to 400 V | Rating of induction motors at 50 Hz and 400 V | | | | | | | | | |
| A | kW | A | NO NC V AC | | | | kg | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S2

| | | | | | | | | | | |
|----|-------------|----|----|----|----|------------------|---|-------------------------------|---|-------------------------|
| 32 | 15 | 50 | -- | -- | -- | 24 110 230 | ▶ 3RT10 34-1AB00 ▶ 3RT10 34-1AF00 ▶ 3RT10 34-1AP00 | 0.850 B 0.850 B 0.850 ▶ | 3RT10 34-3AB00 3RT10 34-3AF00 3RT10 34-3AP00 | 0.850 0.850 0.850 |
| 40 | 18.5 | 60 | -- | -- | -- | 24 110 230 | ▶ 3RT10 35-1AB00 ▶ 3RT10 35-1AF00 ▶ 3RT10 35-1AP00 | 0.850 B 0.850 B 0.850 ▶ | 3RT10 35-3AB00 3RT10 35-3AF00 3RT10 35-3AP00 | 0.850 0.850 0.850 |
| 50 | 22 | 60 | -- | -- | -- | 24 110 230 | ▶ 3RT10 36-1AB00 ▶ 3RT10 36-1AF00 ▶ 3RT10 36-1AP00 | 0.850 B 0.850 B 0.850 ▶ | 3RT10 36-3AB00 3RT10 36-3AF00 3RT10 36-3AP00 | 0.850 0.850 0.850 |

Size S2

With mounted auxiliary switch block (removable)¹⁾

Terminal designations according to EN 50012

| | | | | | | | | | | |
|----|-------------|----|-------------|---|---|------------------|---|-------------------------|----------------|--|
| 32 | 15 | 50 | 22 E | 2 | 2 | 24 110 230 | ▶ 3RT10 34-1AB04 ▶ 3RT10 34-1AF04 ▶ 3RT10 34-1AP04 | 0.950 0.950 0.950 | -- -- -- | |
| 40 | 18.5 | 60 | 22 E | 2 | 2 | 24 110 230 | ▶ 3RT10 35-1AB04 ▶ 3RT10 35-1AF04 ▶ 3RT10 35-1AP04 | 0.950 0.950 0.950 | -- -- -- | |
| 50 | 22 | 60 | 22 E | 2 | 2 | 24 110 230 | ▶ 3RT10 36-1AB04 ▶ 3RT10 36-1AF04 ▶ 3RT10 36-1AP04 | 0.950 0.950 0.950 | -- -- -- | |

Size S2

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | |
|----|-------------|----|-------------|---|---|-----|---|----------------------------|-------|----|
| 32 | 15 | 50 | 22 E | 2 | 2 | 230 | B | 3RT10 34-1AP04-3MA0 | 0.908 | -- |
| 40 | 18.5 | 50 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 35-1AP04-3MA0 | 0.950 | -- |
| 50 | 22 | 50 | 22 E | 2 | 2 | 230 | B | 3RT10 36-1AP04-3MA0 | 0.935 | -- |

For other voltages see page 3/26, for contactors with mounted auxiliary switch block please inquire.

For accessories, see page 3/101.

For spare parts, see page 3/114.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

¹⁾ Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

AC operation

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 4.-1A.00



3RT10 4.-3A.00

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s at 50 Hz | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|---------------------------------------|---|--------------------|------------|---|----|-----------------|-----------------------|----|----------------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Ident. No. | Version | | | Order No. | | | For coil terminals | |
| Operational current I_e up to 400 V | Rating of induction motors at 50 Hz and 690 V | | | | | Price per PU | | | Price per PU | |
| A | kW | A | NO NC V AC | | | | kg | | | kg |

For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

Size S3

| | | | | | | | | | | | |
|----|-----------|-----|----|----|----|-----|---|-----------------------|---------|-----------------------|-------|
| 65 | 30 | 100 | -- | -- | -- | 24 | ▶ | 3RT10 44-1AB00 | 1.800 B | 3RT10 44-3AB00 | 1.800 |
| | | | | | | 110 | ▶ | 3RT10 44-1AF00 | 1.800 B | 3RT10 44-3AF00 | 1.800 |
| | | | | | | 230 | ▶ | 3RT10 44-1AP00 | 1.800 ▶ | 3RT10 44-3AP00 | 1.800 |
| 80 | 37 | 120 | -- | -- | -- | 24 | ▶ | 3RT10 45-1AB00 | 1.800 B | 3RT10 45-3AB00 | 1.800 |
| | | | | | | 110 | ▶ | 3RT10 45-1AF00 | 1.800 B | 3RT10 45-3AF00 | 1.800 |
| | | | | | | 230 | ▶ | 3RT10 45-1AP00 | 1.800 ▶ | 3RT10 45-3AP00 | 1.800 |
| 95 | 45 | 120 | -- | -- | -- | 24 | ▶ | 3RT10 46-1AB00 | 1.800 B | 3RT10 46-3AB00 | 1.800 |
| | | | | | | 110 | ▶ | 3RT10 46-1AF00 | 1.800 B | 3RT10 46-3AF00 | 1.800 |
| | | | | | | 230 | ▶ | 3RT10 46-1AP00 | 1.800 ▶ | 3RT10 46-3AP00 | 1.800 |

Size S3

With mounted auxiliary switch block (removable)¹⁾

Terminal designations according to EN 50012

| | | | | | | | | | | | |
|----|-----------|-----|-------------|---|---|-----|---|-----------------------|-------|----|--|
| 65 | 30 | 100 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 44-1AB04 | 1.950 | -- | |
| | | | | | | 110 | ▶ | 3RT10 44-1AF04 | 1.950 | -- | |
| | | | | | | 230 | ▶ | 3RT10 44-1AP04 | 1.950 | -- | |
| 80 | 37 | 120 | 22 E | 2 | 2 | 24 | B | 3RT10 45-1AB04 | 1.950 | -- | |
| | | | | | | 110 | ▶ | 3RT10 45-1AF04 | 1.950 | -- | |
| | | | | | | 230 | ▶ | 3RT10 45-1AP04 | 1.950 | -- | |
| 95 | 45 | 120 | 22 E | 2 | 2 | 24 | B | 3RT10 46-1AB04 | 1.950 | -- | |
| | | | | | | 110 | ▶ | 3RT10 46-1AF04 | 1.950 | -- | |
| | | | | | | 230 | ▶ | 3RT10 46-1AP04 | 1.950 | -- | |

Size S3

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | | |
|----|-----------|----|-------------|---|---|-----|---|----------------------------|-------|----|--|
| 65 | 30 | 50 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 44-1AP04-3MA0 | 1.950 | -- | |
| 80 | 37 | 50 | 22 E | 2 | 2 | 230 | B | 3RT10 45-1AP04-3MA0 | 1.933 | -- | |
| 95 | 45 | 50 | 22 E | 2 | 2 | 230 | ▶ | 3RT10 46-1AP04-3MA0 | 1.950 | -- | |

For other voltages see page 3/26, for contactors with mounted auxiliary switch block please inquire.

For accessories, see page 3/101.

For spare parts, see page 3/115.

¹⁾ Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

DC operation - DC solenoid system

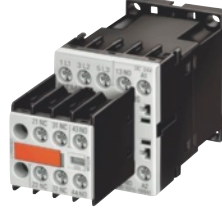
PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



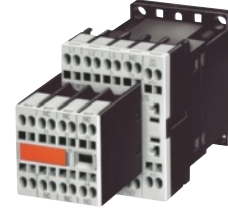
3RT10 1.-1B...



3RT10 1.-2B...



3RT10 1.-1BB44-3MA0



3RT10 1.-2BB44-3MA0

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|---------------------------------------|---|--------------------|------------|------------------------------------|----|-----------------|-----------------------|----|----------------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Ident. No. | Version | | | Order No. | Price per PU | | Order No. | Price per PU |
| Operational current I_e up to 400 V | Rating of induction motors at 50 Hz and 690 V | | | | | | kg | | | kg |
| A | kW | A | NO NC V DC | | | | | | | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|-----|----|------|----|----|-----|---|-----------------------|-------|---|-----------------------|-------|
| 7 | 3 | 18 | 10 E | 1 | -- | 24 | ▶ | 3RT10 15-1BB41 | 0.260 | ▶ | 3RT10 15-2BB41 | 0.260 |
| | | | | | | 220 | A | 3RT10 15-1BM41 | 0.260 | B | 3RT10 15-2BM41 | 0.260 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 15-1BB42 | 0.260 | ▶ | 3RT10 15-2BB42 | 0.260 |
| | | | | | | 220 | B | 3RT10 15-1BM42 | 0.260 | B | 3RT10 15-2BM42 | 0.260 |
| 9 | 4 | 22 | 10 E | 1 | -- | 24 | ▶ | 3RT10 16-1BB41 | 0.260 | ▶ | 3RT10 16-2BB41 | 0.260 |
| | | | | | | 220 | B | 3RT10 16-1BM41 | 0.260 | B | 3RT10 16-2BM41 | 0.260 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 16-1BB42 | 0.260 | ▶ | 3RT10 16-2BB42 | 0.260 |
| | | | | | | 220 | B | 3RT10 16-1BM42 | 0.260 | B | 3RT10 16-2BM42 | 0.260 |
| 12 | 5.5 | 22 | 10 E | 1 | -- | 24 | ▶ | 3RT10 17-1BB41 | 0.260 | ▶ | 3RT10 17-2BB41 | 0.260 |
| | | | | | | 220 | B | 3RT10 17-1BM41 | 0.260 | B | 3RT10 17-2BM41 | 0.260 |
| | | | 01 | -- | 1 | 24 | ▶ | 3RT10 17-1BB42 | 0.260 | ▶ | 3RT10 17-2BB42 | 0.260 |
| | | | | | | 220 | B | 3RT10 17-1BM42 | 0.260 | B | 3RT10 17-2BM42 | 0.260 |

Size S00

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|-----|----|------|---|---|----|---|----------------------------|-------|---|----------------------------|-------|
| 7 | 3 | 18 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 15-1BB44-3MA0 | 0.300 | B | 3RT10 15-2BB44-3MA0 | 0.300 |
| 9 | 4 | 22 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 16-1BB44-3MA0 | 0.300 | A | 3RT10 16-2BB44-3MA0 | 0.300 |
| 12 | 5.5 | 22 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 17-1BB44-3MA0 | 0.300 | B | 3RT10 17-2BB44-3MA0 | 0.300 |

For other voltages see page 3/26, for contactors with permanently mounted auxiliary switch block please inquire.

For accessories, see page 3/100.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

DC operation - DC solenoid system

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 2.-1B.40



3RT10 2.-3B.40



3RT10 2.-3B.44



3RT10 2.-1BB44-3MA0

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|------------------------------------|---------------------|---------------------------------|---|------------------------------------|----|-----------------|---------|-----------------------|----|----------------------|--------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Operational current I_e up to | Rating of induction motors at 50 Hz and | | | Ident. No. | Version | | | Order No. | Price per PU | |
| 400 V | 400 V | 690 V | 400 V | | | | | | | | | |
| A | kW | A | | NO NC V DC | | | | kg | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S0

| | | | | | | | | | | | | |
|----|-----|------------------|----|----|----|-----|---|----------------|-------|---|----------------|-------|
| 9 | 4 | 40 ¹⁾ | -- | -- | -- | 24 | ▶ | 3RT10 23-1BB40 | 0.580 | ▶ | 3RT10 23-3BB40 | 0.580 |
| | | | | | | 220 | B | 3RT10 23-1BM40 | 0.580 | B | 3RT10 23-3BM40 | 0.580 |
| 12 | 5.5 | 40 ¹⁾ | -- | -- | -- | 24 | ▶ | 3RT10 24-1BB40 | 0.580 | ▶ | 3RT10 24-3BB40 | 0.580 |
| | | | | | | 220 | A | 3RT10 24-1BM40 | 0.580 | B | 3RT10 24-3BM40 | 0.580 |
| 17 | 7.5 | 40 ¹⁾ | -- | -- | -- | 24 | ▶ | 3RT10 25-1BB40 | 0.580 | ▶ | 3RT10 25-3BB40 | 0.580 |
| | | | | | | 220 | A | 3RT10 25-1BM40 | 0.580 | B | 3RT10 25-3BM40 | 0.580 |
| 25 | 11 | 40 ¹⁾ | -- | -- | -- | 24 | ▶ | 3RT10 26-1BB40 | 0.580 | ▶ | 3RT10 26-3BB40 | 0.580 |
| | | | | | | 220 | A | 3RT10 26-1BM40 | 0.580 | B | 3RT10 26-3BM40 | 0.580 |

Size S0

With mounted auxiliary switch block (removable)²⁾

Terminal designations according to DIN 50012

| | | | | | | | | | | | | |
|----|-----|------------------|------|---|---|-----|---|----------------|-------|----|--|--|
| 9 | 4 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | ▶ | 3RT10 23-1BB44 | 0.650 | -- | | |
| | | | | | | 220 | B | 3RT10 23-1BM44 | 0.650 | -- | | |
| 12 | 5.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | ▶ | 3RT10 24-1BB44 | 0.650 | -- | | |
| | | | | | | 220 | B | 3RT10 24-1BM44 | 0.650 | -- | | |
| 17 | 7.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | ▶ | 3RT10 25-1BB44 | 0.650 | -- | | |
| | | | | | | 220 | B | 3RT10 25-1BM44 | 0.650 | -- | | |
| 25 | 11 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | ▶ | 3RT10 26-1BB44 | 0.650 | -- | | |
| | | | | | | 220 | B | 3RT10 26-1BM44 | 0.650 | -- | | |

Size S0

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to DIN 50012

| | | | | | | | | | | | | |
|----|-----|------------------|------|---|---|----|---|---------------------|-------|----|--|--|
| 12 | 5.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | A | 3RT10 24-1BB44-3MA0 | 0.650 | -- | | |
| 17 | 7.5 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | A | 3RT10 25-1BB44-3MA0 | 0.650 | -- | | |
| 25 | 11 | 40 ¹⁾ | 22 E | 2 | 2 | 24 | A | 3RT10 26-1BB44-3MA0 | 0.650 | -- | | |

For other voltages see page 3/26, for contactors with mounted auxiliary switch block please inquire.

For accessories, see page 3/101.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

¹⁾ Minimum conductor cross-section 10 mm².

²⁾ Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

DC operation - DC solenoid system

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 3.-1B.40



3RT10 4.-1B.40



3RT10 3.-3B.40



3RT10 4.-3B.40



3RT10 4.-1B.44

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|---------------------------------------|------------------------|---------------------------------|---|------------------------------------|----|-----------------|---------|-----------------------|----|----------------------|--------------|-----------------------|
| AC-2 and AC-3, T_{ij} : up to 60 °C | AC-1, T_{ij} : 40 °C | Operational current I_e up to | Rating of induction motors at 50 Hz and | | | Ident. No. | Version | | | Order No. | Price per PU | |
| 400 V | 400 V | 690 V | | | | | | | | | | |
| A | kW | A | | | | | | kg | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S2

| | | | | | | | | | | | | |
|----|------|----|----|----|----|-----|---|----------------|-------|---|----------------|-------|
| 32 | 15 | 50 | -- | -- | -- | 24 | ▶ | 3RT10 34-1BB40 | 1.450 | ▶ | 3RT10 34-3BB40 | 1.450 |
| | | | | | | 220 | A | 3RT10 34-1BM40 | 1.450 | B | 3RT10 34-3BM40 | 1.450 |
| 40 | 18.5 | 60 | -- | -- | -- | 24 | ▶ | 3RT10 35-1BB40 | 1.450 | ▶ | 3RT10 35-3BB40 | 1.450 |
| | | | | | | 220 | B | 3RT10 35-1BM40 | 1.450 | B | 3RT10 35-3BM40 | 1.450 |
| 50 | 22 | 60 | -- | -- | -- | 24 | ▶ | 3RT10 36-1BB40 | 1.450 | ▶ | 3RT10 36-3BB40 | 1.450 |
| | | | | | | 220 | B | 3RT10 36-1BM40 | 1.450 | B | 3RT10 36-3BM40 | 1.450 |

Size S2

With mounted auxiliary switch block (removable)¹⁾

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|------|----|------|---|---|-----|---|----------------|-------|----|----|----|
| 32 | 15 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 34-1BB44 | 1.550 | -- | -- | -- |
| | | | | | | 220 | A | 3RT10 34-1BM44 | 1.550 | -- | -- | -- |
| 40 | 18.5 | 60 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 35-1BB44 | 1.550 | -- | -- | -- |
| | | | | | | 220 | B | 3RT10 35-1BM44 | 1.550 | -- | -- | -- |
| 50 | 22 | 60 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 36-1BB44 | 1.550 | -- | -- | -- |
| | | | | | | 220 | B | 3RT10 36-1BM44 | 1.550 | -- | -- | -- |

Size S2

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| | | | | | | | | | | | | |
|----|------|----|------|---|---|----|---|---------------------|-------|----|----|----|
| 32 | 15 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 34-1BB44-3MA0 | 1.550 | -- | -- | -- |
| 40 | 18.5 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 35-1BB44-3MA0 | 1.550 | -- | -- | -- |
| 50 | 22 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 36-1BB44-3MA0 | 1.550 | -- | -- | -- |

For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

Size S3

| | | | | | | | | | | | | |
|----|----|-----|----|----|----|-----|---|----------------|-------|---|----------------|-------|
| 65 | 30 | 100 | -- | -- | -- | 24 | ▶ | 3RT10 44-1BB40 | 2.800 | ▶ | 3RT10 44-3BB40 | 2.800 |
| | | | | | | 220 | B | 3RT10 44-1BM40 | 2.800 | B | 3RT10 44-3BM40 | 2.800 |
| 80 | 37 | 120 | -- | -- | -- | 24 | ▶ | 3RT10 45-1BB40 | 2.800 | ▶ | 3RT10 45-3BB40 | 2.800 |
| | | | | | | 220 | B | 3RT10 45-1BM40 | 2.800 | B | 3RT10 45-3BM40 | 2.800 |
| 95 | 45 | 120 | -- | -- | -- | 24 | ▶ | 3RT10 46-1BB40 | 2.800 | ▶ | 3RT10 46-3BB40 | 2.800 |
| | | | | | | 220 | B | 3RT10 46-1BM40 | 2.800 | B | 3RT10 46-3BM40 | 2.800 |

* You can order this quantity or a multiple thereof.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 3.-1B.40



3RT10 4.-1B.40



3RT10 3.-3B.40



3RT10 4.-3B.40



3RT10 4.-1B.44

| Rated data | | Auxiliary contacts | | Rated control supply voltage U_c | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|------------------------------------|---------------------|---------------------------------|---------------------------------|------------------------------------|----|-----------------|-----------------------|----|----------------------|-----------------------|
| AC-2 and AC-3, T_U : up to 60 °C | AC-1, T_U : 40 °C | Operational current I_e up to | Operational current I_e up to | | | Order No. | Price per PU | | Order No. | Price per PU |
| 400 V | 400 V | 400 V | 690 V | | | | | | | |
| A | kW | A | | NO NC V DC | | | | kg | | kg |

For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail (continued)

Size S3

With mounted auxiliary switch block (removable)¹⁾

Terminal designations according to EN 50012

| 65 | 30 | 100 | 22 E | 2 | 2 | 24 | | | | | |
|----|----|-----|------|---|---|-----|---|-----------------------|-------|----|--|
| | | | | | | 220 | ▶ | 3RT10 44-1BB44 | 2.900 | -- | |
| | | | | | | | B | 3RT10 44-1BM44 | 2.900 | -- | |
| 80 | 37 | 120 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 45-1BB44 | 2.900 | -- | |
| | | | | | | 220 | B | 3RT10 45-1BM44 | 2.900 | -- | |
| 95 | 45 | 120 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 46-1BB44 | 2.900 | -- | |
| | | | | | | 220 | B | 3RT10 46-1BM44 | 2.900 | -- | |

Size S3

With permanently mounted auxiliary switch block for safety applications according to SUVA

Terminal designations according to EN 50012

| 65 | 30 | 50 | 22 E | 2 | 2 | 24 | | | | | |
|----|----|----|------|---|---|----|---|----------------------------|-------|----|--|
| | | | | | | | ▶ | 3RT10 44-1BB44-3MA0 | 2.900 | -- | |
| 80 | 37 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 45-1BB44-3MA0 | 2.900 | -- | |
| 95 | 45 | 50 | 22 E | 2 | 2 | 24 | ▶ | 3RT10 46-1BB44-3MA0 | 2.900 | -- | |

For other voltages see page 3/26, for contactors with mounted auxiliary switch block please inquire.

For accessories, see page 3/101.

For spare parts, see page 3/115.

For multi-unit packing and reusable packaging, see "Appendix --> Ordering notes".

¹⁾ Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW
AC/DC operation (40 Hz to 60 Hz, DC)
Auxiliary and control conductors: screw terminals
Withdrawable coils
Integrated coil circuit (Varistor)
Main conductors: busbar connections, for 3RT10 54 (55 kW) box terminals¹⁾


3RT1. 5.



3RT1. 6.



3RT1. 7.

| Size | Rated data | | Ratings of induction motors at 50 Hz and | | | | Auxiliary contacts, lateral | | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|---------------------------------------|----|--|----|----|---|---------------------------------------|-------|------------------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| | AC-2 and AC-3, T_U : Up to 60 °C | | | | | | AC-1, T_U : 40 °C | | | | | | | | | |
| | Operational current I_e up to 500 V | | | | | | Operational current I_e up to 690 V | | | | | | | | | |
| | A | kW | kW | kW | kW | A | | NO NC | V AC/DC | | | | | | | |

Conventional operating mechanisms

| | | | | | | | | | | Screw terminals | | | | | | | |
|------------|-----|-----|------------|-----|-----|-----|---|---|----------------------------|-----------------|--|---|---|--------|-----|--------|--|
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 54-1AF36 3RT10 54-1AP36 | ⊕ | 1 | 1 unit | 101 | 3.600 | |
| | 150 | 45 | 75 | 90 | 132 | 185 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 55-6AF36 3RT10 55-6AP36 | | 1 | 1 unit | 101 | 3.500 | |
| | 185 | 55 | 90 | 110 | 160 | 215 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 56-6AF36 3RT10 56-6AP36 | | 1 | 1 unit | 101 | 3.500 | |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 64-6AF36 3RT10 64-6AP36 | | 1 | 1 unit | 101 | 6.500 | |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 65-6AF36 3RT10 65-6AP36 | | 1 | 1 unit | 101 | 6.500 | |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 66-6AF36 3RT10 66-6AP36 | | 1 | 1 unit | 101 | 6.500 | |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 75-6AF36 3RT10 75-6AP36 | | 1 | 1 unit | 101 | 10.500 | |
| | 500 | 160 | 250 | 355 | 400 | 610 | 2 | 2 | 110 ... 127 220 ... 240 | ▶ | 3RT10 76-6AF36 3RT10 76-6AP36 | | 1 | 1 unit | 101 | 10.500 | |

Conventional operating mechanisms

| | | | | | | | | | | Cage Clamp terminals | | | | | | | |
|------------|-----|-----|------------|-----|-----|-----|---|---|----------------------------|----------------------|--|---|---|--------|-----|--------|--|
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 54-3AF36 3RT10 54-3AP36 | ⊕ | 1 | 1 unit | 101 | 3.600 | |
| | 150 | 45 | 75 | 90 | 132 | 185 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 55-2AF36 3RT10 55-2AP36 | | 1 | 1 unit | 101 | 3.600 | |
| | 185 | 55 | 90 | 110 | 160 | 215 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 56-2AF36 3RT10 56-2AP36 | | 1 | 1 unit | 101 | 3.600 | |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 64-2AF36 3RT10 64-2AP36 | | 1 | 1 unit | 101 | 6.600 | |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 65-2AF36 3RT10 65-2AP36 | | 1 | 1 unit | 101 | 6.600 | |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 66-2AF36 3RT10 66-2AP36 | | 1 | 1 unit | 101 | 6.600 | |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 75-2AF36 3RT10 75-2AP36 | | 1 | 1 unit | 101 | 10.500 | |
| | 500 | 160 | 250 | 355 | 400 | 610 | 2 | 2 | 110 ... 127 220 ... 240 | B | 3RT10 76-2AF36 3RT10 76-2AP36 | | 1 | 1 unit | 101 | 10.500 | |

For other voltages, see page 3/26.

For accessories, see page 3/101.

For spare parts, see page 3/116.

¹⁾ Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with busbar connections instead of box terminals. Without additional price. In the 8th position of the Order No. the "1" must be replaced with "6" for screw terminals, e. g. 3RT10 54-6A.36; for Cage Clamp terminals the "3" must be replaced by "2", e. g. 3RT10 54-2A.36.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

AC/DC operation (40 Hz to 60 Hz, DC)

Auxiliary and control conductors: screw terminals

Withdrawable coils

Integrated coil circuit (Varistor)

Main conductors: busbar connections, for 3RT10 54 (55 kW) box terminals¹⁾



3RT1. 5.



3RT1. 6.



3RT1. 7.

| Size | Rated data | | | | | AC-1, T _i : 40 °C | Auxiliary contacts, lateral | | Rated control supply voltage U _s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|--|--|------------|-------|-------|--|--------------------------------|----------------|---|----|--|--------------|-------------------|--------|-----|-----------------------|
| | AC-2 and AC-3, T _i : Up to 60 °C | Ratings of induction motors at 50 Hz and | | | | Operational current I _e up to 690 V | Version | | V AC/DC | | | | | | | |
| | Operational current I _e up to 500 V | 230 V | 400 V | 500 V | 690 V | | I | L ₁ | | | | | | | | |
| | A | kW | kW | kW | kW | A | NO | NC | | | | | | | | |
| Solid-state operating mechanisms · for 24 V DC PLC output | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | Screw terminals | | | | | |
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 54-1NF36 3RT10 54-1NP36 | | 1 | 1 unit | 101 | 3.500 |
| | 150 | 45 | 75 | 90 | 132 | 185 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 55-6NF36 3RT10 55-6NP36 | | 1 | 1 unit | 101 | 3.500 |
| | 185 | 55 | 90 | 110 | 160 | 215 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 56-6NF36 3RT10 56-6NP36 | | 1 | 1 unit | 101 | 3.500 |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 64-6NF36 3RT10 64-6NP36 | | 1 | 1 unit | 101 | 6.700 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 65-6NF36 3RT10 65-6NP36 | | 1 | 1 unit | 101 | 6.700 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 66-6NF36 3RT10 66-6NP36 | | 1 | 1 unit | 101 | 6.700 |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 75-6NF36 3RT10 75-6NP36 | | 1 | 1 unit | 101 | 10.500 |
| | 500 | 160 | 250 | 355 | 400 | 610 | 2 | 2 | 96 ... 127 200 ... 277 | A | 3RT10 76-6NF36 3RT10 76-6NP36 | | 1 | 1 unit | 101 | 10.500 |
| Solid-state operating mechanisms · for 24 V DC PLC output | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | Cage Clamp terminals | | | | | |
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 54-3NF36 3RT10 54-3NP36 | | 1 | 1 unit | 101 | 3.500 |
| | 150 | 45 | 75 | 90 | 132 | 185 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 55-2NF36 3RT10 55-2NP36 | | 1 | 1 unit | 101 | 3.500 |
| | 185 | 55 | 90 | 110 | 160 | 215 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 56-2NF36 3RT10 56-2NP36 | | 1 | 1 unit | 101 | 3.500 |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 64-2NF36 3RT10 64-2NP36 | | 1 | 1 unit | 101 | 6.700 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 65-2NF36 3RT10 65-2NP36 | | 1 | 1 unit | 101 | 6.700 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 66-2NF36 3RT10 66-2NP36 | | 1 | 1 unit | 101 | 6.700 |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 75-2NF36 3RT10 75-2NP36 | | 1 | 1 unit | 101 | 10.500 |
| | 500 | 160 | 250 | 355 | 400 | 610 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT10 76-2NF36 3RT10 76-2NP36 | | 1 | 1 unit | 101 | 10.500 |

For other voltages, see page 3/26.

For accessories, see page 3/101.

For spare parts, see page 3/114.

¹⁾ Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with busbar connections instead of box terminals. Without additional price. In the 8th position of the Order No. the "1" must be replaced with "6" for screw terminals, e. g. 3RT10 54-6A.36; for Cage Clamp terminals the "3" must be replaced by "2", e. g. 3RT10 54-2A.36.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

AC/DC operation (40 Hz to 60 Hz, DC)

Auxiliary and control conductors: screw terminals

Withdrawable coils

Integrated coil circuit (Varistor)

Main conductors: busbar connections, for 3RT10 54 (55 kW) box terminals¹⁾

Remaining lifetime indicator (RLT)



3RT10 56-6P..



3RT10 56-6Q..

| Size | Rated data | | | | | | Auxiliary contacts, lateral | | Rated control supply voltage U_s | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|------------------------------------|-------|--|-------|-------|---------------------------------|-----------------------------|----|------------------------------------|-----------|----------------------------------|---|-------------------|--------|-----|-----------------------|
| | AC-2 and AC-3, T_U : Up to 60 °C | | Ratings of induction motors at 50 Hz and | | | | AC-1, T_U : 40 °C | | | | | | | | | |
| Operational current I_e up to | 230 V | 400 V | 500 V | 690 V | 690 V | Operational current I_e up to | NO | NC | V AC/DC | Order No. | Price per PU | | | | | |
| A | kW | kW | kW | kW | A | | | | | | | | | | | |
| Solid-state operating mechanisms · for 24 V DC PLC output/ PLC relay output, with remaining lifetime indicator (RLT) | | | | | | | | | | | | | | | | |
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 54-1PF35 3RT10 54-1PP35 | | 1 | 1 unit | 101 | 4,000 |
| | 150 | 45 | 75 | 90 | 132 | 185 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 55-6PF35 3RT10 55-6PP35 | | 1 | 1 unit | 101 | 4,000 |
| | 185 | 55 | 90 | 110 | 160 | 215 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 56-6PF35 3RT10 56-6PP35 | | 1 | 1 unit | 101 | 4,000 |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 64-6PF35 3RT10 64-6PP35 | | 1 | 1 unit | 101 | 7,000 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 65-6PF35 3RT10 65-6PP35 | | 1 | 1 unit | 101 | 7,000 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 66-6PF35 3RT10 66-6PP35 | | 1 | 1 unit | 101 | 7,000 |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 75-6PF35 3RT10 75-6PP35 | | 1 | 1 unit | 101 | 10,500 |
| | 500 | 160 | 250 | 355 | 400 | 610 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 76-6PF35 3RT10 76-6PP35 | | 1 | 1 unit | 101 | 10,500 |
| Solid-state operating mechanisms · with AS-Interface and remaining lifetime indicator (RLT) | | | | | | | | | | | | | | | | |
| S6 | 115 | 37 | 55 | 75 | 110 | 160 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 54-1QF35 3RT10 54-1QP35 | | 1 | 1 unit | 101 | 4,000 |
| | 150 | 45 | 75 | 90 | 132 | 185 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 55-6QF35 3RT10 55-6QP35 | | 1 | 1 unit | 101 | 4,000 |
| | 185 | 55 | 90 | 110 | 160 | 215 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 56-6QF35 3RT10 56-6QP35 | | 1 | 1 unit | 101 | 4,000 |
| S10 | 225 | 55 | 110 | 160 | 200 | 275 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 64-6QF35 3RT10 64-6QP35 | | 1 | 1 unit | 101 | 7,000 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 1 | 1 | 96 ... 127 00 ... 277 | B | 3RT10 65-6QF35 3RT10 65-6QP35 | | 1 | 1 unit | 101 | 7,000 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 66-6QF35 3RT10 66-6QP35 | | 1 | 1 unit | 101 | 7,000 |
| S12 | 400 | 132 | 200 | 250 | 400 | 430 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 75-6QF35 3RT10 75-6QP35 | | 1 | 1 unit | 101 | 10,500 |
| | 500 | 160 | 250 | 355 | 400 | 610 | 1 | 1 | 96 ... 127 200 ... 277 | B | 3RT10 76-6QF35 3RT10 76-6QP35 | | 1 | 1 unit | 101 | 10,500 |

For other voltages, see page 3/26.

For accessories, see page 3/101.

For spare parts, see page 3/116.

¹⁾ Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with busbar connections instead of box terminals.

Without additional price. In the 8th position of the Order No. the "1" must be replaced with "6", e. g. 3RT10 54-6. .35.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT10 contactors, 3-pole, 3 ... 250 kW

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Contactor type | 3RT10 1 | 3RT10 2, 3RT10 3, 3RT10 4 | 3RT14 4 | 3RT13 1, 3RT15 1 | 3RT13 2 ... 3RT13 4, 3RT15 2 and 3RT15 3 | 3RT16 |
|------------------------------------|---------|---------------------------------|---------|---------------------|---|-------|
| Rated control supply voltage U_s | | | | | | |

Sizes S00 ... S3

AC operation¹⁾

Solenoid coils for 50 Hz (exception: Size S00: 50 and 60 Hz²⁾)

| | | | | | | |
|----------|----|----|----|----|----|----|
| 24 V AC | B0 | B0 | B0 | B0 | B0 | B0 |
| 42 V AC | D0 | D0 | D0 | D0 | -- | -- |
| 48 V AC | H0 | H0 | H0 | H0 | -- | -- |
| 110 V AC | F0 | F0 | F0 | F0 | F0 | F0 |
| 230 V AC | P0 | P0 | P0 | P0 | P0 | P0 |
| 400 V AC | V0 | V0 | V0 | V0 | V0 | V0 |

Solenoid coils for 50 and 60 Hz²⁾

| | | | | | | |
|----------|----|----|----|----|----|----|
| 24 V AC | B0 | C2 | C2 | B0 | C2 | C2 |
| 42 V AC | D0 | D2 | D2 | D0 | D2 | -- |
| 48 V AC | H0 | H2 | H2 | H0 | H2 | -- |
| 110 V AC | F0 | G2 | G2 | F0 | G2 | G2 |
| 220 V AC | N2 | N2 | N2 | N2 | N2 | N2 |
| 230 V AC | P0 | L2 | L2 | P0 | L2 | L2 |

Solenoid coils (for USA and Canada³⁾)

| 50 Hz | 60 Hz | | | | | | |
|----------|----------|----|----|----|----|----|----|
| 110 V AC | 120 V AC | K6 | K6 | K6 | K6 | K6 | K6 |
| 220 V AC | 240 V AC | P6 | P6 | P6 | P6 | P6 | P6 |

Solenoid coils (for Japan)

| 50/60 Hz ⁴⁾ | 60 Hz ⁵⁾ | | | | | | |
|------------------------|---------------------|----|----|----|----|----|----|
| 100 V AC | 110 V AC | G6 | G6 | G6 | G6 | G6 | G6 |
| 200 V AC | 220 V AC | N6 | N6 | N6 | N6 | N6 | N6 |
| 400 V AC | 440 V AC | R6 | R6 | R6 | R6 | R6 | R6 |

DC operation¹⁾

| | | | | | | |
|----------|----|----|----|----|----|----|
| 12 V DC | A4 | -- | -- | A4 | -- | -- |
| 24 V DC | B4 | B4 | B4 | B4 | B4 | -- |
| 42 V DC | D4 | D4 | D4 | D4 | D4 | -- |
| 48 V DC | W4 | W4 | W4 | W4 | -- | -- |
| 60 V DC | E4 | E4 | E4 | -- | -- | -- |
| 110 V DC | F4 | F4 | F4 | F4 | F4 | -- |
| 125 V DC | G4 | G4 | G4 | G4 | G4 | -- |
| 220 V DC | M4 | M4 | M4 | M4 | M4 | -- |
| 230 V DC | P4 | P4 | P4 | P4 | -- | -- |

Sizes S6 ... S12

AC/DC operation (AC 40 ... 60 Hz, DC)

Conventional operating mechanism

| U_s min ... U_s max ⁶⁾ | Contactor type | 3RT1. 5.-.A 3RT1. 6.-.A 3RT1. 7.-.A | U_s min ... U_s max ⁶⁾ | Contactor type | 3RT1. 5.-.A 3RT1. 6.-.A 3RT1. 7.-.A |
|---------------------------------------|----------------|---|---------------------------------------|----------------|---|
| 23 ... 26 V AC | | B3 | 240 ... 277 V | | U3 |
| 42 ... 48 V AC/DC | | D3 | 380 ... 420 V | | V3 |
| 110 ... 127 V | | F3 | 440 ... 480 V | | R3 |
| 200 ... 220 V | | M3 | 500 ... 550 V | | S3 |
| 220 ... 240 V | | P3 | 575 ... 600 V | | T3 |

Solid-state operating mechanism

| U_s min ... U_s max ⁶⁾ | Contactor type | 3RT1. 5.-.N 3RT1. 6.-.N 3RT1. 7.-.N | 3RT1. 5.-.P/Q 3RT1. 6.-.P/Q 3RT1. 7.-.P/Q |
|---------------------------------------|----------------|---|---|
| 21 ... 27.3 V AC | | B3 | -- |
| 96 ... 127 V | | F3 | F3 |
| 200 ... 277 V | | P3 | P3 |

Examples

| | | |
|-------------------------------|----------------------------------|---|
| AC operating mechanism | 3RT10 23-1AP00 3RT10 23-1AG20 | Contactor with screw terminals; with solenoid coil for 50 Hz for rated control supply voltage 230 V AC. Contactor with screw terminals; with solenoid coil for 50/60 Hz for rated control supply voltage 110 V AC. |
| DC operating mechanism | 3RT10 34-3BB40 3RT10 34-3BG40 | Contactor with Cage Clamp terminals; for rated control supply voltage 24 V DC. Contactor with Cage Clamp terminals; for rated control supply voltage 125 V DC. |

¹⁾ For deviating coil voltages and coil operating ranges of sizes S00 and S0, the 24 V DC SITOP Power supply unit with wide range input (93 to 264 V AC; 30 to 264 V DC) can be used for coil excitation (see "Power Supplies" -> "SITOP power Power Supplies").

²⁾ Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s .

³⁾ Coil operating range
Size S00: at 50 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s
Sizes S0 to S3: at 50 Hz and 60 Hz: 0.8 to 1.1 x U_s .

⁴⁾ Coil operating range
Size S00: at 50/60 Hz: 0.85 to 1.1 x U_s
Sizes S0 to S3: at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s .

⁵⁾ Coil operating range
at 60 Hz: 0.8 to 1.1 x U_s .

⁶⁾ Operating range:
0.8 x U_s min to 1.1 x U_s max.

3RT, 3TB, 3TF Contactors for Switching Motors

3RT12 vacuum contactors, 3-pole, 110 ... 250 kW

Overview

- 3RT12 vacuum contactors for switching motors

Operating mechanism types

Two types of solenoid operation are available:

- Conventional operating mechanism, version 3RT12...-A
- Solid-state operating mechanism, version 3RT12...-N

UC operation

The contactors can be operated with AC (40 to 60 Hz) as well as with DC.

Withdrawable coils

For simple coil replacement, e. g. if the application is replaced, the solenoid coil can be pulled out upwards after the release mechanism has been actuated and can be replaced by any other coil of the same size.

Auxiliary contact complement

The contactors can be fitted with up to 8 lateral auxiliary contacts (identical auxiliary switch blocks from S0 to S12). Of these, no more than 4 are permitted to be NC contacts.

Selection and ordering data

AC/DC operation (40 Hz to 60 Hz, DC)

Auxiliary and control conductors: screw terminals

Withdrawable coils

Integrated coil circuit (Varistor)

Main conductors: busbar connections



3RT12 7.

3RT12 7.

| Size | Rated data | | | | | | Auxiliary contacts, lateral | | Rated control supply voltage U_s | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|--|--|--------------|-------|-------|--|-----------------------------|----|------------------------------------|----|--|-------------------|--------|-----|-----------------------|
| | AC-2 and AC-3, T_U : up to 60 °C | | | | | | AC-1, T_U : 40 °C | | | | ⊕ | | | | |
| | Operational current I_e up to 1000 V | Ratings of induction motors at 50 Hz and | | | | Operational current I_e up to 1000 V | | | | | Order No. | Price per PU | | | |
| | A | 230 V | 400 V | 500 V | 690 V | 1000 V | NO | NC | V AC/DC | | | | | kg | |
| Conventional operating mechanisms | | | | | | | | | | | | | | | |
| S10 | 225 | 55 | 110 | 160 | 200 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | A | 3RT12 64-6AF36 3RT12 64-6AP36 | 1 | 1 unit | 101 | 7.300 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | A | 3RT12 65-6AF36 3RT12 65-6AP36 | 1 | 1 unit | 101 | 7.300 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 110 ... 127 220 ... 240 | A | 3RT12 66-6AF36 3RT12 66-6AP36 | 1 | 1 unit | 101 | 7.300 |
| S12 | 400 | 132 | 200 | 250 | 400 | 610 | 2 | 2 | 110 ... 127 220 ... 240 | A | 3RT12 75-6AF36 3RT12 75-6AP36 | 1 | 1 unit | 101 | 10.500 |
| | 500 | 160 | 250 | 355 | 500 | 610 | 2 | 2 | 110 ... 127 220 ... 240 | A | 3RT12 76-6AF36 3RT12 76-6AP36 | 1 | 1 unit | 101 | 10.500 |
| Solid-state operating mechanisms · for 24 V DC PLC output | | | | | | | | | | | | | | | |
| S10 | 225 | 55 | 110 | 160 | 200 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT12 64-6NF36 3RT12 64-6NP36 | 1 | 1 unit | 101 | 7.300 |
| | 265 | 75 | 132 | 160 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT12 65-6NF36 3RT12 65-6NP36 | 1 | 1 unit | 101 | 7.300 |
| | 300 | 90 | 160 | 200 | 250 | 330 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT12 66-6NF36 3RT12 66-6NP36 | 1 | 1 unit | 101 | 7.300 |
| S12 | 400 | 132 | 200 | 250 | 400 | 610 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT12 75-6NF36 3RT12 75-6NP36 | 1 | 1 unit | 101 | 10.500 |
| | 500 | 160 | 250 | 355 | 500 | 610 | 2 | 2 | 96 ... 127 200 ... 277 | B | 3RT12 76-6NF36 3RT12 76-6NP36 | 1 | 1 unit | 101 | 10.500 |

For other voltages see page 3/26.

For more 3TF68/69 vacuum contactors (335 kW and 450 kW), see page 3/28.

For accessories, see page 3/103.

3RT, 3TB, 3TF Contactors for Switching Motors

3TF6 vacuum contactors, 3-pole, 335 ... 450 kW

Selection and ordering data

Auxiliary and control conductors: screw terminals
Main conductors: busbar connections, size 14

IEC 60947-4-1, EN 60947-4-1 (VDE 0660 Part 102)

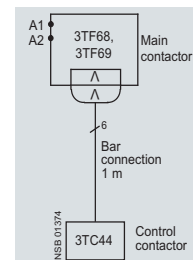
The 3TF68/69 contactors are climate-proof.

They are finger-safe according to EN 50274.

Terminal covers (see [Accessories and Spare Parts on page 3/117](#)) may have to be fitted onto the connecting bars, depending on the configuration with other devices.



3TF68



3TF6. 33-.Q.7

| Rated data | | AC-2 and AC-3 (up to 55 °C) | | AC-1 | | Auxiliary contacts | | Rated control supply voltage U_s | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|---|--|-----------------------------|-------|-------|--------|--|---------|------------------------------------|---|----|--|-------------------|--------|-----|-----------------------|----|
| Operational current I_e up to 690 V | Ratings of induction motors at 50 Hz and | | | | | Rated operational current I_e (at 40 °C) | Version | | | | Order No. | Price per PU | | | | kg |
| | 230 V | 400 V | 500 V | 690 V | 1000 V | | A | NO | NC | V | | | | | | |
| AC operation^{1) 2)} · 50/60 Hz | | | | | | | | | | | | | | | | |
| 630 | 200 | 335 | 434 | 600 | -- | 700 | 4 | 4 | 110 ... 132 200 ... 240 | A | 3TF68 44-0CF7 3TF68 44-0CM7 | 1 | 1 unit | 101 | 20.000 | |
| 630 | 200 | 335 | 434 | 600 | 600 | 700 | 4 | 4 | 110 ... 132 200 ... 240 | D | 3TF68 44-8CF7 3TF68 44-8CM7 | 1 | 1 unit | 101 | 20.000 | |
| 820 | 260 | 450 | 600 | 800 | -- | 910 | 4 | 4 | 110 ... 132 200 ... 240 | A | 3TF69 44-0CF7 3TF69 44-0CM7 | 1 | 1 unit | 101 | 22.200 | |
| 820 | 260 | 450 | 600 | 800 | 800 | 910 | 4 | 4 | 110 ... 132 200 ... 240 | D | 3TF69 44-8CF7 3TF69 44-8CM7 | 1 | 1 unit | 101 | 22.200 | |
| DC operation · DC economy circuit²⁾ | | | | | | | | | | | | | | | | |
| 630 | 200 | 335 | 434 | 600 | -- | 700 | 3 | 3 | 24 DC | D | 3TF68 33-1DB4 3TF68 33-8DB4 | 1 | 1 unit | 101 | 19.500 | |
| 820 | 260 | 450 | 600 | 800 | -- | 910 | 3 | 3 | 24 DC | D | 3TF69 33-1DB4 3TF69 33-8DB4 | 1 | 1 unit | 101 | 22.500 | |
| AC operation · 50/60 Hz²⁾ | | | | | | | | | | | | | | | | |
| Version for AC controls which are subject to strong interference | | | | | | | | | | | | | | | | |
| 630 | 200 | 335 | 434 | 600 | -- | 700 | 3 | 3 | 110 ... 120 220 ... 240 380 ... 420 | C | 3TF68 33-1QG7 3TF68 33-1QL7 3TF68 33-1QV7 | 1 | 1 unit | 101 | 21.000 | |
| | | | | | 600 | 700 | 3 | 3 | 220 ... 240 | D | 3TF68 33-8QL7 | 1 | 1 unit | 101 | 21.000 | |
| 820 | 260 | 450 | 600 | 800 | -- | 910 | 3 | 3 | 110 ... 120 220 ... 240 380 ... 420 | D | 3TF69 33-1QG7 3TF69 33-1QL7 3TF69 33-1QV7 | 1 | 1 unit | 101 | 23.000 | |
| | | | | | 800 | 910 | 3 | 3 | 110 ... 120 220 ... 240 | D | 3TF69 33-8QG7 3TF69 33-8QL7 | 1 | 1 unit | 101 | 23.000 | |

3TC44 17-4A... reversing contactors included in the scope of supply.

¹⁾ Built-in surge suppression: varistor circuit.

²⁾ For EMC see [Technical Information LV 1 T](#).

3TF68/69 vacuum contactors are supplied with integrated overvoltage damping for the main current paths (for description see [Technical Information LV 1 T](#)). The surge suppression circuit is not required for operation in circuits with DC choppers, frequency converters or speed-variable

operating mechanisms, for example. It could be damaged by the voltage peaks and harmonics and cause phase-to-phase short-circuits. For this reason, the contactors can also be supplied without integrated overvoltage damping. Without additional price.

The order number must include "Z" and the order code "A02".

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Contactor type | 3TF68 ... C/D, 3TF69 ... C/D |
|------------------------------------|------------------------------|
| AC operation | |
| Solenoid coils for 50/60 Hz | |
| 110 ... 132 V AC | F7 |
| 200 ... 240 V AC | M7 |
| 230 ... 277 V AC | P7 |
| 380 ... 460 V AC | Q7 |
| 500 ... 600 V AC | S7 |
| DC operation | |
| 24 V DC | B4 |
| 110 V DC | F4 |
| 125 V DC | G4 |
| 220 V DC | M4 |
| 230 V DC | P4 |

* You can order this quantity or a multiple thereof.

3RT, 3TB, 3TF Contactors for Switching Motors

3TB5 contactors with DC solenoid system,
3-pole, 55 ... 200 kW

Selection and ordering data

Auxiliary and control conductors: screw terminals
Main conductors: busbar connections



3TB50

| Size | Rated data | | | | | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|---------------------------------------|--|--------------|-------|-------|--------------------------------------|--------------------|----|------------------------------------|----|----------------------|--------------|-------------------|--------|-----|-----------------------|
| | AC-2 and AC-3 (up to 55 °C) | | AC-1 | | | | Version | | | | Order No. | Price per PU | | | | |
| | Operational current I_e up to 690 V | Ratings of induction motors at 50 Hz and | | | | Operational current I_e (at 40 °C) | | | | | | | | | | |
| | | 230 V | 400 V | 500 V | 690 V | | NO | NC | V DC | | | | | | | kg |
| DC operation - DC solenoid system | | | | | | | | | | | | | | | | |
| 6 | 110 | 37 | 55 | 75 | 90 | 170 | 2 | 2 | 24 | A | 3TB50 17-0BB4 | | 1 | 1 unit | 101 | 6.500 |
| 8 | 170 | 55 | 90 | 110 | 132 | 230 | 2 | 2 | 24 | B | 3TB52 17-0BB4 | | 1 | 1 unit | 101 | 8.500 |
| 10 | 250 | 75 | 132 | 160 | 200 | 325 | 2 | 2 | 24 | D | 3TB54 17-0BB4 | | 1 | 1 unit | 101 | 16.500 |
| 12 | 400 | 115 | 200 | 255 | 355 | 425 | 2 | 2 | 24 | D | 3TB56 17-0BB4 | | 1 | 1 unit | 101 | 16.500 |

For accessories, see page 3/119.

For spare parts, see page 3/127.

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Rated control supply voltage U_s | Contactor type | 3TB50/3TB52/3TB54 | 3TB56 |
|------------------------------------|----------------|-------------------|-------|
| DC operation | | | |
| 24 V DC | | B4 | B4 |
| 110 V DC | | F4 | -- |
| 220 V DC | | M4 | M4 |

3RT, 3TB, 3TF Contactors for Switching Motors

3TF2 contactors, 3-pole, 2.2 ... 4 kW

Overview

AC and DC operation

IEC 60947 (VDE 0660).

The contactors are suitable for use in any climate.

The contactors with screw terminals are finger-safe according to EN 50274.

The contactors are available in versions with screw terminals, 6.3 mm plug-in terminals and solder pin connections for soldering in printed circuit boards.

Selection and ordering data

Size 00

AC-1: operational current $I_e = 16 A$ (at 55 °C)

Screw terminals

| Rated data | | Utilization categories AC-2 and AC-3 | | | | Auxiliary contacts | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------------------|--------------|--|-----------|-------|-----------|--------------------|---------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Operational current I_e | at 400/380 V | Ratings of induction motors at 50 Hz and | | | | Ident. No. | Version | | | | | | | |
| | | 230/220 V | 400/380 V | 500 V | 690/660 V | | | | | | | | | |
| A | kW | kW | kW | kW | | | NO | NC | | | | | | kg |

Contactors with screw terminals - for screw and snap-on mounting onto 35 mm standard mounting rail



3TF20 ...-0...
3TF28 ...-0...

| AC operation | | | | | | | | | | Screw terminals | | | | | |
|-----------------------------------|-----|-----|-----|-----|-----|----|----|---|---------------|-----------------|---|--------|-----|-------|--|
| 5 | 1.3 | 2.2 | 2.9 | 3.8 | 10E | 1 | -- | B | 3TF28 10-0AP0 | | 1 | 1 unit | 101 | 0.200 | |
| | | | | | 01E | -- | 1 | C | 3TF28 01-0AP0 | | 1 | 1 unit | 101 | 0.200 | |
| 9 | 2.4 | 4 | 4 | 4 | 10E | 1 | -- | A | 3TF20 10-0AP0 | | 1 | 1 unit | 101 | 0.200 | |
| | | | | | 01E | -- | 1 | A | 3TF20 01-0AP0 | | 1 | 1 unit | 101 | 0.200 | |
| DC operation - DC solenoid system | | | | | | | | | | | | | | | |
| 5 | 1.3 | 2.2 | 2.9 | 3.8 | 10E | 1 | -- | C | 3TF28 10-0BB4 | | 1 | 1 unit | 101 | 0.220 | |
| | | | | | 01E | -- | 1 | C | 3TF28 01-0BB4 | | 1 | 1 unit | 101 | 0.220 | |
| 9 | 2.4 | 4 | 4 | 4 | 10E | 1 | -- | A | 3TF20 10-0BB4 | | 1 | 1 unit | 101 | 0.220 | |
| | | | | | 01E | -- | 1 | A | 3TF20 01-0BB4 | | 1 | 1 unit | 101 | 0.220 | |

Contactors with screw terminals 6.3 mm x 0.8 mm - for screw and snap-on mounting onto 35 mm standard mounting rail



3TF20 ...-3...

| AC operation | | | | | | | | | | Flat connectors | | | | | |
|-----------------------------------|-----|---|---|----|-----|----|----|---|---------------|-----------------|---|--------|-----|-------|--|
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-3AP0 | | 1 | 1 unit | 101 | 0.170 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-3AP0 | | 1 | 1 unit | 101 | 0.170 | |
| DC operation - DC solenoid system | | | | | | | | | | | | | | | |
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-3BB4 | | 1 | 1 unit | 101 | 0.190 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-3BB4 | | 1 | 1 unit | 101 | 0.190 | |

Contactors with flat connectors 6.3 mm x 0.8 mm - for screw fixing (diagonal)



3TF20 ...-7...

| AC operation | | | | | | | | | | | | | | | |
|-----------------------------------|-----|---|---|----|-----|----|----|---|---------------|--|---|--------|-----|-------|--|
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-7AP0 | | 1 | 1 unit | 101 | 0.160 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-7AP0 | | 1 | 1 unit | 101 | 0.160 | |
| DC operation - DC solenoid system | | | | | | | | | | | | | | | |
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-7BB4 | | 1 | 1 unit | 101 | 0.190 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-7BB4 | | 1 | 1 unit | 101 | 0.190 | |

Contactors with solder pin connections for printed circuit boards - for screw fixing (diagonal)



3TF20 ...-6...


| AC operation | | | | | | | | | | Solder pin connections | | | | | |
|-----------------------------------|-----|---|---|----|-----|----|----|---|---------------|------------------------|---|--------|-----|-------|--|
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-6AP0 | | 1 | 1 unit | 101 | 0.160 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-6AP0 | | 1 | 1 unit | 101 | 0.160 | |
| DC operation - DC solenoid system | | | | | | | | | | | | | | | |
| 9 | 2.4 | 4 | 4 | -- | 10E | 1 | -- | C | 3TF20 10-6BB4 | | 1 | 1 unit | 101 | 0.190 | |
| | | | | | 01E | -- | 1 | C | 3TF20 01-6BB4 | | 1 | 1 unit | 101 | 0.190 | |

For accessories, see page 3/119.

* You can order this quantity or a multiple thereof.

3RT, 3TB, 3TF Contactors for Switching Motors

3TF2 contactors, 3-pole, 2.2 ... 4 kW

| Rated data Utilization categories AC-2 and AC-3 | | Auxiliary contacts | | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|---|-----------------------|-------|---------------|---|-------------------------|-----------|-----------------|-----------------------------|
| Operational current I_e at 400/ 380 V | Ratings of induction motors at 50 Hz and | | | | Ident. No. | Version | Order No. | Price per PU | |
| | 230/ 220 V | 400/ 380 V | 500 V | 690/ 660 V | | | | | |
| A | kW | kW | kW | kW | | | | | kg |

Contactors with permanently mounted auxiliary switch blocks with screw terminals, width 45 mm for screw and snap-on mounting onto 35 mm standard mounting rail



AC operation

| | | | | | | | | | | | | | |
|---|-----|------------|-----|-----|------------|---|---|---|----------------------|---|--------|-----|-------|
| 5 | 1.3 | 2.2 | 2.9 | 3.8 | 11E | 1 | 1 | C | 3TF29 11-0AP0 | 1 | 1 unit | 101 | 0.230 |
| | | | | | 22E | 2 | 2 | C | 3TF29 22-0AP0 | 1 | 1 unit | 101 | 0.230 |
| 9 | 2.4 | 4 | 4 | 4 | 11E | 1 | 1 | C | 3TF22 11-0AP0 | 1 | 1 unit | 101 | 0.230 |
| | | | | | 22E | 2 | 2 | C | 3TF22 22-0AP0 | 1 | 1 unit | 101 | 0.230 |

DC operation · DC solenoid system

| | | | | | | | | | | | | | | |
|----------------------------------|---|-----|------------|-----|-----|------------|---|---|---|----------------------|---|--------|-----|-------|
| 3TF22 ...-0... 3TF29 ...-0... | 5 | 1.3 | 2.2 | 2.9 | 3.8 | 11E | 1 | 1 | C | 3TF29 11-0BB4 | 1 | 1 unit | 101 | 0.250 |
| | | | | | | 22E | 2 | 2 | C | 3TF29 22-0BB4 | 1 | 1 unit | 101 | 0.250 |
| | 9 | 2.4 | 4 | 4 | 4 | 11E | 1 | 1 | C | 3TF22 11-0BB4 | 1 | 1 unit | 101 | 0.250 |
| | | | | | | 22E | 2 | 2 | C | 3TF22 22-0BB4 | 1 | 1 unit | 101 | 0.250 |

For accessories, see page 3/119.

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Contactor type | 3TF20, 3TF28 | |
|---|--------------|------------------|
| Rated control supply voltage U_s | | |
| AC operation | | |
| Solenoid coils for AC 50 and 60 Hz | | |
| 50 Hz | 60 Hz | |
| 24 V AC | 29 V AC | B0 |
| 110 V AC | 132 V AC | F0 |
| 230/220 V AC | 276 V AC | P0 ¹⁾ |
| AC operation | | |
| Solenoid coils for AC 50/60 Hz | | |
| 230 V AC | | L2 |
| DC operation | | |
| 24 V DC | | B4 |

| Contactor type | 3TF22, 3TF29 | |
|---|--------------|------------------|
| Rated control supply voltage U_s | | |
| AC operation | | |
| Solenoid coils for AC 50 and 60 Hz | | |
| 50 Hz | 60 Hz | |
| 230/220 V AC | 276 V AC | P0 ¹⁾ |
| DC operation | | |
| 24 V DC | | B4 |

¹⁾ Operating range at 220 V:
0.85 to 1.15 x U_s ; lower operating range limit according to IEC 60947.

Please inquire about other voltages.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

Overview

The 3RA13 reversing contactor assemblies can be ordered as follows:

Sizes S00 to S3

- Fully wired and tested, with mechanical and electrical interlock. For assemblies with AC operation and 50/60 Hz, a dead interval of 50 ms must be provided when used with voltages ≥ 500 V; a dead interval of 30 ms is recommend for use with voltages ≥ 400 V. These dead times do not apply to assemblies with DC operation.

Sizes S00 to S12

- As individual parts for customer assembly.

There is also a range of accessories (auxiliary switch blocks, surge suppressors, etc.) that must be ordered separately.

For overload relays for motor protection, see "Protection Equipment --> Overload Relays".

The 3RA13 contactor assemblies have screw terminals and are suitable for screw or snap-on mounting onto 35 mm standard mounting rails.

Complete units

The fully wired reversing contactor assemblies are suitable for use in any climate. They are finger-safe according to EN 50274.

The contactor assemblies consist of 2 contactors with the same power, with one NC contact in the basic unit. The contactors are mechanically and electrically interlocked (NC contact interlock).

For motor protection, either 3RU11 or 3RB2. overload relays for direct mounting or stand-alone installation or thermistor motor protection tripping units must be ordered separately.

Components for customer assembly

Assembly kits for all sizes are available for customer assembly of reversing contactor assemblies.

Contactors, overload relays, the mechanical interlock (as of size S0) and – for momentary-contact operation – auxiliary switch blocks for latching must be ordered separately.

| Rated data AC-2 and AC-3 at 50 Hz 400 V AC | | Size | Order No. | | | | Assembly kit | Fully wired and tested contactor assemblies |
|--|-----------------------------|------|-----------|------------------------------------|------------------------------------|------------------------------------|---------------------------|---|
| Rating kW | Operational current I_e A | | Contactor | Mechanical interlock ¹⁾ | Mechanical interlock ²⁾ | Mechanical interlock ³⁾ | | |
| 3 | 7 | S00 | 3RT10 15 | -- ⁴⁾ | -- | -- | 3RA19 13-2A ⁵⁾ | 3RA13 15-8XB30-1 .. |
| 4 | 9 | | 3RT10 16 | | | | | 3RA13 16-8XB30-1 .. |
| 5.5 | 12 | | 3RT10 17 | | | | | 3RA13 17-8XB30-1 .. |
| 5.5 | 12 | S0 | 3RT10 24 | 3RA19 24-1A | 3RA19 24-2B | -- | 3RA19 23-2A ⁶⁾ | 3RA13 24-8XB30-1 .. |
| 7.5 | 17 | | 3RT10 25 | | | | | 3RA13 25-8XB30-1 .. |
| 11 | 25 | | 3RT10 26 | | | | | 3RA13 26-8XB30-1 .. |
| 15 | 32 | S2 | 3RT10 34 | 3RA19 24-1A | 3RA19 24-2B | -- | 3RA19 33-2A ⁷⁾ | 3RA13 34-8XB30-1 .. |
| 18.5 | 40 | | 3RT10 35 | | | | | 3RA13 35-8XB30-1 .. |
| 22 | 50 | | 3RT10 36 | | | | | 3RA13 36-8XB30-1 .. |
| 30 | 65 | S3 | 3RT10 44 | 3RA19 24-1A | 3RA19 24-2B | -- | 3RA19 43-2A ⁷⁾ | 3RA13 44-8XB30-1 .. |
| 37 | 80 | | 3RT10 45 | | | | | 3RA13 45-8XB30-1 .. |
| 45 | 95 | | 3RT10 46 | | | | | 3RA13 46-8XB30-1 .. |
| 55 | 115 | S6 | 3RT10 54 | -- | -- | 3RA19 54-2A | 3RA19 53-2M ⁸⁾ | -- |
| 75 | 150 | | 3RT10 55 | | | | | |
| 90 | 185 | | 3RT10 56 | | | | | |
| 110 | 225 | S10 | 3RT10 64 | -- | -- | 3RA19 54-2A | 3RA19 63-2A ⁸⁾ | -- |
| 132 | 265 | | 3RT10 65 | | | | | |
| 160 | 300 | | 3RT10 66 | | | | | |
| 200 | 400 | S12 | 3RT10 75 | -- | -- | 3RA19 54-2A | 3RA19 73-2A ⁸⁾ | -- |
| 250 | 500 | | 3RT10 76 | | | | | |

1) Can be mounted onto the front.

2) Laterally mountable with one auxiliary contact.

3) Laterally mountable without auxiliary contact.

4) Interlock can only be ordered with assembly kit.

5) Assembly kit contains: mechanical interlock; connecting clips for 2 contactors; wiring modules on the top and bottom.

6) Assembly kit contains: wiring modules on the top and bottom.

7) Assembly kit contains: 2 connecting clips for contactors; wiring modules on the top and bottom.

8) Assembly kit contains: wiring module on the top and bottom.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies


3RA13 complete units, 3 ... 45 kW

Selection and ordering data

Fully wired and tested contactor assemblies²⁾ · Size S00 · up to 5.5 kW

| Rated data AC-2 and AC-3 | | Rated control supply voltage U_s ¹⁾ | | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------------------------|--|--|-------|-------|-----------------|-----------|-------------------|-----|----|-----------------------|
| Operational current I_e up to | Ratings of induction motors at 50 Hz and | | | | | Order No. | Price per PU | | | kg |
| 400 V | 230 V | 400 V | 500 V | 690 V | A | | | | | |
| A | kW | kW | kW | kW | V | | | | | |

AC operation, 50/60 Hz

| | | | | | | | | | | | | |
|---|----|-----|-----|-----|-----|--------|---|----------------------------|---|--------|-----|-------|
|  | 7 | 2.2 | 3 | 3.5 | 4 | 24 AC | A | 3RA13 15-8XB30-1AB0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 110 AC | A | 3RA13 15-8XB30-1AF0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 230 AC | ▶ | 3RA13 15-8XB30-1AP0 | 1 | 1 unit | 101 | 0.430 |
| | 9 | 3 | 4 | 4.5 | 5.5 | 24 AC | A | 3RA13 16-8XB30-1AB0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 110 AC | A | 3RA13 16-8XB30-1AF0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 230 AC | ▶ | 3RA13 16-8XB30-1AP0 | 1 | 1 unit | 101 | 0.430 |
| | 12 | 3 | 5.5 | 5.5 | 5.5 | 24 AC | A | 3RA13 17-8XB30-1AB0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 110 AC | A | 3RA13 17-8XB30-1AF0 | 1 | 1 unit | 101 | 0.430 |
| | | | | | | 230 AC | ▶ | 3RA13 17-8XB30-1AP0 | 1 | 1 unit | 101 | 0.430 |

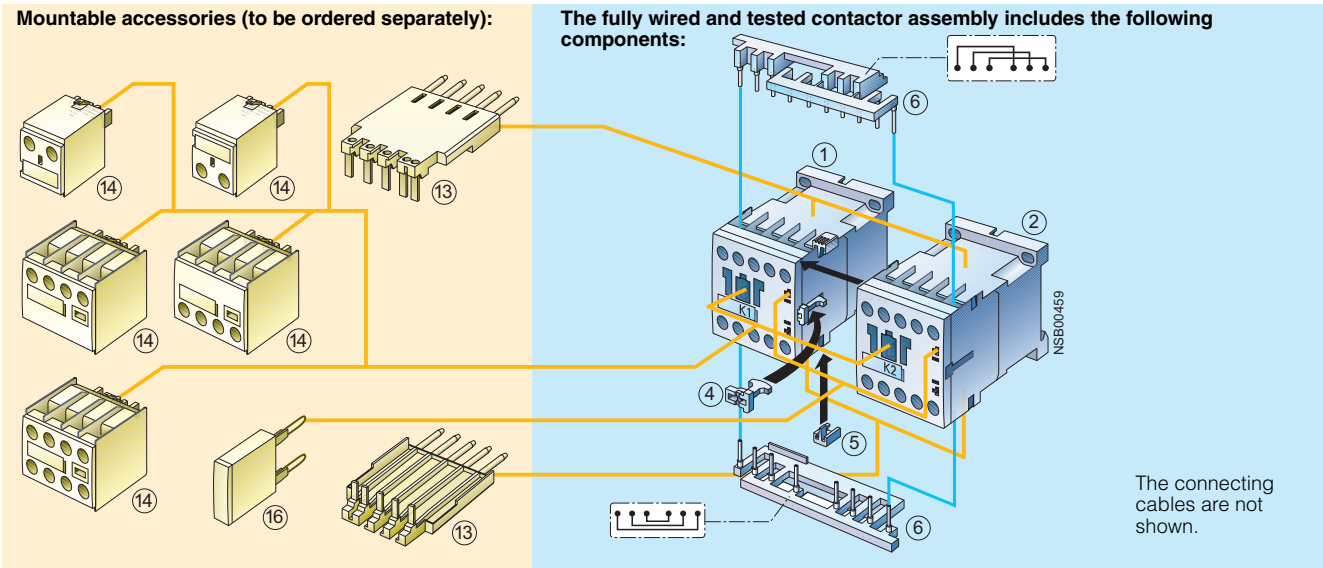
3RA13 1..-8XB30-1...

DC operation

| | | | | | | | | | | | | |
|--|---|-----|---|-----|-----|-------|---|----------------------------|---|--------|-----|-------|
| | 7 | 2.2 | 3 | 3.5 | 4 | 24 DC | ▶ | 3RA13 15-8XB30-1BB4 | 1 | 1 unit | 101 | 0.550 |
| | 9 | 3 | 4 | 4.5 | 5.5 | 24 DC | ▶ | 3RA13 16-8XB30-1BB4 | 1 | 1 unit | 101 | 0.550 |

¹⁾ Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .

²⁾ The contactors integrated in the contactor assemblies have no unassigned auxiliary contacts.



The connecting cables are not shown.

| Accessories | Order No. | Page | Individual parts | Order No. K1 | K2 | Page |
|---|----------------|--------------|---|--------------|----------|------|
| 13 Solder pin adapters | 3RT19 16-4KA1 | 3/110 | 1 2 Contactors, 3 kW | 3RT10 15 | 3RT10 15 | 3/15 |
| 14 Auxiliary switch block, front | 3RH19 11-1.... | 3/100 | 1 2 Contactors, 4 kW | 3RT10 16 | 3RT10 16 | 3/15 |
| (auxiliary switch block according to EN 50005 must be used) | | | 1 2 Contactors, 5.5 kW | 3RT10 17 | 3RT10 17 | 3/15 |
| 16 Surge suppressors | 3RT19 16-1.... | 3/107, 3/108 | 4 5 6 Assembly kit | 3RA19 13-2A | | 3/38 |
| | | | The assembly kit contains: | | | |
| | | | 4 Mechanical interlock | | | |
| | | | 5 2 connecting clips for 2 contactors | | | |
| | | | 6 Wiring modules on the top and bottom for connecting the main current paths, electrical interlock included ¹⁾ , interruptible (NC contact interlock) | | | |

¹⁾ 3RT10 1. contactors with one NC contact in the basic unit are required for the electrical interlock.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

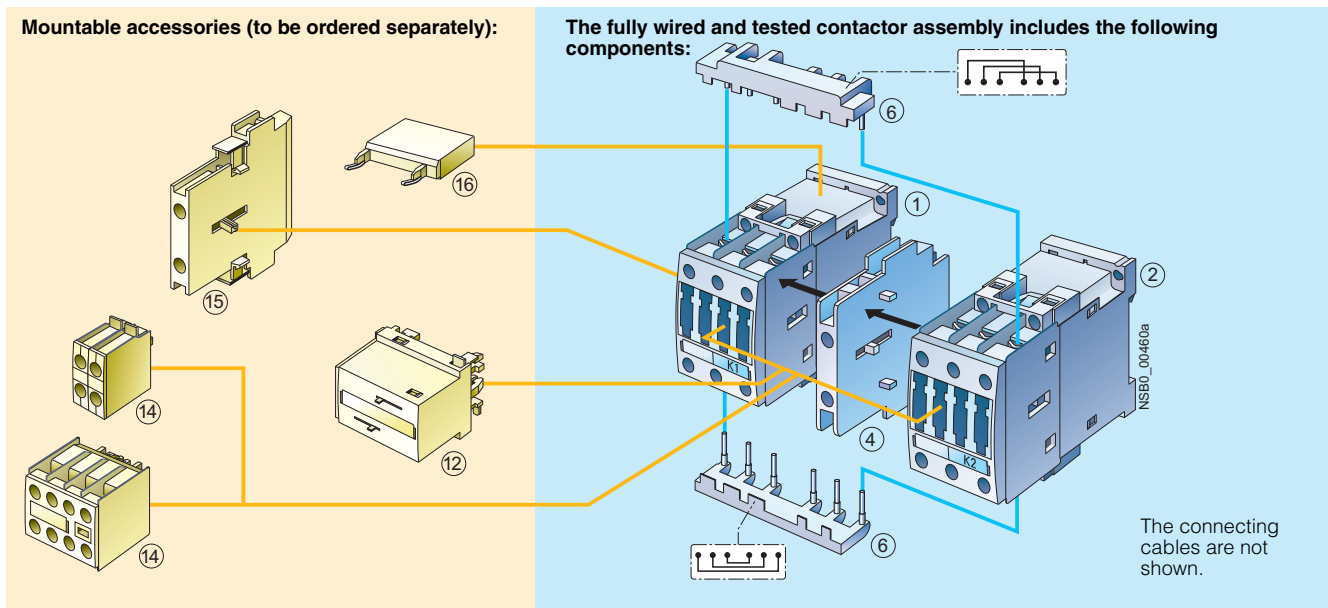
Fully wired and tested contactor assemblies · Size S0 · up to 11 kW



3RA13 2...8XB30-1...

| Rated data AC-2 and AC-3 | | | | | | Rated control supply voltage U_s 1) | DT | Screw terminals | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------------------------|--|-------|-------|-------|--------|---------------------------------------|----------------------------|-----------------|--------------|-------------------|-----|-------|-----------------------|
| Operational current I_e up to | Ratings of induction motors at 50 Hz and | | | | | | | Order No. | Price per PU | | | | |
| | 400 V | 230 V | 400 V | 500 V | 690 V | | | | | | | | |
| | A | kW | kW | kW | kW | V | | | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | | | | |
| 12 | 3 | 5.5 | 7.5 | 7.5 | 24 AC | A | 3RA13 24-8XB30-1AC2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 110 AC | A | 3RA13 24-8XB30-1AG2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 230 AC | A | 3RA13 24-8XB30-1AL2 | | 1 | 1 unit | 101 | 0.770 | |
| 17 | 4 | 7.5 | 10 | 11 | 24 AC | A | 3RA13 25-8XB30-1AC2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 110 AC | A | 3RA13 25-8XB30-1AG2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 230 AC | A | 3RA13 25-8XB30-1AL2 | | 1 | 1 unit | 101 | 0.770 | |
| 25 | 5.5 | 11 | 11 | 11 | 24 AC | A | 3RA13 26-8XB30-1AC2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 110 AC | A | 3RA13 26-8XB30-1AG2 | | 1 | 1 unit | 101 | 0.770 | |
| | | | | | 230 AC | A | 3RA13 26-8XB30-1AL2 | | 1 | 1 unit | 101 | 0.770 | |
| DC operation | | | | | | | | | | | | | |
| 12 | 3 | 5.5 | 7.5 | 7.5 | 24 DC | A | 3RA13 24-8XB30-1BB4 | | 1 | 1 unit | 101 | 1.230 | |
| 17 | 4 | 7.5 | 10 | 11 | 24 DC | A | 3RA13 25-8XB30-1BB4 | | 1 | 1 unit | 101 | 1.230 | |
| 25 | 5.5 | 11 | 11 | 11 | 24 DC | A | 3RA13 26-8XB30-1BB4 | | 1 | 1 unit | 101 | 1.230 | |

1) Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .



| Accessories | Order No. | Page | Individual parts | Order No. K1 | K2 | Page |
|------------------------------------|-----------------|-------|---------------------------------|--------------|----------|------|
| 12 Mechanical interlock, front | 3RA19 24-1A | 3/37 | 1 2 Contactors, 5.5 kW | 3RT10 24 | 3RT10 24 | 3/16 |
| 14 Auxiliary switch block, front | 3RH19 21-1CA... | 3/101 | 1 2 Contactors, 7.5 kW | 3RT10 25 | 3RT10 25 | 3/16 |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA... | 3/103 | 1 2 Contactors, 11 kW | 3RT10 26 | 3RT10 26 | 3/16 |
| 16 Surge suppressors | 3RT19 26-1.... | 3/107 | 4 Mechanical interlock, lateral | 3RA19 24-2B | | 3/37 |
| | | | 6 Assembly kit | 3RA19 23-2A | | 3/38 |

The assembly kit contains wiring modules on the top and bottom (they also form the mechanical connection between the contactors).

* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

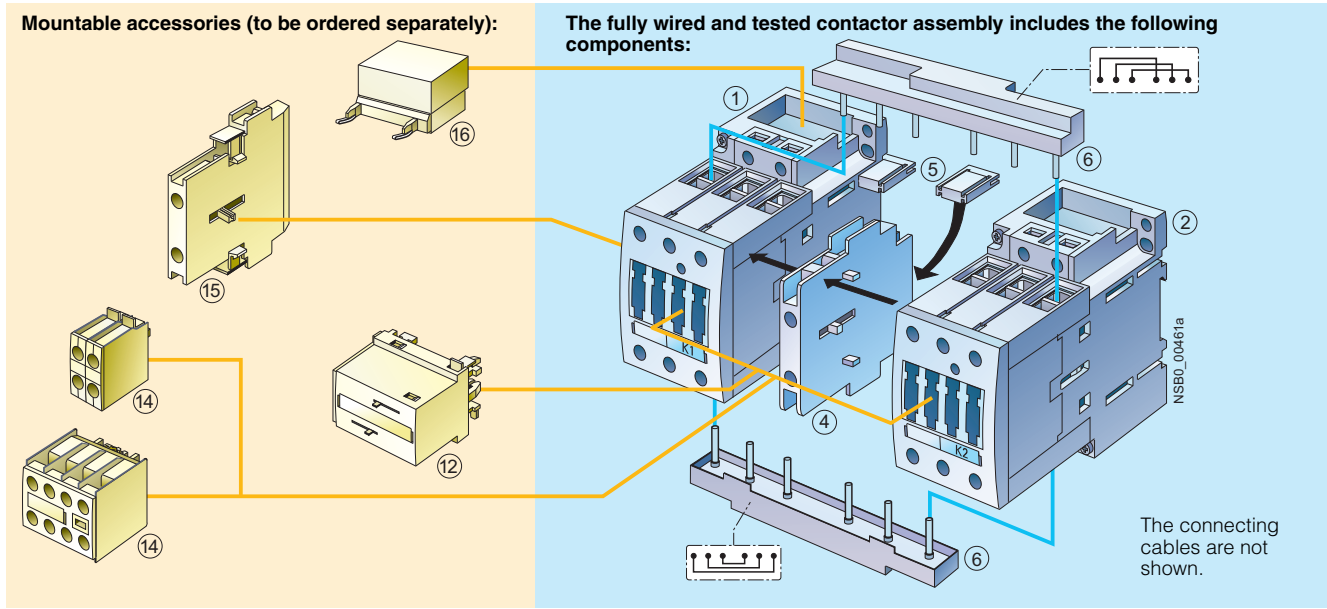
Fully wired and tested contactor assemblies · Size S2 · up to 22 kW



3RA13 3...8XB30-1...

| Rated data AC-2 and AC-3 | | Rated control supply voltage U_s 1) | | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|---------------------------------|--|---------------------------------------|-------|-------|-----------------|-----------|----------------------------|-----|--------|-----------------------|-------|
| Operational current I_e up to | Ratings of induction motors at 50 Hz and | | | | A | Order No. | Price per PU | | | kg | |
| | 500 V | 230 V | 400 V | 500 V | | | | | | | 690 V |
| A | kW | kW | kW | kW | V | | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | | |
| 32 | 7.5 | 15 | 18.5 | 18.5 | 24 AC | A | 3RA13 34-8XB30-1AC2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 110 AC | A | 3RA13 34-8XB30-1AG2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 230 AC | A | 3RA13 34-8XB30-1AL2 | 1 | 1 unit | 101 | 2,300 |
| 40 | 11 | 18.5 | 22 | 22 | 24 AC | A | 3RA13 35-8XB30-1AC2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 110 AC | A | 3RA13 35-8XB30-1AG2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 230 AC | A | 3RA13 35-8XB30-1AL2 | 1 | 1 unit | 101 | 2,300 |
| 50 | 15 | 22 | 30 | 22 | 24 AC | B | 3RA13 36-8XB30-1AC2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 110 AC | B | 3RA13 36-8XB30-1AG2 | 1 | 1 unit | 101 | 2,300 |
| | | | | | 230 AC | A | 3RA13 36-8XB30-1AL2 | 1 | 1 unit | 101 | 2,300 |
| DC operation | | | | | | | | | | | |
| 32 | 7.5 | 15 | 18.5 | 18.5 | 24 DC | A | 3RA13 34-8XB30-1BB4 | 1 | 1 unit | 101 | 3,450 |
| 40 | 11 | 18.5 | 22 | 22 | 24 DC | A | 3RA13 35-8XB30-1BB4 | 1 | 1 unit | 101 | 3,450 |
| 50 | 15 | 22 | 30 | 22 | 24 DC | A | 3RA13 36-8XB30-1BB4 | 1 | 1 unit | 101 | 3,450 |

1) Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .



| Accessories | Order No. | Page | Individual parts | Order No. | Page |
|---|----------------------------------|-------|---|--------------------|-------------------------|
| 12 Mechanical interlock, front | 3RA19 24-1A | 3/37 | 1 2 Contactors, 15 kW | K1 3RT10 34 | K2 3RT10 34 3/17 |
| 14 Auxiliary switch block, front | 3RH19 21-1CA.. | 3/101 | 1 2 Contactors, 18.5 kW | 3RT10 35 | 3RT10 35 3/17 |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA.. | 3/103 | 1 2 Contactors, 22 kW | 3RT10 36 | 3RT10 36 3/17 |
| 16 Surge suppressors | 3RT19 26-1.... 3RT19 36-1.... | 3/107 | 4 Mechanical interlock, lateral | 3RA19 24-2B | 3/37 |
| | | | 5 6 Assembly kit | 3RA19 33-2A | 3/38 |
| | | | The assembly kit contains: | | |
| | | | 5 2 connecting clips for 2 contactors with a clearance of 10 mm | | |
| | | | 6 Wiring modules on the top and bottom for connecting the main current paths | | |

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

Fully wired and tested contactor assemblies · Size S3 · up to 45 kW

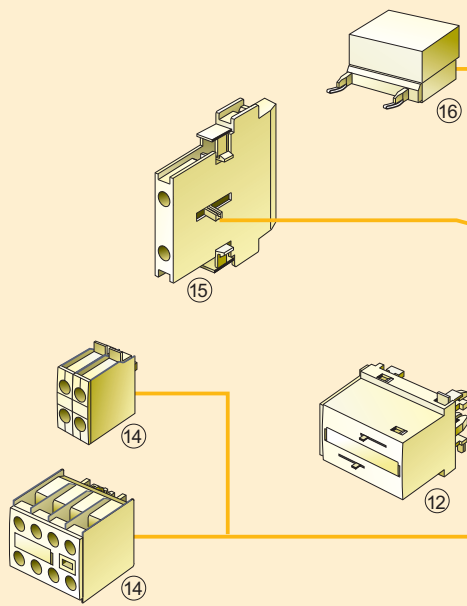


3RA13 4.-8XB30-1...

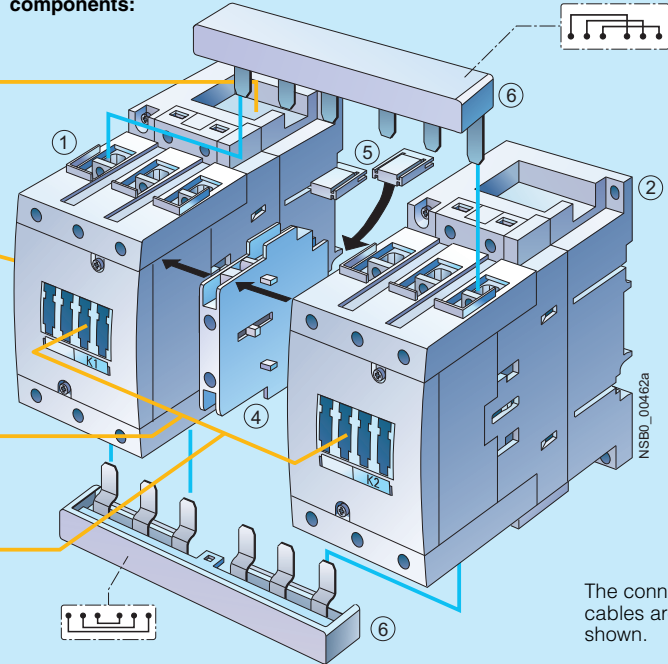
| Rated data AC-2 and AC-3 | | | | | | Rated control supply voltage U_s 1) | DT | Screw terminals | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------------------------------|--|-----------|-------|-------|--------|---------------------------------------|----------------------------|-----------------|--------------|-------------------|-----|-------|-----------------------|
| Operational current I_e up to 500 V | Ratings of induction motors at 50 Hz and | | | | | | | Order No. | Price per PU | | | | |
| | 230 V | 400 V | 500 V | 690 V | V | | | | | | | | |
| A | kW | kW | kW | kW | V | | | | | | | kg | |
| AC operation at 50/60 Hz | | | | | | | | | | | | | |
| 65 | 18.5 | 30 | 37 | 45 | 24 AC | B | 3RA13 44-8XB30-1AC2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 110 AC | B | 3RA13 44-8XB30-1AG2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 230 AC | B | 3RA13 44-8XB30-1AL2 | | 1 | 1 unit | 101 | 4,500 | |
| 80 | 22 | 37 | 45 | 55 | 24 AC | B | 3RA13 45-8XB30-1AC2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 110 AC | B | 3RA13 45-8XB30-1AG2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 230 AC | B | 3RA13 45-8XB30-1AL2 | | 1 | 1 unit | 101 | 4,500 | |
| 95 | 22 | 45 | 55 | 55 | 24 AC | B | 3RA13 46-8XB30-1AC2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 110 AC | B | 3RA13 46-8XB30-1AG2 | | 1 | 1 unit | 101 | 4,500 | |
| | | | | | 230 AC | B | 3RA13 46-8XB30-1AL2 | | 1 | 1 unit | 101 | 4,500 | |
| DC operation | | | | | | | | | | | | | |
| 65 | 18.5 | 30 | 37 | 45 | 24 DC | B | 3RA13 44-8XB30-1BB4 | | 1 | 1 unit | 101 | 6,500 | |
| 80 | 22 | 37 | 45 | 55 | 24 DC | B | 3RA13 45-8XB30-1BB4 | | 1 | 1 unit | 101 | 6,500 | |
| 95 | 22 | 45 | 55 | 55 | 24 DC | B | 3RA13 46-8XB30-1BB4 | | 1 | 1 unit | 101 | 6,500 | |

1) Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .

Mountable accessories (to be ordered separately):



The fully wired and tested contactor assembly includes the following components:



The connecting cables are not shown.

| Accessories | Order No. | Page | Individual parts | Order No. K1 | Order No. K2 | Page |
|------------------------------------|--------------------------------|-------|--|--------------|--------------|------|
| 12 Mechanical interlock, front | 3RA19 24-1A | 3/37 | 1 2 Contactors, 30 kW | 3RT10 44 | 3RT10 44 | 3/18 |
| 14 Auxiliary switch block, front | 3RH19 21-1CA... | 3/101 | 1 2 Contactors, 37 kW | 3RT10 45 | 3RT10 45 | 3/18 |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA... | 3/103 | 1 2 Contactors, 45 kW | 3RT10 46 | 3RT10 46 | 3/18 |
| 16 Surge suppressors | 3RT19 26-1... 3RT19 36-1... | 3/107 | 4 Mechanical interlock, lateral | 3RA19 24-2B | | 3/37 |
| | | | 5 6 Assembly kit | 3RA19 43-2A | | 3/38 |
| The assembly kit contains: | | | | | | |
| | | | 5 2 connecting clips for 2 contactors with a clearance of 10 mm | | | |
| | | | 6 Wiring modules on the top and bottom for connecting the main current paths | | | |





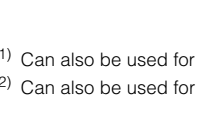
* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

Components for customer assembly

Selection and ordering data

| For contactors | Size | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|--|------------|---------------|--|-----------|--------------|-------------------|--------|-----|--------------------------|
| Mechanical interlocks | | | | | | | | | |
|  <p>3RA19 24-1A mounted onto 2 contactors</p> | 3RT10 2 | S0 | For lateral mounting¹⁾ Each with one auxiliary contact (1 NC contact) per contactor (can only be used to connect contactors which are not more than 1 size larger or smaller. The mounting depth of the smaller contactor has to be adapted.) | ▶ | 3RA19 24-2B | 1 | 1 unit | 101 | 0.060 |
| | 3RT10 3 | S2 | | | | | | | |
| | 3RT10 4 | S3 | | | | | | | |
| | 3RT13 2 | | | | | | | | |
| | 3RT13 3 | | | | | | | | |
| | 3RT13 4 | | | | | | | | |
| 3RT14 4 | | | | | | | | | |
| 3RT15 2 | | | | | | | | | |
| 3RT15 3 | | | | | | | | | |
|  <p>3RA19 24-1A</p> | 3RT10 2 | S0 | For mounting to the front²⁾ Onto contactors with sizes S0 to S3 (for contactors of the same size) <i>Note:</i> <i>Size S0: Wiring modules must be mounted first. Sizes S2 and S3: Use 3RA19 32-2C mechanical connectors.</i> | ▶ | 3RA19 24-1A | 1 | 1 unit | 101 | 0.050 |
| | 3RT10 3 | S2 | | | | | | | |
| | 3RT10 4 | S3 | | | | | | | |
| | 3RT13 2 | S0 | | | | | | | |
| | 3RT15 2 | | | | | | | | |
|  <p>3RA19 54-2A</p> | 3RT1. 5 | S6 | For lateral mounting Without auxiliary contacts; size S6, S10 and S12 contactors can be interlocked with each other as required; no adaptation of mounting depth is necessary. Contactor clearance 10 mm. | ▶ | 3RA19 54-2A | 1 | 1 unit | 101 | 0.050 |
| | 3RT1. 6 | S10 | | | | | | | |
| | 3RT1. 7 | S12 | | | | | | | |
|  <p>3RA19 54-2C</p> | 3RT10 4.-A | S3 | Adapters, laterally mountable For mechanical interlocking of contactor S3 (only for AC operation) with contactor S6 using 3RA19 54-2A locking device (must be ordered separately) incl. connecting clips | A | 3RA19 54-2C | 1 | 1 unit | 101 | 0.050 |
| | 3RT10 5 | S6 | | | | | | | |
| Coil repeat terminals | | | | | | | | | |
|  <p>3RA19 23-3B</p> | 3RT10 3 | S2, S3 | For the coil terminals A1 and A2 for reversing starters (contactor sizes S2 and S3). 2 x A1 and 1 x A2 required per assembly (one set contains 10 x A1 and 5 x A2) | B | 3RA19 23-3B | 1 | 1 unit | 101 | 0.080 |
| | 3RT10 4 | | | | | | | | |
| Base plates | | | | | | | | | |
| | 3RT10 5 | S6 | For customer assembly of reversing contactor assemblies | B | 3RA19 52-2A | 1 | 1 unit | 101 | 1.300 |
| | 3RT1. 6 | S10 | | B | 3RA19 62-2A | 1 | 1 unit | 101 | 2.100 |
| | 3RT1. 7 | S12 | | B | 3RA19 72-2A | 1 | 1 unit | 101 | 2.300 |


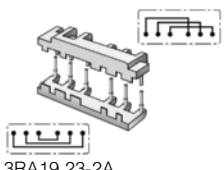
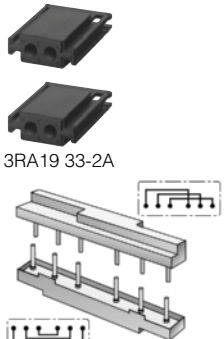
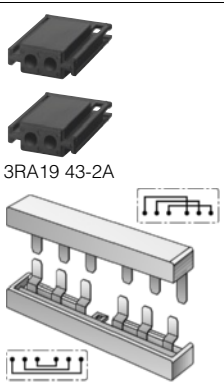
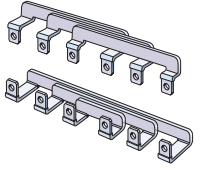
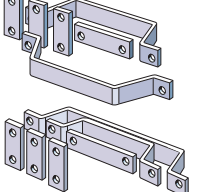
¹⁾ Can also be used for 4-pole contactors with sizes S2 and S3.

²⁾ Can also be used for size S0 4-pole contactors.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

Components for customer assembly

| For contactors | Size | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|-------------------------------|---------------------------------------|---|--|--------------|-------------------|----------------------------|-------------------|--------------------------|
| Assembly kits for making 3-pole contactor assemblies | | | | | | | | | |
|  | 3RT10 1 | S00 | The assembly kit contains: ▶ mechanical interlock; 2 connecting clips for 2 contactors; wiring modules on the top and bottom | 3RA19 13-2A | | 1 | 1 unit | 101 | 0.040 |
|  | 3RT10 2 | S0 | The assembly kit contains: ▶ wiring modules on the top and bottom | 3RA19 23-2A | | 1 | 1 unit | 101 | 0.060 |
|  | 3RT10 3 | S2 | The assembly kit contains: ▶ 2 connecting clips for 2 contactors; wiring modules on the top and bottom | 3RA19 33-2A | | 1 | 1 unit | 101 | 0.120 |
|  | 3RT10 4 | S3 | The assembly kit contains: ▶ 2 connecting clips for 2 contactors; wiring modules on the top and bottom | 3RA19 43-2A | | 1 | 1 unit | 101 | 0.300 |
|  | 3RT10 5 | S6 | The assembly kit contains: A Wiring modules on the top and bottom (for connection with box terminal) | 3RA19 53-2A | | 1 | 1 unit | 101 | 1.300 |
|  | 3RT10 5 3RT1. 6 3RT1. 7 | S6 S10 S12 | The assembly kit contains: A Wiring modules on the top and bottom (for connection without box terminal) | 3RA19 53-2M 3RA19 63-2A 3RA19 73-2A | | 1 1 1 | 1 unit 1 unit 1 unit | 101 101 101 | 0.900 2.400 3.000 |

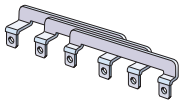
* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

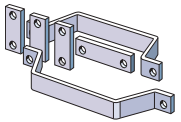
3RA13 Reversing Contactor Assemblies

Components for customer assembly

| For contactors | Size | Contact-clearance | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|-------------------------------|------------------------|-------------------|--|--------|--|--------------|-------------------|------------------|------------|-----------------------|
| Type | | mm | | | | | | | | kg |
| Wiring modules, single | | | | | | | | | | |
| 3RT10 1 | S00-S00 | 0 | Top (in-phase) | ▶ | 3RA19 13-3D | | 1 | 5 units | 101 | 0.015 |
| | | | Bottom (with phase reversal) | ▶ | 3RA19 13-3E | | 1 | 5 units | 101 | 0.015 |
| 3RT10 2 | S0-S0 and S0-S0 | 0 and 10 | Top (in-phase) | ▶ | 3RA19 23-3D | | 1 | 5 units | 101 | 0.020 |
| | | | Bottom (with phase reversal) | ▶ | 3RA19 23-3E | | 1 | 5 units | 101 | 0.020 |
| 3RT10 3 | S2-S2 | 10 | Top (in-phase) Bottom (with phase reversal) | ▶ ▶ | 3RA19 33-3D 3RA19 33-3E | | 1 1 | 1 unit 1 unit | 101 101 | 0.065 0.065 |
| 3RT10 4 | S3-S3 | 10 | Top (in-phase) Bottom (with phase reversal) | ▶ ▶ | 3RA19 43-3D 3RA19 43-3E | | 1 1 | 1 unit 1 unit | 101 101 | 0.160 0.160 |
| 3RT10 5 | S6-S6 | 10 | Top (in-phase, for connection with box terminal) | A | 3RA19 53-3D | | 1 | 1 unit | 101 | 0.620 |
| | | | Top (with phase reversal, for connection without box terminal) | A | 3RA19 53-3P | | 1 | 1 unit | 101 | 0.440 |



3RA19 53-3D



3RA19 53-3P

| For contactors | Size | Contact-clearance | Interlocking | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------------------------------|----------------|-----------------------|---|------------------------------|----|------------------------------------|--------------|-------------------|----------|-----|-----------------------|
| Type | | mm | | | | | | | | | kg |
| Mechanical connectors | | | | | | 1 pack = 10 sets for 10 assemblies | | | | | |
| 3RT1. 1 ¹⁾ | S00-S00 | 0 | Laterally mountable | For 3- and 4-pole contactors | ▶ | 3RA19 12-2H | | 1 | 10 units | 101 | 0.010 |
| | | | | | | | | | | | |
| 3RT1. 2 | S0-S0 | 0 10 ²⁾ | Mountable on front Laterally mountable | For 3- and 4-pole contactors | A | 3RA19 22-2C | | 1 | 10 units | 101 | 0.025 |
| | | | | | ▶ | 3RT19 22-2D | | 1 | 20 unit | 101 | 0.110 |
| 3RT1. 3 | S2-S2 | 0 | Mountable on front | For 3-pole contactors | ▶ | 3RA19 32-2C | | 1 | 10 units | 101 | 0.010 |
| 3RT1. 4 | S3-S3 | | | | | | | | | | |
| 3RT1. 3 | S2-S2 | 10 | Laterally mountable | For 3-pole contactors | ▶ | 3RA19 32-2D | | 1 | 10 units | 101 | 0.010 |
| 3RT1. 4 | S3-S3 | | | | | | | | | | |
| 3RT1. 5 | S6-S6 | | | | | | | | | | |
| 3RT1. 3 | S2-S2 | 10 | Laterally mountable | For 4-pole contactors | A | 3RA19 32-2G | | 1 | 10 units | 101 | 0.010 |
| | | | | | | | | | | | |
| 3RT1. 4 | S3-S3 | 10 | Laterally mountable | For 4-pole contactors | B | 3RA19 42-2G | | 1 | 10 units | 101 | 0.010 |



3RA19 12-2H



3RA19 22-2C



3RA19 32-2C



3RA19 32-2D



3RA19 32-2G



3RA19 42-2G

1) This pack contains 10 additional interlocks.

2) The connector function can be fulfilled with the wiring modules for size S0, a contactor clearance of 10 mm and a lateral interlock.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Overview

These 3RA14 contactor assemblies for wye-delta starting are designed for standard applications.

Note:

Contactor assemblies for wye-delta starting in special applications such as very heavy starting or wye-delta starting of special motors must be customized. Help with designing such special applications is available from Technical Assistance.

The 3RA14 contactor assemblies for wye-delta starting can be ordered as follows:

Sizes S00 to S3:

- Fully wired and tested, with electrical interlock, dead interval of up to 10 s on reversing (size S00 with electrical and mechanical interlocks)

Sizes S00 to S12:

- As individual parts for customer assembly.

A dead interval of 50 ms on reversing is already integrated in the time relay function.

There is also a range of accessories (auxiliary switch blocks, surge suppressors, etc.) that must be ordered separately.

For overload relays for motor protection see "Protection Equipment --> Overload Relays --> 3RB2 Solid-State Overload Relays".

The 3RA14 contactor assemblies have screw terminals and are suitable for screw or snap-on mounting onto 35 mm standard mounting rails.

Fully wired and tested 3RA14 contactor assemblies have one unassigned NO contact which is mounted onto the front of the K3 delta contactor.

A solid-state time-delay auxiliary switch block is snapped onto the front of the complete contactor assemblies, size S00 up to 7.5 kW, while a timing relay is mounted onto the side of sizes S0 to S3, 11 kW to 75 kW.

| Rated data at AC 50 Hz 400 V | | | Size | | | Accessories for customer assembly | | |
|------------------------------|-----------------------------|-----------------|--------------------|----------------------|----------------|-----------------------------------|----------------|-----------------------------------|
| Rating kW | Operational current I_e A | Motor current A | | Line/delta contactor | Star contactor | Order No. complete | Timing relay | Assembly kit A, for double infeed |
| 5.5 | 12 | 9.5 ... 13.8 | S00-S00-S00 | 3RT10 15 | 3RT10 15 | 3RA14 15-8XB31-1... | 3RT19 16-2G.51 | -- |
| 7.5 | 17 | 12.1 ... 17 | | 3RT10 17 | | 3RA14 16-8XB31-1... | 3RP15 74-1N.30 | |
| 11 | 25 | 19 ... 25 | S0-S0-S0 | 3RT10 24 | 3RT10 24 | 3RA14 23-8XC21-1... | 3RP15 74-1N.30 | -- |
| 15 | 32 | 24.1 ... 34 | | 3RT10 26 | | 3RA14 25-8XC21-1... | | |
| 18.5 | 40 | 34.5 ... 40 | | | | | | |
| 22 | 50 | 31 ... 43 | S2-S2-S0 | 3RT10 34 | 3RT10 26 | 3RA14 34-8XC21-1... | 3RP15 74-1N.30 | 3RA19 33-2C ³⁾ |
| 30 | 50 | 48.3 ... 65 | | 3RT10 35 | | -- | | |
| 37 | 80 | 62.1 ... 77.8 | S2-S2-S2 | 3RT10 34 | 3RT10 34 | 3RA14 35-8XC21-1... | | 3RA19 33-2B ³⁾ |
| 45 | 86 | 69 ... 86 | | 3RT10 36 | | 3RA14 36-8XC21-1... | | |
| 55 | 115 | 77.6 ... 108.6 | S3-S3-S2 | 3RT10 44 | 3RT10 35 | 3RA14 44-8XC21-1... | 3RP15 74-1N.30 | 3RA19 43-2C ³⁾ |
| 75 | 150 | 120.7 ... 150 | | 3RT10 45 | 3RT10 36 | 3RA14 45-8XC21-1... | | |
| 90 | 160 | 86 ... 160 | S6-S6-S3 | 3RT10 54 | 3RT10 44 | -- | 3RP15 74-1N.30 | -- |
| 110 | 195 | 86 ... 195 | | | | | | |
| 132 | 230 | 86 ... 230 | | 3RT10 55 | 3RT10 45 | | | |
| 160 | 280 | 86 ... 280 | | 3RT10 56 | 3RT10 46 | | | |
| 200 | 350 | 95 ... 350 | S10-S10-S6 | 3RT10 64 | 3RT10 54 | -- | 3RP15 74-1N.30 | -- |
| 250 | 430 | 95 ... 430 | | 3RT10 65 | 3RT10 55 | | | |
| 315 | 540 | 277 ... 540 | S12-S12-S10 | 3RT10 75 | 3RT10 64 | -- | 3RP15 74-1N.30 | -- |
| 355 | 610 | 277 ... 610 | | | | | | |
| 400 | 690 | 277 ... 690 | | | 3RT10 65 | | | |
| 500 | 850 | 277 ... 850 | | 3RT10 76 | 3RT10 66 | | | |

¹⁾ Assembly kit contains mechanical interlock, 3 connecting clips; wiring modules on the top (connection between line and delta contactor) and on the bottom (connection between delta and star contactor); star jumper.

²⁾ Assembly kit contains 5 connecting clips; wiring modules on the top (connection between line and delta contactor) and on the bottom (connection between delta and star contactor); star jumper.

³⁾ Assembly kit contains wiring module on the bottom (connection between delta and star contactor) and star jumper.

⁴⁾ Wiring module on top from reversing contactor assembly (note conductor cross-sections).

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Components for customer assembly

Assembly kits with wiring modules and, if necessary, mechanical connectors are available for contactor assemblies for wye-delta starting. Contactors, overload relays, wye-delta timing relays, auxiliary switches for electrical interlock – if required also feeder terminals, mechanical interlocks (exception: In the case of the assembly kit for size S00 contactor assemblies the mechanical interlock between the delta contactor and the star contactor is included in the kit) and base plates – must be ordered separately.

The wiring kits for sizes S00 and S0 contain the top and bottom main conducting path connections between the line and delta contactors (top) and between the delta and star contactors (bottom).

In the case of sizes S2 to S12 only the bottom main conducting path connection between the delta and star contactors is included in the wiring module, owing to the larger conductor cross-section at the infeed.

Motor protection

Overload relays or thermistor motor protection tripping units can be used for overload protection.

The overload relay can be either mounted onto the line contactor or separately fitted. It must be set to 0.58 times the rated motor current.

Note:

The selection of contactor types refers to fused configurations (see Technical Information LV 1 T).

3

| | Assembly kit B, for single infeed | Star jumper | Base plates | Overload relay, thermal (trip class CLASS 10) | | Overload relay, solid-state (trip class CLASS 10) | |
|--|-----------------------------------|----------------|-------------|---|---|---|---------------|
| | | | | Setting range | Order No. | Setting range | Order No. |
| | | | | A | | A | |
| | 3RA19 13-2B ¹⁾ | 3RT19 16-4BA31 | -- | 5.5 ... 8 7 ... 10 | 3RU11 16-1HB0 3RU11 16-1JB0 | 3 ... 12 | 3RB20 16-1SB0 |
| | 3RA19 23-2B ²⁾ | 3RT19 26-4BA31 | -- | 11 ... 16 14 ... 20 20 ... 25 | 3RU11 26-4AB0 3RU11 26-4BB0 3RU11 26-4DB0 | 6 ... 25 | 3RB20 26-1QB0 |
| | 3RV19 35-1A | 3RT19 26-4BA31 | 3RA19 32-2E | 18 ... 25 28 ... 40 | 3RU11 36-4DB0 3RU11 36-4FB0 | 12.5 ... 50 | 3RB20 36-1UB0 |
| | | 3RT19 36-4BA31 | 3RA19 32-2F | 36 ... 45 40 ... 50 | 3RU11 36-4GB0 3RU11 36-4HB0 | | |
| | -- | 3RT19 36-4BA31 | 3RA19 42-2E | 45 ... 63 70 ... 90 | 3RU11 46-4JB0 3RU11 46-4LB0 | 25 ... 100 | 3RB20 46-1EB0 |
| | 3RA19 53-3D ⁴⁾ | 3RT19 46-4BA31 | 3RA19 52-2E | -- | -- | 50 ... 200 | 3RB20 56-1FC2 |
| | -- | 3RT19 56-4BA31 | 3RA19 62-2E | -- | -- | 55 ... 250 | 3RB20 66-1GC2 |
| | -- | 3RT19 66-4BA31 | 3RA19 72-2E | -- | -- | 160 ... 630 | 3RB20 66-1MC2 |

For footnotes, see page 3/40.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Selection and ordering data

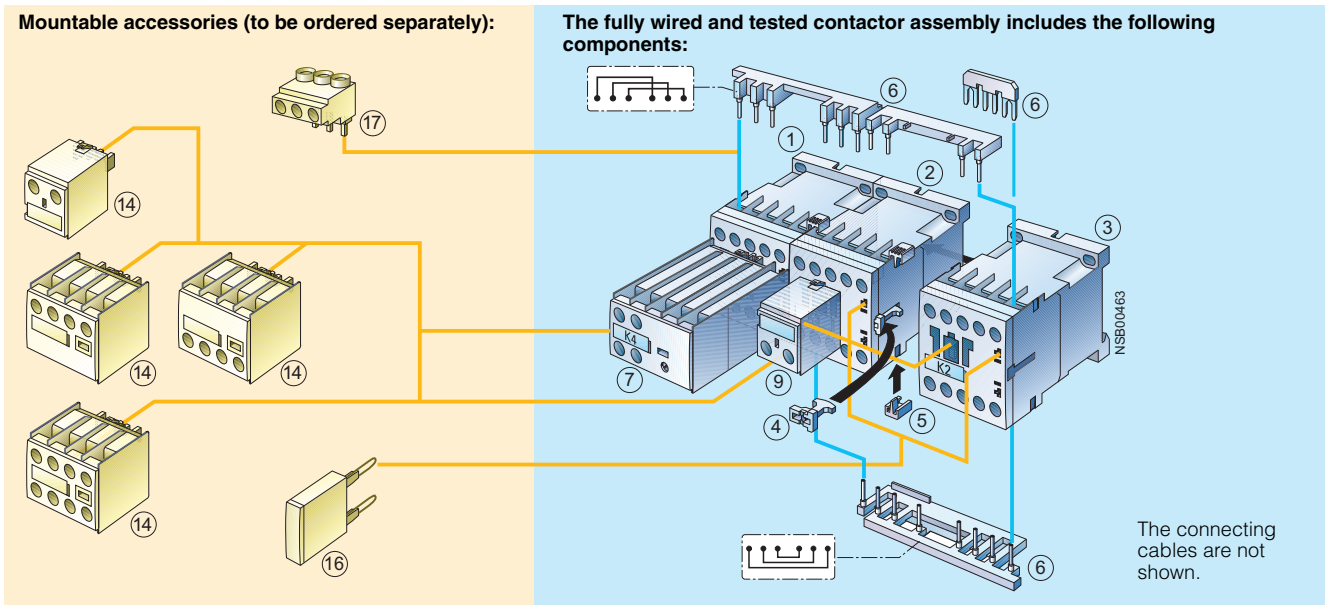
Fully wired and tested contactor assemblies · Size S00-S00-S00 · up to 7.5 kW



3RA14 1.-8XB31-1...

| Rated data AC-3 | | Rated control supply voltage U_s ¹⁾ | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | | |
|-------------------------------|--|--|-------|-------|-----------------|-------------------|----------------------------|----|-----------------------|-------|-------|
| Operational current I_e at | Ratings of induction motors at 50 Hz and | | | | A | Order No. | Price per PU | | kg | | |
| | 400 V | 230 V | 400 V | 500 V | | | | | | 690 V | |
| A | kW | kW | kW | kW | V | | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | | |
| 12 | 3.3 | 5.5 | 7.2 | 9.2 | 24 AC | C | 3RA14 15-8XB31-1AB0 | 1 | 1 unit | 101 | 0.950 |
| | | | | | 110 AC | C | 3RA14 15-8XB31-1AF0 | 1 | 1 unit | 101 | 0.950 |
| | | | | | 230 AC | C | 3RA14 15-8XB31-1AP0 | 1 | 1 unit | 101 | 0.950 |
| 17 | 4.7 | 7.5 | 10.3 | 9.2 | 24 AC | B | 3RA14 16-8XB31-1AB0 | 1 | 1 unit | 101 | 0.990 |
| | | | | | 110 AC | B | 3RA14 16-8XB31-1AF0 | 1 | 1 unit | 101 | 0.990 |
| | | | | | 230 AC | B | 3RA14 16-8XB31-1AP0 | 1 | 1 unit | 101 | 0.990 |
| DC operation | | | | | | | | | | | |
| 12 | 3.3 | 5.5 | 7.2 | 9.2 | 24 DC | B | 3RA14 15-8XB31-1BB4 | 1 | 1 unit | 101 | 1.120 |
| 17 | 4.7 | 7.5 | 10.3 | 9.2 | 24 DC | B | 3RA14 16-8XB31-1BB4 | 1 | 1 unit | 101 | 1.120 |

¹⁾ Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .



| Accessories | Order No. | Page | Individual parts | Order No. K1 ¹⁾ | K3 ²⁾ | K2 ²⁾ | Page |
|----------------------------------|---------------|--------------|---|----------------------------|------------------|------------------|-------|
| 14 Auxiliary switch block, front | 3RH19 11-1... | 3/100 | 1 2 3 Contactors, 5.5 kW | 3RT10 15 | 3RT10 15 | 3RT10 15 | 3/15 |
| 16 Surge suppressors | 3RT19 16-1... | 3/107, 3/108 | 1 2 3 Contactors, 7.5 kW | 3RT10 17 | 3RT10 17 | 3RT10 15 | 3/15 |
| 17 3-phase feeder terminals | 3RA19 13-3K | 3/47 | 7 Solid-state time-delay auxiliary switch block, front | 3RT19 16-2G.51 | | | 3/105 |
| | | | 9 Auxiliary switch block with 1 unassigned NO contact | 3RH19 11-1BA10 | | | 3/100 |
| | | | 4 5 6 Assembly kit | 3RA19 13-2B | | | 3/47 |
| | | | The assembly kit contains: | | | | |
| | | | 4 Mechanical interlock | | | | |
| | | | 5 3 connecting clips | | | | |
| | | | 6 Wiring modules on the top and bottom for connecting the main and control conducting paths | | | | |

¹⁾ Use version with 1 NO.
²⁾ Use version with 1 NC.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

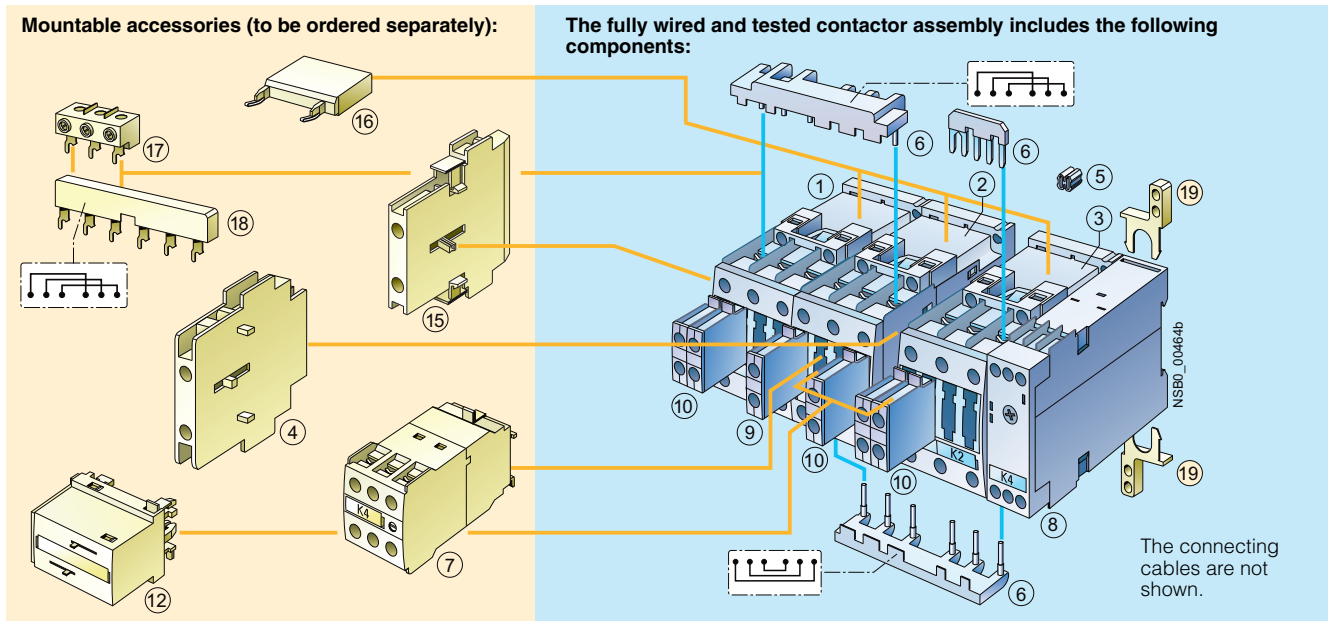
Fully wired and tested contactor assemblies · Size S0-S0-S0 · up to 18.5 kW



3RA14 2.-8XC21-1...

| Rated data AC-3 | | Rated control supply voltage U_s ¹⁾ | | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|-------------------------------|--|--|-------|-------|-----------------|-----------|----------------------------|-----|--------|-----------------------|-------|
| Operational current I_e at | Ratings of induction motors at 50 Hz and | | | | A | Order No. | Price per PU | | | kg | |
| | 400 V | 230 V | 400 V | 500 V | | | | | | | 690 V |
| AC operation, 50/60 Hz | | | | | | | | | | | |
| 25 | 7.1 | 11 | 15.6 | 19 | 24 AC | C | 3RA14 23-8XC21-1AC2 | 1 | 1 unit | 101 | 1.800 |
| | | | | | 110 AC | C | 3RA14 23-8XC21-1AG2 | 1 | 1 unit | 101 | 1.800 |
| | | | | | 230 AC | C | 3RA14 23-8XC21-1AL2 | 1 | 1 unit | 101 | 1.800 |
| 32 / 40 | 11.4 | 15 / 18.5 | 19 | 19 | 24 AC | C | 3RA14 25-8XC21-1AC2 | 1 | 1 unit | 101 | 1.800 |
| | | | | | 110 AC | C | 3RA14 25-8XC21-1AG2 | 1 | 1 unit | 101 | 1.800 |
| | | | | | 230 AC | C | 3RA14 25-8XC21-1AL2 | 1 | 1 unit | 101 | 1.800 |
| DC operation | | | | | | | | | | | |
| 25 | 7.1 | 11 | 15.6 | 19 | 24 DC | ▶ | 3RA14 23-8XC21-1BB4 | 1 | 1 unit | 101 | 2.450 |
| 32 / 40 | 11.4 | 15 / 18.5 | 19 | 19 | 24 DC | ▶ | 3RA14 25-8XC21-1BB4 | 1 | 1 unit | 101 | 2.450 |

¹⁾ Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .



| Accessories | Order No. | Page | Individual parts | Order No. | | | Page |
|--|-----------------|-------|---|----------------|----------|----------|-------|
| | | | | K1 | K3 | K2 | |
| 4 Mechanical interlock, lateral | 3RA19 24-2B | 3/37 | 1 2 3 Contactors, 11 kW | 3RT10 24 | 3RT10 24 | 3RT10 24 | 3/16 |
| 7 Solid-state time-delay auxiliary switch block, front ¹⁾ | 3RT19 26-2G... | 3/105 | 1 2 3 Contactors, 15/18.5 kW | 3RT10 26 | 3RT10 26 | 3RT10 24 | 3/16 |
| 12 Mechanical interlock, front | 3RA19 24-1A | 3/37 | 8 Timing relay, lateral | 3RP15 74-1N.30 | | | 4) |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA... | 3/103 | 9 Auxiliary switch block with 1 unassigned NO contact | 3RH19 21-1CA10 | | | 3/101 |
| 16 Surge suppressors | 3RT19 26-1... | 3/107 | 10 Auxiliary switch block for local control | 3RH19 21-1CA01 | | | 3/101 |
| 17 3-phase feeder terminal ²⁾ | 3RV19 15-5A | 3/47 | - 2 units | 3RH19 21-1CA10 | | | |
| 18 3-phase busbar ²⁾ | 3RT19 26-4CC20 | 3/47 | - 3 units | 3RA19 23-2B | | | 3/47 |
| 19 Push-in lug ³⁾ for timing relay screw fixing | 3RP19 03 | 4) | 5 6 Assembly kit | | | | |

The assembly kit contains:

- 5 Connecting clips
- 6 Wiring modules on the top and bottom for connecting the main and control conducting paths

¹⁾ Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

²⁾ 17 and 18 can only be mounted with contactors with screw terminal (coil).

³⁾ Not included in the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

⁴⁾ See "Monitoring and Control Devices: 3RP, 7PV Timing Relays --> 3RP15 Timing Relays in Industrial Enclosure, 22.5 mm".

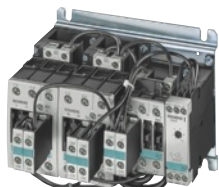
* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

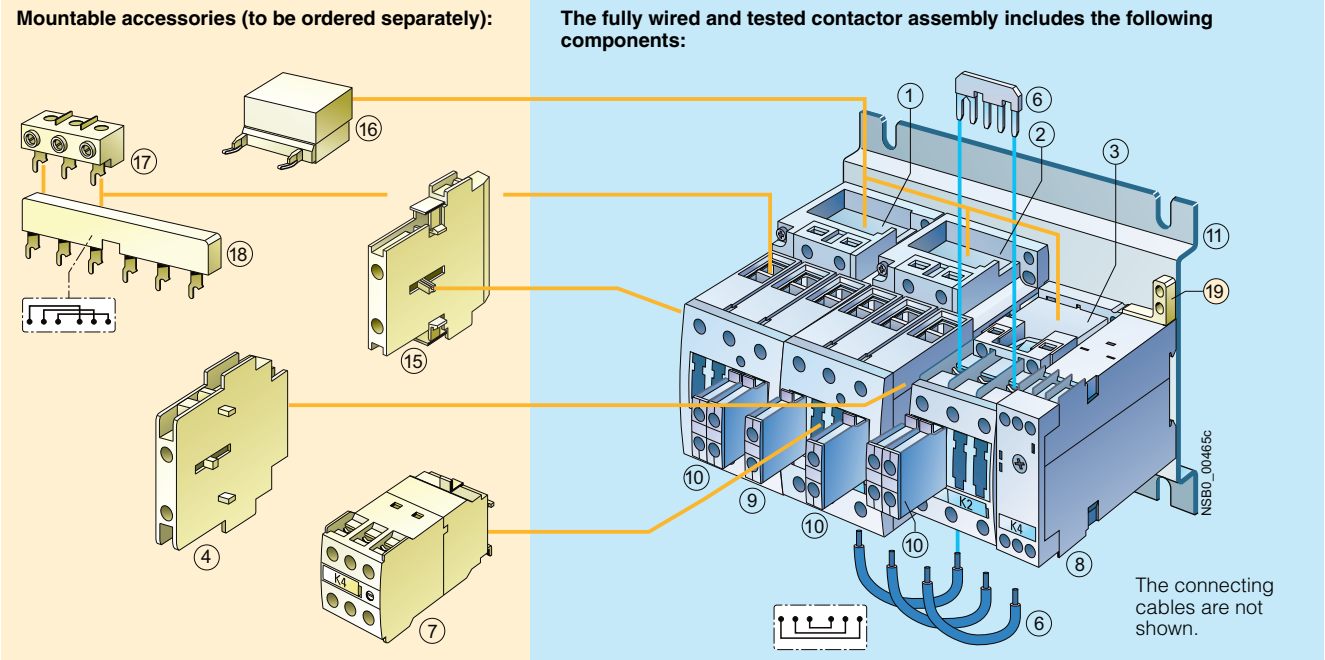
Fully wired and tested contactor assemblies · Size S2-S2-S0 · up to 30 kW



3RA14 34-8XC21-1...

1) Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

| Rated data AC-3 | | Rated control supply voltage U _s ¹⁾ | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|--|--|---|-------|-------|-----------------|----------------------------|-----|--------|-----------------------|-------|
| Operational current I _e up to | Ratings of induction motors at 50 Hz and | | | | Order No. | Price per PU | | | kg | |
| 400 V | 230 V | 400 V | 500 V | 690 V | | | | | | |
| A | kW | kW | kW | kW | V | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | |
| 50 / 65 | 19.6 | 22 / 30 | 35 | 34 | 24 AC | 3RA14 34-8XC21-1AC2 | 1 | 1 unit | 101 | 3.100 |
| | | | | | 110 AC | 3RA14 34-8XC21-1AG2 | 1 | 1 unit | 101 | 3.100 |
| | | | | | 230 AC | 3RA14 34-8XC21-1AL2 | 1 | 1 unit | 101 | 3.100 |
| DC operation | | | | | | | | | | |
| 50 / 65 | 19.6 | 22 / 30 | 35 | 34 | 24 DC | 3RA14 34-8XC21-1BB4 | 1 | 1 unit | 101 | 4.500 |



| Accessories | Order No. | Page | Individual parts | Order No. | | | Page |
|---|----------------------------------|-----------------|---|----------------------------------|----------|----------|------------|
| | | | | K1 | K3 | K2 | |
| 4 Mechanical interlock, lateral Depth compensation required K3: 1.5 mm; K2: 0 mm ¹⁾ | 3RA19 24-2B | 3/37 | 1 2 3 Contactors, 22/30 kW | 3RT10 34 | 3RT10 34 | 3RT10 26 | 3/16 4) |
| 7 Solid-state time-delay auxiliary switch block, front ²⁾ | 3RT19 26-2G... | 3/105 | 8 Timing relay, lateral | 3RP15 74-1N.30 | | | |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA.. | 3/103 | 9 Auxiliary switch block with 1 unassigned NO contact | 3RH19 21-1CA10 | | | 3/101 |
| 16 Surge suppressors | 3RT19 26-1.... 3RT19 36-1.... | 3/107, 3/108 | 10 Auxiliary switch block for local control | 3RH19 21-1CA01 3RH19 21-1CA10 | | | 3/101 |
| 17 3-phase feeder terminals | 3RV19 35-5A | 3/47 | 11 Base plate | 3RA19 32-2E | | | 3/47 |
| 18 3-phase busbars | 3RV19 35-1A | 3/47 | 6 Assembly kit | 3RA19 33-2C | | | 3/47 |
| 19 Push-in lug ³⁾ for timing relay screw fixing | 3RP19 03 | 4) | The assembly kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths. | | | | |

1) Use the 3RA19 32-2B base plate for this configuration.
 2) Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.
 3) Not included in the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
 4) See "Monitoring and Control Devices: 3RP, 7PV Timing Relays --> 3RP15 Timing Relays in Industrial Enclosure, 22.5 mm".

* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

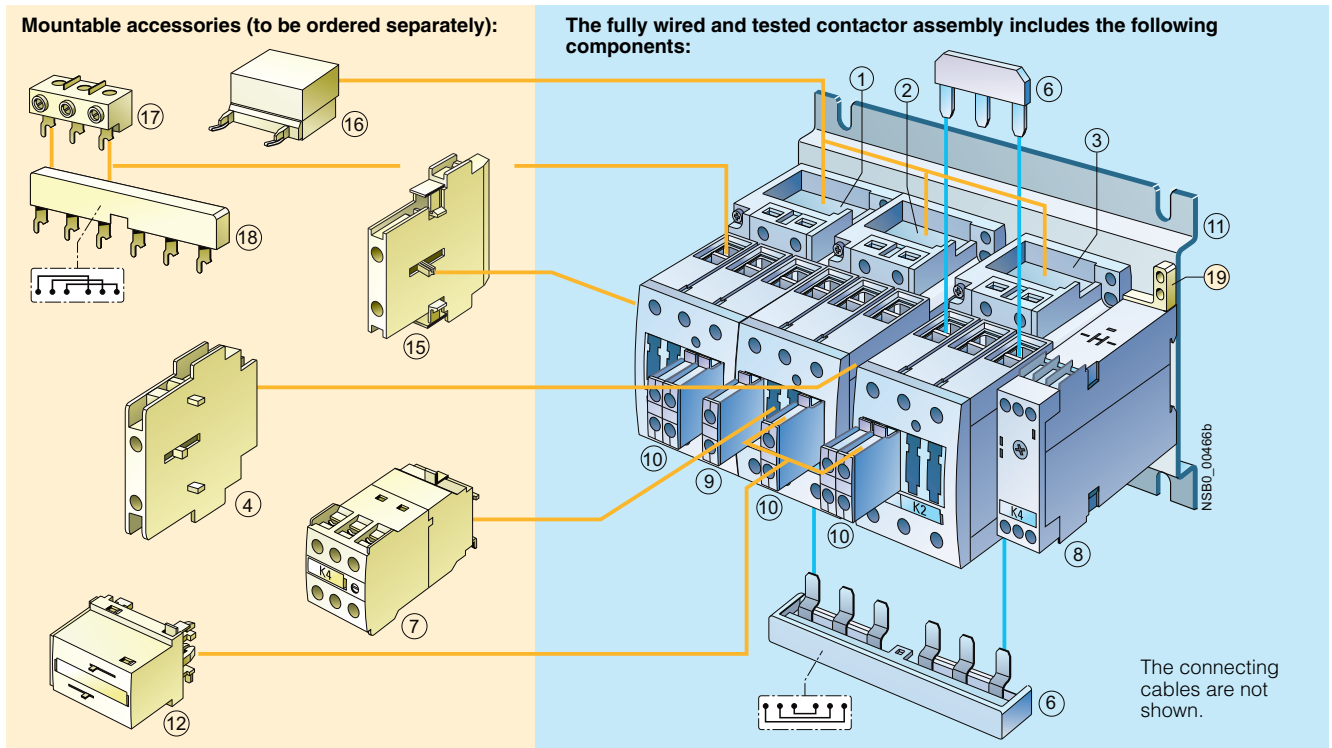
Fully wired and tested contactor assemblies · Size S2-S2-S2 · up to 45 kW



3RA14 3.-8XC21-1...

| Rated data AC-3 | | Rated control supply voltage U_s ¹⁾ | | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|---------------------------------------|--|--|-------|-------|-----------------|--------------|----------------------------|-----|--------|-----------------------|-------|
| Operational current I_e up to 400 V | Ratings of induction motors at 50 Hz and | | | | Order No. | Price per PU | | | | kg | |
| | 230 V | 400 V | 500 V | 690 V | | | | | | | |
| A | kW | kW | kW | kW | V | | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | | |
| 80 | 25 | 37 | 51 | 63 | 24 AC | C | 3RA14 35-8XC21-1AC2 | 1 | 1 unit | 101 | 3.700 |
| | | | | | 110 AC | C | 3RA14 35-8XC21-1AG2 | 1 | 1 unit | 101 | 3.700 |
| | | | | | 230 AC | ▶ | 3RA14 35-8XC21-1AL2 | 1 | 1 unit | 101 | 3.700 |
| 86 | 27 | 45 | 55 | 63 | 24 AC | C | 3RA14 36-8XC21-1AC2 | 1 | 1 unit | 101 | 3.700 |
| | | | | | 110 AC | C | 3RA14 36-8XC21-1AG2 | 1 | 1 unit | 101 | 3.700 |
| | | | | | 230 AC | ▶ | 3RA14 36-8XC21-1AL2 | 1 | 1 unit | 101 | 3.700 |
| DC operation | | | | | | | | | | | |
| 80 | 25 | 37 | 51 | 63 | 24 DC | B | 3RA14 35-8XC21-1BB4 | 1 | 1 unit | 101 | 5.500 |
| 86 | 27 | 45 | 55 | 63 | 24 DC | B | 3RA14 36-8XC21-1BB4 | 1 | 1 unit | 101 | 5.500 |

¹⁾ Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .



| Accessories | Order No. | Page | Individual parts | Order No. | | | Page |
|--|----------------------------------|-----------------|---|----------------------------------|----------|----------|-------|
| | | | | K1 | K3 | K2 | |
| 4 Mechanical interlock, lateral | 3RA19 24-2B | 3/37 | 1 2 3 Contactors, 37 kW | 3RT10 35 | 3RT10 35 | 3RT10 34 | 3/17 |
| 7 Solid-state time-delay auxiliary switch block, front ¹⁾ | 3RT19 26-2G... | 3/105 | 1 2 3 Contactors, 45 kW | 3RT10 36 | 3RT10 36 | 3RT10 34 | 3/17 |
| 12 Mechanical interlock, front | 3RA19 24-1A | 3/37 | 8 Timing relay, lateral | 3RP15 74-1N.30 | | | 3) |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA.. | 3/103 | 9 Auxiliary switch block with 1 unassigned NO contact | 3RH19 21-1CA10 | | | 3/101 |
| 16 Surge suppressors | 3RT19 26-1.... 3RT19 36-1.... | 3/107, 3/108 | 10 Auxiliary switch block for local control - 2 units - 3 units | 3RH19 21-1CA01 3RH19 21-1CA10 | | | 3/101 |
| 17 3-phase feeder terminals | 3RV19 35-5A | 3/47 | 11 Base plate | 3RA19 32-2F | | | 3/47 |
| 18 3-phase busbars | 3RV19 35-1A | 3/47 | 6 Assembly kit | 3RA19 33-2B | | | 3/47 |
| 19 Push-in lug ²⁾ for timing relay screw fixing | 3RP19 03 | 3) | | | | | |

¹⁾ Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

²⁾ Not included in the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

³⁾ See "Monitoring and Control Devices: 3RP, 7PV Timing Relays --> 3RP15 Timing Relays in Industrial Enclosure, 22.5 mm".

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Fully wired and tested contactor assemblies · Size S2-S3-S2 · up to 75 kW

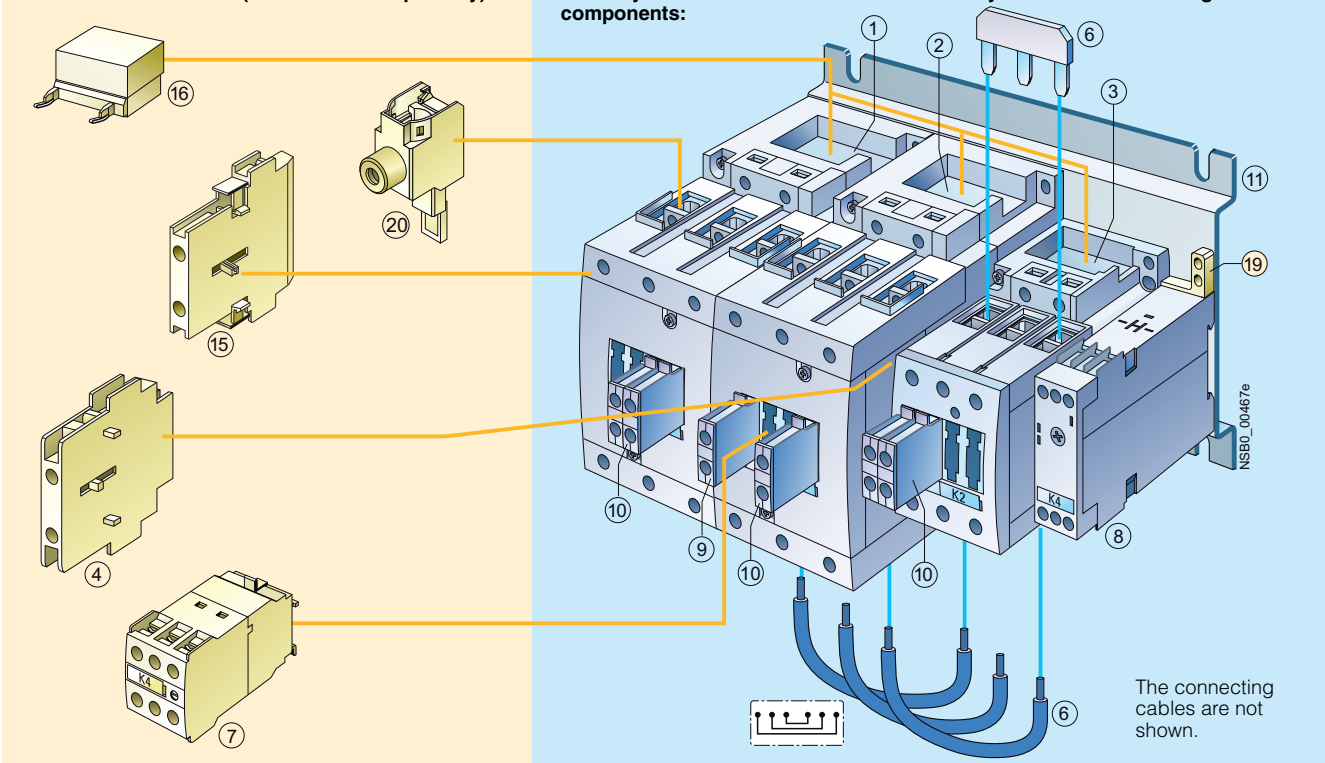
| Rated data AC-3 | | Rated control supply voltage U_s ¹⁾ | | DT | Screw terminals | ⊕ | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|------------------------------------|--|--|-------|-------|-----------------|--------------|----------------------------|-----|--------|-----------------------|-------|
| Operational current I_e at 400 V | Ratings of induction motors at 50 Hz and | | | | Order No. | Price per PU | | | | kg | |
| | 230 V | 400 V | 500 V | 690 V | | | | | | | |
| A | kW | kW | kW | V | | | | | | | |
| AC operation, 50/60 Hz | | | | | | | | | | | |
| 115 | 37 | 55 | 81 | 93 | 24 AC | B | 3RA14 44-8XC21-1AC2 | 1 | 1 unit | 101 | 6.000 |
| | | | | | 110 AC | B | 3RA14 44-8XC21-1AG2 | 1 | 1 unit | 101 | 6.000 |
| | | | | | 230 AC | ▶ | 3RA14 44-8XC21-1AL2 | 1 | 1 unit | 101 | 6.000 |
| 150 | 47 | 75 | 103 | 110 | 24 AC | B | 3RA14 45-8XC21-1AC2 | 1 | 1 unit | 101 | 6.000 |
| | | | | | 110 AC | B | 3RA14 45-8XC21-1AG2 | 1 | 1 unit | 101 | 6.000 |
| | | | | | 230 AC | ▶ | 3RA14 45-8XC21-1AL2 | 1 | 1 unit | 101 | 6.000 |
| DC operation | | | | | | | | | | | |
| 115 | 37 | 55 | 81 | 93 | 24 DC | B | 3RA14 44-8XC21-1BB4 | 1 | 1 unit | 101 | 8.600 |
| 150 | 47 | 75 | 103 | 110 | 24 DC | B | 3RA14 45-8XC21-1BB4 | 1 | 1 unit | 101 | 8.600 |

3RA14 4.-8XC21-1...

¹⁾ Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s .

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



| Accessories | Order No. | Page | Individual parts | Order No. | | | Page |
|--|-----------------|-------|--|----------------|----------|----------|-------|
| | | | | K1 | K3 | K2 | |
| 4 Mechanical interlock, lateral Depth compensation required K3: 0 mm; K2: 27.5 mm ¹⁾ | 3RA19 24-2B | 3/37 | 1 2 3 Contactors, 55 kW 1 2 3 Contactors, 75 kW | 3RT10 44 | 3RT10 44 | 3RT10 35 | 3/17 |
| 7 Solid-state time-delay auxiliary switch block, front ²⁾ | 3RT19 26-2G... | 3/105 | 8 Timing relay, lateral | 3RT10 45 | 3RT10 45 | 3RT10 36 | 3/17 |
| 15 Auxiliary switch block, lateral | 3RH19 21-1EA.. | 3/103 | 9 Auxiliary switch block with 1 unassigned NO contact | 3RH19 21-1CA10 | | | 3/101 |
| 16 Surge suppressors | 3RT19 .6-1. ... | 3/107 | 10 Auxiliary switch block for local control | 3RH19 21-1CA01 | | | 3/101 |
| 19 Push-in lug ³⁾ for timing relay screw fixing | 3RP19 03 | 4) | - 2 units - 3 units | 3RH19 21-1CA10 | | | |
| 20 1-phase feeder terminals | 3RA19 43-3L | 3/47 | 11 Base plate | 3RA19 42-2E | | | 3/47 |
| | | | 6 Assembly kit | 3RA19 43-2C | | | 3/47 |

The connecting cables are not shown.

¹⁾ Use the 3RA19 42-2B base plate for this configuration.
²⁾ Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

³⁾ Not included in the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
⁴⁾ See "Monitoring and Control Devices: 3RP, 7PV Timing Relays --> 3RP15 Timing Relays in Industrial Enclosure, 22.5 mm".

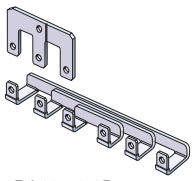
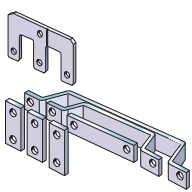
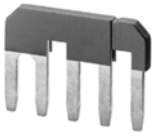
* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

Components for customer assembly

Selection and ordering data

| Version | Size | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|--|--|------------------------|-----------------------|-----------------------|-------------------|--------|-------|--------------------------|
| Assembly kits | | | | | | | | |
| The assembly kit contains: mechanical interlock; 3 connecting clips, star jumper, wiring modules on the top and bottom | S00-S00-S00 | ▶ | 3RA19 13-2B | | 1 | 1 unit | 101 | 0.050 |
| The assembly kit contains: 5 connecting clips, star jumper, wiring modules on the top and bottom | S0-S0-S0 | ▶ | 3RA19 23-2B | | 1 | 1 unit | 101 | 0.060 |
| The assembly kit contains: star jumper, wiring module on the bottom (Wiring module on the top is not included in the scope of supply. A double infeed between the line contactor and the delta contactor is recommended.) | S2-S2-S0 | ▶ | 3RA19 33-2C | | 1 | 1 unit | 101 | 0.060 |
| | S2-S2-S2 | ▶ | 3RA19 33-2B | | 1 | 1 unit | 101 | 0.070 |
| | S3-S3-S2 | ▶ | 3RA19 43-2C | | 1 | 1 unit | 101 | 0.140 |
| | S3-S3-S3 | ▶ | 3RA19 43-2B | | 1 | 1 unit | 101 | 0.160 |
| | S6-S6-S6 | A | 3RA19 53-2B | | 1 | 1 unit | 101 | 0.850 |
|  3RA19 53-2B | S6-S6-S6 | A | 3RA19 53-2N | | 1 | 1 unit | 101 | 0.600 |
| | S10-S10-S10 | A | 3RA19 63-2B | | 1 | 1 unit | 101 | 1.800 |
| | S12-S12-S12 | B | 3RA19 73-2B | | 1 | 1 unit | 101 | 2.200 |
|  3RA19 53-2N, 3RA19 63-2B, 3RA19 73-2B | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 1-phase feeder terminals | | | | | | | | |
| Conductor cross-section: 95 mm ² | S3 | A | 3RA19 43-3L | | 1 | 1 unit | 101 | 0.280 |
| 3-phase feeder terminals | | | | | | | | |
| Feeder terminal block for the line contactor for large conductor cross-sections | | | | | | | | |
| Conductor cross-section: 6 mm ² | S00 | ▶ | 3RA19 13-3K | | 1 | 1 unit | 101 | 0.020 |
| Conductor cross-section: 25 mm ² | S0 | ▶ | 3RV19 15-5A | | 1 | 1 unit | 101 | 0.040 |
| Conductor cross-section: 50 mm ² | S2 | ▶ | 3RV19 35-5A | | 1 | 1 unit | 101 | 0.110 |
| 3-phase busbars | | | | | | | | |
| Bridging phase-by-phase of all input terminals of | | | | | | | | |
| the line contactor (K1) and the delta contactor (K3) | S0 | D | 3RT19 26-4CC20 | | 1 | 1 unit | 101 | 0.030 |
| | S2 | ▶ | 3RV19 35-1A | | 1 | 1 unit | 101 | 0.150 |
| Links for paralleling, 3-pole (star jumpers) | | | | | | | | |
|  3RT19 26-4BA31 | Without connection terminal (the links for paralleling can be reduced by one pole) | S00 | ▶ | 3RT19 16-4BA31 | 1 | 1 unit | 101 | 0.010 |
| | | S0 | ▶ | 3RT19 26-4BA31 | 1 | 1 unit | 101 | 0.010 |
| | | S2 | ▶ | 3RT19 36-4BA31 | 1 | 1 unit | 101 | 0.020 |
| | | S3 | ▶ | 3RT19 46-4BA31 | 1 | 1 unit | 101 | 0.030 |
| | | S6¹⁾ | ▶ | 3RT19 56-4BA31 | 1 | 1 unit | 101 | 0.160 |
| | S10, S12¹⁾ | ▶ | 3RT19 66-4BA31 | 1 | 1 unit | 101 | 0.500 | |
| Base plates | | | | | | | | |
| For customer assembly of contactor assemblies for wye-delta starting with a laterally mounted timing relay | | | | | | | | |
| Side-by-side mounting | S2, S2, S0 | B | 3RA19 32-2E | | 1 | 1 unit | 101 | 0.450 |
| 10 mm distance between K3 and K2 | S2, S2, S2 | B | 3RA19 32-2F | | 1 | 1 unit | 101 | 0.480 |
| Side-by-side mounting | S3, S3, S2 | B | 3RA19 42-2E | | 1 | 1 unit | 101 | 0.870 |
| 10 mm distance between K1, K3 and K2 | S6, S6, S3 | B | 3RA19 52-2E | | 1 | 1 unit | 101 | 1.800 |
| | S6, S6, S6 | B | 3RA19 52-2F | | 1 | 1 unit | 101 | 1.950 |
| | S10, S10, S6 | B | 3RA19 62-2E | | 1 | 1 unit | 101 | 3.180 |
| | S10, S10, S10 | B | 3RA19 62-2F | | 1 | 1 unit | 101 | 3.400 |
| | S12, S12, S10 | B | 3RA19 72-2E | | 1 | 1 unit | 101 | 3.600 |
| | S12, S12, S12 | B | 3RA19 72-2F | | 1 | 1 unit | 101 | 3.700 |
| For customer assembly of contactor assemblies for wye-delta starting with a front-mounted timing relay, 10 mm distance between K1, K3 and K2 | S2, S2, S0 | B | 3RA19 32-2B | | 1 | 1 unit | 101 | 0.450 |
| | S2, S2, S2 | B | 3RA19 32-2B | | 1 | 1 unit | 101 | 0.450 |
| | S3, S3, S2 | B | 3RA19 42-2B | | 1 | 1 unit | 101 | 0.700 |

¹⁾ The 3RT19 56-4EA1 (S6) or 3RT19 66-4EA1 (S10, S12) cover can be used for touch protection.

* You can order this quantity or a multiple thereof.

3TD, 3TE Contactor Assemblies

3TD6 reversing contactor assemblies, 335 kW

Overview

The contactor assemblies are suitable for use in any climate and the contactors are mechanically interlocked. They are finger-safe according to EN 50274.

Complete units and components for customer assembly are available. For motor protection, either overload relays for stand-alone installation or thermistor motor protection tripping units must be ordered separately.

Complete units


3TD68 contactor assemblies each consist of two mechanically interlocked 3TF68 contactors. Electrical interlocking is wired. The main and control circuits are wired according to the schematics.

An internal circuit diagram, a type designation and a unit labeling plate are provided on a common cover.

Auxiliary contacts

The contactor assemblies each have 2 NO + 2 NC contacts per individual contactor. 1 NO + 1 NC contacts with momentary-contact operation and 2 NO + 1 NC contacts with continuous operation are unassigned.

Selection and ordering data

| Size | Rated data AC-3 | | | | Auxiliary contacts per direction of rotation | | Rated control supply voltage U_s | DT | Screw terminals  | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|-------------------------------|---------------------------------|--|-------|-------|--|---------|------------------------------------|----------------------------|---|--------------------------------|-------------------|------------------|------------|-----------------------|
| | Operational current I_e up to | Ratings of induction motors at 50 Hz and | | | | Version | | | Order No. | Price per PU | | | | |
| A | 690 V | 230 V | 400 V | 500 V | 690 V | NO | NC | V AC | | | | | | kg |
| Complete units | | | | | | | | | | | | | | |
| <i>AC operation, 50/60 Hz</i> | | | | | | | | | | | | | | |
| 14 | 630 | 200 | 335 | 434 | 600 | 4 | 4 | 110 ... 132 200 ... 240 | C C | 3TD68 04-2CF7 3TD68 04-2CM7 | 1 1 | 1 unit 1 unit | 101 101 | 56,000 56,000 |

3TD, 3TE Contactor Assemblies

3TE6 contactor assemblies for wye-delta starting, 630 kW

Overview

The contactor assemblies are suitable for use in any climate. They are finger-safe according to EN 50274.

3TE contactor assemblies are available as complete units and components for customer assembly.


The complete unit combinations are optionally supplied without a main conducting path connection between the line contactor and the delta contactor.

Motor protection

3TE68 contactor assemblies are supplied without overload protection. Overload relays or thermistor motor protection tripping units must be ordered separately.

The overload relay can be either mounted onto the line contactor or separately fitted. It must be set to 0.58 times the rated motor current.

Selection and ordering data

| Size | Rated data AC-3 | | | | | Rated control supply voltage U_s | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|---------------------------------|--|--------------|-------|-------|------------------------------------|----|---|-------------------|-----|----|-----------------------|
| | Operational current I_e up to | Ratings of induction motors at 50 Hz and | | | | | | | | | | |
| | 690 V | 230 V | 400 V | 500 V | 690 V | | | Order No. | Price per PU | | | |
| | A | kW | kW | kW | kW | V AC | | | | | | kg |

Complete units, reversing time up to 10 s

AC operation, 50 Hz

Without main conducting path connection between line and delta contactor

| | | | | | | | | | | | | |
|-----------|------|-----|------------|-----|------|-----------------------|---|----------------------|---|--------|-----|--------|
| 14 | 1090 | 315 | 630 | 800 | 1000 | 110 | C | 3TE68 04-5CF0 | 1 | 1 unit | 101 | 58,000 |
| | | | | | | 230/220 ¹⁾ | D | 3TE68 04-5CP0 | 1 | 1 unit | 101 | 58,000 |

For motor protection, overload relays for stand-alone installation must be ordered separately, see "Protection Equipment --> Overload Relays --> 3RB2 Solid-State Overload Relays".

¹⁾ Operating range at 220 V:
0.85 ... 1.15 x U_s ;
lower operating range limit according to IEC 60947.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT14 Contactors for Switching Resistive Loads (AC-1)

3-pole, 140 ... 690 A

Overview

AC and DC operation (size S3)

UC operation (AC/DC) (sizes S6 to S12)

IEC 60947, EN 60947 (VDE 0660)


The contactors are suitable for use in any climate. They are finger-safe according to EN 50274.

3RT14 contactors are used for switching resistive loads (AC-1) or as contactors, for example, for variable-speed operating mechanisms that normally only have to carry the current.

The accessories for the 3RT10 contactors can also be used here.

For more detailed descriptions about the sizes S3 to S12, see [3RT10 Contactors, 3-pole, 3 to 250 kW](#).

Selection and ordering data

| Size | Rated data AC-1, $T_U: 40\text{ °C}$ | Rated control supply voltage U_s | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|---|--|----|---|-------------------|-----|----|-----------------------|
| | Operational current I_e Up to 690 V A | Ratings of AC loads (p.f. = 0.95) at 230 V 400 V 500 V 690 V kW kW kW kW V | | Order No. | Price per PU | | | kg |

For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail



3RT14 46-1A...0

AC operation

| Size | I_e (A) | 230 V (kW) | 400 V (kW) | 500 V (kW) | 690 V (kW) | Rated control supply voltage U_s (V) | DT | Order No. | PU | PS* | PG | Weight per PU approx. (kg) |
|------|-----------|------------|------------|------------|------------|--|----|----------------|----|--------|-----|----------------------------|
| S3 | 140 | 53 | 92 | 115 | 159 | 24 AC, 50 Hz | B | 3RT14 46-1AB00 | 1 | 1 unit | 101 | 1.850 |
| | | | | | | | | 3RT14 46-1AF00 | 1 | 1 unit | 101 | 1.850 |
| | | | | | | | | 3RT14 46-1AP00 | 1 | 1 unit | 101 | 1.850 |

DC operation · DC solenoid system


| | | | | | | | | | | | | |
|----|-----|----|----|-----|-----|-------|---|----------------|---|--------|-----|-------|
| S3 | 140 | 53 | 92 | 115 | 159 | 24 DC | B | 3RT14 46-1BB40 | 1 | 1 unit | 101 | 2.800 |
| | | | | | | | | 3RT14 46-1BM40 | 1 | 1 unit | 101 | 2.800 |

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT14 Contactors for Switching Resistive Loads (AC-1)

3-pole, 140 ... 690 A

AC/DC operation (40 Hz to 60 Hz, DC)
 Auxiliary and control conductors: screw terminals
 Withdrawable coils
 Integrated coil circuit (Varistor)
 Main conductors: busbar connections

| Size | Rated data AC-1, T_U : 40 °C | | | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|--|--------------------------------------|----|----|--------------------|---------|------------------------------------|-----------|---|-------------------|-----|----|-----------------------|
| | Operational current I_e Up to 690 V | Ratings of AC loads (p.f. = 0.95) at | | | | Version | | | | | | | |
| A | kW | kW | kW | kW | NO | NC | V | Order No. | Price per PU | | | | |

Conventional operating mechanisms



3RT14 6.

| | | | | | | | | | | | | | |
|------------|------------|-----|-----|-----|-----|---|---|--------------------------------|--|--------|------------------|------------|------------------|
| S6 | 275 | 105 | 180 | 225 | 310 | 2 | 2 | 110 ... 127 ▶ 220 ... 240 ▶ | 3RT14 56-6AF36 3RT14 56-6AP36 | 1 1 | 1 unit 1 unit | 101 101 | 3.360 3.360 |
| S10 | 400 | 151 | 263 | 329 | 454 | 2 | 2 | 110 ... 127 ▶ 220 ... 240 ▶ | 3RT14 66-6AF36 3RT14 66-6AP36 | 1 1 | 1 unit 1 unit | 101 101 | 6.600 6.600 |
| S12 | 690 | 261 | 454 | 568 | 783 | 2 | 2 | 110 ... 127 A 220 ... 240 ▶ | 3RT14 76-6AF36 3RT14 76-6AP36 | 1 1 | 1 unit 1 unit | 101 101 | 10.500 10.500 |

Solid-state operating mechanisms · for 24 V DC PLC output

| | | | | | | | | | | | | | |
|------------|------------|-----|-----|-----|-----|---|---|-------------------------------|--|--------|------------------|------------|------------------|
| S6 | 275 | 105 | 180 | 225 | 310 | 2 | 2 | 96 ... 127 B 200 ... 277 A | 3RT14 56-6NF36 3RT14 56-6NP36 | 1 1 | 1 unit 1 unit | 101 101 | 3.400 3.400 |
| S10 | 400 | 151 | 263 | 329 | 454 | 2 | 2 | 96 ... 127 B 200 ... 277 A | 3RT14 66-6NF36 3RT14 66-6NP36 | 1 1 | 1 unit 1 unit | 101 101 | 6.600 6.600 |
| S12 | 690 | 261 | 454 | 568 | 783 | 2 | 2 | 96 ... 127 B 200 ... 277 A | 3RT14 76-6NF36 3RT14 76-6NP36 | 1 1 | 1 unit 1 unit | 101 101 | 10.500 10.500 |

Solid-state operating mechanisms · for 24 V DC PLC output/PLC relay output, with remaining lifetime indicator (RLT)

| | | | | | | | | | | | | | |
|------------|------------|-----|-----|-----|-----|---|---|-------------------------------|--|--------|------------------|------------|----------------|
| S6 | 275 | 105 | 180 | 225 | 310 | 1 | 1 | 96 ... 127 B 200 ... 277 B | 3RT14 56-6PF35 3RT14 56-6PP35 | 1 1 | 1 unit 1 unit | 101 101 | 4.200 4.200 |
| S10 | 400 | 151 | 263 | 329 | 454 | 1 | 1 | 200 ... 277 B | 3RT14 66-6PP35 | 1 | 1 unit | 101 | 5.700 |
| S12 | 690 | 261 | 454 | 568 | 783 | 1 | 1 | 200 ... 277 B | 3RT14 76-6PP35 | 1 | 1 unit | 101 | 10.500 |

Solid-state operating mechanisms · with AS-Interface and remaining lifetime indicator (RLT)

| | | | | | | | | | | | | | |
|------------|------------|-----|-----|-----|-----|---|---|-------------------------------|--|--------|------------------|------------|----------------|
| S6 | 275 | 105 | 180 | 225 | 310 | 1 | 1 | 96 ... 127 B 200 ... 277 B | 3RT14 56-6QF35 3RT14 56-6QP35 | 1 1 | 1 unit 1 unit | 101 101 | 3.100 3.100 |
| S10 | 400 | 151 | 263 | 329 | 454 | 1 | 1 | 200 ... 277 B | 3RT14 66-6QP35 | 1 | 1 unit | 101 | 5.700 |
| S12 | 690 | 261 | 454 | 568 | 783 | 1 | 1 | 200 ... 277 B | 3RT14 76-6QP35 | 1 | 1 unit | 101 | 10.500 |

For other voltages see page 3/26.
 For accessories, see page 3/100.
 For spare parts, see page 3/114.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT13 Contactors for Switching Resistive Loads (AC-1)

4-pole, 4 NO, 18 ... 140 A

Overview

AC and DC operation

EN 60947-4-1 (VDE 0660, Part 102).

The contactors are suitable for use in any climate. They are finger-safe according to EN 50274.

The accessories for the 3-pole SIRIUS contactors can also be used for the 4-pole versions.

The contactors are also suitable for switching mixed loads in distribution systems (e. g. for supplying heaters, lamps, motors, PC power supply units) with p.f. > 0.8 according to IEC 60947-4-1 test conditions for utilization category AC-1.

Selection and ordering data

AC operation, 4 NO contacts

PU (UNIT, SET, M)= 1
PS* = 1 unit
PG = 101



3RT13 1.-1A.00



3RT13 2.-1A.00

| Rated data AC-1, T_{ij} : 40/60 °C | Rated control supply voltage U_s | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|---|--|------|-----------------|-----------------------|----|----------------------|-----------------------|
| Operational current I_e | Ratings of AC loads (p.f. = 0.95) at 50 Hz and 400 V | | Order No. | Price per PU | | Order No. | Price per PU |
| A | kW | V AC | | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00¹⁾

| | | | | | | |
|---------|------------------|-----------------|-----------------------|---------|-----------------------|-------|
| 18 / 16 | 12 / 11 | 24, 50/60 Hz ▶ | 3RT13 16-1AB00 | 0.200 B | 3RT13 16-2AB00 | 0.200 |
| | | 110, 50/60 Hz ▶ | 3RT13 16-1AF00 | 0.200 B | 3RT13 16-2AF00 | 0.200 |
| | | 230, 50/60 Hz ▶ | 3RT13 16-1AP00 | 0.200 B | 3RT13 16-2AP00 | 0.200 |
| 22 / 20 | 14.5 / 13 | 24, 50/60 Hz ▶ | 3RT13 17-1AB00 | 0.200 B | 3RT13 17-2AB00 | 0.200 |
| | | 110, 50/60 Hz ▶ | 3RT13 17-1AF00 | 0.200 B | 3RT13 17-2AF00 | 0.200 |
| | | 230, 50/60 Hz ▶ | 3RT13 17-1AP00 | 0.200 B | 3RT13 17-2AP00 | 0.200 |

Size S0

| | | | | | | |
|-----------------------|----------------|--------------|-----------------------|-------|----|--|
| 35 / 30 ²⁾ | 22 / 20 | 24, 50 Hz ▶ | 3RT13 25-1AB00 | 0.400 | -- | |
| | | 110, 50 Hz ▶ | 3RT13 25-1AF00 | 0.400 | -- | |
| | | 230, 50 Hz ▶ | 3RT13 25-1AP00 | 0.400 | -- | |
| 40 / 35 ²⁾ | 26 / 23 | 24, 50 Hz ▶ | 3RT13 26-1AB00 | 0.400 | -- | |
| | | 110, 50 Hz ▶ | 3RT13 26-1AF00 | 0.400 | -- | |
| | | 230, 50 Hz ▶ | 3RT13 26-1AP00 | 0.400 | -- | |

Size S2

| | | | | | | |
|---------|----------------|--------------|-----------------------|-------|----|--|
| 60 / 55 | 39 / 36 | 24, 50 Hz ▶ | 3RT13 36-1AB00 | 0.990 | -- | |
| | | 110, 50 Hz ▶ | 3RT13 36-1AF00 | 0.990 | -- | |
| | | 230, 50 Hz ▶ | 3RT13 36-1AP00 | 0.990 | -- | |

Size S3

| | | | | | | |
|-----------|----------------|--------------|-----------------------|-------|----|--|
| 110 / 100 | 72 / 66 | 24, 50 Hz ▶ | 3RT13 44-1AB00 | 2.200 | -- | |
| | | 110, 50 Hz ▶ | 3RT13 44-1AF00 | 2.200 | -- | |
| | | 230, 50 Hz ▶ | 3RT13 44-1AP00 | 2.200 | -- | |
| 140 / 120 | 92 / 79 | 24, 50 Hz ▶ | 3RT13 46-1AB00 | 2.200 | -- | |
| | | 110, 50 Hz ▶ | 3RT13 46-1AF00 | 2.200 | -- | |
| | | 230, 50 Hz ▶ | 3RT13 46-1AP00 | 2.200 | -- | |

Size S00:

Snap-on auxiliary switch blocks according to EN 50005.

Sizes S0 to S3:

Snap-on auxiliary switch blocks according to EN 50012 and EN 50005 (for S0 max. 2 auxiliary contacts, please note information in Technical Information LV 1 T).

For other voltages see page 3/26.

For accessories, see page 3/100.

For spare parts, see page 3/114.

¹⁾ For size S00: Coil operating range at 50 Hz: 0.8 ... 1.1 × U_s , at 60 Hz: 0.85 ... 1.1 × U_s .

²⁾ Minimum conductor cross-section 10 mm².

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT13 Contactors for Switching Resistive Loads (AC-1)

4-pole, 4 NO, 18 ... 140 A

DC operation - DC solenoid system, 4 NO contacts

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT13 1.-2B...0



3RT13 36-1...0



3RT13 4.-1...0

| Rated data AC-1, T_U : 40/60 °C | | Rated control supply voltage U_s | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|--------------------------------------|--|--|----|-----------------|-----------------|-----------------------------|----|-------------------------|-----------------|-----------------------------|
| Operational current I_e | Ratings of AC loads (p.f. = 0.95) at 50 Hz and 400 V | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| A | kW | V DC | | | kg | | | | kg | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

| | | | | | | | | |
|---------|------------------|-----|---|-----------------------|-------|---|-----------------------|-------|
| 18 / 16 | 12 / 11 | 24 | ▶ | 3RT13 16-1BB40 | 0.250 | ▶ | 3RT13 16-2BB40 | 0.250 |
| | | 220 | B | 3RT13 16-1BM40 | 0.250 | B | 3RT13 16-2BM40 | 0.250 |
| 22 / 20 | 14.5 / 13 | 24 | ▶ | 3RT13 17-1BB40 | 0.250 | A | 3RT13 17-2BB40 | 0.250 |
| | | 220 | B | 3RT13 17-1BM40 | 0.250 | B | 3RT13 17-2BM40 | 0.250 |

Size S0

| | | | | | | | | |
|-----------------------|----------------|-----|---|-----------------------|-------|----|--|--|
| 35 / 30 ¹⁾ | 22 / 20 | 24 | ▶ | 3RT13 25-1BB40 | 0.630 | -- | | |
| | | 220 | B | 3RT13 25-1BM40 | 0.630 | -- | | |
| 40 / 35 ¹⁾ | 26 / 23 | 24 | ▶ | 3RT13 26-1BB40 | 0.630 | -- | | |
| | | 220 | B | 3RT13 26-1BM40 | 0.630 | -- | | |

Size S2

| | | | | | | | | |
|---------|----------------|-----|---|-----------------------|-------|----|--|--|
| 60 / 55 | 39 / 36 | 24 | ▶ | 3RT13 36-1BB40 | 1.600 | -- | | |
| | | 220 | B | 3RT13 36-1BM40 | 1.600 | -- | | |

Size S3

| | | | | | | | | |
|-----------|----------------|-----|---|-----------------------|-------|----|--|--|
| 110 / 100 | 72 / 66 | 24 | B | 3RT13 44-1BB40 | 3.200 | -- | | |
| | | 220 | B | 3RT13 44-1BM40 | 3.200 | -- | | |
| 140 / 120 | 92 / 79 | 24 | B | 3RT13 46-1BB40 | 3.200 | -- | | |
| | | 220 | B | 3RT13 46-1BM40 | 3.200 | -- | | |

Size S00:

Snap-on auxiliary switch blocks according to EN 50005.

Sizes S0 to S3:

Snap-on auxiliary switch blocks according to EN 50012 and EN 50005
(for S0 max. 2 auxiliary contacts, please note information in Technical Information LV 1 T).

For other voltages see page 3/26.

For accessories, see page 3/100.

For spare parts, see page 3/114.

1) Minimum conductor cross-section 10 mm².

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TK1 Contactors for Switching Resistive Loads (AC-1)

4-pole, 4 NO, 200 ... 1000 A

Overview

EN 60947-4-1 (VDE 0660 Part 102)

The contactors also comply with the requirements of NFC 63-110 and NFC 20-040.

The contactors are suitable for use in any climate. They are finger-safe according to EN 50274. Terminal covers may have to be fitted onto the connecting bars, depending on the configuration with other devices.

The contactors are also suitable for switching mixed loads in distribution systems (e. g. for supplying heaters, lamps, motors, PC power supply units) with p.f. > 0.8 according to IEC 60947-4-1 test conditions for utilization category AC-1.

Solenoid coils for 3TK10 to 3TK13 contactors: as withdrawable coils.

Surge suppression

Control circuit

Solenoid coils for 3TK1 contactors: can be retrofitted with RC elements.

Selection and ordering data

Screw terminals

Screw fixing



3TK13

| Rated data AC-1 | | | | | Auxiliary contacts | | Rated control supply voltage U_s | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|--|-------------------------------------|-------|-------|--------|--------------------|----|------------------------------------|----|----------------------|-------------------|-----|--------|-----------------------|--------|
| Operational current I_e up to 690 V (at 40 °C) | Rating of AC loads (p.f. = 0.95) at | | | | Version | | V AC | | Order No. | Price per PU | | | kg | |
| | 230 V | 400 V | 690 V | 1000 V | NO | NC | | | | | | | | |
| A | kW | kW | kW | kW | | | | | | | | | | |
| AC operation | | | | | | | | | | | | | | |
| 200 | 75 | 130 | 225 | 205 | 2 | 2 | 220 ... 230, 50 Hz | B | 3TK10 42-0AP0 | | 1 | 1 unit | 101 | 4.400 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK10 42-0AU0 | | 1 | 1 unit | 101 | 4.400 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK10 42-0AF0 | | 1 | 1 unit | 101 | 4.400 |
| | | | | | | | 24, 50 Hz | D | 3TK10 42-0AB0 | | 1 | 1 unit | 101 | 4.400 |
| 250 | 90 | 165 | 280 | 200 | 2 | 2 | 220 ... 230, 50 Hz | B | 3TK11 42-0AP0 | | 1 | 1 unit | 101 | 4.700 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK11 42-0AU0 | | 1 | 1 unit | 101 | 4.700 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK11 42-0AF0 | | 1 | 1 unit | 101 | 4.700 |
| | | | | | | | 24, 50 Hz | D | 3TK11 42-0AB0 | | 1 | 1 unit | 101 | 4.700 |
| 300 | 110 | 195 | 340 | 325 | 2 | 2 | 220 ... 230, 50 Hz | B | 3TK12 42-0AP0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK12 42-0AU0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK12 42-0AF0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 24, 50 Hz | D | 3TK12 42-0AB0 | | 1 | 1 unit | 101 | 7.200 |
| 350 | 130 | 230 | 395 | 370 | 2 | 2 | 220 ... 230, 50 Hz | B | 3TK13 42-0AP0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK13 42-0AU0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK13 42-0AF0 | | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | 24, 50 Hz | D | 3TK13 42-0AB0 | | 1 | 1 unit | 101 | 7.200 |
| 550 | 205 | 360 | 620 | 510 | 2 | 2 | 220 ... 230, 50 Hz ¹⁾ | B | 3TK14 42-0AP0 | | 1 | 1 unit | 101 | 19.000 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK14 42-0AU0 | | 1 | 1 unit | 101 | 19.000 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK14 42-0AF0 | | 1 | 1 unit | 101 | 19.000 |
| 800 | 300 | 525 | 905 | 575 | 2 | 2 | 220 ... 230, 50 Hz ¹⁾ | B | 3TK15 42-0AP0 | | 1 | 1 unit | 101 | 19.000 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK15 42-0AU0 | | 1 | 1 unit | 101 | 19.000 |
| | | | | | | | 110/120, 50/60 Hz | D | 3TK15 42-0AF0 | | 1 | 1 unit | 101 | 19.000 |
| 1000 | 375 | 655 | 1135 | -- | 2 | 2 | 220 ... 230, 50 Hz ¹⁾ | B | 3TK17 42-0AP0 | | 1 | 1 unit | 101 | 20.100 |
| | | | | | | | 230 ... 240, 50 Hz | D | 3TK17 42-0AU0 | | 1 | 1 unit | 101 | 20.100 |
| | | | | | | | 110/120 50/60 Hz | D | 3TK17 42-0AF0 | | 1 | 1 unit | 101 | 20.100 |

For accessories, see page 3/119 onwards.

For spare parts, see page 3/127 onwards.

¹⁾ At 60 Hz: 240 V.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TK20 Contactors

4-pole, 4 kW

Overview

AC and DC operation

IEC 60947 (VDE 0660).

The contactors are suitable for use in any climate.

The contactors with screw terminals are finger-safe according to EN 50274.

The contactors are available in versions with screw terminals, 6.3 mm plug-in terminals and solder pin connections for soldering in printed circuit boards.

Application

The main area of application for the 3TK2 contactors with flat connectors is in household equipment. These contactors are also suitable for simple electric controllers. No auxiliary switch blocks can be retrofitted.

Selection and ordering data

Size 00

AC-1: operational current $I_e = 16 A$ (at 55 °C)

| Rated data | | Utilization categories AC-2 and AC-3 | | | | Main contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|--|--------------------------------------|-------|-----------|---------|---------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Operational current I_e at 400/380 V | Ratings of induction motors at 50 Hz and | | | | Version | | | | | | | kg | |
| | 230/220 V | 400/380 V | 500 V | 690/660 V | NO | NC | | | | | | | |
| A | kW | kW | kW | kW | | | | | | | | | |

Contactors with screw terminals for screw and snap-on mounting onto 35 mm standard mounting rail



3TK20...-0...

AC operation

| 9 | 2.4 | 4 | 4 | 4 | 4 | -- | C | 3TK20 40-0AP0 | 1 | 1 unit | 101 | 0.190 |
|---|-----|---|---|---|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-0AP0 | 1 | 1 unit | 101 | 0.190 |
| | | | | | 2 | 2 | C | 3TK20 22-0AP0 | 1 | 1 unit | 101 | 0.190 |

DC operation · DC solenoid system

| 9 | 2.4 | 4 | 4 | 4 | 4 | -- | C | 3TK20 40-0BB4 | 1 | 1 unit | 101 | 0.210 |
|---|-----|---|---|---|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-0BB4 | 1 | 1 unit | 101 | 0.210 |
| | | | | | 2 | 2 | C | 3TK20 22-0BB4 | 1 | 1 unit | 101 | 0.210 |

Contactors with screw terminals 6.3 mm x 0.8 mm for screw and snap-on mounting onto 35 mm standard mounting rail



3TK20...-3...

AC operation

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-3AP0 | 1 | 1 unit | 101 | 0.170 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-3AP0 | 1 | 1 unit | 101 | 0.170 |
| | | | | | 2 | 2 | C | 3TK20 22-3AP0 | 1 | 1 unit | 101 | 0.170 |

DC operation · DC solenoid system

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-3BB4 | 1 | 1 unit | 101 | 0.190 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-3BB4 | 1 | 1 unit | 101 | 0.190 |
| | | | | | 2 | 2 | C | 3TK20 22-3BB4 | 1 | 1 unit | 101 | 0.190 |

Contactors with flat connectors 6.3 mm x 0.8 mm for screw fixing (diagonal)



3TK20...-7...

AC operation

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-7AP0 | 1 | 1 unit | 101 | 0.170 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-7AP0 | 1 | 1 unit | 101 | 0.170 |
| | | | | | 2 | 2 | C | 3TK20 22-7AP0 | 1 | 1 unit | 101 | 0.170 |

DC operation · DC solenoid system

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-7BB4 | 1 | 1 unit | 101 | 0.190 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-7BB4 | 1 | 1 unit | 101 | 0.190 |
| | | | | | 2 | 2 | C | 3TK20 22-7BB4 | 1 | 1 unit | 101 | 0.190 |

Contactors with solder pin connections for printed circuit boards¹⁾ for screw fixing (diagonal)



3TK20...-6...

AC operation

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-6AP0 | 1 | 1 unit | 101 | 0.170 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-6AP0 | 1 | 1 unit | 101 | 0.170 |
| | | | | | 2 | 2 | C | 3TK20 22-6AP0 | 1 | 1 unit | 101 | 0.170 |

DC operation · DC solenoid system

| 9 | 2.4 | 4 | 4 | -- | 4 | -- | C | 3TK20 40-6BB4 | 1 | 1 unit | 101 | 0.190 |
|---|-----|---|---|----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 3 | 1 | C | 3TK20 31-6BB4 | 1 | 1 unit | 101 | 0.190 |
| | | | | | 2 | 2 | C | 3TK20 22-6BB4 | 1 | 1 unit | 101 | 0.190 |

For accessories, see page 3/122.

¹⁾ Operating range at AC-1 220 V: 0.85 to 1.15 x U_s ; lower operating range limit according to IEC 60947.

* You can order this quantity or a multiple thereof.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TK20 Contactors

4-pole, 4 kW

*Rated control supply voltages
(the 10th and 11th position of the order number must be
changed)*

| Contactor type | | 3TK20 |
|---|--------------|------------------|
| Rated control supply voltage U_s | | |
| AC operation | | |
| Solenoid coils for AC 50 and 60 Hz | | |
| 50 Hz | 60 Hz | |
| 230/220 V AC | 276 V AC | P0 ¹⁾ |
| DC operation | | |
| 24 V DC | | B4 |

¹⁾ Operating range at 220 V:
0.85 to 1.15 x U_s ; lower operating range limit according to IEC 60947.

[Please inquire about other voltages.](#)

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT15 Contactors

4-pole, 2 NO + 2 NC, 4 ... 18.5 kW

Overview

AC and DC operation

EN 60947-4-1 (VDE 0660, Part 102).

The contactors are suitable for use in any climate. They are finger-safe according to EN 50274.

The accessories for the 3-pole SIRIUS contactors can also be used for the 4-pole versions.

Selection and ordering data

AC and DC operation, 2 NO contacts + 2 NC contacts¹⁾

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT15 1.-1....



3RT15 1.-2....



3RT15 26-1....

| Rated data | | Rated control supply voltage U_s | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|-----------------------------------|--|------------------------------------|----|-----------------|-----------------------|----|----------------------|-----------------------|
| AC-2/AC-3, T_U : Up to 60 °C | AC-1, T_U : 40/60 °C | | | | | | | |
| Operational current I_e | Rating of induction motors at 50 Hz and at 400 V | Operational current I_e | | Order No. | Price per PU | | Order No. | Price per PU |
| A | kW | A | V | | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

AC operation

Size S00²⁾

| | | | | | | | | | |
|----|-----|---------|---------------|---|----------------|-------|---|----------------|-------|
| 9 | 4 | 18 / 16 | 24, 50/60 Hz | B | 3RT15 16-1AB00 | 0.200 | B | 3RT15 16-2AB00 | 0.200 |
| | | | 110, 50/60 Hz | B | 3RT15 16-1AF00 | 0.200 | B | 3RT15 16-2AF00 | 0.200 |
| | | | 230, 50/60 Hz | ▶ | 3RT15 16-1AP00 | 0.200 | B | 3RT15 16-2AP00 | 0.200 |
| 12 | 5.5 | 22 / 20 | 24, 50/60 Hz | A | 3RT15 17-1AB00 | 0.200 | B | 3RT15 17-2AB00 | 0.200 |
| | | | 110, 50/60 Hz | ▶ | 3RT15 17-1AF00 | 0.200 | B | 3RT15 17-2AF00 | 0.200 |
| | | | 230, 50/60 Hz | ▶ | 3RT15 17-1AP00 | 0.200 | ▶ | 3RT15 17-2AP00 | 0.200 |

Size S0

| | | | | | | | | | |
|----|----|-----------------------|------------|---|----------------|-------|----|----|----|
| 25 | 11 | 40 / 35 ³⁾ | 24, 50 Hz | B | 3RT15 26-1AB00 | 0.400 | -- | -- | -- |
| | | | 110, 50 Hz | B | 3RT15 26-1AF00 | 0.400 | -- | -- | -- |
| | | | 230, 50 Hz | ▶ | 3RT15 26-1AP00 | 0.400 | -- | -- | -- |

Size S2

| | | | | | | | | | |
|----|------|---------|------------|---|----------------|-------|----|----|----|
| 40 | 18.5 | 55 / 50 | 24, 50 Hz | B | 3RT15 35-1AB00 | 1.000 | -- | -- | -- |
| | | | 110, 50 Hz | B | 3RT15 35-1AF00 | 1.000 | -- | -- | -- |
| | | | 230, 50 Hz | ▶ | 3RT15 35-1AP00 | 1.000 | -- | -- | -- |

DC operation · DC solenoid system

Size S00

| | | | | | | | | | |
|----|-----|---------|--------|---|----------------|-------|---|----------------|-------|
| 9 | 4 | 18 / 16 | 24 DC | ▶ | 3RT15 16-1BB40 | 0.260 | ▶ | 3RT15 16-2BB40 | 0.260 |
| | | | 220 DC | B | 3RT15 16-1BM40 | 0.260 | B | 3RT15 16-2BM40 | 0.260 |
| 12 | 5.5 | 22 / 20 | 24 DC | ▶ | 3RT15 17-1BB40 | 0.260 | B | 3RT15 17-2BB40 | 0.260 |
| | | | 220 DC | B | 3RT15 17-1BM40 | 0.260 | B | 3RT15 17-2BM40 | 0.260 |

Size S0

| | | | | | | | | | |
|----|----|-----------------------|--------|---|----------------|-------|----|----|----|
| 20 | 11 | 40 / 35 ³⁾ | 24 DC | ▶ | 3RT15 26-1BB40 | 0.630 | -- | -- | -- |
| | | | 220 DC | B | 3RT15 26-1BM40 | 0.630 | -- | -- | -- |

Size S2

| | | | | | | | | | |
|----|------|---------|--------|---|----------------|-------|----|----|----|
| 40 | 18.5 | 55 / 50 | 24 DC | ▶ | 3RT15 35-1BB40 | 1.590 | -- | -- | -- |
| | | | 220 DC | B | 3RT15 35-1BM40 | 1.590 | -- | -- | -- |

Size S00: Snap-on auxiliary switch blocks according to EN 50005.

Size S0 to S3: Snap-on auxiliary switch blocks according to EN 50012 and EN 50005

(for S0 max. 2 auxiliary contacts, please note information in the Technical Information LV 1 T).

For other voltages see page 3/26.

For accessories, see page 3/100.

For spare parts, see page 3/114.

¹⁾ Single device for pole reversal; not suitable for reversing duty.²⁾ For size S00: Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s
at 60 Hz: 0.85 ... 1.1 x U_s .³⁾ Required conductor cross-section: 10 mm².

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3RT16 Capacitor Contactors

12.5 ... 50 kvar

Overview

AC operation

IEC 60947, EN 60947 (VDE 0660).

The contactors are suitable for use in any climate. They are finger-safe according to EN 50274.

The 3RT16 capacitor contactors are special versions of the size S00 to S3 SIRIUS contactors. The capacitors are precharged by means of the mounted leading NO contacts and resistors; only then do the main contacts close.

This prevents disturbances in the network and welding of the contactors.

Only discharged capacitors are permitted to be switched on with capacitor contactors.

The auxiliary switch block which is snapped onto the capacitor contactor contains the three leading NO contacts and in the case of S00 one standard NC contact and in the case of S0 and S3 one standard NO contact, which is unassigned. Size S00 also contains another unassigned NO contact in the basic unit.

In addition, a 2-pole auxiliary switch block can be mounted laterally on the 3RT16 47 capacitor contactors (2 NO, 2 NC or 1 NO + 1 NC versions); type 3RH19 21-1EA... The fitting of auxiliary switches for 3RT16 17 and 3RT16 27 is not expandable.

For the capacitor switching capacity of the basic 3RT10 contactor version, see [Technical Information LV 1 T](#) -> "Technical specifications".

Selection and ordering data

AC operation Screw terminals



3RT16 17-1A.03



3RT16 27-1A.01



3RT16 47-1A.01

| Utilization category AC-6b | | | | Auxiliary contacts, unassigned | | Rated control supply voltage $U_s^{(2)}$ | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|----------|----------|----------|--------------------------------|----|--|----|----|-----------------|-------------------|-----|----|-----------------------|
| Switching of AC capacitors for an ambient temperature of 60 °C ¹⁾ | | | | Version | | | | | ⊕ | | | | |
| Capacitor rating at operational voltage 50/60 Hz | | | | | | | | | Order No. | Price per PU | | | |
| at 230 V | at 400 V | at 525 V | at 690 V | NO | NC | V AC | Hz | | | | | | kg |
| kvar | kvar | kvar | kvar | | | | | | | | | | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

| | | | | | | | | | | | | | |
|-----------|------------|------------|-----------|---|---|-----|---------|---|-----------------------|---|--------|-----|-------|
| 3 ... 7.5 | 5 ... 12.5 | 7.5 ... 15 | 10 ... 21 | 1 | 1 | 24 | 50 / 60 | B | 3RT16 17-1AB03 | 1 | 1 unit | 101 | 0.280 |
| | | | | | | 110 | | B | 3RT16 17-1AF03 | 1 | 1 unit | 101 | 0.280 |
| | | | | | | 230 | | ▶ | 3RT16 17-1AP03 | 1 | 1 unit | 101 | 0.280 |

Size S0³⁾

| | | | | | | | | | | | | | |
|------------|----------|------------|-----------|---|----|-----|----|---|-----------------------|---|--------|-----|-------|
| 3.5 ... 15 | 6 ... 25 | 7.8 ... 30 | 10 ... 42 | 1 | -- | 24 | 50 | B | 3RT16 27-1AB01 | 1 | 1 unit | 101 | 0.440 |
| | | | | | | 110 | | B | 3RT16 27-1AF01 | 1 | 1 unit | 101 | 0.440 |
| | | | | | | 230 | | ▶ | 3RT16 27-1AP01 | 1 | 1 unit | 101 | 0.440 |

Size S3

| | | | | | | | | | | | | | |
|------------|----------|------------|-----------|---|----|-----|----|---|-----------------------|---|--------|-----|-------|
| 3.5 ... 30 | 5 ... 50 | 7.5 ... 60 | 10 ... 84 | 1 | -- | 24 | 50 | B | 3RT16 47-1AB01 | 1 | 1 unit | 101 | 2.040 |
| | | | | | | 110 | | B | 3RT16 47-1AF01 | 1 | 1 unit | 101 | 2.040 |
| | | | | | | 230 | | ▶ | 3RT16 47-1AP01 | 1 | 1 unit | 101 | 2.040 |

For other voltages see page 3/26.

For accessories, see page 3/103.

¹⁾ For size S3: 55 °C.

²⁾ Operating range: 0.85 ... 1.1 × U_s .

³⁾ For conductor cross-sections > 6 mm² use 3RV19 25-5AB terminals (2 units).

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range 0.7 ... 1.25 x U_s , for Railway Applications

3RH11 contactor relays

Overview

DC operation

IEC 60947-4-1, EN 60947-4-1 (VDE 0660, Part 102), for requirements according to IEC 60077-1 and IEC 60077-2.

The contactor relays are finger-safe according to EN 50274. The size S00 contactor relays have Cage Clamp connections for all terminals.

Ambient temperature

The permissible ambient temperature for operation of the contactor relays (across the full solenoid coil operating range) is -40 °C to +70 °C.

Uninterrupted duty at temperatures > +60 °C reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the switching frequency.

Application

For operation in installations which are subject both to considerable variations in the control voltage and to high ambient temperatures, e. g. railway applications under extreme climatic conditions, rolling mills, etc.

Control and auxiliary circuits

The solenoid coils of the contactor relays have an extended operating range from 0.7 to 1.25 x U_s and are fitted as standard with varistors to provide protection against overvoltage. The opening delay is consequently 2 to 5 ms longer than for standard contactors.

3RH11 22-2K.40-0LA0

The DC solenoid systems of the contactor relays are modified (to hold-in coil) by means of a series resistor.

The size S00 contactor relays are supplied prewired with a plug-on module containing the series resistor. The varistor is integrated. A 4-pole auxiliary switch block (according to EN 50005) can be fitted additionally.

Mounting

At ambient temperatures up to 70 °C, the size S00 contactor relays are allowed to be mounted side by side.

3RH11 22-2K.40

These contactor relays have an extended operating range from 0.7 to 1.25 x U_s ; the coils are fitted with varistors as standard. An additional series resistor is not required. Please note:

- Size S00: It is not possible to mount an auxiliary switch block.

At ambient temperatures > 60 °C ≤ 70 °C, a clearance of 10 mm is required when they are mounted side by side.

Selection and ordering data

DC operation - DC solenoid system

Cage Clamp terminals

For screw and snap-on mounting onto standard mounting rail

Solenoid coil fitted with varistor



3RH11 22-2K.40



3RH11 22-2K.40-0LA0

| Rated operational current I_c /AC-15/AC-14 T_U : 70 °C at | | | | Contacts | | Rated control supply voltage U_s | DT | Cage Clamp terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|-------|-------|-------|----------|----|------------------------------------|----|----------------------|-------------------|-----|----|-----------------------|
| 230 V | 400 V | 500 V | 690 V | Version | | | | Order No. | Price per PU | | | kg |
| A | A | A | A | NO | NC | V DC | | | | | | |

3RH11 contactor relays

Size S00

Cage Clamp terminals for all connections

| 6 | 3 | 2 | 1 | 2 | 2 ¹⁾ | 24 ²⁾ 110 ²⁾ | DT | 3RH11 22-2KB40 3RH11 22-2KF40 | PU | PS* | PG | Weight per PU approx. |
|---|---|---|---|---|-----------------|---------------------------------------|----|--|----|--------|-----|-----------------------|
| 6 | 3 | 2 | 1 | 2 | 1 ³⁾ | 24 110 | A | 3RH11 22-2KB40-0LA0 3RH11 22-2KF40-0LA0 | 1 | 1 unit | 101 | 0.260 |

¹⁾ It is not possible to mount an auxiliary switch block. A clearance of 10 mm is required for side-by-side mounting at ambient temperatures > 60 °C.

²⁾ Version without series resistor.

³⁾ One 4-pole auxiliary switch block according to EN 50005 can be mounted; no distance required up to 70 °C.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range $0.7 \dots 1.25 \times U_s$, for Railway Applications

3TH4 contactor relays

Overview

3TH4 contactor relays

EN 60947-4-1.

For requirements according to IEC 60077-1 and IEC 60077-2.

The contactors are finger-safe according to EN 50274. Terminal covers may have to be fitted onto the connecting bars, depending on the configuration with other devices.

Application




For operation in plants which are subject both to considerable variations in the control voltage and to high ambient temperatures, e. g. in railway applications.

Selection and ordering data

For screw and snap-on mounting onto 35 mm standard mounting rail
Solenoid coil fitted with varistor



3TH4

| Con- tacts | Rated operational current $I_e/AC-15/AC-14$ | | | | Contacts ¹⁾ | | Rated control supply voltage U_s | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|---|--|-------|-------|-------|-----------------------------------|--|---------------------------------------|-----------|--|--|--------|------------------|-----------------------------|----------------|
| | 230 V | 400 V | 500 V | 690 V | Ident. No. acc. to EN 50011 | Version   | | | | | | | | |
| Number | A | A | A | A | | NO | NC | V DC | Order No. | Price per PU | | | kg | |
| 3TH42 contactor relays · DC operation · DC solenoid system | | | | | | | | | | | | | | |
| 8 | 10 | 6 | 4 | 2 | 44E | 4 | 4 | 24 110 | ▶ ▶ | 3TH42 44-0LB4 3TH42 44-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 0.670 0.670 |
| | | | | | 53E | 5 | 3 | 24 110 | ▶ ▶ | 3TH42 53-0LB4 3TH42 53-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 0.670 0.670 |
| | | | | | 62E | 6 | 2 | 24 110 | ▶ ▶ | 3TH42 62-0LB4 3TH42 62-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 0.670 0.670 |

For accessories, see page 3/124.

¹⁾ Contacts not extendable.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range $0.7 \dots 1.25 \times U_s$, for Railway Applications

3RT10 motor contactors, 5.5 ... 45 kW

Overview

DC operation

IEC 60947-4-1, EN 60947-4-1 (VDE 0660, Part 102), for requirements according to IEC 60077-1 and IEC 60077-2.

The contactors are finger-safe according to EN 50274 (exception: series resistors S0 to S3). The contactors are available with both Cage Clamp and screw connection. The size S00 contactors have Cage Clamp terminals for all connections. The auxiliary conductor and coil terminals of sizes S0 to S3 are all Cage Clamp terminals.

Ambient temperature

The permissible ambient temperature for operation of the contactors (across the full coil operating range) is -40 °C to $+70 \text{ °C}$.

Uninterrupted duty at temperatures $> +60 \text{ °C}$ reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the switching frequency.

Dimensions

Attaching resistors increases the width of contactor sizes S0 to S3 (see [Dimensional drawings](#)).

Application

For operation in installations which are subject both to considerable variations in the control voltage and to high ambient temperatures, e. g. railway applications under extreme climatic conditions, rolling mills, etc.

Control and auxiliary circuits

The solenoid coils of the contactors have an extended operating range from 0.7 to $1.25 \times U_s$ and are fitted as standard with varistors to provide protection against overvoltage. The opening delay is consequently 2 to 5 ms longer than for standard contactors.

3RT10 ..-2K.42-0LA0, 3RT10 ..-3K.44-0LA0

The DC solenoid systems of the contactors are modified (to hold-in coil) by means of a series resistor.

The size S00 contactors are supplied prewired with a plug-on module containing the series resistor. The varistor is integrated. A 4-pole auxiliary switch block (according to EN 50005) can be fitted additionally.

The size S0 to S3 contactors are equipped on the front with an auxiliary switch block with 2 NO + 2 NC contacts. The separate series resistor, which is attached laterally next to the contactor on the 35 mm standard mounting rail, is fitted with connecting cables for mounting onto contactors. A circuit diagram showing the terminals is stuck onto each contactor. One NC of the auxiliary contacts is required for the series resistor function. The selection and ordering data shows the number of additional, unsigned auxiliary contacts. It is only possible to extend the number of auxiliary contacts with size S00.

Mounting

At ambient temperatures up to 70 °C , the size S00 contactors and contactor relays are allowed to be mounted side by side. The resistor module of the size S0 to S3 contactors must be mounted to the left of the contactor owing to the prefabricated connecting cables.

3RT10 17-2K.4., 3RT10 2.-3K.40

These contactors have an extended operating range from 0.7 to $1.25 \times U_s$; the coils are fitted with varistors as standard. An additional series resistor is not required.

Please note:

- Size S00: It is not possible to mount an auxiliary switch block.
- Size S0: Up to two single-pole auxiliary switch blocks can be mounted.

At ambient temperatures $> 60 \text{ °C} \leq 70 \text{ °C}$, a clearance of 10 mm is required when they are mounted side by side.

3RT10 contactors with contactor control unit, extended operating range

Control and auxiliary circuits

The solenoid coils of the contactors have an extended operating range from 0.7 to $1.25 \times U_s$ and are fitted as standard with varistors to provide protection against overvoltage. The opening delay is consequently 2 ms to 5 ms longer than for standard contactors.

3RT10 ...-X.40-0LA2

The contactors are energized via upstream control electronics which ensure the coil operating range of 0.7 to $1.25 \times U_s$ at an ambient temperature of 70 °C . They are supplied as complete units with a built-on contactor control unit. A varistor is integrated for damping opening surges in the coil.

The possibility of mounting auxiliary switches is the same as that for equivalent standard contactors.

Mounting

At ambient temperatures up to 70 °C , sizes S0 to S3 of these contactor versions are allowed to be mounted side by side.

Ambient temperature

The permissible ambient temperature for operation of the contactors (across the full coil operating range) is -40 °C to $+70 \text{ °C}$. Uninterrupted duty at temperatures $> +60 \text{ °C}$ reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the switching frequency.

Dimensions

Because of the built-on contactor control unit, the height of the size S0 to S3 contactors increases by up to 34 mm (see [Dimensional drawings](#)).

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range 0.7 ... 1.25 x U_S, for Railway Applications

3RT10 motor contactors, 5.5 ... 45 kW

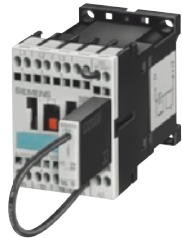
Selection and ordering data

DC operation · DC solenoid system

Cage Clamp terminals

For screw and snap-on mounting onto standard mounting rail

Solenoid coil fitted with varistor



3RT10 17-2K.4.-0LA0



3RT10 2.-3K.40



3RT10 3.-3K.44-0LA0

| Rated data AC-2 and AC-3 T _U : 70 °C | Ratings of induction motors at | | | | Auxiliary contacts | Rated control supply voltage U _s | DT | Cage Clamp terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|--------------------------------|-------|-------|-------|--------------------|---|----|----------------------|-------------------|-----|----|-----------------------|
| Operational current I _e at | 230 V | 400 V | 500 V | 690 V | Version | | | Order No. | Price per PU | | | kg |
| 400 V | | | | | NO NC | V DC | | | | | | |
| A | kW | kW | kW | kW | | | | | | | | |

3RT10 contactors for switching motors

Size S00

Cage Clamp terminals for all connections

| | | | | | | | | | | | | | |
|----|---|-----|-----|-----|-----------------|-----------------|---------------------------------------|--------|--|--------|------------------|------------|----------------|
| 12 | 3 | 5.5 | 5.5 | 5.5 | 1 ¹⁾ | -- | 24 ³⁾ 110 ³⁾ | ▶ | 3RT10 17-2KB41 3RT10 17-2KF41 | 1 1 | 1 unit 1 unit | 101 101 | 0.260 0.260 |
| 12 | 3 | 5.5 | 5.5 | 5.5 | -- | 1 ¹⁾ | 24 ³⁾ 110 ³⁾ | ▶ | 3RT10 17-2KB42 3RT10 17-2KF42 | 1 1 | 1 unit 1 unit | 101 101 | 0.260 0.260 |
| 12 | 3 | 5.5 | 5.5 | 5.5 | -- | 1 ²⁾ | 24 110 | A B | 3RT10 17-2KB42-0LA0 3RT10 17-2KF42-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 0.280 0.280 |

Size S0

Cage Clamp terminals for coil terminals and auxiliary contacts

| | | | | | | | | | | | | | |
|----|-----|-----|----|----|----|------------------|---------------------------------------|--------|--|--------|------------------|------------|----------------|
| 17 | 4 | 7.5 | 10 | 11 | -- | -- ⁴⁾ | 24 ³⁾ 110 ³⁾ | ▶ | 3RT10 25-3KB40 3RT10 25-3KF40 | 1 1 | 1 unit 1 unit | 101 101 | 0.600 0.600 |
| 25 | 5.5 | 11 | 11 | 11 | -- | -- ⁴⁾ | 24 ³⁾ 110 ³⁾ | ▶ | 3RT10 26-3KB40 3RT10 26-3KF40 | 1 1 | 1 unit 1 unit | 101 101 | 0.600 0.600 |
| 17 | 4 | 7.5 | 10 | 11 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 25-3KB44-0LA0 3RT10 25-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 0.760 0.760 |
| 25 | 5.5 | 11 | 11 | 11 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 26-3KB44-0LA0 3RT10 26-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 0.760 0.760 |

Size S2

Cage Clamp terminals for coil terminals and auxiliary contacts

| | | | | | | | | | | | | | |
|----|-----|------|------|------|---|-----------------|-----------|--------|--|--------|------------------|------------|----------------|
| 32 | 7.5 | 15 | 18.5 | 18.5 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 34-3KB44-0LA0 3RT10 34-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 1.670 1.670 |
| 40 | 11 | 18.5 | 22 | 22 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 35-3KB44-0LA0 3RT10 35-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 1.670 1.670 |
| 50 | 15 | 22 | 30 | 22 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 36-3KB44-0LA0 3RT10 36-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 1.670 1.670 |

Size S3

Cage Clamp terminals for coil terminals and auxiliary contacts

| | | | | | | | | | | | | | |
|----|------|----|----|----|---|-----------------|-----------|--------|--|--------|------------------|------------|----------------|
| 65 | 18.5 | 30 | 37 | 43 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 44-3KB44-0LA0 3RT10 44-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 3.100 3.100 |
| 80 | 22 | 37 | 45 | 55 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 45-3KB44-0LA0 3RT10 45-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 3.100 3.100 |
| 95 | 22 | 45 | 55 | 55 | 2 | 1 ⁵⁾ | 24 110 | B B | 3RT10 46-3KB44-0LA0 3RT10 46-3KF44-0LA0 | 1 1 | 1 unit 1 unit | 101 101 | 3.100 3.100 |

For spare parts, see page 3/101.

- It is not possible to mount an auxiliary switch block. A clearance of 10 mm is required for side-by-side mounting at ambient temperatures > 60 °C.
- One 4-pole auxiliary switch block according to EN 50005 can be mounted; no distance required up to 70 °C.
- Version without series resistor.
- Up to two single-pole auxiliary switch blocks can be mounted. A clearance of 10 mm is required for side-by-side mounting at ambient temperatures > 60 °C.
- The number of auxiliary contacts cannot be increased; no clearance required up to 70 °C.

* You can order this quantity or a multiple thereof.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range 0.7 ... 1.25 x U_s , for Railway Applications

3RT10 motor contactors, 5.5 ... 45 kW

DC operation - DC solenoid system
 For screw and snap-on mounting onto standard mounting
 rail - Contactor control unit
 Solenoid coil fitted with varistor

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 ...-3X.40-0LA2

| Rated data AC-2 and AC-3 T_U : Up to 70 °C | | Auxiliary contacts ¹⁾ | | Rated control supply voltage U_s | DT | Screw terminals | ⊕ | Weight per PU approx. | DT | Cage Clamp terminals | ⊕ | Weight per PU approx. |
|--|-------------------------------------|----------------------------------|---------|---------------------------------------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| Rated operational current I_e up to 400 V | Rating of induction motors at 50 Hz | Ident. No. | Version | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| A | kW | | NO NC | V DC | | | | kg | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S0

| | | | | | | | | | | | | |
|----|-----|----|----|----|-----|---|----------------------------|-------|---|----------------------------|-------|-------|
| 17 | 7.5 | -- | -- | -- | 24 | C | 3RT10 25-1XB40-0LA2 | 0.640 | B | 3RT10 25-3XB40-0LA2 | 0.640 | 0.640 |
| | | -- | -- | -- | 110 | B | 3RT10 25-1XF40-0LA2 | 0.640 | B | 3RT10 25-3XF40-0LA2 | 0.640 | 0.640 |
| 25 | 11 | -- | -- | -- | 24 | B | 3RT10 26-1XB40-0LA2 | 0.640 | B | 3RT10 26-3XB40-0LA2 | 0.640 | 0.640 |
| | | -- | -- | -- | 110 | B | 3RT10 26-1XF40-0LA2 | 0.640 | B | 3RT10 26-3XF40-0LA2 | 0.640 | 0.640 |

Size S2

| | | | | | | | | | | | | |
|----|------|----|----|----|-----|---|----------------------------|-------|---|----------------------------|-------|-------|
| 32 | 15 | -- | -- | -- | 24 | B | 3RT10 34-1XB40-0LA2 | 1.500 | C | 3RT10 34-3XB40-0LA2 | 1.500 | 1.500 |
| | | -- | -- | -- | 110 | B | 3RT10 34-1XF40-0LA2 | 1.500 | B | 3RT10 34-3XF40-0LA2 | 1.500 | 1.500 |
| 40 | 18.5 | -- | -- | -- | 24 | B | 3RT10 35-1XB40-0LA2 | 1.500 | C | 3RT10 35-3XB40-0LA2 | 1.500 | 1.500 |
| | | -- | -- | -- | 110 | B | 3RT10 35-1XF40-0LA2 | 1.500 | B | 3RT10 35-3XF40-0LA2 | 1.500 | 1.500 |
| 50 | 22 | -- | -- | -- | 24 | B | 3RT10 36-1XB40-0LA2 | 1.500 | B | 3RT10 36-3XB40-0LA2 | 1.500 | 1.500 |
| | | -- | -- | -- | 110 | B | 3RT10 36-1XF40-0LA2 | 1.500 | B | 3RT10 36-3XF40-0LA2 | 1.500 | 1.500 |

For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

Size S3

| | | | | | | | | | | | | |
|----|----|----|----|----|-----|---|----------------------------|-------|---|----------------------------|-------|-------|
| 65 | 30 | -- | -- | -- | 24 | B | 3RT10 44-1XB40-0LA2 | 2.900 | B | 3RT10 44-3XB40-0LA2 | 2.900 | 2.900 |
| | | -- | -- | -- | 110 | B | 3RT10 44-1XF40-0LA2 | 2.900 | B | 3RT10 44-3XF40-0LA2 | 2.900 | 2.900 |
| 80 | 37 | -- | -- | -- | 24 | B | 3RT10 45-1XB40-0LA2 | 2.900 | B | 3RT10 45-3XB40-0LA2 | 2.900 | 2.900 |
| | | -- | -- | -- | 110 | B | 3RT10 45-1XF40-0LA2 | 2.900 | B | 3RT10 45-3XF40-0LA2 | 2.900 | 2.900 |
| 95 | 45 | -- | -- | -- | 24 | B | 3RT10 46-1XB40-0LA2 | 2.900 | B | 3RT10 46-3XB40-0LA2 | 2.900 | 2.900 |
| | | -- | -- | -- | 110 | B | 3RT10 46-1XF40-0LA2 | 2.900 | B | 3RT10 46-3XF40-0LA2 | 2.900 | 2.900 |

¹⁾ Auxiliary switch blocks mountable as standard contactors.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range 0.7 ... 1.25 x U_s , for Railway Applications

3TB5 motor contactors, 55 ... 200 kW

Overview

EN 60947-4-1.

For requirements according to IEC 60077-1 and IEC 60077-2.


The contactors are finger-safe according to EN 50274. Terminal covers may have to be fitted onto the connecting bars, depending on the configuration with other devices.

Application

For operation in plants which are subject both to considerable variations in the control voltage and to high ambient temperatures, e. g. in railway applications.

Selection and ordering data

3TB50 to 3TB56 contactors
For screw fixing
Solenoid coil fitted with varistor

| Size | Rated data AC-2 and AC-3 | | | | | Auxiliary contacts ¹⁾ | | Rated control supply voltage U_s | DT | Screw terminals  | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|------------------------------------|--------------------------------|------------|-----|-----|----------------------------------|------|------------------------------------|--------------|---|-------------------|------------------|------------|-----------------------|
| | Operational current I_e at 400 V | Ratings of induction motors at | | | | Version | | | | | | | | |
| A | kW | kW | kW | kW | NO | NC | V DC | Order No. | Price per PU | | | | | |
| Contactors for switching AC voltage DC operation · DC solenoid system | | | | | | | | | | | | | | |
| 6 | 110 | 37 | 55 | 75 | 90 | 2 | 1 | 24 110 | D D | 3TB50 17-0LB4 3TB50 17-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 6.600 6.600 |
| 8 | 170 | 55 | 90 | 110 | 132 | 2 | 1 | 24 110 | D D | 3TB52 17-0LB4 3TB52 17-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 9.300 9.300 |
| 10 | 250 | 75 | 132 | 160 | 200 | 2 | 1 | 24 110 | D D | 3TB54 17-0LB4 3TB54 17-0LF4 | 1 1 | 1 unit 1 unit | 101 101 | 16.800 16.800 |
| 12 | 400 | 115 | 200 | 255 | 355 | 2 | 1 | 110 | D | 3TB56 17-0LF4 | 1 | 1 unit | 101 | 19.800 |

¹⁾ The number of auxiliary contacts cannot be increased.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

Contactors with Extended Operating Range 0.7 ... 1.25 x U_s , for Railway Applications

3TC contactors for switching DC voltage, 2-pole

Overview

EN 60947-4-1.

For requirements according to IEC 60077-1 and IEC 60077-2.

The contactors are finger-safe according to EN 50274 (exception: series resistor). Terminal covers may have to be fitted onto the connecting bars, depending on the configuration with other devices.

Application

For operation in plants which are subject both to considerable variations in the control voltage and to high ambient temperatures, e. g. in railway applications.

Selection and ordering data

3TC44: for screw and snap-on mounting onto

35 mm standard mounting rail

3TC48 to 3TC56: for screw fixing

Solenoid coil fitted with varistor



3TC48

| Size | Utilization category | Rated operational current I_e at 750 V | Rated power of AC loads at | | | | Auxiliary contacts ¹⁾ | | Rated control supply voltage U_s | DT | Screw terminals | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|----------------------|--|----------------------------|-------|-------|-------|----------------------------------|-----------|------------------------------------|------|----------------------|--|-------------------|--------|-----|-----------------------|
| | | | 220 V | 440 V | 600 V | 750 V | Version | Order No. | | | Price per PU | | | | | |
| | | | A | kW | kW | kW | kW | NO | NC | V DC | | | | | | |
| Contactors for switching DC voltage DC operation · DC solenoid system | | | | | | | | | | | | | | | | |
| 2 | DC-1 | 32 | 7 | 14 | 19.2 | 24 | 2 | 1 | 24 | B | 3TC44 17-0LB4 | | 1 | 1 unit | 101 | 1.380 |
| | DC-3/DC-5 | 7.5 | 5 | 9 | 9 | 4 | | | 110 | C | 3TC44 17-0LF4 | | 1 | 1 unit | 101 | 1.380 |
| 4 | DC-1 | 75 | 16.5 | 33 | 45 | 56 | 2 | 1 | 24 | C | 3TC48 17-0LB4 | | 1 | 1 unit | 101 | 4.900 |
| | DC-3/DC-5 | 75 | 13 | 27 | 38 | 45 | | | 110 | C | 3TC48 17-0LF4 | | 1 | 1 unit | 101 | 4.900 |
| 8 | DC-1 | 170 | 48 | 97 | 132 | 165 | 2 | 1 | 24 | C | 3TC52 17-0LB4 | | 1 | 1 unit | 101 | 10.800 |
| | DC-3/DC-5 | 170 | 41 | 82 | 110 | 110 | | | 110 | C | 3TC52 17-0LF4 | | 1 | 1 unit | 101 | 10.800 |
| 12 | DC-1 | 400 | 88 | 176 | 240 | 300 | 2 | 1 | 24 | C | 3TC56 17-0LB4 | | 1 | 1 unit | 101 | 19.500 |
| | DC-3/DC-5 | 400 | 70 | 140 | 200 | 250 | | | 110 | D | 3TC56 17-0LF4 | | 1 | 1 unit | 101 | 19.500 |

¹⁾ The number of auxiliary contacts cannot be increased.

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TC Contactors for Switching DC Voltage

1- and 2-pole, 32 ... 400 A

Overview

3TC4 and 3TC5

EN 60947-4-1 (VDE 0660 Part 102).

The contactors are finger-safe according to EN 50274.

Terminal covers may have to be fitted onto the connecting bars, depending on the configuration with other devices.

The DC motor ratings given in the tables are applicable to the DC-3 and DC-5 utilization categories with two-pole switching of the load or with the two conducting paths of the contactor connected in series.

One contactor conducting path can switch full power up to 220 V. The ratings for higher voltages are available on request.

3TC7

EN 60947-4-1 (VDE 0660 Part 102).

The contactors are suitable for use in any climate. They are suitable for switching and controlling DC motors as well as all other DC loads. The electromagnetic excitation is designed for a particularly wide coil operating range.

It is between 0.7 or 0.8 to $1.2 \times U_s$.

3TC74 contactors can be used at up to 750 V/400 A and 50 Hz in AC-1 operation.

Application

The contactors are suitable for switching and controlling DC motors as well as all other DC circuits.

A version with an especially large coil operating range is available for operation in electrically driven vehicles and in switch-gear with significant fluctuations in the operational voltage (see [page 3/65](#)).

3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TC Contactors for Switching DC Voltage

1- and 2-pole, 32 ... 400 A

Selection and ordering data



3TC44



3TC48

| Size | Rated data DC-3 and DC-5 ¹⁾ | | | | | | Auxiliary contacts ²⁾ | | Rated control supply voltage U_s | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|---|-------------------------|-------|-------|-------|----|----------------------------------|---|------------------------------------|----|-----------------|-------------------|-----|----|-----------------------|
| | Operational current I_e ³⁾ | Ratings of DC motors at | | | | | Version | V | | | | | | | |
| A | 110 V | 220 V | 440 V | 600 V | 750 V | NO | | | NC | | Order No. | Price per PU | | | |
| | | kW | kW | kW | kW | kW | | | | | | | | | |

3TC44 to 3TC56 two-pole contactors

DC operation

Screw and snap-on mounting onto 35 mm standard mounting rail

| | | | | | | | | | | | | | | | |
|---|----|-----|---|---|---|---|---|---|--------|---|----------------------|---|--------|-----|-------|
| 2 | 32 | 2.5 | 5 | 9 | 9 | 4 | 2 | 2 | 24 DC | ▶ | 3TC44 17-0AB4 | 1 | 1 unit | 101 | 1.100 |
| | | | | | | | | | 110 DC | ▶ | 3TC44 17-0AF4 | 1 | 1 unit | 101 | 1.100 |
| | | | | | | | | | 220 DC | ▶ | 3TC44 17-0AM4 | 1 | 1 unit | 101 | 1.100 |

Screw fixing

| | | | | | | | | | | | | | | | |
|----|-------------------|-----|----|-----|-----|-----|---|---|--------|---|----------------------|---|--------|-----|--------|
| 4 | 75 | 6.5 | 13 | 27 | 38 | 45 | 2 | 2 | 24 DC | A | 3TC48 17-0AB4 | 1 | 1 unit | 101 | 4.700 |
| | | | | | | | | | 110 DC | A | 3TC48 17-0AF4 | 1 | 1 unit | 101 | 4.700 |
| | | | | | | | | | 220 DC | A | 3TC48 17-0AM4 | 1 | 1 unit | 101 | 4.700 |
| 8 | 220 ⁴⁾ | 20 | 41 | 82 | 110 | 110 | 2 | 2 | 24 DC | C | 3TC52 17-0AB4 | 1 | 1 unit | 101 | 10.800 |
| | | | | | | | | | 110 DC | C | 3TC52 17-0AF4 | 1 | 1 unit | 101 | 10.800 |
| | | | | | | | | | 220 DC | C | 3TC52 17-0AM4 | 1 | 1 unit | 101 | 10.800 |
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | 2 | 2 | 24 DC | C | 3TC56 17-0AB4 | 1 | 1 unit | 101 | 19.500 |
| | | | | | | | | | 110 DC | C | 3TC56 17-0AF4 | 1 | 1 unit | 101 | 19.500 |
| | | | | | | | | | 220 DC | C | 3TC56 17-0AM4 | 1 | 1 unit | 101 | 19.500 |

AC operation, 50 Hz

Screw and snap-on mounting onto 35 mm standard mounting rail

| | | | | | | | | | | | | | | | |
|---|----|-----|---|---|---|---|---|---|----------------------------|---|----------------------|---|--------|-----|-------|
| 2 | 32 | 2.5 | 5 | 9 | 9 | 4 | 2 | 2 | 220 / 230 AC ⁵⁾ | ▶ | 3TC44 17-0BP0 | 1 | 1 unit | 101 | 0.700 |
| | | | | | | | | | 110 / 110 AC | ▶ | 3TC44 17-0BF0 | 1 | 1 unit | 101 | 0.700 |

Screw fixing

| | | | | | | | | | | | | | | | |
|----|-------------------|-----|----|-----|-----|-----|---|---|----------------------------|---|----------------------|---|--------|-----|--------|
| 4 | 75 | 6.5 | 13 | 27 | 38 | 45 | 2 | 2 | 220 / 230 AC ⁵⁾ | A | 3TC48 17-0BP0 | 1 | 1 unit | 101 | 3.500 |
| | | | | | | | | | 110 AC | C | 3TC48 17-0BF0 | 1 | 1 unit | 101 | 3.500 |
| 8 | 220 ⁴⁾ | 20 | 41 | 82 | 110 | 110 | 2 | 2 | 220 / 230 AC ⁵⁾ | A | 3TC52 17-0BP0 | 1 | 1 unit | 101 | 7.200 |
| | | | | | | | | | 110 AC | C | 3TC52 17-0BF0 | 1 | 1 unit | 101 | 7.200 |
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | 2 | 2 | 220 / 230 AC ⁵⁾ | C | 3TC56 17-0BP0 | 1 | 1 unit | 101 | 14.500 |
| | | | | | | | | | 110 AC | C | 3TC56 17-0BF0 | 1 | 1 unit | 101 | 14.500 |

For more rated control supply voltages U_s , see page 3/68.

¹⁾ For permissible load for utilization category DC-1 see Technical Information LV 1 T → Technical specifications.

²⁾ The fitting of auxiliary switches cannot be altered on DC-operated contactors.

³⁾ The following rated operational currents are permitted for reversing duty with 3TC44 to 3TC56 contactors:

Contactor Rated operational voltage

| Type | 110 V, 220 V | 440 V |
|-------|--------------|-------|
| 3TC44 | 32 A | 7 A |
| 3TC48 | 75 A | 75 A |
| 3TC52 | 170 A | 170 A |
| 3TC56 | 400 A | 400 A |

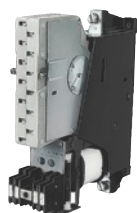
⁴⁾ At > 600 V: $I_e = 170$ A.

⁵⁾ Operating range at 220 V: 0.85 to 1.15 × U_s .

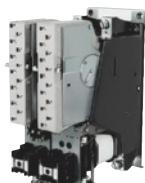
3RT, 3RH, 3TB, 3TC, 3TH, 3TK Contactors for Special Applications

3TC Contactors for Switching DC Voltage

1- and 2-pole, 32 ... 400 A



3TC74



3TC78

| Size | Rated data DC-3 and DC-5 ¹⁾ | | | | | | | | Auxiliary contacts ²⁾ | | Rated control supply voltage U_s | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|------|--|-------------------------|----|----|----|----|----|----|----------------------------------|----|------------------------------------|----|-----------------|-------------------|-----|----|-----------------------|
| | Operational current I_e | Ratings of DC motors at | | | | | | | Version | | | | | | | | |
| A | kW | kW | kW | kW | kW | kW | kW | kW | NO | NC | V | | | | | | kg |

3TC74 1-pole contactors · Operational voltage up to 750 V

DC operation

| | | | | | | | | | | | | | | | | | |
|----|-----|----|----|-----|-----|-----|----|----|---|---|-----------------|---|---------------------|---|--------|-----|--------|
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | -- | -- | 4 | 4 | 24 DC 110 DC | C | 3TC74 14-0EB | 1 | 1 unit | 101 | 10.800 |
| | | | | | | | | | | | | C | 3TC74 14-0EF | 1 | 1 unit | 101 | 10.800 |

AC operation, 50 Hz

| | | | | | | | | | | | | | | | | | |
|----|-----|----|----|-----|-----|-----|----|----|---|---|----------------------------|---|---------------------|---|--------|-----|--------|
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | -- | -- | 4 | 4 | 230 / 220 AC ³⁾ | C | 3TC74 14-1CM | 1 | 1 unit | 101 | 10.800 |
|----|-----|----|----|-----|-----|-----|----|----|---|---|----------------------------|---|---------------------|---|--------|-----|--------|

3TC78 2-pole contactors · Operational voltage up to 1500 V

DC operation

| | | | | | | | | | | | | | | | | | |
|----|-----|----|----|-----|-----|-----|-----|-----|---|---|-----------------|---|---------------------|---|--------|-----|--------|
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | 400 | 500 | 4 | 4 | 24 DC 110 DC | C | 3TC78 14-0EB | 1 | 1 unit | 101 | 22.500 |
| | | | | | | | | | | | | C | 3TC78 14-0EF | 1 | 1 unit | 101 | 22.500 |

AC operation, 50 Hz

| | | | | | | | | | | | | | | | | | |
|----|-----|----|----|-----|-----|-----|-----|-----|---|---|----------------------------|---|---------------------|---|--------|-----|--------|
| 12 | 400 | 35 | 70 | 140 | 200 | 250 | 400 | 500 | 4 | 4 | 230 / 220 AC ³⁾ | C | 3TC78 14-1CM | 1 | 1 unit | 101 | 23.800 |
|----|-----|----|----|-----|-----|-----|-----|-----|---|---|----------------------------|---|---------------------|---|--------|-----|--------|

For more rated control supply voltages U_s , see below.
For spare parts, see page 3/129.

¹⁾ For the permissible load for utilization category DC-1, see "Technical specifications".

²⁾ The fitting of auxiliary switches cannot be altered on DC-operated contactors.

³⁾ Upper operating range limit at 230 V: $1.14 \times U_s$.

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Contactor type | 3TC44 | 3TC48 | 3TC52/56 | 3TC74/78 |
|------------------------------------|------------------|------------------|------------------|-----------------|
| Rated control supply voltage U_s | | | | |
| AC operation | | | | |
| Solenoid coils for 50 Hz | | | | |
| 24 V AC | B0 | B0 | -- | -- |
| 110 V AC | F0 | F0 | F0 | -- |
| 230/220 V AC | P0 ¹⁾ | P0 ¹⁾ | P0 ¹⁾ | M ²⁾ |
| 240 V AC | U0 | U0 | -- | -- |
| AC operation | | | | |
| Solenoid coils for 50/60 Hz | | | | |
| 24 V AC | C2 | -- | -- | -- |
| 110 V AC | G2 | -- | -- | -- |
| 120 V AC | K2 | -- | -- | -- |
| 220 V AC | N2 | -- | -- | -- |
| 230 V AC | L2 | -- | -- | -- |
| DC operation | | | | |
| 24 V DC | B4 | B4 | B4 | B |
| 48 V DC | W4 | W4 | -- | -- |
| 60 V DC | E4 | E4 | -- | -- |
| 110 V DC | F4 | F4 | F4 | F |
| 125 V DC | G4 | G4 | -- | -- |
| 220 V DC | M4 | M4 | M4 | M |
| 230 V DC | P4 | P4 | -- | -- |

¹⁾ Operating range at 220 V or 380 V: 0.85 to $1.15 \times U_s$; lower operating range limit according to IEC 60947.

²⁾ Upper operating range limit at 230 V: $1.14 \times U_s$.

Overview

The SIRIUS generation of controls is a complete, modular system family, logically designed right down to the last detail, from the basic units to the accessories.

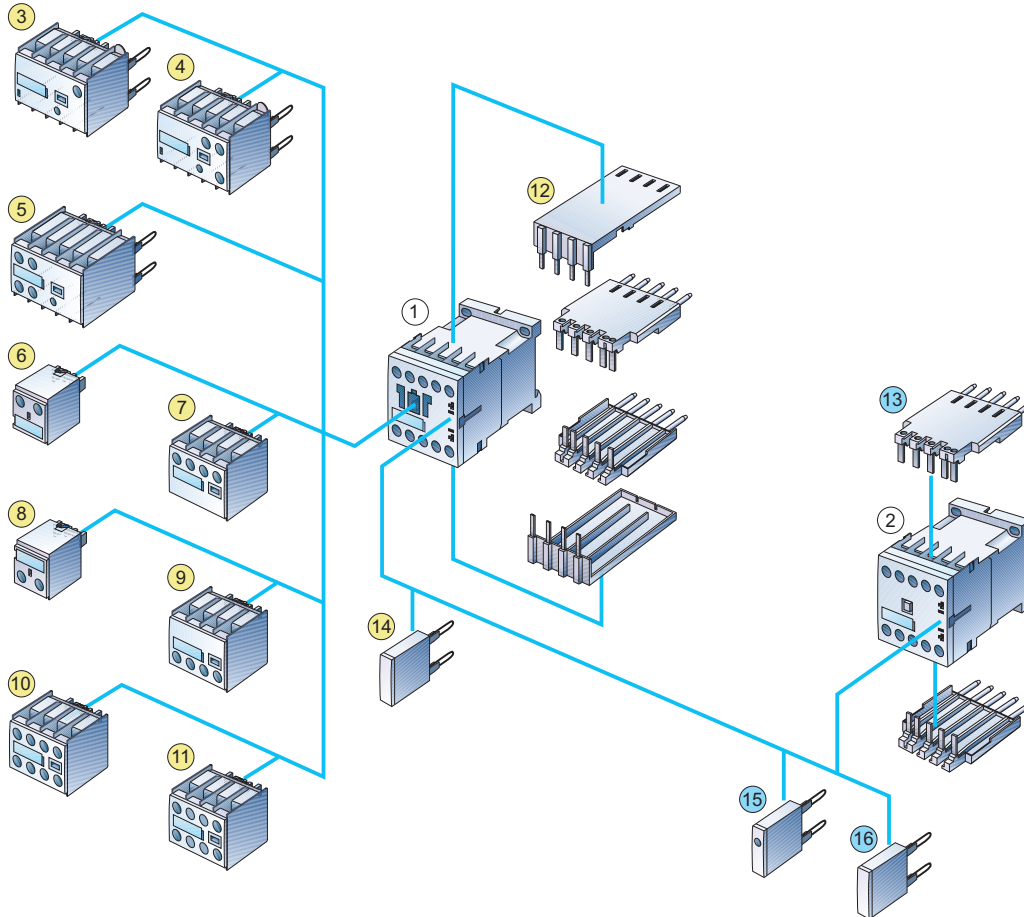
Contactor relays and coupling relays
Size S00 with accessories

AC and DC operation

IEC 60947, EN 60947 (VDE 0660)

The 3RH1 contactor relays are suitable for use in any climate. They are finger-safe according to EN 50274.

The 3RH1 contactor relays have screw or Cage Clamp terminals. Four contacts are available in the basic unit.



- ① Contactor relay, see page 3/70
- ② Coupling relay for auxiliary circuits, see page 3/78
- ③ Solid-state time-delay block, ON-delay, see page 3/106
- ④ Solid-state time-delay block, OFF-delay, see page 3/106
- ⑤ Auxiliary switch block with solid-state time delay, see page 3/105 (versions with ON or OFF-delay)
- ⑥ 1-pole auxiliary switch block, cable entry from above, see page 3/100
- ⑦ 2-pole auxiliary switch block, cable entry from above, see page 3/100
- ⑧ 1-pole auxiliary switch block, cable entry from below, see page 3/100
- ⑨ 2-pole auxiliary switch block, cable entry from below, see page 3/100
- ⑩ 4-pole auxiliary switch block, see page 3/100 (terminal designations according to EN 50011 or EN 50005)
- ⑪ 2-pole auxiliary switch block, standard version or solid-state compatible version, see page 3/100 (terminal designations according to EN 50005)
- ⑫ Solder pin adapter for contactor relays with 4-pole auxiliary switch block, see page 3/111
- ⑬ Solder pin adapter for contactor relays and coupling relays, see page 3/110
- ⑭ Additional load module for increasing the permissible residual current, see page 3/109
- ⑮ Surge suppressor with LED, see page 3/108
- ⑯ Surge suppressor without LED, see page 3/108

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

Selection and ordering data

AC and DC operation

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101

Size S00



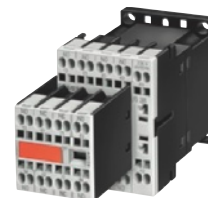
3RH11 ...-1...



3RH11 ...-2...



3RH12 ...-1...



3RH12 ...-2...

| Rated operational current I_e /AC-15/AC-14 at 230 V | Contacts | | Rated control supply voltage U_s | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|---|------------|---------|------------------------------------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | Ident. No. | Version | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| | | | V AC | | | | kg | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Terminal designations according to EN 50011

AC operation

| | | | | 50/60 Hz ¹⁾ | | | | | | |
|---|------|---|----|------------------------|---|----------------|-------|---|----------------|-------|
| 6 | 40 E | 4 | -- | 24 | ▶ | 3RH11 40-1AB00 | 0.200 | ▶ | 3RH11 40-2AB00 | 0.200 |
| | | | | 110 | ▶ | 3RH11 40-1AF00 | 0.200 | ▶ | 3RH11 40-2AF00 | 0.200 |
| | | | | 230 | ▶ | 3RH11 40-1AP00 | 0.200 | ▶ | 3RH11 40-2AP00 | 0.200 |
| | 31 E | 3 | 1 | 24 | ▶ | 3RH11 31-1AB00 | 0.200 | ▶ | 3RH11 31-2AB00 | 0.200 |
| | | | | 110 | ▶ | 3RH11 31-1AF00 | 0.200 | ▶ | 3RH11 31-2AF00 | 0.200 |
| | | | | 230 | ▶ | 3RH11 31-1AP00 | 0.200 | ▶ | 3RH11 31-2AP00 | 0.200 |
| | 22 E | 2 | 2 | 24 | ▶ | 3RH11 22-1AB00 | 0.200 | ▶ | 3RH11 22-2AB00 | 0.200 |
| | | | | 110 | ▶ | 3RH11 22-1AF00 | 0.200 | ▶ | 3RH11 22-2AF00 | 0.200 |
| | | | | 230 | ▶ | 3RH11 22-1AP00 | 0.200 | ▶ | 3RH11 22-2AP00 | 0.200 |

• With permanently mounted auxiliary switch block for safety applications according to SUVA

| | | | | | | | | | | |
|---|------|---|---|-----|---|----------------|-------|---|----------------|-------|
| 6 | 44 E | 4 | 4 | 230 | ▶ | 3RH12 44-1AP00 | 0.250 | B | 3RH12 44-2AP00 | 0.250 |
| | 62 E | 6 | 2 | 230 | ▶ | 3RH12 62-1AP00 | 0.250 | B | 3RH12 62-2AP00 | 0.250 |

DC operation · DC solenoid system

| | | | | | | | | | | |
|---|------|---|----|-----|---|----------------|-------|---|----------------|-------|
| 6 | 40 E | 4 | -- | 24 | ▶ | 3RH11 40-1BB40 | 0.260 | ▶ | 3RH11 40-2BB40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 40-1BM40 | 0.260 | B | 3RH11 40-2BM40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 40-1BM40 | 0.260 | B | 3RH11 40-2BM40 | 0.260 |
| | 31 E | 3 | 1 | 24 | ▶ | 3RH11 31-1BB40 | 0.260 | ▶ | 3RH11 31-2BB40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 31-1BM40 | 0.260 | B | 3RH11 31-2BM40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 31-1BM40 | 0.260 | B | 3RH11 31-2BM40 | 0.260 |
| | 22 E | 2 | 2 | 24 | ▶ | 3RH11 22-1BB40 | 0.260 | ▶ | 3RH11 22-2BB40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 22-1BM40 | 0.260 | B | 3RH11 22-2BM40 | 0.260 |
| | | | | 220 | ▶ | 3RH11 22-1BM40 | 0.260 | B | 3RH11 22-2BM40 | 0.260 |

• With permanently mounted auxiliary switch block for safety applications according to SUVA

| | | | | | | | | | | |
|---|------|---|---|----|---|----------------|-------|---|----------------|-------|
| 6 | 44 E | 4 | 4 | 24 | ▶ | 3RH12 44-1BB40 | 0.310 | A | 3RH12 44-2BB40 | 0.310 |
| | 62 E | 6 | 2 | 24 | ▶ | 3RH12 62-1BB40 | 0.310 | A | 3RH12 62-2BB40 | 0.310 |

For other voltages see page 3/71, for contactors with permanently mounted auxiliary switch block please inquire.

For accessories, see page 3/100 and 3/102.

For multi-unit packing and reusable packaging, see "Appendix -> Order information".

¹⁾ Coil operating range
 at 50 Hz: 0.8 to 1.1 × U_s
 at 60 Hz: 0.85 to 1.1 × U_s .

Rated control supply voltages
(the 10th and 11th position of the order number must be changed)

| | Contactor type | 3RH11 |
|------------------------------------|---------------------------|-------|
| Rated control supply voltage U_s | Control supply voltage at | |

AC operation

Solenoid coils for AC 50/60 and 60 Hz

| 50/60 Hz ¹⁾ | 60 Hz | |
|------------------------|-------|----|
| 24 V AC | -- | B0 |
| 42 V AC | -- | D0 |
| 48 V AC | -- | H0 |
| 110 V AC | -- | F0 |
| 220 V AC | -- | N2 |
| 230 V AC | -- | P0 |
| 400 V AC | -- | V0 |

Solenoid coils for AC 50/60 and 60 Hz (for Japan²⁾)

| | | |
|----------|----------|----|
| 100 V AC | 110 V AC | G6 |
| 200 V AC | 220 V AC | N6 |
| 400 V AC | 440 V AC | R6 |

Solenoid coils for AC 50 and 60 Hz (for USA and Canada³⁾)

| 50 Hz | 60 Hz | |
|----------|----------|----|
| 110 V AC | 120 V AC | K6 |
| 220 V AC | 240 V AC | P6 |

DC operation

| | |
|----------|----|
| 12 V DC | A4 |
| 24 V DC | B4 |
| 42 V DC | D4 |
| 48 V DC | W4 |
| 60 V DC | E4 |
| 110 V DC | F4 |
| 125 V DC | G4 |
| 220 V DC | M4 |
| 230 V DC | P4 |

¹⁾ Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s .

²⁾ Coil operating range
at 50/60 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s .

³⁾ Coil operating range
at 50 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s .

3RH, 3TH Contactor Relays

3RH14 latched contactor relays, 4-pole

Overview

AC and DC operation

IEC 60947, EN 60947 (VDE 0660).

The terminal designations comply with EN 50011.

The contactor coil and the coil of the release solenoid are both designed for uninterrupted duty.

The number of auxiliary contacts can be extended by means of auxiliary switch blocks (up to 4 poles).

RC elements, varistors diodes or diode assemblies can be fitted to both coils from the front for damping opening surges in the coil.

The contactor relay can also be switched on and released manually (for minimum actuating times, see "Technical specifications").

Selection and ordering data



3RH14 ..-1...

| Rated operational current I_e /AC-15/AC-14 at 230 V | Contacts | | Rated control supply voltage U_s | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|-----------------------------|-----------|------------------------------------|----|-----------------|-------------------|-----|----|-----------------------|
| | Ident. No. acc. to EN 50011 | Version | | | | | | | |
| A | | NO NC | V | | | | | | kg |

With screw terminals · for screw and snap-on mounting onto 35 mm standard mounting rail

AC operation

| 6 | 40 E | 4 | -- | AC 50/60 Hz ¹⁾ | | DT | Order No. | PU | PS* | PG | Weight per PU approx. |
|---|------|---|----|---------------------------|---------------|-----------------------|-----------|--------|-----|-------|-----------------------|
| | | | | Rated current | Rated voltage | | | | | | |
| | | | | 24 | B | 3RH14 40-1AB00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 42 | B | 3RH14 40-1AD00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 110 | B | 3RH14 40-1AF00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 230 | A | 3RH14 40-1AP00 | 1 | 1 unit | 101 | 0.380 | |
| | 31 E | 3 | 1 | 24 | B | 3RH14 31-1AB00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 42 | B | 3RH14 31-1AD00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 110 | B | 3RH14 31-1AF00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 230 | B | 3RH14 31-1AP00 | 1 | 1 unit | 101 | 0.380 | |
| | 22 E | 2 | 2 | 24 | B | 3RH14 22-1AB00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 42 | B | 3RH14 22-1AD00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 110 | B | 3RH14 22-1AF00 | 1 | 1 unit | 101 | 0.380 | |
| | | | | 230 | ▶ B | 3RH14 22-1AP00 | 1 | 1 unit | 101 | 0.380 | |

DC operation · DC solenoid system

| 6 | 40 E | 4 | -- | DC | | DT | Order No. | PU | PS* | PG | Weight per PU approx. |
|---|------|---|----|---------------|---------------|-----------------------|-----------|--------|-----|-------|-----------------------|
| | | | | Rated current | Rated voltage | | | | | | |
| | | | | 24 | ▶ B | 3RH14 40-1BB40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 110 | B | 3RH14 40-1BF40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 220 | B | 3RH14 40-1BM40 | 1 | 1 unit | 101 | 0.500 | |
| | 31 E | 3 | 1 | 24 | B | 3RH14 31-1BB40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 110 | B | 3RH14 31-1BF40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 220 | B | 3RH14 31-1BM40 | 1 | 1 unit | 101 | 0.500 | |
| | 22 E | 2 | 2 | 24 | ▶ B | 3RH14 22-1BB40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 110 | B | 3RH14 22-1BF40 | 1 | 1 unit | 101 | 0.500 | |
| | | | | 220 | B | 3RH14 22-1BM40 | 1 | 1 unit | 101 | 0.500 | |

For accessories, see page 3/100 and 3/102.

¹⁾ Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s .

Overview

AC and DC operation

IEC 60947 and EN 60947 (VDE 0660).

The 3TH42/3TH43 contactor relays are suitable for use in any climate. They are finger-safe according to EN 50274.

Terminal designations according to EN 50011

In terms of their terminal designations, identification numbers and identification letters, the 3TH42/3TH43 contactor relays conform to the standard EN 50011 for "Specific contactor relays".

Selection and ordering data



3TH42 ...-0...

| Contacts | Rated operational current $I_{ed}/AC-15/AC-14$ at | | | | Contacts | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------|---|-----------|-------|-----------|-------------|----|-----------------|-------------------|-----|----|-----------------------|
| | 230/220 V | 400/380 V | 500 V | 690/660 V | | | | | | | |
| Number | A | A | A | A | | | Order No. | Price per PU | | | kg |
| | | | | | NO NC NO NC | | | | | | |

With screw terminals - for screw and snap-on mounting onto 35 mm standard mounting rail

AC operation, rated control supply voltage $U_s = AC 50 Hz 230/220 V^{1)}$

| | | | | | | | | | | | | | | | |
|---|----|---|---|---|---------|---|----|----|----|---|---------------|---|--------|-----|-------|
| 8 | 10 | 6 | 4 | 2 | 80 E | 8 | -- | -- | -- | ▶ | 3TH42 80-0AP0 | 1 | 1 unit | 101 | 0.420 |
| | | | | | 71 E | 7 | 1 | -- | -- | ▶ | 3TH42 71-0AP0 | 1 | 1 unit | 101 | 0.420 |
| | | | | | 62 E | 6 | 2 | -- | -- | D | 3TH42 62-0AP0 | 1 | 1 unit | 101 | 0.420 |
| | | | | | 53 E | 5 | 3 | -- | -- | ▶ | 3TH42 53-0AP0 | 1 | 1 unit | 101 | 0.420 |
| | | | | | 44 E | 4 | 4 | -- | -- | ▶ | 3TH42 44-0AP0 | 1 | 1 unit | 101 | 0.420 |
| | | | | | 44 E, U | 3 | 3 | 1 | 1 | ▶ | 3TH42 93-0AP0 | 1 | 1 unit | 101 | 0.420 |

DC operation - DC solenoid system, rated control supply voltage $U_s = 24 V DC$

| | | | | | | | | | | | | | | | |
|---|----|---|---|---|---------|---|----|----|----|---|---------------|---|--------|-----|-------|
| 8 | 10 | 6 | 4 | 2 | 80 E | 8 | -- | -- | -- | ▶ | 3TH42 80-0BB4 | 1 | 1 unit | 101 | 0.670 |
| | | | | | 71 E | 7 | 1 | -- | -- | ▶ | 3TH42 71-0BB4 | 1 | 1 unit | 101 | 0.670 |
| | | | | | 62 E | 6 | 2 | -- | -- | ▶ | 3TH42 62-0BB4 | 1 | 1 unit | 101 | 0.670 |
| | | | | | 53 E | 5 | 3 | -- | -- | ▶ | 3TH42 53-0BB4 | 1 | 1 unit | 101 | 0.670 |
| | | | | | 44 E | 4 | 4 | -- | -- | ▶ | 3TH42 44-0BB4 | 1 | 1 unit | 101 | 0.670 |
| | | | | | 44 E, U | 3 | 3 | 1 | 1 | ▶ | 3TH42 93-0BB4 | 1 | 1 unit | 101 | 0.670 |

For accessories, see page 3/124.

Spare parts

Solenoid coils:

AC operation: 3TY7 403-0A.

DC operation: 3TY4 803-0B.

(voltages on request)

Contacts:

The contacts cannot be replaced on 3TH42 contactor relays.

¹⁾ Operating range at 220 V: 0.85 to 1.1 x U_s ;
lower operating range limit according to IEC 60947.

3RH, 3TH Contactor Relays

3TH4 contactor relays, 8- and 10-pole



| Contacts | | Rated operational current I_e /AC-15/AC-14 at | | | | Contacts | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------|---|---|-------|-------|-------|-----------------------------|---------|----|-----------------|-------------------|-----|----|-----------------------|
| | | 230 V | 400 V | 500 V | 690 V | Ident. No. acc. to EN 50011 | Version | | Order No. | Price per PU | | | kg |
| Number | A | A | A | A | | | | | | | | | |
| | | | | | | | | | | | | | |

With screw terminals · for screw and snap-on mounting onto 35 mm standard mounting rail

AC operation, rated control supply voltage $U_s = AC 50 Hz 230/220 V^1)$

| 10 | 10 | 6 | 4 | 2 | 100 E | 10 | -- | -- | -- | ▶ | 3TH43 10-0AP0 | 1 | 1 unit | 101 | 0.480 |
|----|----|---|---|---|--------|----|----|----|----|---|---------------|---|--------|-----|-------|
| | | | | | 91 E | 9 | 1 | -- | -- | ▶ | 3TH43 91-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 82 E | 8 | 2 | -- | -- | ▶ | 3TH43 82-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 73 E | 7 | 3 | -- | -- | ▶ | 3TH43 73-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 73 E,U | 6 | 2 | 1 | 1 | ▶ | 3TH43 46-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 64 E | 6 | 4 | -- | -- | ▶ | 3TH43 64-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 55 E | 5 | 5 | -- | -- | ▶ | 3TH43 55-0AP0 | 1 | 1 unit | 101 | 0.480 |
| | | | | | 55 E,U | 4 | 4 | 1 | 1 | ▶ | 3TH43 94-0AP0 | 1 | 1 unit | 101 | 0.480 |

DC operation · DC solenoid system, rated control supply voltage $U_s = 24 V DC$

| 10 | 10 | 6 | 4 | 2 | 100 E | 10 | -- | -- | -- | ▶ | 3TH43 10-0BB4 | 1 | 1 unit | 101 | 0.710 |
|----|----|---|---|---|---------|----|----|----|----|---|---------------|---|--------|-----|-------|
| | | | | | 91 E | 9 | 1 | -- | -- | ▶ | 3TH43 91-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 82 E | 8 | 2 | -- | -- | ▶ | 3TH43 82-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 73 E | 7 | 3 | -- | -- | ▶ | 3TH43 73-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 73 E, U | 6 | 2 | 1 | 1 | ▶ | 3TH43 46-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 64 E | 6 | 4 | -- | -- | ▶ | 3TH43 64-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 55 E | 5 | 5 | -- | -- | ▶ | 3TH43 55-0BB4 | 1 | 1 unit | 101 | 0.710 |
| | | | | | 55 E, U | 4 | 4 | 1 | 1 | ▶ | 3TH43 94-0BB4 | 1 | 1 unit | 101 | 0.710 |

For accessories, see page 3/124.

1) Operating range at 220 V: 0.85 to 1.1 x U_s , lower operating range limit according to IEC 60947.

Spare parts

Solenoid coils:
AC operation: 3TY7 403-0A..
DC operation: 3TY4 803-0B..

Contacts:

The contacts cannot be replaced on 3TH43 contactor relays.

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| Rated control supply voltage U_s | Contactor type | 3TH42/3TH43 |
|------------------------------------|----------------|------------------|
| Control supply voltage at | | |
| AC operation | | |
| Solenoid coils for AC 50 Hz | | |
| 50 Hz | 60 Hz | |
| 24 V AC | 29 V AC | B0 |
| 36 V AC | 42 V AC | G0 |
| 42 V AC | 50 V AC | D0 |
| 48 V AC | 58 V AC | H0 |
| 60 V AC | 72 V AC | E0 |
| 110 V AC | 132 V AC | F0 |
| 125/127 V AC | 150/152 V AC | L0 |
| 230/220 V AC | 276 V AC | P0 ¹⁾ |
| 240 V AC | 288 V AC | U0 |
| 400/380 V AC | 480/460 V AC | V0 ¹⁾ |
| 415 V AC | 500 V AC | R0 |
| 500 V AC | 600 V AC | S0 |
| For Japan | | |
| 100 V AC | 100-110 V AC | G6 ²⁾ |
| 200 V AC | 200-220 V AC | N6 ²⁾ |
| For USA and Canada | | |
| 110 V AC | 120 V AC | K6 ²⁾ |
| 220 V AC | 240 V AC | P6 ²⁾ |

1) Operating range at 220 V or 380 V: 0.85 to 1.1 x U_s .

2) Operating range at 60 Hz: 0.85 to 1.1 x U_s .

| Rated control supply voltage U_s | Contactor type | 3TH42/3TH43 |
|---|----------------|-------------|
| Solenoid coils for AC 50 and 60 Hz | | |
| 50/60 Hz | | |
| 24 V AC | | C2 |
| 42 V AC | | D2 |
| 110 V AC | | G2 |
| 115 V AC | | J2 |
| 120 V AC | | K2 |
| 220 V AC | | N2 |
| 230 V AC | | L2 |
| 240 V AC | | P2 |
| 440 V AC | | R2 |
| DC operation | | |
| 12 V DC | | A4 |
| 24 V DC | | B4 |
| 30 V DC | | C4 |
| 36 V DC | | V4 |
| 42 V DC | | D4 |
| 48 V DC | | W4 |
| 60 V DC | | E4 |
| 110 V DC | | F4 |
| 125 V DC | | G4 |
| 220 V DC | | M4 |
| 230 V DC | | P4 |
| 240 V DC | | Q4 |

* You can order this quantity or a multiple thereof.

Overview

AC and DC operation

IEC 60947 (VDE 0660).

The terminal designations comply with EN 50011.

3TH2 contactor relays

The 3TH2 contactor relays are suitable for use in any climate.

The contactor relays with screw terminal are finger-safe according to EN 50274.

3TH27 latched contactor relays

The contactor coil and the coil of the release solenoid are both designed for uninterrupted duty.

RC elements, varistors diodes or diode assemblies can be fitted to both coils from the front for damping opening surges in the coil.

The contactor relay can also be switched on and released manually.

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

Selection and ordering data

| Contacts | Rated operational current I_e /AC-15/AC-14 at | | | | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------|---|---------------|-------|---------------|----------|----|-----------|-----------------|-------------------------|-----|----|-----------------------------|
| | 230/ 220 V | 400/ 380 V | 500 V | 690/ 660 V | | | | | | | | |
| Number | A | A | A | A | | | | | | | | kg |
| | | | | | NO | NC | | | | | | |

Contactor relays with screw terminals for screw and snap-on mounting onto 35 mm standard mounting rail



3TH20 ...-0A...

AC operation

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|---|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | 1 | 40E | 4 -- | A |
| | | | | | 31E | 3 1 | A |
| | | | | | 22E | 2 2 | A |

Screw terminals

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-0AP0 | | 1 | 1 unit | 101 | 0.200 |
| 3TH20 31-0AP0 | | 1 | 1 unit | 101 | 0.200 |
| 3TH20 22-0AP0 | | 1 | 1 unit | 101 | 0.200 |

DC operation · DC solenoid system

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|---|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | 1 | 40E | 4 -- | A |
| | | | | | 31E | 3 1 | A |
| | | | | | 22E | 2 2 | A |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-0BB4 | | 1 | 1 unit | 101 | 0.220 |
| 3TH20 31-0BB4 | | 1 | 1 unit | 101 | 0.220 |
| 3TH20 22-0BB4 | | 1 | 1 unit | 101 | 0.220 |

Contactor relays with 6.3 mm x 0.8 mm flat connectors



3TH20 ...-3...

AC operation

For screw and snap-on mounting onto 35 mm standard mounting rail

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

Flat connectors

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-3AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 31-3AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 22-3AP0 | | 1 | 1 unit | 101 | 0.170 |

For screw fixing (diagonal)

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-7AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 31-7AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 22-7AP0 | | 1 | 1 unit | 101 | 0.170 |

DC operation · DC solenoid system

For screw and snap-on mounting onto 35 mm standard mounting rail

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-3BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 31-3BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 22-3BB4 | | 1 | 1 unit | 101 | 0.190 |

For screw fixing (diagonal)

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-7BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 31-7BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 22-7BB4 | | 1 | 1 unit | 101 | 0.190 |

Contactor relays with solder pin connections for printed circuit boards



3TH20 ...-6...

AC operation

For screw fixing (diagonal)

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

Solder pin connections

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-6AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 31-6AP0 | | 1 | 1 unit | 101 | 0.170 |
| 3TH20 22-6AP0 | | 1 | 1 unit | 101 | 0.170 |

DC operation · DC solenoid system

For screw fixing (diagonal)

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 4 | 4 | 3 | 2 | -- | 40E | 4 -- | C |
| | | | | | 31E | 3 1 | C |
| | | | | | 22E | 2 2 | C |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH20 40-6BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 31-6BB4 | | 1 | 1 unit | 101 | 0.190 |
| 3TH20 22-6BB4 | | 1 | 1 unit | 101 | 0.190 |

Contactor relays with permanently mounted auxiliary switch blocks with screw terminals, width 45 mm for screw and snap-on mounting onto 35 mm standard mounting rail



3TH22 ...-0A...

AC operation

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 8 | 4 | 3 | 2 | -- | 80E | 8 0 | C |
| | | | | | 71E | 7 1 | C |
| | | | | | 62E | 6 2 | C |
| | | | | | 53E | 5 3 | C |
| | | | | | 44E | 4 4 | C |

Screw terminals

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH22 80-0AP0 | | 1 | 1 unit | 101 | 0.240 |
| 3TH22 71-0AP0 | | 1 | 1 unit | 101 | 0.240 |
| 3TH22 62-0AP0 | | 1 | 1 unit | 101 | 0.240 |
| 3TH22 53-0AP0 | | 1 | 1 unit | 101 | 0.240 |
| 3TH22 44-0AP0 | | 1 | 1 unit | 101 | 0.240 |

DC operation · DC solenoid system

| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | DT |
|--------|---|---|---|----|-----------------------------------|---------|----|
| 8 | 4 | 3 | 2 | -- | 80E | 8 0 | C |
| | | | | | 71E | 7 1 | C |
| | | | | | 62E | 6 2 | C |
| | | | | | 53E | 5 3 | C |
| | | | | | 44E | 4 4 | C |

| Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|--------------|-------------------|--------|-----|-----------------------|
| 3TH22 80-0BB4 | | 1 | 1 unit | 101 | 0.260 |
| 3TH22 71-0BB4 | | 1 | 1 unit | 101 | 0.260 |
| 3TH22 62-0BB4 | | 1 | 1 unit | 101 | 0.260 |
| 3TH22 53-0BB4 | | 1 | 1 unit | 101 | 0.260 |
| 3TH22 44-0BB4 | | 1 | 1 unit | 101 | 0.260 |

For accessories, see page 3/125.

* You can order this quantity or a multiple thereof.

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

| Con- tacts | Rated operational current I_e /AC-15/AC-14 at | | | | Contacts | | DT | Screw terminals | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|---|---------------|-------|---------------|-----------------------------------|---------|-------|-----------------|-------------------------|-----|----|-----------------------------|
| | 230/ 220 V | 400/ 380 V | 500 V | 690/ 660 V | Ident. No. acc. to EN 50011 | Version | | | | | | |
| | | | | | | | | Order No. | Price per PU | | | |
| Num- ber | A | A | A | A | | | NO NC | | | | | kg |

Latched contactor relays with screw terminals · for screw and snap-on mounting onto 35 mm standard mounting rail



AC operation

| 4 | 4 | 3 | 2 | 1 | 40E | 4 | -- | C | 3TH27 40-0AP0 | 1 | 1 unit | 101 | 0.350 |
|---|---|---|---|---|-----|---|----|---|---------------|---|--------|-----|-------|
| | | | | | 31E | 3 | 1 | C | 3TH27 31-0AP0 | 1 | 1 unit | 101 | 0.350 |
| | | | | | 22E | 2 | 2 | C | 3TH27 22-0AP0 | 1 | 1 unit | 101 | 0.350 |

DC operation · DC solenoid system

| | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|-----|---|----|---|---------------|---|--------|-----|-------|
| 3TH27 .. | 4 | 4 | 3 | 2 | 1 | 40E | 4 | -- | C | 3TH27 40-0BB4 | 1 | 1 unit | 101 | 0.400 |
| | | | | | | 31E | 3 | 1 | C | 3TH27 31-0BB4 | 1 | 1 unit | 101 | 0.400 |
| | | | | | | 22E | 2 | 2 | C | 3TH27 22-0BB4 | 1 | 1 unit | 101 | 0.400 |

For accessories, see page 3/125.

Rated control supply voltages
(the 10th and 11th position of the order number must be changed)

| Rated control supply voltage U_s | Contactor type | 3TH20 ..-0... | 3TH20 ..-3..., 3TH20 ..-6..., 3TH20 ..-7..., 3TH22, 3TH27 |
|------------------------------------|----------------|---------------|--|
| | | | |

AC operation

Solenoid coils for AC 50 and 60 Hz

| 50 Hz | | 60 Hz | |
|--------------|----------|------------------|------------------|
| 24 V AC | 29 V AC | B0 | -- |
| 110 V AC | 132 V AC | F0 | -- |
| 230/220 V AC | 276 V AC | P0 ¹⁾ | P0 ¹⁾ |

DC operation

| | | |
|----------|----|----|
| 24 V DC | B4 | B4 |
| 110 V DC | F4 | -- |
| 220 V DC | M4 | -- |

¹⁾ Operating range at 220 V or 380 V:
0.85 to 1.15 x U_s ; lower operating range limit according to IEC 60947.

Please inquire about further voltages.

3RH, 3TH Contactor Relays

3RH11 coupling relays for switching auxiliary circuits, 4-pole

Application

DC operation

IEC 60947 and EN 60947 (VDE 0660).

The 3RH11 coupling relays for switching auxiliary circuits are tailored to the special requirements of working with electronic controls.

The 3RH11 coupling relays cannot be extended with auxiliary switch blocks.

Selection and ordering data

DC operation

Low power consumption

Extended operating range of the solenoid coils

Integrated coil circuit

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RH11 ...-1.B40



3RH11 ...-2.B40

| Surge suppressors | Rated operational current I_g /AC-15/AC-14 at 230 V | Auxiliary contacts | | DT | Screw terminals | | Weight per PU approx. kg | DT | Cage Clamp terminals | | Weight per PU approx. kg |
|-------------------|---|-----------------------------|---------|----|-----------------|--------------|-----------------------------|----|----------------------|--------------|-----------------------------|
| | | Ident. No. acc. to EN 50011 | Version | | Order No. | Price per PU | | | Order No. | Price per PU | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

A

NO NC

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

Terminal designations according to EN 50011

Rated control supply voltage $U_s = 24$ V DC, operating range **0.7 to 1.25 x U_s**

Power consumption of the solenoid coils **2.3 W** at 24 V (no auxiliary switch blocks can be mounted)

| | | | | | | | | | | |
|---|---|------|---|----|---|----------------|-------|---|----------------|-------|
| Diode, varistor or RC element, attachable | 6 | 40 E | 4 | -- | ▶ | 3RH11 40-1HB40 | 0.260 | B | 3RH11 40-2HB40 | 0.260 |
| | | 31 E | 3 | 1 | ▶ | 3RH11 31-1HB40 | 0.260 | B | 3RH11 31-2HB40 | 0.260 |
| | | 22 E | 2 | 2 | ▶ | 3RH11 22-1HB40 | 0.260 | B | 3RH11 22-2HB40 | 0.260 |
| Built-in diode | 6 | 40 E | 4 | -- | ▶ | 3RH11 40-1JB40 | 0.260 | B | 3RH11 40-2JB40 | 0.260 |
| | | 31 E | 3 | 1 | ▶ | 3RH11 31-1JB40 | 0.260 | ▶ | 3RH11 31-2JB40 | 0.260 |
| | | 22 E | 2 | 2 | ▶ | 3RH11 22-1JB40 | 0.260 | B | 3RH11 22-2JB40 | 0.260 |
| Built-in varistor | 6 | 40 E | 4 | -- | ▶ | 3RH11 40-1KB40 | 0.260 | B | 3RH11 40-2KB40 | 0.260 |
| | | 31 E | 3 | 1 | ▶ | 3RH11 31-1KB40 | 0.260 | ▶ | 3RH11 31-2KB40 | 0.260 |
| | | 22 E | 2 | 2 | ▶ | 3RH11 22-1KB40 | 0.260 | ▶ | 3RH11 22-2KB40 | 0.260 |

Rated control supply voltage $U_s = 24$ V DC, operating range **0.85 to 1.85 x U_s**

Power consumption of the solenoid coils **1.4 W** at 24 V (no auxiliary switch blocks can be mounted)

| | | | | | | | | | | |
|---|---|------|---|----|---|---------------------|-------|---|---------------------|-------|
| Diode, varistor or RC element, attachable | 6 | 40 E | 4 | -- | B | 3RH11 40-1MB40-OKT0 | 0.260 | B | 3RH11 40-2MB40-OKT0 | 0.260 |
| | | 31 E | 3 | 1 | B | 3RH11 31-1MB40-OKT0 | 0.260 | B | 3RH11 31-2MB40-OKT0 | 0.260 |
| | | 22 E | 2 | 2 | A | 3RH11 22-1MB40-OKT0 | 0.260 | B | 3RH11 22-2MB40-OKT0 | 0.260 |
| Built-in diode | 6 | 40 E | 4 | -- | B | 3RH11 40-1VB40 | 0.260 | B | 3RH11 40-2VB40 | 0.260 |
| | | 31 E | 3 | 1 | A | 3RH11 31-1VB40 | 0.260 | B | 3RH11 31-2VB40 | 0.260 |
| | | 22 E | 2 | 2 | B | 3RH11 22-1VB40 | 0.260 | B | 3RH11 22-2VB40 | 0.260 |
| Built-in varistor | 6 | 40 E | 4 | -- | B | 3RH11 40-1WB40 | 0.260 | B | 3RH11 40-2WB40 | 0.260 |
| | | 31 E | 3 | 1 | A | 3RH11 31-1WB40 | 0.260 | B | 3RH11 31-2WB40 | 0.260 |
| | | 22 E | 2 | 2 | A | 3RH11 22-1WB40 | 0.260 | B | 3RH11 22-2WB40 | 0.260 |

For accessories, see page 3/100 and 3/102.

3RT10 coupling relays (interface),
for switching motors, 3-pole, 3 ... 11 kW

Application

DC operation

IEC 60947, EN 60947 (VDE 0660).

The 3RT10 coupling relays for switching motors are tailored to the special requirements of working with electronic controls.

The 3RT10 1 coupling relays cannot be extended with auxiliary switch blocks.

Two single-pole auxiliary switch blocks can be fitted to the 3RT10 2 coupling relays.

Selection and ordering data

DC operation

Low power consumption

Extended operating range of the solenoid coils

Integrated coil circuit

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RT10 1.-1.B4.



3RT10 1.-2.B4.

| Surge suppressors | Rated data AC-2 and AC-3, T_U : Up to 60 °C | Auxiliary contacts | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|-------------------|---|-----------------------------------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| A | Operational current I_e up to 400 V 400 V | Ident. No. Version NO NC | | | | kg | | | kg | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

Terminal designations according to EN 50012

Rated control supply voltage $U_s = 24$ V DC, coil operating range **0.7 to 1.25** × U_s

Power consumption of the solenoid coils **2.3 W** at 24 V (no auxiliary switch blocks can be mounted)

| | | | | | | | | | | | |
|---|----|-----|----|----|----|---|-----------------------|-------|---|-----------------------|-------|
| Diode, varistor or RC element, attachable | 7 | 3 | 10 | 1 | -- | ▶ | 3RT10 15-1HB41 | 0.260 | B | 3RT10 15-2HB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 15-1HB42 | 0.260 | B | 3RT10 15-2HB42 | 0.260 |
| Built-in diode | 7 | 3 | 10 | 1 | -- | ▶ | 3RT10 15-1JB41 | 0.260 | ▶ | 3RT10 15-2JB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 15-1JB42 | 0.260 | ▶ | 3RT10 15-2JB42 | 0.260 |
| Built-in varistor | 7 | 3 | 10 | 1 | -- | ▶ | 3RT10 15-1KB41 | 0.260 | ▶ | 3RT10 15-2KB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 15-1KB42 | 0.260 | ▶ | 3RT10 15-2KB42 | 0.260 |
| Diode, varistor or RC element, attachable | 9 | 4 | 10 | 1 | -- | ▶ | 3RT10 16-1HB41 | 0.260 | B | 3RT10 16-2HB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 16-1HB42 | 0.260 | B | 3RT10 16-2HB42 | 0.260 |
| Built-in diode | 9 | 4 | 10 | 1 | -- | ▶ | 3RT10 16-1JB41 | 0.260 | ▶ | 3RT10 16-2JB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 16-1JB42 | 0.260 | ▶ | 3RT10 16-2JB42 | 0.260 |
| Built-in varistor | 9 | 4 | 10 | 1 | -- | ▶ | 3RT10 16-1KB41 | 0.260 | ▶ | 3RT10 16-2KB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 16-1KB42 | 0.260 | ▶ | 3RT10 16-2KB42 | 0.260 |
| Diode, varistor or RC element, attachable | 12 | 5.5 | 10 | 1 | -- | A | 3RT10 17-1HB41 | 0.260 | B | 3RT10 17-2HB41 | 0.260 |
| | | | 01 | -- | 1 | B | 3RT10 17-1HB42 | 0.260 | B | 3RT10 17-2HB42 | 0.260 |
| Built-in diode | 12 | 5.5 | 10 | 1 | -- | ▶ | 3RT10 17-1JB41 | 0.260 | ▶ | 3RT10 17-2JB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 17-1JB42 | 0.260 | A | 3RT10 17-2JB42 | 0.260 |
| Built-in varistor | 12 | 5.5 | 10 | 1 | -- | ▶ | 3RT10 17-1KB41 | 0.260 | ▶ | 3RT10 17-2KB41 | 0.260 |
| | | | 01 | -- | 1 | ▶ | 3RT10 17-1KB42 | 0.260 | ▶ | 3RT10 17-2KB42 | 0.260 |

For accessories, see page 3/107.

3RT Coupling Relays

**3RT10 coupling relays (interface),
for switching motors, 3-pole, 3 ... 11 kW**

DC operation

Low power consumption

Extended operating range of the solenoid coils

Integrated coil circuit

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RT10 1.-1.B4.



3RT10 1.-2.B4.

| Surge suppressors | Rated data AC-2 and AC-3, T_U : Up to 60 °C | | Auxiliary contacts | | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|-------------------|---|---|--------------------|---------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | Operational current I_e up to | Rating of induction motors at 50 Hz and | Ident. No. | Version | | Order No. | Price per PU | | | Order No. | Price per PU | |
| A | 400 V | 400 V | | | | | | | | | | kg |
| | | | NO | NC | | | kg | | | | | kg |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S00

Terminal designations according to EN 50012

Rated control supply voltage $U_s = 24$ V DC, operating range **0.85 to 1.85 x U_s**

Power consumption of the solenoid coils **1.4 W** at 24 V (no auxiliary switch blocks can be mounted)

| | | | | | | | | | | | |
|---|----|------------|----------|---------|---------|--------|--|----------------|--------|--|----------------|
| Diode, varistor or RC element, attachable | 7 | 3 | 10 01 | 1 -- | -- 1 | B B | 3RT10 15-1MB41-0KT0 3RT10 15-1MB42-0KT0 | 0.260 0.260 | B B | 3RT10 15-2MB41-0KT0 3RT10 15-2MB42-0KT0 | 0.260 0.260 |
| Built-in diode | 7 | 3 | 10 01 | 1 -- | -- 1 | B B | 3RT10 15-1VB41 3RT10 15-1VB42 | 0.260 0.260 | B B | 3RT10 15-2VB41 3RT10 15-2VB42 | 0.260 0.260 |
| Built-in varistor | 7 | 3 | 10 01 | 1 -- | -- 1 | A B | 3RT10 15-1WB41 3RT10 15-1WB42 | 0.260 0.260 | B B | 3RT10 15-2WB41 3RT10 15-2WB42 | 0.260 0.260 |
| Diode, varistor or RC element, attachable | 9 | 4 | 10 01 | 1 -- | -- 1 | B B | 3RT10 16-1MB41-0KT0 3RT10 16-1MB42-0KT0 | 0.260 0.260 | B B | 3RT10 16-2MB41-0KT0 3RT10 16-2MB42-0KT0 | 0.260 0.260 |
| Built-in diode | 9 | 4 | 10 01 | 1 -- | -- 1 | B B | 3RT10 16-1VB41 3RT10 16-1VB42 | 0.260 0.260 | B B | 3RT10 16-2VB41 3RT10 16-2VB42 | 0.260 0.260 |
| Built-in varistor | 9 | 4 | 10 01 | 1 -- | -- 1 | B B | 3RT10 16-1WB41 3RT10 16-1WB42 | 0.260 0.260 | B B | 3RT10 16-2WB41 3RT10 16-2WB42 | 0.260 0.260 |
| Diode, varistor or RC element, attachable | 12 | 5.5 | 10 01 | 1 -- | -- 1 | B B | 3RT10 17-1MB41-0KT0 3RT10 17-1MB42-0KT0 | 0.260 0.260 | B B | 3RT10 17-2MB41-0KT0 3RT10 17-2MB42-0KT0 | 0.260 0.260 |
| Built-in diode | 12 | 5.5 | 10 01 | 1 -- | -- 1 | B B | 3RT10 17-1VB41 3RT10 17-1VB42 | 0.260 0.260 | B B | 3RT10 17-2VB41 3RT10 17-2VB42 | 0.260 0.260 |
| Built-in varistor | 12 | 5.5 | 10 01 | 1 -- | -- 1 | B B | 3RT10 17-1WB41 3RT10 17-1WB42 | 0.260 0.260 | B B | 3RT10 17-2WB41 3RT10 17-2WB42 | 0.260 0.260 |

For accessories, see page 3/107.

3RT Coupling Relays

**3RT10 coupling relays (interface),
for switching motors, 3-pole, 3 ... 11 kW**

- DC operation
- Low power consumption
- Extended operating range of the solenoid coils
- Integrated coil circuit

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT10 2.-1KB40



3RT10 2.-3KB40

| Surge suppressors | Rated data AC-2 and AC-3, T_{ij} : Up to 60 °C | Auxiliary contacts | | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|-------------------|--|--|---------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | | Ident. No. | Version | | Order No. | Price per PU | | | Order No. | Price per PU | |
| | Operational current I_e up to 400 V | Rating of induction motors at 50 Hz and 400 V | | | | | | | | | |
| A | kW | | NO NC | | | kg | | | | kg | |

For screw and snap-on mounting onto 35 mm standard mounting rail

Size S0

Rated control supply voltage $U_s = 24$ V DC, coil operating range **0.7 to 1.25 x U_s**
 Power consumption of the solenoid coils **4.2 W** at 24 V (**2 single-pole auxiliary switch blocks can be mounted**)

| | | | | | | | | | | | |
|------------------|----|------------|----|----|----|---|-----------------------|-------|---|-----------------------|-------|
| Varistor mounted | 12 | 5.5 | -- | -- | -- | ▶ | 3RT10 24-1KB40 | 0.600 | B | 3RT10 24-3KB40 | 0.600 |
| | 17 | 7.5 | -- | -- | -- | ▶ | 3RT10 25-1KB40 | 0.600 | ▶ | 3RT10 25-3KB40 | 0.600 |
| | 25 | 11 | -- | -- | -- | ▶ | 3RT10 26-1KB40 | 0.600 | ▶ | 3RT10 26-3KB40 | 0.600 |

For accessories, see page 3/101.

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Relay couplers

Application

AC and DC operation

EN 60664-1, EN 60947 and EN 50005.



In the coupling links in double-decker design, the connections are arranged on two levels; the units are extremely compact. Connection method: Screw terminals or spring-type terminals. For test purposes, versions are available with manual-0-automatic switches.

The input and output coupling links differ with regard to the positioning of the terminals and the LEDs. For equipment identification purposes, each coupling link has a blank labeling plate.

In accordance with the technical specifications of electronic systems, the coupling links have a lower power consumption.

Selection and ordering data

AC and DC operation · for snap-on mounting onto 35 mm standard mounting rail

| Rated control supply voltage U_s at AC 50/60 Hz | Contacts Version | | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|------------------|--------------------|-------|----|--|--------------|-------------------|--------|-----|-----------------------|
| V | NO | CO | mm | | | | | | | kg |
| 3TX7 002 relay coupling links with screw terminals | | | | | | | | | | |
| Output coupling links | | | | | Screw terminals  | | | | | |
| 24 AC/DC | 1 ¹⁾ | -- | 11.5 | ▶ | 3TX7 002-1AB00 | | 1 | 1 unit | 101 | 0.035 |
| | | -- | | ▶ | 3TX7 002-1AB02 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC 230 AC/DC | -- | 1 | 17.5 | ▶ | 3TX7 002-1BB00 | | 1 | 1 unit | 101 | 0.045 |
| | | | | ▶ | 3TX7 002-1BF00 | | 1 | 1 unit | 101 | 0.045 |
| 24 AC/DC | 2 ²⁾ | -- | 22.5 | ▶ | 3TX7 002-1CB00 | | 1 | 1 unit | 101 | 0.061 |
| | -- | 2 ^{1) 2)} | | ▶ | 3TX7 002-1FB02 | | 1 | 1 unit | 101 | 0.061 |
| Input coupling links | | | | | | | | | | |
| 24 AC/DC 110 AC/DC | 1 | -- | 11.5 | ▶ | 3TX7 002-2AB00 | | 1 | 1 unit | 101 | 0.035 |
| | | | | ▶ | 3TX7 002-2AE00 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC ²⁾ | 1 | -- | 11.5 | ▶ | 3TX7 002-2AF00 | | 1 | 1 unit | 101 | 0.035 |
| | | | | ▶ | 3TX7 002-2AF05 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | -- | 1 ^{1) 3)} | 17.5 | ▶ | 3TX7 002-2BF02 | | 1 | 1 unit | 101 | 0.045 |
| 3TX7 003 relay coupling links with spring-type terminals | | | | | | | | | | |
| Output coupling links | | | | | Spring-type terminals  | | | | | |
| 24 AC/DC | 1 | -- | 11.5 | ▶ | 3TX7 003-1AB00 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC | -- | 1 | 17.5 | ▶ | 3TX7 003-1BB00 | | 1 | 1 unit | 101 | 0.045 |
| 24 AC/DC | 2 ²⁾ | -- | 22.5 | ▶ | 3TX7 003-1CB00 | | 1 | 1 unit | 101 | 0.055 |
| Input coupling links | | | | | | | | | | |
| 230 AC/DC | 1 | -- | 11.5 | A | 3TX7 003-2AF00 | | 1 | 1 unit | 101 | 0.035 |

Note:

For coil voltages which are not listed, see SITOP power DC Power Supplies, e. g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

¹⁾ Hard gold-plated contacts.


²⁾ The same potential must be applied to the output contacts of the 2 NO/2 CO relays.

³⁾ Observe max. permissible cable length, see "Technical specifications".

3TX7, 3RS18 Coupling Relays


3TX7 Coupling Relays, Narrow Design

Relay couplers

| Rated control supply voltage U_s at AC 50/60 Hz | Contacts Version | | Manual-0-automatic switch for testing purposes | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|------------------|-----------------|--|--------------------|----|--|--------------|-------------------|--------|-----|-----------------------|
| V | NO | CO | | mm | | | | | | | kg |
| 3TX7 004 relay couplers with screw terminals | | | | | | | | | | | |
| Output coupling links | | | | | | Screw terminals  | | | | | |
| 24 AC/DC | -- | 1 | Without | 6.2 | ▶ | 3TX7 004-1LB00 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | -- | 1 | Without | 6.2 | ▶ | 3TX7 004-1LF00 | | 1 | 1 unit | 101 | 0.035 |
| | -- | 1 | Without | 12.5 ¹⁾ | ▶ | 3TX7 004-1BF05 | | 1 | 1 unit | 101 | 0.051 |
| 24 AC/DC | -- | 1 ²⁾ | Without | 6.2 | ▶ | 3TX7 004-1LB02 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC | 1 | -- | Without | 6.2 | ▶ | 3TX7 004-1MB00 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | 1 | -- | Without | 6.2 | ▶ | 3TX7 004-1MF00 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC | -- | 1 | With | 12.5 | ▶ | 3TX7 004-1BB10 | | 1 | 1 unit | 101 | 0.052 |
| Input coupling links | | | | | | | | | | | |
| 24 AC/DC | 1 ²⁾ | -- | Without | 6.2 | ▶ | 3TX7 004-2MB02 | | 1 | 1 unit | 101 | 0.035 |
| 110 AC/DC | 1 ²⁾ | -- | Without | 6.2 | ▶ | 3TX7 004-2ME02 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | 1 ²⁾ | -- | Without | 6.2 | ▶ | 3TX7 004-2MF02 | | 1 | 1 unit | 101 | 0.035 |



3TX7 004-1LB00

| | | | | | | | | | | | |
|---|-----------------|-----------------|---------|-----|---|--|--|---|--------|-----|-------|
| 3TX7 005 relay couplers with spring-type terminals | | | | | | | | | | | |
| Output coupling links | | | | | | Spring-type terminals  | | | | | |
| 24 AC/DC | -- | 1 | Without | 6.2 | ▶ | 3TX7 005-1LB00 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | -- | 1 | Without | 6.2 | ▶ | 3TX7 005-1LF00 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC | -- | 1 ²⁾ | Without | 6.2 | ▶ | 3TX7 005-1LB02 | | 1 | 1 unit | 101 | 0.035 |
| 24 AC/DC | 1 | -- | Without | 6.2 | ▶ | 3TX7 005-1MB00 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | 1 | -- | Without | 6.2 | ▶ | 3TX7 005-1MF00 | | 1 | 1 unit | 101 | 0.035 |
| Input coupling links | | | | | | | | | | | |
| 24 AC/DC | 1 ²⁾ | -- | Without | 6.2 | C | 3TX7 005-2MB02 | | 1 | 1 unit | 101 | 0.035 |
| 230 AC/DC | 1 ²⁾ | -- | Without | 6.2 | B | 3TX7 005-2MF02 | | 1 | 1 unit | 101 | 0.035 |



3TX7 005-2MB02

Note:

For replacement products, see 3RS18 coupling links with industrial housing or other 3TX7 0 products.

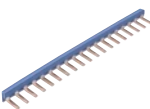
For coil voltages which are not listed, see SITOP power DC Power Supplies, e. g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

1) For long cables.

2) Hard gold-plated contacts.

Accessories

| For coupling link | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|------------------------------------|----|-----------------------|--------------|-------------------|--------|-----|-----------------------|
| Type | | | | | | | | kg |
| Connecting combs | | | | | | | | |
| 3TX7 004 | 24 terminals, blue Width 6.2 mm | ▶ | 3TX7 004-8AA00 | | 1 | 1 unit | 101 | 0.017 |
| Connecting cables | | | | | | | | |
| 3TX7 002 and 3TX7 004 with screw terminals | 24 terminals with supply, blue | A | 3TX7 004-8BA00 | | 1 | 1 unit | 101 | 0.040 |
| 3TX7 003 and 3TX7 005 with spring-type terminals | | | | | | | | |



3TX7 004-8AA00



3TX7 004-8BA00

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Relay couplers with plug-in connection



Benefits

Advantages

- Plug-in base couplers with spring-type terminals and 6.2 mm width
- Fast exchange with permanent wiring (plug-in relay)
- The wire inlet and terminals can be reached from the front. This results in faster wiring time and wiring errors are prevented.
- Tested complete units → short mounting time
- Single relays available as components
- Linking of supply voltage and control signals with 16-pole connecting comb

- Galvanic isolation plate for isolating different voltages for neighboring units
- Device variants with hard gold-plated contacts, hence high contact reliability
- 24 V DC version also available as variant with NO contact
- Integrated reverse polarity protection and EMC arc-suppression diode
- Clearly visible functional state of the relay coupler by yellow LED
- Protective separation according to EN 50178
- 230 V AC/DC versions available

Selection and ordering data

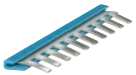

| Rated control supply voltage U_s at AC 50/60 Hz | Contacts Version | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|------------------|----|----|------------------------------|---|-------------------|---------|-----|-----------------------|
| V | NO | CO | | | | | | | kg |
| Plug-in base couplers with screw terminals, 6.2 mm, complete with relay | | | | | | | | | |
| | | | | Screw terminals |  | | | | |
| 24 DC | 1 | -- | A | 3TX7 014-1AM00 | | 1 | 5 units | 101 | 0.035 |
| 24 DC | -- | 1 | A | 3TX7 014-1BM00 | | 1 | 5 units | 101 | 0.035 |
| 24 AC/DC | -- | 1 | A | 3TX7 014-1BB00 | | 1 | 5 units | 101 | 0.035 |
| 115 AC/DC | -- | 1 | A | 3TX7 014-1BE00 | | 1 | 5 units | 101 | 0.045 |
| 230 AC/DC | -- | 1 | A | 3TX7 014-1BF00 | | 1 | 5 units | 101 | 0.041 |
| Plug-in base couplers with screw terminals, 6.2 mm, complete with relay and hard gold-plating¹⁾ | | | | | | | | | |
| 24 DC | -- | 1 | A | 3TX7 014-1BM02 | | 1 | 5 units | 101 | 0.035 |
| 24 AC/DC | -- | 1 | A | 3TX7 014-1BB02 | | 1 | 5 units | 101 | 0.035 |
| 115 AC/DC | -- | 1 | A | 3TX7 014-1BE02 | | 1 | 5 units | 101 | 0.041 |
| 230 AC/DC | -- | 1 | A | 3TX7 014-1BF02 | | 1 | 5 units | 101 | 0.035 |
| Plug-in base couplers with spring-type terminals, 6.2 mm, complete with relay | | | | | | | | | |
| | | | | Spring-type terminals |  | | | | |
| 24 DC | 1 | -- | A | 3TX7 015-1AM00 | | 1 | 5 units | 101 | 0.045 |
| 24 DC | -- | 1 | A | 3TX7 015-1BM00 | | 1 | 5 units | 101 | 0.045 |
| 24 AC/DC | -- | 1 | A | 3TX7 015-1BB00 | | 1 | 5 units | 101 | 0.045 |
| 115 AC/DC | -- | 1 | A | 3TX7 015-1BE00 | | 1 | 5 units | 101 | 0.045 |
| 230 AC/DC | -- | 1 | A | 3TX7 015-1BF00 | | 1 | 5 units | 101 | 0.045 |
| Plug-in base couplers with spring-type terminals, 6.2 mm, complete with relay and hard gold-plating¹⁾ | | | | | | | | | |
| 24 DC | -- | 1 | A | 3TX7 015-1BM02 | | 1 | 5 units | 101 | 0.045 |
| 24 AC/DC | -- | 1 | A | 3TX7 015-1BB02 | | 1 | 5 units | 101 | 0.040 |
| 115 AC/DC | -- | 1 | A | 3TX7 015-1BE02 | | 1 | 5 units | 101 | 0.045 |
| 230 AC/DC | -- | 1 | A | 3TX7 015-1BF02 | | 1 | 5 units | 101 | 0.045 |

¹⁾ The versions with hard gold-plated contacts feature high contact reliability (also for low currents) and are therefore especially suitable for steady-state inputs of programmable logic controllers.

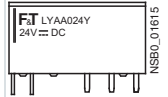
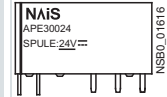
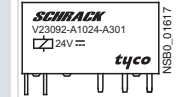
3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design


Relay couplers with plug-in connection

| Rated control supply voltage U_s at AC 50/60 Hz V | Used for | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|----|-----------------------|--------------|-------------------|----------|-----|-----------------------------|
| Replacement relay modules¹⁾, 6.2 mm, 1 changeover contact | | | | | | | | |
| 12 DC | Complete units 24 V AC/DC | A | 3TX7 014-7BQ00 | | 1 | 20 units | 101 | 0.035 |
| | Complete units 24 V AC/DC, hard gold-plated | A | 3TX7 014-7BQ02 | | 1 | 20 units | 101 | 0.035 |
| 24 DC | Complete units 24 V DC | A | 3TX7 014-7BM00 | | 1 | 20 units | 101 | 0.035 |
| | Complete units 24 V DC, hard gold-plating | A | 3TX7 014-7BM02 | | 1 | 20 units | 101 | 0.035 |
| 60 DC | Complete units 115 V and 230 V AC/DC | A | 3TX7 014-7BP00 | | 1 | 20 units | 101 | 0.035 |
| | Complete units 115 V and 230 V AC/DC, hard gold-plated | A | 3TX7 014-7BP02 | | 1 | 20 units | 101 | 0.035 |
| Connecting combs 16-pole, blue | | | | | | | | |
|  | For linking the same potentials, 16-pole, current carrying capacity for infeed max. 6 A | A | 3TX7 014-7AA00 | | 1 | 5 units | 101 | 0.035 |
| Galvanic isolation plates | | | | | | | | |
|  | 3TX7014 and 3TX7015 | A | 3TX7 014-7CE00 | | 1 | 10 units | 101 | 0.035 |

¹⁾ The versions with hard gold-plated contacts feature high contact reliability (also for low currents) and are therefore especially suitable for steady-state inputs of programmable logic controllers.

| 3TX7 014-.. | 3TX7 015-.. | NO (13/14) | CO (11/12/14) | 3TX7 014-.. |  FTR-LY.. |  APE.. |  V23092-.. |
|------------------------|-------------|------------|---------------|------------------------|---|---|---|
| ..-1AM00 ¹⁾ | 24 V DC | NO | | ..-7BM00 ¹⁾ | ..CA024Y | ..30024 | ..A1024-A301 |
| ..-1BM00 ¹⁾ | 24 V DC | W | | ..-7BM00 ¹⁾ | ..CA024Y | ..30024 | ..A1024-A301 |
| ..-1BB00 ¹⁾ | 24 V AC/DC | W | | ..-7BQ00 ¹⁾ | ..CA012Y | ..30012 | ..A1012-A301 |
| ..-1BE00 ¹⁾ | 115 V AC/DC | W | | ..-7BP00 ¹⁾ | -- | ..30060 | ..A1060-A301 |
| ..-1BF00 ¹⁾ | 230 V AC/DC | W | | ..-7BP00 ¹⁾ | -- | ..30060 | ..A1060-A301 |
| ..-1BM02 ²⁾ | 24 V DC | W | | ..-7BM02 ²⁾ | ..CA024V | ..30124 | ..A1024-A201 |
| ..-1BB02 ²⁾ | 24 V AC/DC | W | | ..-7BQ02 ²⁾ | ..CA012V | ..30112 | ..A1012-A201 |
| ..-1BE02 ²⁾ | 115 V AC/DC | W | | ..-7BP02 ²⁾ | -- | ..30160 | ..A1060-A201 |
| ..-1BF02 ²⁾ | 230 V AC/DC | W | | ..-7BP02 ²⁾ | -- | ..30160 | ..A1060-A201 |

¹⁾  = AgSn0

²⁾  = AgSn0+Au

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Semiconductor couplers

Overview

AC and DC operation

EN 60664-1, EN 60947 and EN 50005; optocouplers:
EN 60747-5, IEC 61131-2 (programmable logic controllers).

In the coupling links in double-decker design, the connections are arranged on two levels; the units are extremely compact. Connection method: Screw terminals or spring-type terminals. For test purposes, versions are available with manual-0-automatic switches.

The input and output coupling links differ with regard to the positioning of the terminals and the LEDs. For equipment identification purposes, each coupling link has a blank labeling plate.

In accordance with the technical specifications of electronic systems, the coupling links have a lower power consumption.

Selection and ordering data

AC and DC operation · for snap-on mounting onto 35 mm standard mounting rail

| Rated control supply voltage U_s at AC 50/60 Hz | Switching voltage | Switching current | Width | DT | Screw terminals | | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|--------------------------|-------------------|--------------|----|--|--------------|-------------------|------------------|------------|-----------------------|
| | | | | | Order No. | Price per PU | | | | |
| V | V | A | mm | | | | | | | kg |
| 3TX7 002 semiconductor couplers with screw terminals, 1 transistor | | | | | | | | | | |
| Output coupling links | | | | | | | | | | |
| 24 DC | 48 ... 264 AC < 60 DC | 1.8 1.5 | 12.5 11.5 | ▶ | 3TX7 002-3AB00 3TX7 002-3AB01 | | 1 1 | 1 unit 1 unit | 101 101 | 0.033 0.035 |
| Input coupling links | | | | | | | | | | |
| 24 AC/DC 110 ... 240 AC | < 30 DC < 30 DC | 0.1 0.1 | 12.5 12.5 | ▶ | 3TX7 002-4AB00 3TX7 002-4AG00 | | 1 1 | 1 unit 1 unit | 101 101 | 0.031 0.035 |



3TX7 002

| Rated control supply voltage U_s at AC 50/60 Hz | Switching voltage | Switching current | Manual-0-automatic switch for testing purposes | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|-------------------|-------------------|--|-------|----|-----------------------|--------------|-------------------|--------|-----|-----------------------|
| | | | | | | | | | | | |
| V | V | A | | mm | | | | | | | kg |
| 3TX7 004 semiconductor couplers with screw terminals | | | | | | | | | | | |
| Output coupling links | | | | | | | | | | | |
| 24 DC | ≤ 48 DC | 0.5 | Without | 6.2 | ▶ | 3TX7 004-3AB04 | | 1 | 1 unit | 101 | 0.034 |
| 24 DC | 11 ... 30 DC | 1.5 | | | ▶ | 3TX7 004-3PB54 | | 1 | 1 unit | 101 | 0.029 |
| 24 DC | ≤ 30 DC | 3 | Without | 6.2 | ▶ | 3TX7 004-3PB74 | | 1 | 1 unit | 101 | 0.032 |
| 110 ... 230 AC/DC | ≤ 30 DC | 3 | | | A | 3TX7 004-3PG74 | | 1 | 1 unit | 101 | 0.033 |
| 24 DC | ≤ 30 DC | 5 | Without | 12.5 | ▶ | 3TX7 004-3AC04 | | 1 | 1 unit | 101 | 0.052 |
| 24 DC | ≤ 30 DC | 5 | With | | B | 3TX7 004-3AC14 | | 1 | 1 unit | 101 | 0.061 |
| 24 DC | 24 ... 250 AC/DC | 2 | Without | 12.5 | ▶ | 3TX7 004-3AC03 | | 1 | 1 unit | 101 | 0.060 |
| Input coupling links | | | | | | | | | | | |
| 110 ... 230 AC/DC | ≤ 30 DC | 0.1 | Without | 6.2 | ▶ | 3TX7 004-4PG24 | | 1 | 1 unit | 101 | 0.034 |



3TX7 004-3AB04

| Rated control supply voltage U_s at AC 50/60 Hz | Switching voltage | Switching current | Manual-0-automatic switch for testing purposes | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|-------------------|-------------------|--|-------|----|-----------------------|--------------|-------------------|--------|-----|-----------------------|
| | | | | | | | | | | | |
| V | V | A | | mm | | | | | | | kg |
| 3TX7 005 semiconductor couplers with spring-type terminals | | | | | | | | | | | |
| Output coupling links | | | | | | | | | | | |
| 24 DC | ≤ 48 DC | 0.5 | Without | 6.2 | ▶ | 3TX7 005-3AB04 | | 1 | 1 unit | 101 | 0.031 |
| 24 DC | 11 ... 30 DC | 1.5 | | | ▶ | 3TX7 005-3PB54 | | 1 | 1 unit | 101 | 0.025 |
| 24 DC | ≤ 30 DC | 3 | Without | 6.2 | A | 3TX7 005-3PB74 | | 1 | 1 unit | 101 | 0.027 |
| 110 ... 230 AC/DC | ≤ 30 DC | 3 | | | A | 3TX7 005-3PG74 | | 1 | 1 unit | 101 | 0.027 |
| 24 DC | ≤ 30 DC | 5 | Without | 12.5 | ▶ | 3TX7 005-3AC04 | | 1 | 1 unit | 101 | 0.047 |
| 24 DC | ≤ 30 DC | 5 | With | | C | 3TX7 005-3AC14 | | 1 | 1 unit | 101 | 0.051 |
| 24 DC | 24 ... 250 AC/DC | 2 | Without | 12.5 | C | 3TX7 005-3AC03 | | 1 | 1 unit | 101 | 0.056 |
| Input coupling links | | | | | | | | | | | |
| 110 ... 230 AC/DC | ≤ 30 DC | 0.1 | Without | 6.2 | ▶ | 3TX7 005-4PG24 | | 1 | 1 unit | 101 | 0.031 |

Note:

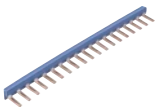

For replacement products, see 3RS18 coupling links with industrial housing or other 3TX7 0 products. For coil voltages which are not listed, see SITOP power DC power supplies, e. g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Semiconductor couplers

Accessories

| For coupling links | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|----|-----------------------|--------------|-------------------|--------|-----|--------------------------|
| Connecting combs 24-pole, blue | | | | | | | | |
| Type | | | | | | | | |
|  | 3TX7 004 | ▶ | 3TX7 004-8AA00 | | 1 | 1 unit | 101 | 0.017 |
| 3TX7 004-8AA00 | For linking the same potentials, current carrying capacity for infeed max. 26 A | | | | | | | |
| Connecting cables 24-pole, blue | | | | | | | | |
|  | 3TX7 002 and 3TX7 004 with screw terminals 3TX7 003 and 3TX7 005 with spring-type terminals | A | 3TX7 004-8BA00 | | 1 | 1 unit | 101 | 0.040 |
| 3TX7 004-8BA00 | With infeed, current carrying capacity for infeed max. 12 A, length of cable between 2 terminals approx. 11 cm in each case | | | | | | | |

* You can order this quantity or a multiple thereof.

3TX7, 3RS18 Coupling Relays

3RS18 Coupling Relays with Industrial Housing

Relay couplers

Overview




The new 3RS18 coupling relays are couplers in the well-proven standard 22.5 mm timing relay enclosure. The series comprises relays with 1, 2 and 3 changeover contacts with screw and spring-type connections for combined voltages and wide voltage ranges.

The relay coils are protected internally with noise suppression diodes.

Benefits

- Wide voltage range: One product for all voltages
- The industrial housing supports the same connection methods as the timing relay including spring-type connections, 2 wires can be clamped
- Versions with solid-state compatible outputs (hard gold-plating)
- Up to 3 changeover contacts with only 22.5 mm width.

Selection and ordering data

| | Rated control supply voltage U_s at AC 50/60 Hz | Contacts Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|------------------|-----------------------|--|--------------|-------------------|--------|-------|--------------------------|
| | V | CO | | | | | | | |
| Coupling relays with industrial housing 22.5 mm with screw terminals | | | | | | | | | |
|  3RS18 00-1.... | Wide voltage range | | | Screw terminals  | | | | | |
| | 24 ... 240 AC/DC | 2 | A | 3RS18 00-1BW00 | | 1 | 1 unit | 101 | 0.143 |
| | | 3 | A | 3RS18 00-1HW00 | | 1 | 1 unit | 101 | 0.168 |
| | | 3 ¹⁾ | A | 3RS18 00-1HW01 | | 1 | 1 unit | 101 | 0.168 |
| | Combination voltage | | | | | | | | |
| | 24 AC/DC and 110 ... 120 AC | 1 | A | 3RS18 00-1AQ00 | | 1 | 1 unit | 101 | 0.116 |
| | | 2 | A | 3RS18 00-1BQ00 | | 1 | 1 unit | 101 | 0.142 |
| | | 3 | C | 3RS18 00-1HQ00 | | 1 | 1 unit | 101 | 0.173 |
| | | 3 ¹⁾ | C | 3RS18 00-1HQ01 | | 1 | 1 unit | 101 | 0.173 |
| | 24 AC/DC and 220 ... 240 AC | 1 | A | 3RS18 00-1AP00 | | 1 | 1 unit | 101 | 0.112 |
| | | 2 | A | 3RS18 00-1BP00 | | 1 | 1 unit | 101 | 0.142 |
| | | 3 | A | 3RS18 00-1HP00 | | 1 | 1 unit | 101 | 0.166 |
| | 3 ¹⁾ | A | 3RS18 00-1HP01 | | 1 | 1 unit | 101 | 0.170 | |
| Coupling relays with industrial housing 22.5 mm with spring-type terminals | | | | | | | | | |
| | Wide voltage range | | | Spring-type terminals  | | | | | |
| | 24 ... 240 AC/DC | 2 | A | 3RS18 00-2BW00 | | 1 | 1 unit | 101 | 0.128 |
| | | 3 | A | 3RS18 00-2HW00 | | 1 | 1 unit | 101 | 0.144 |
| | | 3 ¹⁾ | C | 3RS18 00-2HW01 | | 1 | 1 unit | 101 | 0.145 |
| | Combination voltage | | | | | | | | |
| | 24 AC/DC and 110 ... 120 AC | 1 | C | 3RS18 00-2AQ00 | | 1 | 1 unit | 101 | 0.104 |
| | | 2 | C | 3RS18 00-2BQ00 | | 1 | 1 unit | 101 | 0.120 |
| | | 3 | C | 3RS18 00-2HQ00 | | 1 | 1 unit | 101 | 0.147 |
| | | 3 ¹⁾ | C | 3RS18 00-2HQ01 | | 1 | 1 unit | 101 | 0.147 |
| | 24 AC/DC and 220 ... 240 AC | 1 | A | 3RS18 00-2AP00 | | 1 | 1 unit | 101 | 0.104 |
| | | 2 | A | 3RS18 00-2BP00 | | 1 | 1 unit | 101 | 0.122 |
| | | 3 | A | 3RS18 00-2HP00 | | 1 | 1 unit | 101 | 0.143 |
| | | 3 ¹⁾ | C | 3RS18 00-2HP01 | | 1 | 1 unit | 101 | 0.147 |

¹⁾ Hard gold-plated contacts.

Overview

The LZX complete units and accessory parts previously available are no longer listed in this catalog. They can still be supplied however in limited quantities. In their place you will now find the new LZS types. LZS complete units are fully compatible with their predecessors, the LZX complete units. The LZX plug-in relays have not been changed and are used accordingly in both the LZS and the LZX series.

Due to differences in geometry the LED modules, plug-in bases, retaining brackets and labels can be combined and/or used in only the respective series, LZS or LZX.

List for converting from LZX to LZS plug-in relay couplers:

| Complete units | |
|--------------------|---------------------|
| Previous Order No. | New Order No. |
| LZX:PT3A5L24 | LZS:PT3A5L24 |
| LZX:PT3A5R24 | LZS:PT3A5R24 |
| LZX:PT3A5S15 | LZS:PT3A5S15 |
| LZX:PT3A5T30 | LZS:PT3A5T30 |
| LZX:PT5A5L24 | LZS:PT5A5L24 |
| LZX:PT5A5R24 | LZS:PT5A5R24 |
| LZX:PT5A5S15 | LZS:PT5A5S15 |
| LZX:PT5A5T30 | LZS:PT5A5T30 |
| LZX:PT5B5L24 | LZS:PT5B5L24 |
| LZX:PT5B5R24 | LZS:PT5B5R24 |
| LZX:PT5B5S15 | LZS:PT5B5S15 |
| LZX:PT5B5T30 | LZS:PT5B5T30 |
| LZX:RT3A4L24 | LZS:RT3A4L24 |
| LZX:RT3A4R24 | LZS:RT3A4R24 |
| LZX:RT3A4S15 | LZS:RT3A4S15 |
| LZX:RT3A4T30 | LZS:RT3A4T30 |
| LZX:RT3B4L24 | LZS:RT3B4L24 |
| LZX:RT3B4R24 | LZS:RT3B4R24 |
| LZX:RT3B4S15 | LZS:RT3B4S15 |
| LZX:RT3B4T30 | LZS:RT3B4T30 |
| LZX:RT4A4L24 | LZS:RT4A4L24 |
| LZX:RT4A4R24 | LZS:RT4A4R24 |
| LZX:RT4A4S15 | LZS:RT4A4S15 |
| LZX:RT4A4T30 | LZS:RT4A4T30 |
| LZX:RT4B4L24 | LZS:RT4B4L24 |
| LZX:RT4B4R24 | LZS:RT4B4R24 |
| LZX:RT4B4S15 | LZS:RT4B4S15 |
| LZX:RT4B4T30 | LZS:RT4B4T30 |

Prices for the new LZS series are lower than for the previous LZX series.

Note:

In addition the LZS series offers not only service-proven screw connections but also versions with plug-in terminals.

The following conversion list will help you to change over from the LZX types previously sold to the new LZS types. Please contact your regional adviser if you have any questions.

List for converting from LZX to LZS accessories for individual modules:

| Accessories for individual modules | |
|------------------------------------|--|
| Previous Order No. | New Order No. |
| LZX:MT28800 | LZS:MT28800 |
| LZX:MT78750 | LZS:MT78750 |
| LZX:PT16016 | LZS:PT17024¹⁾ LZS:PT17021²⁾ |
| LZX:PT16040 | LZS:PT17040 |
| LZX:PT78702 | LZS:PT78720 |
| LZX:PT78703 | LZS:PT78730 |
| LZX:PT78704 | LZS:PT78740 |
| LZX:PT78802 | LZS:PT78722 |
| LZX:PT78804 | LZS:PT78742 |
| LZX:RPMG0024 | LZS:PTMG0024 |
| LZX:RPMG0524 | LZS:PTMG0524 |
| LZX:RPMG0730 | LZS:PTMG0730 |
| LZX:RPML0024 | LZS:PTML0024 |
| LZX:RPML0524 | LZS:PTML0524 |
| LZX:RPML0730 | LZS:PTML0730 |
| LZX:RPMT00A0 | LZS:PTMT00A0 |
| LZX:RPMU0548 | LZS:PTMU0524 |
| LZX:RPMU0730 | LZS:PTMU0730 |
| LZX:RT16016 | LZS:RT17016 |
| LZX:RT78625 | LZS:RT78725 |
| LZX:RT78626 | LZS:RT78726 |
| LZX:RY16040 | LZS:RT17040 |



¹⁾ LZS:PT17024 for PT standard base without logical isolation: Screw terminals.

²⁾ LZS:PT17021 for PT base with logical isolation: Screw terminals and plug-in terminals.



Coupling Relays with LZS, LZX Plug-In Relays

Plug-in relay couplers

Selection and ordering data

| Version | Rated control supply voltage U_s at AC 50/60 Hz | Contacts, number of CO contacts | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | | | | |
|---|--|---------------------------------|-------|----|--|--------------|-------------------|---------|-----|-----------------------|---------|---------|-------|-------|
| | V | | mm | | | | | | | kg | | | | |
| Complete units, 11- and 14-pole, PT series | | | | | | | | | | | | | | |
| Complete units with plug-in base | | | | | | | | | | | | | | |
| For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | Screw terminals  | | | | | | | | | |
| <ul style="list-style-type: none"> Coupling relays with plug-in relays Standard plug-in base with screw terminals LED module (version 24 V DC: LED module with freewheel diode) Fixing/ejection bracket Labels | | | | | | | | | | | | | | |
|  LZS:PT3A5L24 | 3 CO | 24 DC | 3 | 28 | A | LZS:PT3A5L24 | 1 | 5 units | 101 | 0.085 | | | | |
| | | 24 AC | | | | LZS:PT3A5R24 | | | | | 1 | 5 units | 101 | 0.085 |
| | | 115 AC | | | | LZS:PT3A5S15 | | | | | 1 | 5 units | 101 | 0.085 |
| | | 230 AC | | | | LZS:PT3A5T30 | | | | | 1 | 5 units | 101 | 0.085 |
| | 4 CO | 24 DC | 4 | 28 | A | LZS:PT5A5L24 | 1 | 5 units | 101 | 0.090 | | | | |
| | | 24 AC | | | | LZS:PT5A5R24 | | | | | 1 | 5 units | 101 | 0.090 |
| | | 115 AC | | | | LZS:PT5A5S15 | | | | | 1 | 5 units | 101 | 0.090 |
| | | 230 AC | | | | LZS:PT5A5T30 | | | | | 1 | 5 units | 101 | 0.090 |
| | Complete units with plug-in base (logical isolation)¹⁾ | | | | | | | | | | | | | |
| | For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | | | | | | | | | |
| | <ul style="list-style-type: none"> Coupling relays with plug-in relays Plug-in base with logical isolation and screw terminals LED module (version 24 V DC: LED module with freewheel diode) Fixing/ejection bracket Labels | | | | | | | | | | | | | |
| | 4 CO | 24 DC | 4 | 28 | A | LZS:PT5B5L24 | 1 | 5 units | 101 | 0.095 | | | | |
| 24 AC | | LZS:PT5B5R24 | | | | 1 | | | | | 5 units | 101 | 0.095 | |
| 115 AC | | LZS:PT5B5S15 | | | | 1 | | | | | 5 units | 101 | 0.095 | |
| AC 230 | | LZS:PT5B5T30 | | | | 1 | | | | | 5 units | 101 | 0.095 | |

Complete units, 11- and 14-pole, PT series

| | | | | | | | | | | | | | | |
|--|------|--------|---|----|--|--------------|---|---------|-----|-------|---|---------|-----|-------|
| Complete units with plug-in base (logical isolation)¹⁾ | | | | | | | | | | | | | | |
| For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | Plug-in terminals  | | | | | | | | | |
| <ul style="list-style-type: none"> Coupling relays with plug-in relays Plug-in base with logical isolation and plug-in terminals LED module (version 24 V DC: LED module with freewheel diode) Fixing/ejection bracket Labels | | | | | | | | | | | | | | |
|  LZS:PT5D5L24 | 4 CO | 24 DC | 4 | 28 | A | LZS:PT5D5L24 | 1 | 5 units | 101 | 0.098 | | | | |
| | | 24 AC | | | | LZS:PT5D5R24 | | | | | 1 | 5 units | 101 | 0.098 |
| | | 115 AC | | | | LZS:PT5D5S15 | | | | | 1 | 5 units | 101 | 0.098 |
| | | 230 AC | | | | LZS:PT5D5T30 | | | | | 1 | 5 units | 101 | 0.098 |


¹⁾ **Note:**

Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e. g. above for contacts and below for the coil. Logical isolation is not necessarily protective separation (see the technical specifications of the relay types).







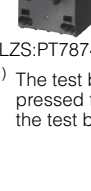
Protective separation: Protective separation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

Coupling Relays with LZS, LZX Plug-In Relays

Plug-in relay couplers

| Version | Rated control supply voltage U_s at AC 50/60 Hz V | Contacts, number of CO contacts | Width mm | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|---|---------------------------------|-------------|--------------|--------------|--------------|-------------------|--------|-------|-----------------------------|
| Individual modules for customer assembly, PT series | | | | | | | | | | |
| <i>Industrial relays, 8-, 11-, and 14-pole</i> | | | | | | | | | | |
|  LZX:PT370024 | Mini industrial relays | | | | | | | | | |
| | • With test bracket and mechanical switch position indicator, without LED ¹⁾ | | | | | | | | | |
| | 24 DC | 2 | 22.5 | ▶ | LZX:PT270024 | | 1 | 1 unit | 101 | 0.030 |
| | | 3 | | ▶ | LZX:PT370024 | | 1 | 1 unit | 101 | 0.031 |
| | | 4 | | ▶ | LZX:PT570024 | | 1 | 1 unit | 101 | 0.031 |
| | 24 AC | 2 | 22.5 | C | LZX:PT270524 | | 1 | 1 unit | 101 | 0.030 |
| | | 3 | | A | LZX:PT370524 | | 1 | 1 unit | 101 | 0.031 |
| | | 4 | | ▶ | LZX:PT570524 | | 1 | 1 unit | 101 | 0.031 |
| | 115 AC | 2 | 22.5 | C | LZX:PT270615 | | 1 | 1 unit | 101 | 0.028 |
| | | 3 | | A | LZX:PT370615 | | 1 | 1 unit | 101 | 0.030 |
| | | 4 | | ▶ | LZX:PT570615 | | 1 | 1 unit | 101 | 0.030 |
| | 230 AC | 2 | 22.5 | ▶ | LZX:PT270730 | | 1 | 1 unit | 101 | 0.029 |
| | | 3 | | ▶ | LZX:PT370730 | | 1 | 1 unit | 101 | 0.030 |
| | | 4 | | ▶ | LZX:PT570730 | | 1 | 1 unit | 101 | 0.030 |
| • With hard gold-plating | | | | | | | | | | |
| 24 DC | 4 | 22.5 | ▶ | LZX:PT580024 | | 1 | 1 unit | 101 | 0.031 | |
| 230 AC | | | ▶ | LZX:PT580730 | | 1 | 1 unit | 101 | 0.031 | |
| • Without test bracket | | | | | | | | | | |
| 24 DC | 4 | 22.5 | C | LZX:PT520024 | | 1 | 1 unit | 101 | 0.031 | |
| 230 AC | | | C | LZX:PT520730 | | 1 | 1 unit | 101 | 0.031 | |

Plug-in bases for PT relays

| | | | | | | | | | | |
|--|---|---|----|-------------|-------------|--|--------|--------|-------|-------|
|  LZS:PT78720 | Standard plug-in bases with screw terminals | | | | | | | | | |
| | For mounting onto standard mounting rail | | | | | | | | | |
| | -- | 2 | 28 | ▶ | LZS:PT78720 | Screw terminals  | 1 | 1 unit | 101 | 0.045 |
| | | 3 | | ▶ | LZS:PT78730 | | 1 | 1 unit | 101 | 0.048 |
| | 4 | | ▶ | LZS:PT78740 | | 1 | 1 unit | 101 | 0.050 | |
|  LZS:PT78720 | Plug-in bases with logical isolation²⁾ and screw terminals | | | | | | | | | |
| | For mounting onto standard mounting rail | | | | | | | | | |
| | -- | 2 | 28 | ▶ | LZS:PT78722 | | 1 | 1 unit | 101 | 0.048 |
| | 4 | | ▶ | LZS:PT78742 | | 1 | 1 unit | 101 | 0.050 | |
|  LZS:PT78740 | Plug-in bases with logical isolation²⁾ with plug-in terminals | | | | | | | | | |
| | For mounting onto standard mounting rail | | | | | | | | | |
| | -- | 2 | 28 | ▶ | LZS:PT7872P | Plug-in terminals  | 1 | 1 unit | 101 | 0.045 |
| | 4 | | ▶ | LZS:PT7874P | | 1 | 1 unit | 101 | 0.050 | |
|  LZS:PT78722 | | | | | | | | | | |
| | | | | | | | | | | |
|  LZS:PT7874P | | | | | | | | | | |
| | | | | | | | | | | |

¹⁾ The test bracket is designed to be non-latching. If the test bracket is pressed further until 90° has been reached, two small lugs break off and the test bracket can be latched in position.

²⁾ **Note:**
Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e. g. above for contacts and below for coil. Logical isolation is not necessarily protective separation (see the technical specifications of the relay types).
Protective separation: Protective separation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

Coupling Relays with LZS, LZX Plug-In Relays

Plug-in relay couplers

| Version | Rated control supply voltage U_s at AC 50/60 Hz | Contacts, number of CO contacts | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---|---|---------------------------------|-------|------|--|--------------|-------------------|----------|-----|-----------------------|
| | V | | mm | | | | | | | kg |
| Individual modules for customer assembly, PT series | | | | | | | | | | |
| <i>More individual modules</i> | | | | | | | | | | |
| LED modules | | | | | | | | | | |
| • Red | | | | | | | | | | |
|  LZS:PTML0024 | With freewheel diode | 24 DC | -- | 12.5 | ▶ LZS:PTML0024 | | 1 | 1 unit | 101 | 0.004 |
| | Without freewheel diode | 24 AC/DC | | | ▶ LZS:PTML0524 | | 1 | 1 unit | 101 | 0.004 |
| | | 110 ... 230 AC/DC | | | ▶ LZS:PTML0730 | | 1 | 1 unit | 101 | 0.004 |
| • Green | | | | | | | | | | |
|  LZS:PTMG0024 | With freewheel diode | 24 DC | -- | 12.5 | ▶ LZS:PTMG0024 | | 1 | 1 unit | 101 | 0.004 |
| | Without freewheel diode | 24 AC | | | ▶ LZS:PTMG0524 | | 1 | 1 unit | 101 | 0.004 |
| | | 110 ... 230 AC/DC | | | ▶ LZS:PTMG0730 | | 1 | 1 unit | 101 | 0.004 |
| Fixing/ejection brackets for PT base with logical isolation¹⁾ | | | | | | | | | | |
|  LZS:PT17021 | Screw terminals and plug-in terminals | | -- | 26 | ▶ LZS:PT17021 | | 100 | 10 units | 101 | 0.300 |
| | Fixing/ejection brackets for standard plug-in base without logical isolation | | | | | | | | | |
|  LZS:PT17024 | Screw terminals | | -- | 26 | ▶ LZS:PT17024 | | 100 | 10 units | 101 | 0.300 |
| | Labels | | | | | | | | | |
|  LZS:PT17040 | | | -- | 26 | ▶ LZS:PT17040 | | 100 | 10 units | 101 | 0.200 |
| | RC element | | | | | | | | | |
|  LZS:PTMU0730 | | 6 ... 60 AC | -- | 26 | ▶ LZS:PTMU0524 | | 1 | 1 unit | 101 | 0.004 |
| | | 110 ... 230 AC | | | ▶ LZS:PTMU0730 | | 1 | 1 unit | 101 | 0.004 |
| Freewheel diodes with connection to A1 | | | | | | | | | | |
|  LZS:PTMT00A0 | | 6 ... 230 DC | -- | 26 | ▶ LZS:PTMT00A0 | | 1 | 1 unit | 101 | 0.004 |
| | Connecting cables | | | | | | | | | |
|  LZS:PTMU0730 | 24-pole, current carrying capacity 12 A, with supply, blue | | | A | ▶ 3TX7 004-8BA00 | | 1 | 1 unit | 101 | 0.040 |
| | Connecting combs for PT screw base | | | | | | | | | |
|  3TX7 004-8BA00 | 6-pole, 10 A current carrying capacity, natural-colored | | | | ▶ LZS:PT170R6 | | 1 | 10 units | 101 | 0.002 |
| | Connecting brackets for PT push-in base | | | | | | | | | |
|  3TX7 004-8BA00 | 2-pole, 10 A current carrying capacity, natural-colored | | | | ▶ LZS:PT170P1 | | 1 | 10 units | 101 | 0.002 |
| | Individual modules for customer assembly, MT series | | | | | | | | | |
| <i>Industrial relays, 11-pole</i> | | | | | | | | | | |
| Industrial relays with test bracket | | | | | | | | | | |
|  LZX:MT326024 | Without LED | 24 DC | 3 | 35.5 | A ▶ LZX:MT321024 | | 1 | 1 unit | 101 | 0.088 |
| | With LED | | | | ▶ LZX:MT323024 | | 1 | 1 unit | 101 | 0.088 |
|  LZX:MT326024 | Without LED | 24 AC | 3 | 35.5 | A ▶ LZX:MT326024 | | 1 | 1 unit | 101 | 0.089 |
| | With LED | | | | C ▶ LZX:MT328024 | | 1 | 1 unit | 101 | 0.089 |
|  LZX:MT326024 | Without LED | 115 AC | 3 | 35.5 | C ▶ LZX:MT326115 | | 1 | 1 unit | 101 | 0.087 |
| | With LED | | | | C ▶ LZX:MT328115 | | 1 | 1 unit | 101 | 0.088 |
| LZX:MT326024 | Without LED | 230 AC | 3 | 35.5 | A ▶ LZX:MT326230 | | 1 | 1 unit | 101 | 0.089 |
| | With LED | | | | A ▶ LZX:MT328230 | | 1 | 1 unit | 101 | 0.089 |
| Plug-in bases for mounting onto standard mounting rail | | | | | | | | | | |
| LZX:MT78750 | For mounting onto standard mounting rail | | | | Screw terminals  | | | | | |
| | With screw terminals | | -- | 38 | ▶ LZS:MT78750 | | 1 | 1 unit | 101 | 0.050 |
| Retaining brackets | | | | | | | | | | |
| LZX:MT78750 | | | -- | 38 | ▶ LZS:MT28800 | | 1 | 1 unit | 101 | 0.003 |

Note:



For coil voltages which are not listed, see SITOP power DC Power Supplies, e. g. 6EP1 331-2AB10 and 6EP1 731-2AB00, in "Power Supplies".

¹⁾ Note:

Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e. g. above for contacts and below for coil. Logical isolation is not necessarily protective separation (see the technical specifications of the relay types).
Protective separation: Protective separation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

Coupling Relays with LZS, LZX Plug-In Relays

Plug-in relay couplers

| Version | Rated control supply voltage U_s at AC 50/60 Hz | Contacts, number of CO contacts | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|--|---|---------------------------------|-------|----|--|--------------|-------------------|---------|-----|-----------------------|
| | V | | mm | | | | | | | kg |
| Complete units, 8-pole, 5 mm pinning, RT series | | | | | | | | | | |
| Complete units with standard plug-in base | | | | | Screw terminals  | | | | | |
| For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | | | | | | |
| <ul style="list-style-type: none"> • Coupling relays with plug-in relays • Standard plug-in base with screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Labels | | | | | | | | | | |
| 1 CO | 24 DC | 1 | 15.5 | A | LZS:RT3A4L24 | | 1 | 5 units | 101 | 0.052 |
| | 24 AC | | | A | LZS:RT3A4R24 | | 1 | 5 units | 101 | 0.052 |
| | 115 AC | | | A | LZS:RT3A4S15 | | 1 | 5 units | 101 | 0.052 |
| | 230 AC | | | A | LZS:RT3A4T30 | | 1 | 5 units | 101 | 0.052 |
| 2 CO | 24 DC | 2 | 15.5 | A | LZS:RT4A4L24 | | 1 | 5 units | 101 | 0.052 |
| | 24 AC | | | A | LZS:RT4A4R24 | | 1 | 5 units | 101 | 0.052 |
| | 115 AC | | | A | LZS:RT4A4S15 | | 1 | 5 units | 101 | 0.052 |
| | 230 AC | | | A | LZS:RT4A4T30 | | 1 | 5 units | 101 | 0.052 |
| Complete units with plug-in base with logical isolation and screw terminals | | | | | | | | | | |
| For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | | | | | | |
| <ul style="list-style-type: none"> • Coupling relays with plug-in relays • Plug-in base with logical isolation and screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Labels | | | | | | | | | | |
| 1 CO | 24 DC | 1 | 15.5 | A | LZS:RT3B4L24 | | 1 | 5 units | 101 | 0.055 |
| | 24 AC | | | A | LZS:RT3B4R24 | | 1 | 5 units | 101 | 0.055 |
| | 115 AC | | | A | LZS:RT3B4S15 | | 1 | 5 units | 101 | 0.055 |
| | 230 AC | | | A | LZS:RT3B4T30 | | 1 | 5 units | 101 | 0.055 |
| 2 CO | 24 DC | 2 | 15.5 | A | LZS:RT4B4L24 | | 1 | 5 units | 101 | 0.055 |
| | 24 AC | | | A | LZS:RT4B4R24 | | 1 | 5 units | 101 | 0.055 |
| | 115 AC | | | A | LZS:RT4B4S15 | | 1 | 5 units | 101 | 0.055 |
| | 230 AC | | | A | LZS:RT4B4T30 | | 1 | 5 units | 101 | 0.055 |
| Complete units, 8-pole, 5 mm pinning, RT series | | | | | | | | | | |
| Complete units with plug-in base with logical isolation and plug-in terminals | | | | | Plug-in terminals  | | | | | |
| For snap-on mounting onto 35 mm standard mounting rail comprising: | | | | | | | | | | |
| <ul style="list-style-type: none"> • Coupling relays with plug-in relays • Plug-in base with logical isolation and plug-in terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Labels | | | | | | | | | | |
| 1 CO | 24 DC | 1 | 15.5 | A | LZS:RT3D4L24 | | 1 | 5 units | 101 | 0.065 |
| | 24 AC | | | A | LZS:RT3D4R24 | | 1 | 5 units | 101 | 0.065 |
| | 115 AC | | | A | LZS:RT3D4S15 | | 1 | 5 units | 101 | 0.065 |
| | 230 AC | | | A | LZS:RT3D4T30 | | 1 | 5 units | 101 | 0.065 |
| 2 CO | 24 DC | 2 | 15.5 | A | LZS:RT4D4L24 | | 1 | 5 units | 101 | 0.065 |
| | 24 AC | | | A | LZS:RT4D4R24 | | 1 | 5 units | 101 | 0.065 |
| | 115 AC | | | A | LZS:RT4D4S15 | | 1 | 5 units | 101 | 0.065 |
| | 230 AC | | | A | LZS:RT4D4T30 | | 1 | 5 units | 101 | 0.065 |



LZS:RT4B4T30



LZS:RT3D4L24

Note:

Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e. g. above for contacts and below for the coil. Logical isolation is not necessarily protective separation (see the technical specifications of the relay types). Protective separation: Protective separation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

Coupling Relays with LZS, LZX Plug-In Relays

Plug-in relay couplers

| Version | Rated control supply voltage U_s at AC 50/60 Hz | Contacts, number of CO contacts | Width | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|---|--|---------------------------------|-------|------|---------------------|-----------------------|--------------------|----------|----------|-----------------------|-------|
| | V | | mm | | | | | | | kg | |
| Individual modules for customer assembly, RT series | | | | | | | | | | | |
| <i>Print relays, 8-pole, 5 mm pinning</i> | | | | | | | | | | | |
|  | Print relays • With hard gold-plating Version with 1 CO contact | | | | | | | | | | |
| | 24 DC | 1 | 12.7 | C | LZX:RT315024 | | 1 | 1 unit | 101 | 0.016 | |
| | 230 AC | | | C | LZX:RT315730 | | 1 | 1 unit | 101 | 0.015 | |
| LZX:RT314024 | Print relays Version with 1 CO contact | | | | | | | | | | |
| | 24 DC | 1 | 12.7 | ▶ | LZX:RT314024 | | 1 | 1 unit | 101 | 0.016 | |
| | 24 AC | | | C | LZX:RT314524 | | 1 | 1 unit | 101 | 0.007 | |
| | 115 AC | | | C | LZX:RT314615 | | 1 | 1 unit | 101 | 0.013 | |
| | 230 AC | | | ▶ | LZX:RT314730 | | 1 | 1 unit | 101 | 0.007 | |
| | Version with 2 CO contacts | | | | | | | | | | |
| | 12 DC | 2 | 12.7 | C | LZX:RT424012 | | 1 | 1 unit | 101 | 0.015 | |
| | 24 DC | | | ▶ | LZX:RT424024 | | 1 | 1 unit | 101 | 0.015 | |
| | 24 AC | | | ▶ | LZX:RT424524 | | 1 | 1 unit | 101 | 0.014 | |
| | 115 AC | | | ▶ | LZX:RT424615 | | 1 | 1 unit | 101 | 0.012 | |
| | 230 AC | | | ▶ | LZX:RT424730 | | 1 | 1 unit | 101 | 0.010 | |
| LZS:RT78725 | Standard plug-in bases with screw terminals | | | | | | | | | | |
| | For mounting onto standard mounting rail -- | | | | 15.5 | ▶ | LZS:RT78725 | 1 | 1 unit | 101 | 0.035 |
| | Plug-in bases with logical isolation and screw terminals | | | | | | | | | | |
| | For mounting onto standard mounting rail -- | | | | 15.5 | ▶ | LZS:RT78726 | 1 | 1 unit | 101 | 0.037 |
| | Plug-in bases with logical isolation and plug-in terminals | | | | | | | | | | |
| | For mounting onto standard mounting rail -- | | | | 15.5 | ▶ | LZS:RT7872P | 1 | 1 unit | 101 | 0.035 |
| LZS:RT78726 | LED modules | | | | | | | | | | |
| | • Red | | | | | | | | | | |
| | With freewheel diode | 24 DC | -- | 15.5 | ▶ | LZS:PTML0024 | 1 | 1 unit | 101 | 0.004 | |
| | Without freewheel diode | 24 AC/DC | -- | | ▶ | LZS:PTML0524 | 1 | 1 unit | 101 | 0.004 | |
| | | 110 ... 230 AC/DC | -- | | ▶ | LZS:PTML0730 | 1 | 1 unit | 101 | 0.004 | |
| | • Green | | | | | | | | | | |
| | With freewheel diode | 24 DC | -- | 15.5 | ▶ | LZS:PTMG0024 | 1 | 1 unit | 101 | 0.004 | |
| | Without freewheel diode | 24 AC/DC | -- | | ▶ | LZS:PTMG0524 | 1 | 1 unit | 101 | 0.004 | |
| | | 110 ... 230 AC/DC | -- | | ▶ | LZS:PTMG0730 | 1 | 1 unit | 101 | 0.004 | |
| LZS:RT7872P | Fixing/ejection brackets For RT bases | | | | | | | | | | |
| | -- | -- | -- | 15.5 | ▶ | LZS:RT17016 | 100 | 10 units | 101 | 0.300 | |
| LZS:RT17016 | Labels | | | | | | | | | | |
| | -- | -- | -- | 15.5 | ▶ | LZS:RT17040 | 100 | 10 units | 101 | 0.200 | |
| LZS:RT17040 | RC elements | | | | | | | | | | |
| | 6 ... 60 AC | -- | 15.5 | ▶ | LZS:PTMU0524 | | 1 | 1 unit | 101 | 0.004 | |
| | 110 ... 230 AC | | | ▶ | LZS:PTMU0730 | | 1 | 1 unit | 101 | 0.004 | |
| | Freewheel diodes with connection to A1 | | | | | | | | | | |
| | 6 ... 230 DC | -- | 15.5 | ▶ | LZS:PTMT00A0 | | 1 | 1 unit | 101 | 0.004 | |
| | Connecting cables | | | | | | | | | | |
| | 24-pole, current carrying capacity 12 A, with supply, blue | | | | A | 3TX7 004-8BA00 | | 1 | 1 unit | 101 | 0.040 |
| LZS:PTMT0730 | Connecting combs for RT screw base | | | | | | | | | | |
| | 8-pole, 10 A current carrying capacity, natural-colored | | | | | ▶ | LZS:RT170R8 | 1 | 10 units | 101 | 0.002 |
| | Connecting brackets for PT push-in base | | | | | | | | | | |
| | 2-pole, 10 A current carrying capacity, natural-colored | | | | | ▶ | LZS:RT170P1 | 1 | 10 units | 101 | 0.002 |
| 3TX7 004-8BA00 | | | | | | | | | | | |

Note: For coil voltages which are not listed, see SITOP power DC power supplies, e. g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

* You can order this quantity or a multiple thereof.

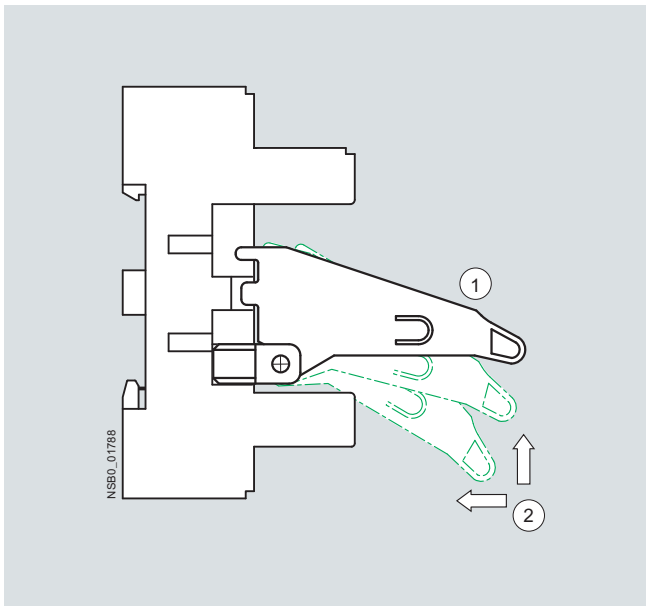
Plug-in relay couplers

More information

Notes on configuration

PT series

Mounting the LZS:PT17024 fixing/ejection bracket on the LZS:PT787.0 standard plug-in base with screw terminals:

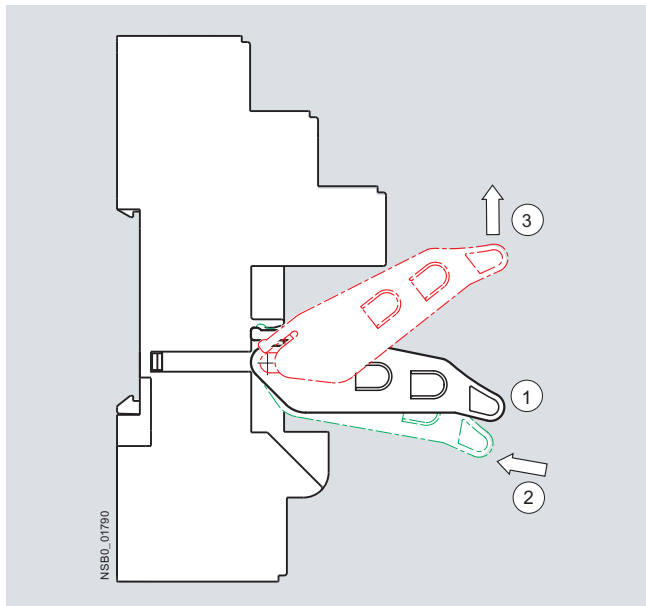


Legend:

- ① Locking position
- ② Mounting direction

RT series

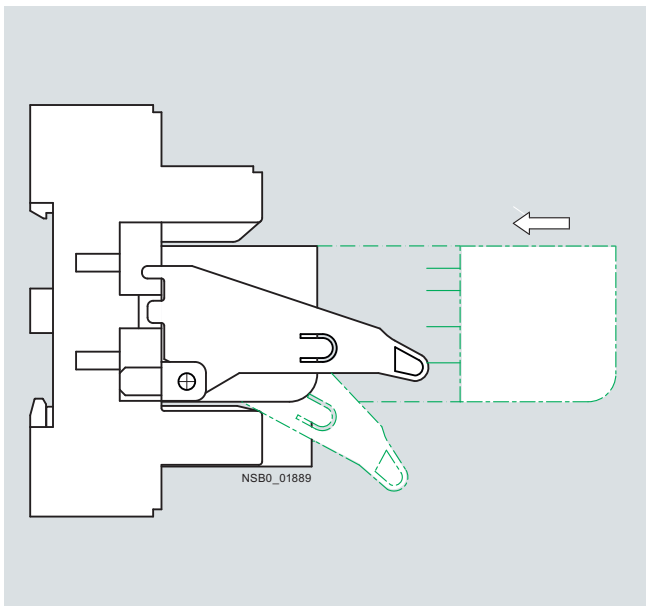
Mounting the LZS:RT17016 fixing/ejection bracket on the LZS:RT7872 plug-in base.



Legend:

- ① Locking position
- ② Mounting direction
- ③ Demounting direction

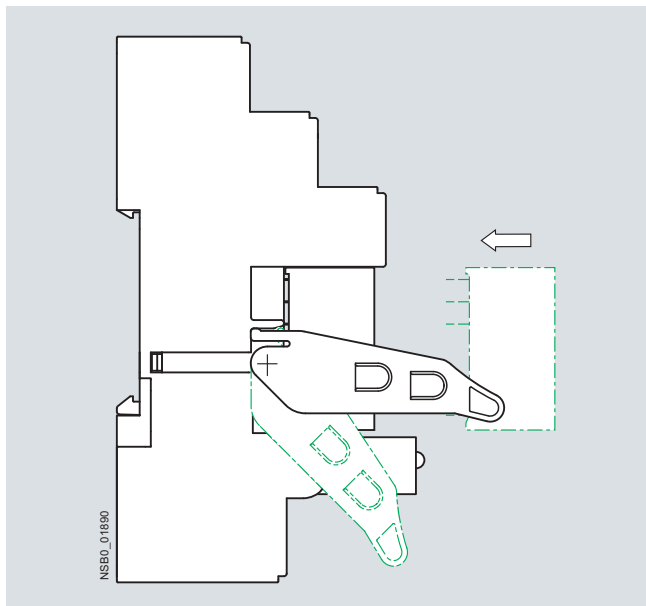
Mounting the coupling relay with plug-in relay



Important:

The LZS:PT17021 and LZS:PT17024 ejection brackets of the coupling relays with plug-in relay are not status displays!

Mounting the coupling relay with plug-in relay



Important:

The LZS:RT17016 ejection brackets of the coupling relays with plug-in relay are not status displays!

3

3TG10 Power Relays/Miniature Contactors

4-pole, 4 kW

Overview

Version

The 3TG10 power relays/miniature contactors with 4 main contacts are available with 6.3 mm × 0.8 mm screw terminals or flat connectors. The versions with screw terminals are climate-proof and finger-safe according to EN 61140.

The 3TG10 power relays/miniature contactors are small. Their width is 36 mm.

Application

Because they are hum-free they are suitable for use in household appliances and distribution boards in office and residential areas. They can also be used for applications where there is little space such as air conditioners, heating systems, pumps and fans, i.e. for simple electrical controls.

AC and DC operation

EN 60947-4-1

Surge suppression

The 3TG10 power relays/miniature contactors have an integrated protective circuit against opening surges.

Overload and short-circuit protection


The 3UA7 overload relay can be used for overload protection. This applies to mounting onto contactors and to stand-alone installation.

Information about short-circuit protection by means of contactors can be found in the "Technical specifications".


Selection and ordering data

| Rated data | | Utilization category | | Main contacts | | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------------------------------|--------------------------------------|---|--------------------------------------|---------------|----|------------------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Operational current I_e up to 400 V | Power of AC loads at 50 Hz and 400 V | Operational current I_e up to 400 V ¹⁾ | Power of AC loads at 50 Hz and 400 V | NO | NC | Version | | | | | | | kg |
| A | kW | A | kW | | | | | | | | | | |

With screw terminals, 4-pole For screw and snap-on mounting onto 35 mm standard mounting rail Hum-free

| AC operation, 45 ... 450 Hz | | | | | | | | Screw terminals | | | | | | | | |
|---|----|----|-----|---|---|----|-------|-----------------|---------------|-------|--------|---------------|-------|--------|-----|-------|
|  | 20 | 13 | 8.4 | 4 | 4 | -- | 24 AC | ▶ | 3TG10 10-0AC2 | 1 | 1 unit | 101 | 0.157 | | | |
| | | | | | | | | ▶ | 3TG10 10-0AG2 | 1 | 1 unit | 101 | 0.158 | | | |
| | | | | | | | | ▶ | 3TG10 10-0AL2 | 1 | 1 unit | 101 | 0.156 | | | |
| | | | | | | | | 3 | 1 | 24 AC | ▶ | 3TG10 01-0AC2 | 1 | 1 unit | 101 | 0.157 |
| | | | | | | | | | | | ▶ | 3TG10 01-0AG2 | 1 | 1 unit | 101 | 0.158 |
| | | | | | | | | | | | ▶ | 3TG10 01-0AL2 | 1 | 1 unit | 101 | 0.157 |
| DC operation | | | | | | | | | | | | | | | | |
| 3TG10 ...-0... | 20 | 13 | 8.4 | 4 | 4 | -- | 24 DC | ▶ | 3TG10 10-0BB4 | 1 | 1 unit | 101 | 0.157 | | | |
| | | | | | | | | ▶ | 3TG10 01-0BB4 | 1 | 1 unit | 101 | 0.157 | | | |

With 6.3 × 0.8 mm flat connectors, 4-pole For screw and snap-on mounting onto 35 mm standard mounting rail Hum-free

| AC operation, 45 ... 450 Hz | | | | | | | | Flat connectors | | | | | | | | |
|---|----|----|-----|---|---|----|-------|-----------------|---------------|-------|--------|---------------|-------|--------|-----|-------|
|  | 16 | 10 | 8.4 | 4 | 4 | -- | 24 AC | ▶ | 3TG10 10-1AC2 | 1 | 1 unit | 101 | 0.146 | | | |
| | | | | | | | | D | 3TG10 10-1AG2 | 1 | 1 unit | 101 | 0.146 | | | |
| | | | | | | | | ▶ | 3TG10 10-1AL2 | 1 | 1 unit | 101 | 0.145 | | | |
| | | | | | | | | 3 | 1 | 24 AC | D | 3TG10 01-1AC2 | 1 | 1 unit | 101 | 0.147 |
| | | | | | | | | | | | D | 3TG10 01-1AG2 | 1 | 1 unit | 101 | 0.146 |
| | | | | | | | | | | | ▶ | 3TG10 01-1AL2 | 1 | 1 unit | 101 | 0.144 |
| DC operation | | | | | | | | | | | | | | | | |
| 3TG10 ...-1... | 16 | 10 | 8.4 | 4 | 4 | -- | 24 DC | ▶ | 3TG10 10-1BB4 | 1 | 1 unit | 101 | 0.146 | | | |
| | | | | | | | | D | 3TG10 01-1BB4 | 1 | 1 unit | 101 | 0.146 | | | |

For accessories see page 3/123.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors
and contactor relays

Overview

Snap-on auxiliary switch blocks

The auxiliary switch blocks and the maximum number of blocks that can be mounted are described in the sections "Motor Contactors" and "Contactor Relays".

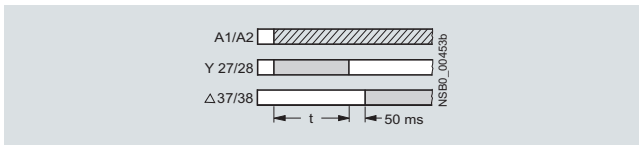
Solid-state time-delay auxiliary switch block

The timer module, which is available in the "ON-DELAY" and "OFF-DELAY" versions, allows time-delayed functions up to 100 s (3 distinct delay ranges).

It contains a relay with one NO contact and one NC contact; depending on the version, the relay is switched either after an ON-delay or after an OFF-delay.

The timer module with "WYE-DELTA FUNCTION" is equipped with one delayed and one instantaneous NO contact, with a dead time of 50 ms between the two. The delay time of the NO contact can be adjusted between 1.5 s and 30 s.

Wye-delta function:



The contactor on which the solid-state, time-delay auxiliary switch block is mounted operates without a delay.

Size S00

The solid-state, time-delay auxiliary switch block is fitted onto the front side of the contactor. The timer module is supplied with power directly by plug-in contacts through the coil terminals of the contactor, in parallel with A1/A2. The timing function is activated by closing the contactor on which the auxiliary switch block is mounted. The OFF-delay version operates without an auxiliary voltage; minimum ON period: 200 ms.

A varistor is integrated in the timer module in order to damp opening surges in the contactor coil.

The solid-state, time-delay auxiliary switch block cannot be mounted on size S00 coupling relays.

Sizes S0 to S12

The solid-state, time-delay auxiliary switch block is fitted onto the front side of the contactor.

The timer module is supplied with power through two terminals (A1/A2); the time delay of the auxiliary switch block can be activated either by a parallel link to any contactor coil or by any power source.

The OFF-delay version operates without an auxiliary voltage; minimum ON period: 200 ms.

A single-pole auxiliary switch block can be snapped onto the front of the contactor in addition to the timer module.

The timer module has no integrated components for overvoltage damping.

Solid-state time-delay block with semiconductor output

The timer module in the "ON-DELAY" and "OFF-DELAY with auxiliary voltage" versions allows time-delayed functions up to 100 s (3 distinct delay ranges). Contactors fitted with a time-delay block close or open after a delay according to the set time.

The ON-delay variant of the timing relay is connected in series with the contactor coil; terminal A1 of this coil must not be connected.

With the OFF-delay variant of the timing relay, the contactor coil is contacted directly through the relay; terminals A1 and A2 of the contactor coil must not be connected.

The timing relays are suitable for both AC and DC operation.

Size S00

The version for size S00 contactors is fitted onto the front of the contactor (with the supply voltage switched off) and then slid into its latched position; at the same time, the timing relay is connected by means of plug-in contacts to coil terminals A1 and A2 of the contactor. Any contactor coil terminals which are not required are sealed off by means of covers on the enclosure of the time-delay block, to prevent them from being connected inadvertently.

A varistor is integrated in the timer module in order to damp opening surges in the contactor coil.

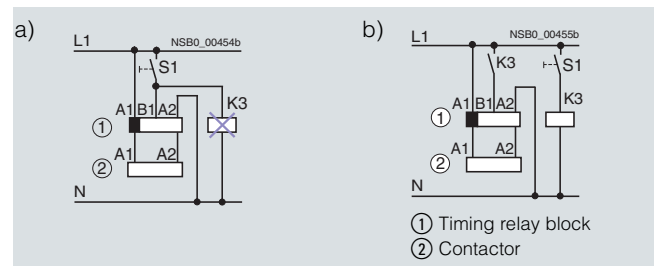
The solid-state, time-delay block cannot be mounted on size S00 coupling relays.

Sizes S0 to S3

The time-delay block for size S0 to S3 contactors is plugged into coil terminals A1 and A2 on top of each contactor; the timing relay is connected both electrically and mechanically by means of pins.

A varistor is integrated in the timer module in order to damp opening surges in the contactor coil.

Configuring note:



The activation of loads parallel to the start input is not permissible when using AC control voltage (see (a) in the circuit diagram).

The 3RT19 16-2D... / 3RT19 26-2D... OFF-delay timing relay blocks have a zero potential start input B1. This means that if there is a parallel load on terminal B1, activation can be simulated with AC voltage. In this case, the additional load (e. g. contactor K3) must be wired according to (b).

OFF-delay device for size S00 to S3 contactors

AC and DC operation

IEC 60947, EN 60947.

For screw and snap-on mounting onto 35 mm standard mounting rail. The OFF-delay devices have screw terminals.

The OFF-delay device prevents a contactor from dropping out unintentionally when there is a short-time voltage dip or voltage failure. It supplies a downstream, DC-operated contactor with the necessary energy during a voltage dip, ensuring that the contactor does not trip. The 3RT19 16 OFF-delay devices are specifically designed for operation with the 3RT contactors and 3RH contactor relays of the SIRIUS series.

The OFF-delay device operates without external voltage on a capacitive basis, and can be energized with either AC or DC (24 V version only for DC operation). Voltage matching, which is only necessary with AC operation, is performed using a rectifier bridge.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

A contactor opens after a delay when the capacitors of the solenoid coil, built into the OFF-delay device, are switched in parallel. In the event of voltage failures, the capacitors are discharged via the solenoid coil and thereby delay the opening of the contactor.

If the command devices are upstream of the OFF-delay device in the circuit, the OFF-delay takes effect with every opening operation. If the opening operation is downstream of the OFF-delay device, an OFF-delay only applies in the event of failure of the mains voltage.

Operation

In the case of the versions for rated control supply voltages of 110 V and 230 V, either AC voltage or DC voltage can be applied on the line side, whereas the variant for 24 V is designed for DC operation only.

A DC-operated contactor is connected to the output in accordance with the input voltage that is applied.

The mean value of the OFF-delay is approximately 1.5 times the specified minimum time.

Surge suppressors

- Without LED (also for Cage Clamp terminals) size S00, S0, S2, S3, S6 to S12
- With LED (also for Cage Clamp terminals) size S00

All 3RT1 contactors and 3RH1 contactor relays can be retrofitted with RC elements or varistors for damping opening surges in the coil. Diodes or diode assemblies (comprising noise suppression diodes and Zener diodes for rapid switch-off) can be used.

The surge suppressors are plugged onto the front of size S00 contactors. Space is provided for them next to a snap-on auxiliary switch block.

With all size S0 to S3 contactors, varistors, RC elements and diode assemblies can be plugged on directly at the coil terminals, either on the top or underneath.

The plug-in direction of the diodes and diode assemblies is determined by a coding device.

Coupling relays are supplied either without surge suppression or with a varistor or diode connected as standard, according to the version.

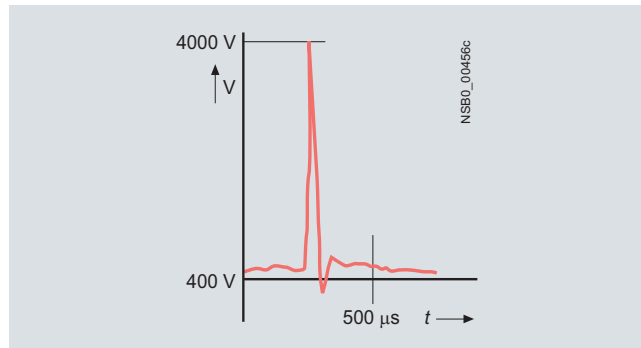
Note:

The OFF-delay times of the NO contacts and the ON-delay times of the NC contacts increase if the contactor coils are damped against voltage peaks (noise suppression diode 6 to 10 times; diode assemblies 2 to 6 times, varistor +2 to 5 ms).

Electromagnetic interference suppression module, 3-phase for size S00 contactors



A so-called counter-e.m.f. (electromotive force) is produced when motors or various inductive loads are turned off. Voltage peaks of up to 4000 V may occur as a result, with a frequency spectrum from 1 kHz to 10 MHz and a rate of voltage variation from 0.1 to 20 V/ns.



Capacitive input to various analog and digital signals makes it necessary to suppress interference in the load circuit.

Reducing contact arcing

The connection between the main current path and the EMC suppression module enables contact arcing, which is responsible for contact erosion and the majority of clicking noises, to be reduced; this in turn is conducive to an electromagnetically compatible design.

Higher operational reliability

Since the EMC suppression module achieves a significant reduction in radio-frequency components and the voltage level in three phases, the contact endurance is also improved considerably. This makes an important contribution towards enhancing the reliability and availability of the system as a whole.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

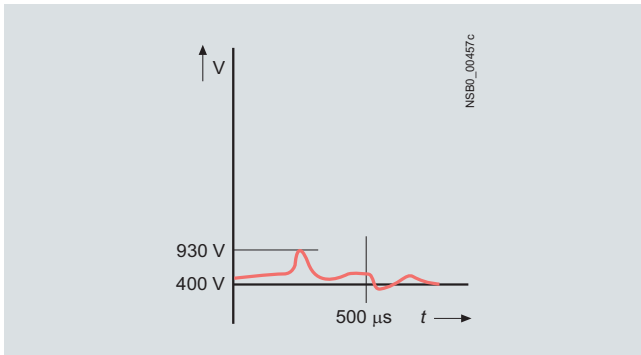
Accessories for 3RT, 3RH contactors and contactor relays

Dispensing with fine graduations

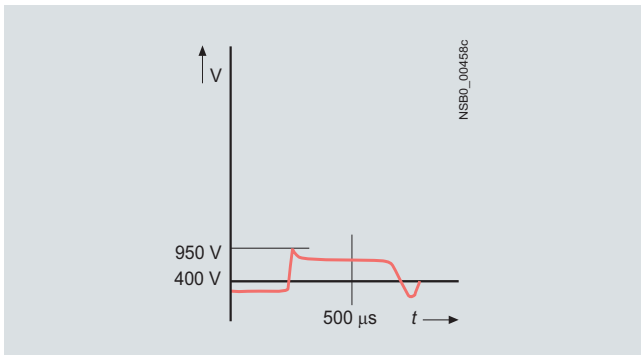
There is no need for fine graduations within each performance class, as smaller motors inherently have a higher inductance, so that one solution for all fixed-speed operating mechanisms up to 5.5 kW is adequate.

Two electrical versions are available:

- The advantages of the RC circuit lie mainly in the reduction in the rate of rise and in its RF damping ability. The selected values ensure effective interference suppression over a wide range.



- The varistor circuit can absorb a high energy level and can also be used for frequencies ranging from 10 to 400 Hz (closed-loop controlled operating mechanisms). There is no limiting below the knee-point voltage, however.



Additional load module

- Size S00 for plugging onto the front of the contactors with and without auxiliary switch block

Coupling links for mounting on contactors of sizes S0 to S3

DC operation

IEC 60947 and EN 60947.

The coupling link is suitable for use in any climate. It is finger-safe according to EN 50274. The terminal designations comply with EN 50005.

System-compatible operation with 24 V DC, operating range 17 to 30 V.

Low power consumption in conformity with the technical specifications of the solid-state systems. An LED indicates the switching state.

Surge suppression

The 3RH19 24-1GP11 coupling link has an integrated surge suppressor (varistor) for the contactor coil being switched.

Mounting

The 3RH19 24-1GP11 coupling link is mounted directly on the contactor coil.

Solder pin adapters

The solder pin adapters for the size S00 contactors are available in two versions:

- Solder pin adapter for contactors with one integrated auxiliary contact
- Solder pin adapter for contactors with mounted 4-pole auxiliary switch block

Screw adapters

Plug-on adapters improve the accessibility of the screw fixing for size S0 contactors. As a result it is possible to position the screwdriver vertically even when using insulated screwdrivers or power screwdrivers.

Optionally the adapters can be rotated through 90° before mounting.

Sealable covers for sizes S00 to S12

When contactors and contactor relays are used in safety-oriented applications, it must be ensured that it is impossible to operate the contactors manually.

For SIRIUS contactors there are sealable covers available for this purpose as accessories; these prevent accidental manual operation. These are transparent molded-plastic caps with a bracket that enables the contactor to be sealed.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

Selection and ordering data

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



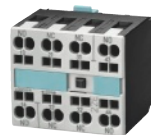
3RH19 11-1HA..
3RH19 11-1FA..



3RH19 11-2HA..



3RH19 21-1HA..



3RH19 21-2HA..
3RH19 21-2FA..



3RH19 11-1AA..



3RH19 11-1LA..

| For contactors | Auxiliary contacts | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|----------------|--------------------|---------|-----------------|-----------------------|----|----------------------|-----------------------|
| | Ident. No. | Version | Order No. | Price per PU | | Order No. | Price per PU |
| Type | NO NC NO NC | | | kg | | | kg |

Auxiliary switch blocks for snapping onto the front according to EN 50012

Size S00

For assembling contactors with 2, 4 or 5 auxiliary contacts

| | | | | | | | | |
|-----------------|-------------|------------|---|-----------------------|-------|---|-----------------------|-------|
| 3RT10 1.-1...1, | 11 E | -- 1 -- -- | ▶ | 3RH19 11-1HA01 | 0.060 | ▶ | 3RH19 11-2HA01 | 0.060 |
| 3RT10 1.-2...1 | 22 E | 1 2 -- -- | ▶ | 3RH19 11-1HA12 | 0.060 | ▶ | 3RH19 11-2HA12 | 0.060 |
| Ident. No. 10 E | 23 E | 1 3 -- -- | ▶ | 3RH19 11-1HA13 | 0.060 | ▶ | 3RH19 11-2HA13 | 0.060 |
| | 32 E | 2 2 -- -- | ▶ | 3RH19 11-1HA22 | 0.060 | ▶ | 3RH19 11-2HA22 | 0.060 |

Sizes S0 ... S12¹⁾

4-pole

| | | | | | | | | |
|---------------------------|------------------------|-----------|---|----------------------------|-------|---|----------------------------|-------|
| 3RT10 2, | 31 | 3 1 -- -- | ▶ | 3RH19 21-1HA31 | 0.075 | ▶ | 3RH19 21-2HA31 | 0.075 |
| 3RH11, 3RT1. 3... 3RT1. 7 | 22 | 2 2 -- -- | ▶ | 3RH19 21-1HA22 | 0.075 | ▶ | 3RH19 21-2HA22 | 0.075 |
| | 13 | 1 3 -- -- | ▶ | 3RH19 21-1HA13 | 0.075 | ▶ | 3RH19 21-2HA13 | 0.075 |
| | 22²⁾ | 2 2 -- -- | ▶ | 3RH19 21-1XA22-0MA0 | 0.075 | D | 3RH19 21-2XA22-0MA0 | 0.075 |

Auxiliary switch blocks for snapping onto the front according to EN 50005

Size S00

2 or 4-pole auxiliary switch blocks for assembling contactors with 3 or 5 auxiliary contacts

| | | | | | | | | |
|----------|-----------------|------------|---|-----------------------|-------|---|-----------------------|-------|
| 3RT1. 1, | 20 | 2 -- -- -- | ▶ | 3RH19 11-1FA20 | 0.050 | ▶ | 3RH19 11-2FA20 | 0.050 |
| 3RH11, | 11 | 1 1 -- -- | ▶ | 3RH19 11-1FA11 | 0.050 | ▶ | 3RH19 11-2FA11 | 0.050 |
| 3RH14 | 02 | -- 2 -- -- | ▶ | 3RH19 11-1FA02 | 0.050 | ▶ | 3RH19 11-2FA02 | 0.050 |
| | 11 U | -- -- 1 1 | ▶ | 3RH19 11-1FB11 | 0.050 | A | 3RH19 11-2FB11 | 0.050 |
| | 40 | 4 -- -- -- | ▶ | 3RH19 11-1FA40 | 0.060 | ▶ | 3RH19 11-2FA40 | 0.060 |
| | 31 | 3 1 -- -- | ▶ | 3RH19 11-1FA31 | 0.060 | ▶ | 3RH19 11-2FA31 | 0.060 |
| | 22 | 2 2 -- -- | ▶ | 3RH19 11-1FA22 | 0.060 | ▶ | 3RH19 11-2FA22 | 0.060 |
| | 22 U | -- -- 2 2 | ▶ | 3RH19 11-1FC22 | 0.060 | ▶ | 3RH19 11-2FC22 | 0.060 |
| | 11, 11 U | 1 1 1 1 | ▶ | 3RH19 11-1FB22 | 0.060 | B | 3RH19 11-2FB22 | 0.060 |

1- and 2-pole auxiliary switch blocks with cable entry from one side

• Cable entry from above

| | | | | | | | | |
|----------|----|------------|---|-----------------------|-------|----|--|--|
| 3RT1. 1, | -- | 1 -- -- -- | ▶ | 3RH19 11-1AA10 | 0.015 | -- | | |
| 3RH11, | -- | -- 1 -- -- | ▶ | 3RH19 11-1AA01 | 0.015 | -- | | |
| 3RH14 | -- | 1 1 -- -- | ▶ | 3RH19 11-1LA11 | 0.045 | -- | | |
| | -- | 2 -- -- -- | ▶ | 3RH19 11-1LA20 | 0.045 | -- | | |

• Cable entry from below

| | | | | | | | | |
|----------|----|------------|---|-----------------------|-------|----|--|--|
| 3RT1. 1, | -- | 1 -- -- -- | ▶ | 3RH19 11-1BA10 | 0.015 | -- | | |
| 3RH11, | -- | -- 1 -- -- | ▶ | 3RH19 11-1BA01 | 0.015 | -- | | |
| 3RH14 | -- | 1 1 -- -- | ▶ | 3RH19 11-1MA11 | 0.045 | -- | | |
| | -- | 2 -- -- -- | ▶ | 3RH19 11-1MA20 | 0.045 | -- | | |

For multi-unit packing and reusable packaging, see "Appendix --> Order information".

¹⁾ Exception: 3RT12, 3RT16.

²⁾ With identification numbers 5, 6, 7, 8.

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RH19 21-1F..

2RH19 21-2F..

3RH19 21-1C..

3RH19 21-2C..

3RH19 21-1LA..

3RH19 21-1MA..

| For contactors | Auxiliary contacts | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|----------------|--------------------|---------|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | Ident. No. | Version | Order No. | Price per PU | | | Order No. | Price per PU | |
| Type | NO NC NO NC | | | | kg | | | | kg |

Auxiliary switch blocks for snapping onto the front according to EN 50005

Sizes S0 to S12¹⁾

| 4-pole auxiliary switch blocks | | | | | | | | | | | |
|---|-------------|----|----|----|----|---|-----------------------|---------|---|-----------------------|-------|
| 3RT10 2, | 40 | 4 | -- | -- | -- | ▶ | 3RH19 21-1FA40 | 0.075 | ▶ | 3RH19 21-2FA40 | 0.075 |
| 3RT1. 3 | 31 | 3 | 1 | -- | -- | ▶ | 3RH19 21-1FA31 | 0.075 | ▶ | 3RH19 21-2FA31 | 0.075 |
| ... | 22 | 2 | 2 | -- | -- | ▶ | 3RH19 21-1FA22 | 0.075 | ▶ | 3RH19 21-2FA22 | 0.075 |
| 3RT1. 7 | 04 | -- | 4 | -- | -- | ▶ | 3RH19 21-1FA04 | 0.075 A | | 3RH19 21-2FA04 | 0.075 |
| | 22 U | -- | -- | 2 | 2 | ▶ | 3RH19 21-1FC22 | 0.075 A | | 3RH19 21-2FC22 | 0.075 |
| 1-pole auxiliary switch blocks to EN 50005 and EN 50012 | | | | | | | | | | | |
| 3RT1. 2 | -- | 1 | -- | -- | -- | ▶ | 3RH19 21-1CA10 | 0.020 | ▶ | 3RH19 21-2CA10 | 0.020 |
| ... | -- | -- | 1 | -- | -- | ▶ | 3RH19 21-1CA01 | 0.020 | ▶ | 3RH19 21-2CA01 | 0.020 |
| 3RT1. 7 | -- | -- | -- | 1 | -- | ▶ | 3RH19 21-1CD10 | 0.020 | | -- | |
| | -- | -- | -- | -- | 1 | ▶ | 3RH19 21-1CD01 | 0.020 | | -- | |
| 2-pole auxiliary switch blocks with cable entry from one side | | | | | | | | | | | |
| • Cable entry from above | | | | | | | | | | | |
| 3RT1. 2, | -- | 1 | 1 | -- | -- | ▶ | 3RH19 21-1LA11 | 0.075 | | -- | |
| 3RT1. 3 | -- | 2 | -- | -- | -- | ▶ | 3RH19 21-1LA20 | 0.075 | | -- | |
| ... | -- | -- | 2 | -- | -- | ▶ | 3RH19 21-1LA02 | 0.075 | | -- | |
| 3RT1. 7 | -- | -- | -- | -- | -- | ▶ | | | | | |
| • Cable entry from below | | | | | | | | | | | |
| 3RT1. 2, | -- | 1 | 1 | -- | -- | ▶ | 3RH19 21-1MA11 | 0.075 | | -- | |
| 3RT1. 3 | -- | 2 | -- | -- | -- | ▶ | 3RH19 21-1MA20 | 0.075 | | -- | |
| ... | -- | -- | 2 | -- | -- | ▶ | 3RH19 21-1MA02 | 0.075 | | -- | |
| 3RT1. 7 | -- | -- | -- | -- | -- | ▶ | | | | | |

¹⁾ Exception: 3RT16.

Accessories and Spare Parts

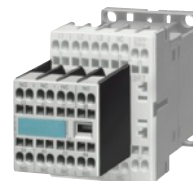
For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays





PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RH19 11-1GA..



3RH19 11-2GA..

| For contactor relays | | Contacts | DT | Screw terminals |  | Weight per PU approx. | DT | Cage Clamp terminals |  | Weight per PU approx. |
|----------------------|---------|---|---|------------------------|---|-----------------------|----|-----------------------------|---|-----------------------|
| Ident. No. | Version | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| | |  |  | | | kg | | | | kg |
| | | NO | NC | | | | | | | |

Snap-on auxiliary switch blocks according to EN 50011

For assembling contactor relays with 8 contacts

| | | | | | | | | |
|------------------|------------|----|----|---|-----------------------|---------|-----------------------|-------|
| 3RH11 40, | 80E | 4 | -- | ▶ | 3RH19 11-1GA40 | 0.060 ▶ | 3RH19 11-2GA40 | 0.060 |
| 3RH14 40 | 71E | 3 | 1 | ▶ | 3RH19 11-1GA31 | 0.060 ▶ | 3RH19 11-2GA31 | 0.060 |
| (Ident. No. 40E) | 62E | 2 | 2 | ▶ | 3RH19 11-1GA22 | 0.060 ▶ | 3RH19 11-2GA22 | 0.060 |
| | 53E | 1 | 3 | ▶ | 3RH19 11-1GA13 | 0.060 ▶ | 3RH19 11-2GA13 | 0.060 |
| | 44E | -- | 4 | ▶ | 3RH19 11-1GA04 | 0.060 ▶ | 3RH19 11-2GA04 | 0.060 |

For multi-unit packing and reusable packaging, see "Appendix --> Order information".

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RH19 21-1DA11
3RH19 21-1JA11



3RH19 21-2DA11
3RH19 21-2JA11



3RH19 21-1EA...
3RH19 21-1KA...



3RH19 21-2EA...
3RH19 21-2KA...

| For contactors | Auxiliary contacts | DT | Screw terminals | ⊕ | Weight per PU approx. | DT | Cage Clamp terminals | ⊗ | Weight per PU approx. |
|----------------|--------------------|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | Version | | Order No. | Price per PU | | | Order No. | Price per PU | |
| Type | NO NC | | | | kg | | | | kg |

Laterally mountable auxiliary switch blocks according to EN 50012

Sizes S0 ... S12

First laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | | | | |
|---------------------|---|---|---|----------------|-------|---|----------------|-------|
| 3RT1. 2 ... 3RT1. 7 | 1 | 1 | ▶ | 3RH19 21-1DA11 | 0.050 | ▶ | 3RH19 21-2DA11 | 0.050 |
|---------------------|---|---|---|----------------|-------|---|----------------|-------|

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | | | | |
|---------------------|---|---|---|----------------|-------|---|----------------|-------|
| 3RT1. 4 ... 3RT1. 7 | 1 | 1 | ▶ | 3RH19 21-1JA11 | 0.050 | ▶ | 3RH19 21-2JA11 | 0.050 |
|---------------------|---|---|---|----------------|-------|---|----------------|-------|

Laterally mountable auxiliary switch blocks according to EN 50005

Sizes S0 ... S12

First laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | | | | |
|---------------------|----|----|---|----------------|-------|---|----------------|-------|
| 3RT1. 2 ... 3RT1. 7 | 2 | -- | ▶ | 3RH19 21-1EA20 | 0.050 | ▶ | 3RH19 21-2EA20 | 0.050 |
| | 1 | 1 | ▶ | 3RH19 21-1EA11 | 0.050 | ▶ | -- | |
| | -- | 2 | ▶ | 3RH19 21-1EA02 | 0.050 | ▶ | 3RH19 21-2EA02 | 0.050 |

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | | | | |
|---------------------|----|----|---|----------------|---------|---|----------------|-------|
| 3RT1. 4 ... 3RT1. 7 | 2 | -- | ▶ | 3RH19 21-1KA20 | 0.050 D | ▶ | 3RH19 21-2KA20 | 0.050 |
| | 1 | 1 | ▶ | 3RH19 21-1KA11 | 0.050 | ▶ | -- | |
| | -- | 2 | ▶ | 3RH19 21-1KA02 | 0.050 D | ▶ | 3RH19 21-2KA02 | 0.050 |

* You can order this quantity or a multiple thereof.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



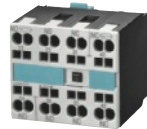
3RH19 11-1NF..



3RH19 11-2NF..







3RH19 21-1FE22



3RH19 21-2JE22

3RH19 21-2DE11
3RH19 21-2JE11

| For contactors | Version | Contacts | DT | Screw terminals | | Weight per PU approx. | DT | Cage Clamp terminals | | Weight per PU approx. |
|----------------|---------|---|----|-----------------|--------------|-----------------------|----|----------------------|--------------|-----------------------|
| | | | | Order No. | Price per PU | | | Order No. | Price per PU | |
| | | Version | | | | | | | | |
| | |     | | | | | | | | |
| Type | | NO NO ¹⁾ NC ¹⁾ NC | | | | kg | | | | kg |

Solid-state compatible auxiliary switch blocks for snapping onto the front, according to EN 50005

Size S00

| | | | | | | | |
|-----------------------------|---|---------------------------------------|-------------|---|-------------------------------|---|-------------------------|
| 3RT1. 1, 3RH11, 3RH14 | For operation in dusty atmosphere and solid-state circuits with rated operational currents $I_e/AC-14$ and DC-13 from 1 mA to 300 mA at 3 V to 60 V. Hard gold-plated contacts. No mirror contacts. | 1 -- -- 1 2 -- -- -- -- -- -- 2 | ▶ ▶ A | 3RH19 11-1NF11 3RH19 11-1NF20 3RH19 11-1NF02 | 0.045 A 0.045 A 0.045 A | 3RH19 11-2NF11 3RH19 11-2NF20 3RH19 11-2NF02 | 0.045 0.045 0.045 |
|-----------------------------|---|---------------------------------------|-------------|---|-------------------------------|---|-------------------------|

Sizes S0 ... S12

| | | | | | | | |
|---------------------------|--|---------|---|-----------------------|---------|-----------------------|-------|
| 3RT1. 2 ... 3RT1. 7 | For operation in dusty atmosphere and solid-state circuits with rated operational currents $I_e/AC-14$ and DC-13 from 1 mA to 300 mA at 3 V to 60 V. Hard gold-plated contacts. Mirror contacts acc. to EN 60947-4-1, Appendix F | 1 1 1 1 | ▶ | 3RH19 21-1FE22 | 0.070 B | 3RH19 21-2FE22 | 0.070 |
|---------------------------|--|---------|---|-----------------------|---------|-----------------------|-------|

Solid-state compatible auxiliary switch blocks, laterally mountable, according to EN 50012

Sizes S0 ... S12

First laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | |
|---------------------------|---|-----------|---|-----------------------|-------|
| 3RT1. 2 ... 3RT1. 7 | 1 NO + 1 NC solid-state compatible auxiliary switches For operation in dusty atmosphere and solid-state circuits with rated operational currents $I_e/AC-14$ and DC-13 from 1 mA to 300 mA at 3 V to 60 V. Hard gold-plated contacts. Mirror contacts acc. to EN 60947-4-1, Appendix F | 1 -- -- 1 | ▶ | 3RH19 21-2DE11 | 0.050 |
|---------------------------|---|-----------|---|-----------------------|-------|

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole

| | | | | | |
|---------------------------|---|-----------|---|-----------------------|-------|
| 3RT1. 4 ... 3RT1. 7 | 1 NO + 1 NC solid-state compatible auxiliary switches For operation in dusty atmosphere and solid-state circuits with rated operational currents $I_e/AC-14$ and DC-13 from 1 mA to 300 mA at 3 V to 60 V. Hard gold-plated contacts. Mirror contacts acc. to EN 60947-4-1, Appendix F | 1 -- -- 1 | ▶ | 3RH19 21-2JE11 | 0.050 |
|---------------------------|---|-----------|---|-----------------------|-------|

¹⁾ 1 NO + 1 NC standard auxiliary switches:
 see Technical Information LV 1 T → "Technical specifications".

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Auxiliary contacts | Rated control supply voltage $U_s^{1)}$ | Time setting range t | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|--------------------|---|------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Type | | V | s | | | | | | | kg |

Solid-state time-delay auxiliary switch blocks for snapping onto the front, terminal designations according to DIN 46199-5

Size S00



3RT19 16-2...

ON-delay (varistor integrated)

| | | | | | | | | | | |
|--|------------------------------|------------------------|------------|------------|----------------|----------------|--------|--------|-------|-------|
| 3RT1. 1, 3RH11 ²⁾ 3RH14 | 1 NO + 1 NC | 24 AC/DC ³⁾ | 0.05 ... 1 | ▶ | 3RT19 16-2EJ11 | | 1 | 1 unit | 101 | 0.090 |
| | | | 0.5 ... 10 | ▶ | 3RT19 16-2EJ21 | | | | | |
| | | | 5 ... 100 | B | 3RT19 16-2EJ31 | | | | | |
| | 100 ... 127 AC ³⁾ | 0.05 ... 1 | C | 0.05 ... 1 | ▶ | 3RT19 16-2EC11 | 1 | 1 unit | 101 | 0.090 |
| | | | | 0.5 ... 10 | ▶ | 3RT19 16-2EC21 | | | | |
| | | | | 5 ... 100 | ▶ | 3RT19 16-2EC31 | | | | |
| 200 ... 240 AC ³⁾ | 0.05 ... 1 | D | 0.05 ... 1 | ▶ | 3RT19 16-2ED11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 16-2ED21 | | | | | |
| | | | 5 ... 100 | ▶ | 3RT19 16-2ED31 | | | | | |

OFF-delay without auxiliary voltage (varistor integrated)⁴⁾

| | | | | | | | | | | |
|--|---------------------------------|------------------------|------------|------------|----------------|----------------|--------|--------|-------|-------|
| 3RT1. 1, 3RH11 ²⁾ 3RH14 | 1 NO + 1 NC | 24 AC/DC ³⁾ | 0.05 ... 1 | ▶ | 3RT19 16-2FJ11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 16-2FJ21 | | | | | |
| | | | 5 ... 100 | ▶ | 3RT19 16-2FJ31 | | | | | |
| | 100 ... 127 AC/DC ³⁾ | 0.05 ... 1 | C | 0.05 ... 1 | ▶ | 3RT19 16-2FK11 | 1 | 1 unit | 101 | 0.090 |
| | | | | 0.5 ... 10 | ▶ | 3RT19 16-2FK21 | | | | |
| | | | | 5 ... 100 | B | 3RT19 16-2FK31 | | | | |
| 200 ... 240 AC/DC ³⁾ | 0.05 ... 1 | D | 0.05 ... 1 | ▶ | 3RT19 16-2FL11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 16-2FL21 | | | | | |
| | | | 5 ... 100 | ▶ | 3RT19 16-2FL31 | | | | | |

OFF-delay with auxiliary voltage

| | | | | | | | | | |
|------------------|------|----------------|------------|---|----------------|---|--------|-----|-------|
| 3RT10 1 3RH11 | 1 CO | 24 AC/DC | 0.5 ... 10 | B | 3RT19 16-2LJ21 | 1 | 1 unit | 101 | 0.090 |
| | | 100 ... 127 AC | 0.5 ... 10 | B | 3RT19 16-2LC21 | | | | |
| | | 200 ... 240 AC | 0.5 ... 10 | C | 3RT19 16-2LD21 | | | | |

Wye-delta function (varistor integrated)

| | | | | | | | | | |
|-----------------------|---|------------------------------|------------|---|----------------|---|--------|-----|-------|
| 3RT10 1 ²⁾ | 1 NO delayed + 1 NO instan- taneous, dead time 50 ms | 24 AC/DC ³⁾ | 1.5 ... 30 | ▶ | 3RT19 16-2GJ51 | 1 | 1 unit | 101 | 0.090 |
| | | 100 ... 127 AC ³⁾ | 1.5 ... 30 | D | 3RT19 16-2GC51 | | | | |
| | | 200 ... 240 AC ³⁾ | 1.5 ... 30 | ▶ | 3RT19 16-2GD51 | | | | |

Sizes S0 ... S12

With ON-delay

| | | | | | | | | | | |
|-------------------------------------|------------------------------|------------------------|------------|------------|----------------|----------------|--------|--------|-------|-------|
| 3RT10, 3RT13, 3RT14, 3RT15 | 1 NO + 1 NC | 24 AC/DC ⁵⁾ | 0.05 ... 1 | D | 3RT19 26-2EJ11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 26-2EJ21 | | | | | |
| | | | 5 ... 100 | A | 3RT19 26-2EJ31 | | | | | |
| | 100 ... 127 AC ⁵⁾ | 0.05 ... 1 | C | 0.05 ... 1 | ▶ | 3RT19 26-2EC11 | 1 | 1 unit | 101 | 0.090 |
| | | | | 0.5 ... 10 | ▶ | 3RT19 26-2EC21 | | | | |
| | | | | 5 ... 100 | D | 3RT19 26-2EC31 | | | | |
| 200 ... 240 AC ⁵⁾ | 0.05 ... 1 | D | 0.05 ... 1 | ▶ | 3RT19 26-2ED11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 26-2ED21 | | | | | |
| | | | 5 ... 100 | B | 3RT19 26-2ED31 | | | | | |

OFF-delay without auxiliary voltage⁴⁾

| | | | | | | | | | | |
|-------------------------------------|------------------------------|------------------------|------------|------------|----------------|----------------|--------|--------|-------|-------|
| 3RT10, 3RT13, 3RT14, 3RT15 | 1 NO + 1 NC | 24 AC/DC ⁵⁾ | 0.05 ... 1 | ▶ | 3RT19 26-2FJ11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | ▶ | 3RT19 26-2FJ21 | | | | | |
| | | | 5 ... 100 | ▶ | 3RT19 26-2FJ31 | | | | | |
| | 100 ... 127 AC ⁵⁾ | 0.05 ... 1 | D | 0.05 ... 1 | ▶ | 3RT19 26-2FK11 | 1 | 1 unit | 101 | 0.090 |
| | | | | 0.5 ... 10 | ▶ | 3RT19 26-2FK21 | | | | |
| | | | | 5 ... 100 | C | 3RT19 26-2FK31 | | | | |
| 200 ... 240 AC ⁵⁾ | 0.05 ... 1 | D | 0.05 ... 1 | ▶ | 3RT19 26-2FL11 | 1 | 1 unit | 101 | 0.090 | |
| | | | 0.5 ... 10 | A | 3RT19 26-2FL21 | | | | | |
| | | | 5 ... 100 | A | 3RT19 26-2FL31 | | | | | |

Wye-delta function

| | | | | | | | | | |
|-------------------------------------|--|------------------------------|------------|---|----------------|---|--------|-----|-------|
| 3RT10, 3RT13, 3RT14, 3RT15 | 1 NO, delayed + 1 NO instan- taneous, dead time 50 ms | 24 AC/DC ⁵⁾ | 1.5 ... 30 | ▶ | 3RT19 26-2GJ51 | 1 | 1 unit | 101 | 0.090 |
| | | 100 ... 127 AC ⁵⁾ | 1.5 ... 30 | ▶ | 3RT19 26-2GC51 | | | | |
| | | 200 ... 240 AC ⁵⁾ | 1.5 ... 30 | ▶ | 3RT19 26-2GD51 | | | | |

1) The AC voltages are valid for 50 Hz and 60 Hz.

2) Cannot be fitted onto coupling relays.

3) The terminals for the control supply voltage are connected to the contactor by the integrated spring contacts of the solid-state time-delay auxiliary switch above it when this switch is mounted.

4) Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control supply voltage once results in contact changeover to the correct setting.

5) Terminals A1 and A2 for the control supply voltage of the solid-state time-delay auxiliary switch must be connected to the associated contactor by means of connecting cables.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Rated control supply voltage U_s | Time setting range t | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|------------------------------------|------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Type | V | s | | | | | | | kg |

Solid-state time-delay blocks with semiconductor output

Size S00



3RT19 16-2C...



3RT19 16-2D...

For mounting onto the front of contactors

• ON-delay (varistor integrated)

| | | | | | | | | | |
|--|------------------|------------|---|----------------|--|---|--------|-----|-------|
| 3RT1. 1, 3RH11 ¹⁾ 3RH14 | 24 ... 66 AC/DC | 0.05 ... 1 | B | 3RT19 16-2CG11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | ▶ | 3RT19 16-2CG21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | B | 3RT19 16-2CG31 | | 1 | 1 unit | 101 | 0.050 |
| 3RT19 16-2C... | 90 ... 240 AC/DC | 0.05 ... 1 | D | 3RT19 16-2CH11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | ▶ | 3RT19 16-2CH21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | ▶ | 3RT19 16-2CH31 | | 1 | 1 unit | 101 | 0.050 |

• OFF-delay with auxiliary voltage (varistor integrated)

| | | | | | | | | | |
|--|------------------|------------|---|----------------|--|---|--------|-----|-------|
| 3RT1. 1, 3RH11 ¹⁾ 3RH14 | 24 ... 66 AC/DC | 0.05 ... 1 | C | 3RT19 16-2DG11 | | 1 | 1 unit | 101 | 0.060 |
| | | 0.5 ... 10 | B | 3RT19 16-2DG21 | | 1 | 1 unit | 101 | 0.060 |
| | | 5 ... 100 | B | 3RT19 16-2DG31 | | 1 | 1 unit | 101 | 0.060 |
| 3RT19 16-2D... | 90 ... 240 AC/DC | 0.05 ... 1 | D | 3RT19 16-2DH11 | | 1 | 1 unit | 101 | 0.060 |
| | | 0.5 ... 10 | ▶ | 3RT19 16-2DH21 | | 1 | 1 unit | 101 | 0.060 |
| | | 5 ... 100 | B | 3RT19 16-2DH31 | | 1 | 1 unit | 101 | 0.060 |

Sizes S0 ... S3

For mounting onto coil terminals on top of the contactors

Only for devices with screw terminals

• ON-delay (varistor integrated)

| | | | | | | | | | |
|--|------------------|------------|---|----------------|--|---|--------|-----|-------|
| 3RT10 2, 3RT10 3, 3RT10 4, 3RT13 ²⁾ 3RT15 | 24 ... 66 AC/DC | 0.05 ... 1 | D | 3RT19 26-2CG11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | B | 3RT19 26-2CG21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | D | 3RT19 26-2CG31 | | 1 | 1 unit | 101 | 0.050 |
| 3RT19 26-2C... | 90 ... 240 AC/DC | 0.05 ... 1 | ▶ | 3RT19 26-2CH11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | ▶ | 3RT19 26-2CH21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | ▶ | 3RT19 26-2CH31 | | 1 | 1 unit | 101 | 0.050 |

• OFF-delay with auxiliary voltage (varistor integrated)

| | | | | | | | | | |
|--|------------------|------------|---|----------------|--|---|--------|-----|-------|
| 3RT10 2, 3RT10 3, 3RT10 4, 3RT13 ²⁾ 3RT15 | 24 ... 66 AC/DC | 0.05 ... 1 | D | 3RT19 26-2DG11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | D | 3RT19 26-2DG21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | D | 3RT19 26-2DG31 | | 1 | 1 unit | 101 | 0.050 |
| 3RT19 26-2D... | 90 ... 240 AC/DC | 0.05 ... 1 | C | 3RT19 26-2DH11 | | 1 | 1 unit | 101 | 0.050 |
| | | 0.5 ... 10 | D | 3RT19 26-2DH21 | | 1 | 1 unit | 101 | 0.050 |
| | | 5 ... 100 | C | 3RT19 26-2DH31 | | 1 | 1 unit | 101 | 0.050 |

OFF-delay devices



3RT19 16-2B.01

| | | | | | | | | | | |
|---|---|---|-------|----------------|----------------|---|--------|--------|-------|-------|
| 3RT1. 1, 3RT1. 2, 3RH1. ...-1BF40 | 110 AC/DC | | D | 3RT19 16-2BK01 | | 1 | 1 unit | 101 | 0.150 | |
| | 3RT1. 1, 3RT1. 2, 3RH1. ...-1BM40 | 220/230 AC/DC | | D | 3RT19 16-2BL01 | | 1 | 1 unit | 101 | 0.150 |
| | | 3RT1. 1 ... 3RT1. 4, 3RH1. ...-1BB40 | 24 DC | ▶ | 3RT19 16-2BE01 | | 1 | 1 unit | 101 | 0.150 |

Pneumatic delay blocks, terminal designation according to EN 50005



3RT19 26-2P...

3RT1. 2 For mounting onto the front side of size S0 contactors³⁾⁴⁾

Auxiliary contacts 1 NO and 1 NC

• ON-delay

| | | | | | | |
|------------|---|----------------|---|--------|-----|-------|
| 0.1 ... 30 | C | 3RT19 26-2PA01 | 1 | 1 unit | 101 | 0.080 |
| 1 ... 60 | C | 3RT19 26-2PA11 | 1 | 1 unit | 101 | 0.080 |

• OFF-delay

| | | | | | | |
|------------|---|----------------|---|--------|-----|-------|
| 0.1 ... 30 | C | 3RT19 26-2PR01 | 1 | 1 unit | 101 | 0.080 |
| 1 ... 60 | C | 3RT19 26-2PR11 | 1 | 1 unit | 101 | 0.080 |

Mechanical latching blocks

Sizes S0 and S2



3RT19 26-3A.31

For mounting on 1 contactor, contactor remains in the energized state even after a voltage failure

| | | | | | | | | | |
|---------------------|-----------|--|---|----------------|--|---|--------|-----|-------|
| 3RT1. 2, 3RT1. 3 | 24 AC/DC | | A | 3RT19 26-3AB31 | | 1 | 1 unit | 101 | 0.130 |
| | 110 AC/DC | | B | 3RT19 26-3AF31 | | 1 | 1 unit | 101 | 0.130 |
| | 230 AC/DC | | B | 3RT19 26-3AP31 | | 1 | 1 unit | 101 | 0.130 |

¹⁾ Cannot be fitted onto coupling relays.

²⁾ Not to be used for 3RT10 4. and 3RT13 4. contactors with $U_s \leq 42$ V.

³⁾ In addition to these, no other auxiliary contacts are permitted.

⁴⁾ Versions according to DIN VDE 0116 on request.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | Rated control supply voltage U_s 1) | | DT | Order No. 2) | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|---------|---------------------------------------|--------------|----|--------------|--------------|-------------------|-----|----|-----------------------|
| | | AC operation | DC operation | | | | | | | |
| Type | | V AC | V DC | | | | | | | kg |

Surge suppressors without LED (also for Cage Clamp terminals)

Size S00



3RT19 16-1DG00

For plugging onto the front side of the contactors with and without auxiliary switch blocks

| | | | | | | | | | |
|--------------|---|-------------|-------------|---|-----------------------|---|--------|-----|-------|
| 3RT1.., 3RH1 | Varistors | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 16-1BB00 | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 16-1BC00 | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 150 ... 250 | A | 3RT19 16-1BD00 | 1 | 1 unit | 101 | 0.010 |
| | | 240 ... 400 | -- | ▶ | 3RT19 16-1BE00 | 1 | 1 unit | 101 | 0.010 |
| | | 400 ... 600 | -- | A | 3RT19 16-1BF00 | 1 | 1 unit | 101 | 0.010 |
| 3RT1.., 3RH1 | RC elements | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 16-1CB00 | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 16-1CC00 | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 16-1CD00 | 1 | 1 unit | 101 | 0.010 |
| | | 240 ... 400 | -- | ▶ | 3RT19 16-1CE00 | 1 | 1 unit | 101 | 0.010 |
| | | 400 ... 600 | -- | ▶ | 3RT19 16-1CF00 | 1 | 1 unit | 101 | 0.010 |
| 3RT1.., 3RH1 | Noise suppression diodes | -- | 12 ... 250 | ▶ | 3RT19 16-1DG00 | 1 | 1 unit | 101 | 0.010 |
| 3RT1.., 3RH1 | Diode assemblies (diode and Zener diode) for DC operation | -- | 12 ... 250 | ▶ | 3RT19 16-1EH00 | 1 | 1 unit | 101 | 0.010 |

Size S0



3RT19 26-1B.00

For fitting onto the coil terminals at top or bottom

| | | | | | | | | | | |
|---------|---|--|-------------|------------|-----------------------|-----------------------|--------|--------|-------|-------|
| 3RT1. 2 | Varistors | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 26-1BB00 | 1 | 1 unit | 101 | 0.025 | |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 26-1BC00 | 1 | 1 unit | 101 | 0.025 | |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 26-1BD00 | 1 | 1 unit | 101 | 0.025 | |
| | | 240 ... 400 | -- | ▶ | 3RT19 26-1BE00 | 1 | 1 unit | 101 | 0.025 | |
| | | 400 ... 600 | -- | B | 3RT19 26-1BF00 | 1 | 1 unit | 101 | 0.025 | |
| 3RT1. 2 | RC elements | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 26-1CB00 | 1 | 1 unit | 101 | 0.025 | |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 26-1CC00 | 1 | 1 unit | 101 | 0.025 | |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 26-1CD00 | 1 | 1 unit | 101 | 0.025 | |
| | | 240 ... 400 | -- | ▶ | 3RT19 26-1CE00 | 1 | 1 unit | 101 | 0.025 | |
| | | 400 ... 600 | -- | B | 3RT19 26-1CF00 | 1 | 1 unit | 101 | 0.025 | |
| 3RT1. 2 | Diode assemblies For DC operation | | | | | | | | | |
| | | • Connectable at the top (e. g. for contactor with overload relay) | -- | 24 | ▶ | 3RT19 26-1ER00 | 1 | 1 unit | 101 | 0.025 |
| | | | -- | 30 ... 250 | ▶ | 3RT19 26-1ES00 | 1 | 1 unit | 101 | 0.025 |
| | | • Connectable at the bottom (e. g. for fuseless load feeders) | -- | 24 | ▶ | 3RT19 26-1TR00 | 1 | 1 unit | 101 | 0.025 |
| | | | -- | 30 ... 250 | A | 3RT19 26-1TS00 | 1 | 1 unit | 101 | 0.025 |

1) Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

2) For packs of 10 units, the Order No. must be supplemented with "-Z" and the order code "X90".

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | Rated control supply voltage $U_s^{1)}$ | | DT | Order No. ²⁾ | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|---------|---|--------------|----|-------------------------|--------------|-------------------|-----|----|-----------------------|
| | | AC operation | DC operation | | | | | | | |
| Type | | V AC | V DC | | | | | | | kg |

Surge suppressors without LED (also for Cage Clamp terminals)

Sizes S2 and S3

For fitting onto the coil terminals at top or bottom



3RT19 26-1B.00

| | | | | | | | | | | |
|---------------------|------------------|-------------|-------------|---|-----------------------|--|---|--------|-----|-------|
| 3RT1. 3, 3RT1. 4 | Varistors | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 26-1BB00 | | 1 | 1 unit | 101 | 0.025 |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 26-1BC00 | | 1 | 1 unit | 101 | 0.025 |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 26-1BD00 | | 1 | 1 unit | 101 | 0.025 |
| | | 240 ... 400 | -- | ▶ | 3RT19 26-1BE00 | | 1 | 1 unit | 101 | 0.025 |
| | | 400 ... 600 | -- | ▶ | 3RT19 26-1BF00 | | 1 | 1 unit | 101 | 0.025 |



3RT19 36-1C.00

| | | | | | | | | | | |
|------------------------------------|--------------------|-------------|-------------|---|-----------------------|--|---|--------|-----|-------|
| 3RT1. 3 ³⁾ , 3RT1. 4 | RC elements | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 36-1CB00 | | 1 | 1 unit | 101 | 0.040 |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 36-1CC00 | | 1 | 1 unit | 101 | 0.040 |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 36-1CD00 | | 1 | 1 unit | 101 | 0.040 |
| | | 240 ... 400 | -- | ▶ | 3RT19 36-1CE00 | | 1 | 1 unit | 101 | 0.040 |
| | | 400 ... 600 | -- | ▶ | 3RT19 36-1CF00 | | 1 | 1 unit | 101 | 0.040 |

Diode assemblies

For DC operation

- Connectable at the top (e. g. for contactor with overload relay)

| | | | | | | | |
|------------|---|-----------------------|--|---|--------|-----|-------|
| 24 | ▶ | 3RT19 36-1ER00 | | 1 | 1 unit | 101 | 0.025 |
| 30 ... 250 | ▶ | 3RT19 36-1ES00 | | 1 | 1 unit | 101 | 0.025 |

- Connectable at the bottom (e. g. for fuseless load feeders)

| | | | | | | | |
|------------|---|-----------------------|--|---|--------|-----|-------|
| 24 | ▶ | 3RT19 36-1TR00 | | 1 | 1 unit | 101 | 0.025 |
| 30 ... 250 | ▶ | 3RT19 36-1TS00 | | 1 | 1 unit | 101 | 0.025 |

Sizes S6 ... S12

For connecting to withdrawable coil with screw terminals with contactors with

- 3RT1. ...A... conventional operating mechanism
- 3RT1. ...N... conventional operating mechanism



3RT19 56-1C.00

| | | | | | | | | | | |
|---------------------------------|--------------------|-------------|-------------|---|-----------------------|--|---|--------|-----|-------|
| 3RT1. 5, 3RT1. 6, 3RT1. 7 | RC elements | 24 ... 48 | 24 ... 70 | ▶ | 3RT19 56-1CB00 | | 1 | 1 unit | 101 | 0.035 |
| | | 48 ... 127 | 70 ... 150 | ▶ | 3RT19 56-1CC00 | | 1 | 1 unit | 101 | 0.035 |
| | | 127 ... 240 | 150 ... 250 | ▶ | 3RT19 56-1CD00 | | 1 | 1 unit | 101 | 0.035 |
| | | 240 ... 400 | -- | ▶ | 3RT19 56-1CE00 | | 1 | 1 unit | 101 | 0.035 |
| | | 400 ... 600 | -- | ▶ | 3RT19 56-1CF00 | | 1 | 1 unit | 101 | 0.035 |

1) Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

2) For packs of 10 or 5 units "-Z" and order code "X90" must be added to the Order No.

3) Mountable only at the top for 3RT1. 3/AC operating mechanism.

| For contactors | Version | Rated control supply voltage $U_s^{1)}$ | | Power consumption of LED at U_s | DT | Order No. ²⁾ | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|---------|---|--------------|-----------------------------------|----|-------------------------|--------------|-------------------|-----|----|-----------------------|
| | | AC operation | DC operation | | | | | | | | |
| Type | | V AC | V DC | | | | | | | | kg |

Surge suppressors with LED (also for Cage Clamp terminals)

Size S00

For plugging onto the front side of the contactors with and without auxiliary switch blocks



3RT19 16-1L.00

| | | | | | | | | | | | |
|----------------|---------------------------------|-------------|-------------|-------------|---|-----------------------|--|---|--------|-----|-------|
| 3RT1, 3RH1. | Varistors | 24 ... 48 | 12 ... 24 | 10 ... 120 | ▶ | 3RT19 16-1JJ00 | | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 127 | 24 ... 70 | 20 ... 470 | ▶ | 3RT19 16-1JK00 | | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 70 ... 150 | 50 ... 700 | ▶ | 3RT19 16-1JL00 | | 1 | 1 unit | 101 | 0.010 |
| | | -- | 150 ... 250 | 160 ... 950 | ▶ | 3RT19 16-1JP00 | | 1 | 1 unit | 101 | 0.010 |
| 3RT1, 3RH1. | Noise suppression diodes | -- | 24 ... 70 | 20 ... 470 | ▶ | 3RT19 16-1LM00 | | 1 | 1 unit | 101 | 0.010 |
| | | -- | 50 ... 150 | 50 ... 700 | ▶ | 3RT19 16-1LN00 | | 1 | 1 unit | 101 | 0.010 |
| | | -- | 150 ... 250 | 160 ... 950 | ▶ | 3RT19 16-1LP00 | | 1 | 1 unit | 101 | 0.010 |


1) Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

2) For packs of 10 or 5 units "-Z" and order code "X90" must be added to the Order No.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | |
|---|---------|---|-----------|----------------------|-------------------|-----|--------|--------------------------|-------|
| EMC suppression modules; 3-phase ≤ 5.5 kW | | | | | | | | | |
| <i>Size S00 (for contactors with AC or DC operation)¹⁾</i> | | | | | | | | | |
|  | 3RT10 1 | RC elements (3 x 220 Ω/0.22 μF) Up to 400 V Up to 575 V Up to 690 V | ▶ | 3RT19 16-1PA1 | | 1 | 1 unit | 101 | 0.080 |
| | | | A | 3RT19 16-1PA2 | | 1 | 1 unit | 101 | 0.080 |
| | | | C | 3RT19 16-1PA3 | | 1 | 1 unit | 101 | 0.080 |
| | 3RT10 1 | Varistors Up to 400 V Up to 575 V Up to 690 V | A | 3RT19 16-1PB1 | | 1 | 1 unit | 101 | 0.090 |
| | | | B | 3RT19 16-1PB2 | | 1 | 1 unit | 101 | 0.090 |
| | | | D | 3RT19 16-1PB3 | | 1 | 1 unit | 101 | 0.090 |

3RT19 16-1PA.

Main current path surge suppression modules for 3RT12 vacuum contactors


Size S10 and S12

| | | | | | | | | |
|-------|---|---|----------------------|--|---|--------|-----|-------|
| 3RT12 | Rated operational voltage $U_e = 690$ V AC | C | 3RT19 66-1PV3 | | 1 | 1 unit | 101 | 0.400 |
| | Rated operational voltage $U_e = 1000$ V AC For damping overvoltages and protecting motor windings against multiple re-ignition when switching off induction motors. For connection on the contactor feeder side (2-T1/4-T2/6-T3). For separate installation. | C | 3RT19 66-1PV4 | | 1 | 1 unit | 101 | 0.780 |

Additional load modules

Size S00 (also for Cage Clamp terminals)

For plugging onto the front side of the contactors with and without auxiliary switch blocks²⁾

| | | | | | | | | | |
|---|-------------------|---|---|-----------------------|--|---|--------|-----|-------|
|  | 3RT1. 1, 3RH1. | For increasing the permissible residual current and for limiting the residual voltage. Ensures safe opening of contactors with direct control via 230 V AC semiconductor outputs of SIMATIC controllers. Also performs the function of an overvoltage damping circuit. Rated voltage: 50/60 Hz, 180 V to 255 V AC. Operating range: 0.8 to 1.1 x U_s | ▶ | 3RT19 16-1GA00 | | 1 | 1 unit | 101 | 0.010 |
| | | | | | | | | | |

3RT19 16-1GA00

Control kits

Size S00

| | | | | | | | | | |
|---|-------------------|---|---|-----------------------|--|---|--------|-----|-------|
|  | 3RT1. 1, 3RH1. | For manual operation of the contactor contacts for start-up and service ³⁾ | A | 3RK1 903-0CA00 | | 1 | 1 unit | 121 | 0.015 |
| | | | | | | | | | |

3RK1 903-0CA00

¹⁾ See also description on page 3/98.

²⁾ For packs of 10 units, the Order No. must be supplemented with "-Z" and the order code "X90".

³⁾ See "Load Feeders, Motor Starters and Soft Starters --> ET 200S Motor Starters, 3RK1 903-0CA00".

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|----------------|---------|----|-----------|--------------|-------------------|-----|----|--------------------------|
|----------------|---------|----|-----------|--------------|-------------------|-----|----|--------------------------|

Coupling links for control by PLC

Sizes S0 ... S3

For mounting onto the coil terminals of the contactors



3RH19 24-1GP11

3RT1 . 2, 3RT1 . 3, 3RT1 . 4
 Operating range 17 to 30 V DC
 Power consumption: 0.5 W at 24 V DC
 Permissible residual current of the electronics (for 0 signal): 2.5 mA
 Rated operational current I_e :
 AC-15/AC-14 at 230 V: 3 A, DC-13 at 230 V: 0.1 A
 With LED for indicating switching state.
 With integrated varistor for damping opening surges.

▶ **3RH19 24-1GP11** 1 1 unit 101 0.060

LED modules for indicating the contactor function (also for Cage Clamp terminals)

Sizes S0 ... S12¹⁾



3RT19 26-1QT00 mounted to contactor

3RT1 . 2, 3RT1 . 3, 3RT1 . 4
 For snapping into the location hole of an inscription label on the front of a contactor either directly on the contactor or on the front auxiliary switch.
 The LED module is connected to coil terminals A1 and A2 of the contactor and indicates its energized state. Yellow LED.
 Rated voltage: 24 to 240 V AC/DC, polarized.
 (1 pack = 5 units)

B **3RT19 26-1QT00** 1 5 units 101 0.010

Auxiliary terminals, 3-pole

Size S3



3RT19 46-4F

3RT10 4. For connection of auxiliary and control cables (0.5 to 2.5 mm²) to the main conductor connections (for one side)

B **3RT19 46-4F** 1 1 unit 101 0.035

Solder pin adapters for contactors

Size S00



3RT19 16-4KA1

3RT1 . 1, 3RH11
 Assembly kit for soldering contactors onto a printed circuit board.
 For 1 contactor, 1 set is required.

A **3RT19 16-4KA1** 1 4 units 101 0.030

Connection modules for contactors with screw terminals

Size S00, S0



3RT19 26-4RD01

3RT1 . 1, 3RT1 . 2, 3RH11
Adapters for contactors
 Ambient temperature $T_{u \text{ max.}} = 60 \text{ }^\circ\text{C}$
 Size S00, rated operational current I_e at AC-3/400 V: 20 A
 Size S0, rated operational current I_e at AC-3/400 V: 25 A

Screw terminals

B **3RT19 16-4RD01** 1 1 unit 101 0.020

B **3RT19 26-4RD01** 1 1 unit 101 0.200



3RT19 00-4RE01

Plugs for contactors
 Size S00, S0

B **3RT19 00-4RE01** 1 1 unit 101 0.025

¹⁾ For sizes S6 ... S12 the connecting leads have to be extended.

Accessories and Spare Parts

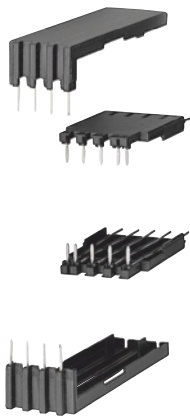
For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|----------------|---------|----|-----------|--------------|-------------------|-----|----|--------------------------|
|----------------|---------|----|-----------|--------------|-------------------|-----|----|--------------------------|

Solder pin adapters for contactors with mounted 4-pole auxiliary switch block

Size S00



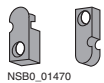
3RT19 16-4KA2

3RT1. 1, 3RH11 Assembly kit for soldering contactors B with an auxiliary switch block onto a printed circuit board. For 1 contactor, 1 set is required.

3RT19 16-4KA2 1 4 units 101 0.070

Screw adapters with screw or Cage Clamp terminals

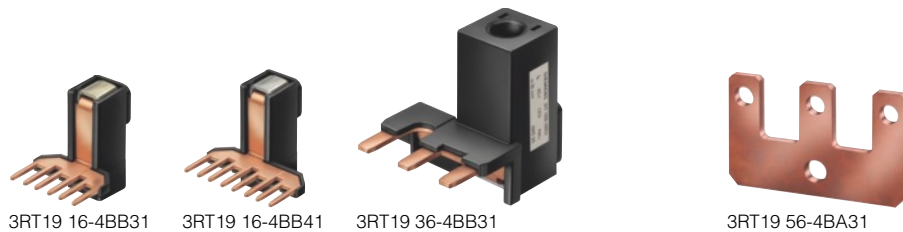
Size S0



3RT19 26-4P

3RT1. 2 Screw adapters for easy screw fixing C 2 units required per contactor (1 pack contains 10 sets for 10 contactors)

3RT19 26-4P 1 10 units 101 0.010



3RT19 16-4BB31

3RT19 16-4BB41

3RT19 36-4BB31

3RT19 56-4BA31

| Size | For contactors | Max. conductor cross-sections | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|------|----------------|-------------------------------|----|-----------|--------------|-------------------|-----|----|--------------------------|
|------|----------------|-------------------------------|----|-----------|--------------|-------------------|-----|----|--------------------------|

Type mm²

Links for paralleling

| 3-pole, with connection terminal ¹⁾²⁾ | | | | | | | | | |
|--|---------------------|--------------|---|----------------|--|---|--------|-----|-------|
| S00 | 3RT10 1 | 25 | ▶ | 3RT19 16-4BB31 | | 1 | 1 unit | 101 | 0.015 |
| S0 | 3RT10 2 | 35, stranded | ▶ | 3RT19 26-4BB31 | | 1 | 1 unit | 101 | 0.020 |
| S2 | 3RT10 3 | 95 | ▶ | 3RT19 36-4BB31 | | 1 | 1 unit | 101 | 0.100 |
| 3-pole, with through-hole (star jumpers) ¹⁾²⁾ | | | | | | | | | |
| S3 | 3RT10 4 3RT14 4 | 185 | ▶ | 3RT19 46-4BB31 | | 1 | 1 unit | 101 | 0.200 |
| S6 | 3RT1. 5 | -- | ▶ | 3RT19 56-4BA31 | | 1 | 1 unit | 101 | 0.160 |
| S10/S12 | 3RT1. 6, 3RT1. 7 | -- | ▶ | 3RT19 66-4BA31 | | 1 | 1 unit | 101 | 0.500 |
| 4-pole, with connection terminal ¹⁾²⁾ | | | | | | | | | |
| S00 | 3RT1. 1 | 25 | C | 3RT19 16-4BB41 | | 1 | 1 unit | 101 | 0.015 |

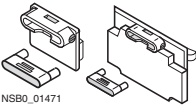
¹⁾ The links for paralleling can be reduced by one pole.

²⁾ Sizes S00 to S2: The links for paralleling are insulated.
Size S3: A cover plate is included for touch protection.
(Can only be used when the box terminal is removed.)
Sizes S6 to S12: The 3RT19 56-4EA1 (for S6) or 3RT19 66-4EA1 (for S10 and S12) cover can be used for touch protection.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| For contactors | Version | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | | |
|---|--|--|---|------------------------------------|-----------------------|----------------------|----------------------|--------|--------------------------|-------|-------|
| | Size | Type | | | | | | | | | |
| Box terminal blocks | | | | | | | | | | | |
|  | S6 | 3RT1. 5 (3RB20 5) | For round and ribbon cables¹⁾ | | | | | | | | |
| | | | Up to 70 mm ² 2) | ▶ | 3RT19 55-4G | 1 | 1 unit | 101 | 0.230 | | |
| | | | Up to 120 mm ² | ▶ | 3RT19 56-4G | 1 | 1 unit | 101 | 0.260 | | |
| | | | Auxiliary conductor connection for box terminals | B | 3TX7 500-0A | 1 | 1 unit | 101 | 0.010 | | |
| S10/S12 | 3RT1. 6, 3RT1. 7 (3RB20 6, 3RB21 6) | Up to 240 mm ² With auxiliary conductor connection | ▶ | 3RT19 66-4G | 1 | 1 unit | 101 | 0.676 | | | |
| Covers | | | | | | | | | | | |
|  | S2 | 3RT10 3 3RT13 3, 3RT15 3 | Terminal covers for box terminals | | | | | | | | |
| | | | Additional touch protection to be fitted at the box terminals (2 units required per contactor) | | B | 3RT19 36-4EA2 | 1 | 1 unit | 101 | 0.020 | |
| | | | 4-pole contactors | | | 3RT19 36-4EA4 | 1 | 1 unit | 101 | 0.020 | |
| | | | S3 | 3RT10 4, 3RT14 4 3RT13 4 | ▶ | 3RT19 46-4EA2 | 1 | 1 unit | 101 | 0.025 | |
| | | | S6 | 3RT1. 5 | Length: 25 mm | ▶ | 3RT19 46-4EA4 | 1 | 1 unit | 101 | 0.025 |
| S10/S12 | 3RT1. 6, 3RT1. 7 | Length: 30 mm | ▶ | 3RT19 56-4EA2 | 1 | 1 unit | 101 | 0.030 | | | |
|  | S3 | 3RT10 4, 3RT14 4 | Terminal covers for cable lugs and busbar connection³⁾ | | | | | | | | |
| | | | For complying with the voltage clearances and as touch protection if box terminal is removed ⁴⁾ (2 units required per contactor) | | ▶ | 3RT19 46-4EA1 | 1 | 1 unit | 101 | 0.040 | |
| | | | S6 | 3RT1. 5 | Length: 100 mm | ▶ | 3RT19 56-4EA1 | 1 | 1 unit | 101 | 0.070 |
| | | | S10/S12 | 3RT1. 6, 3RT1. 7 | Length: 120 mm | ▶ | 3RT19 66-4EA1 | 1 | 1 unit | 101 | 0.130 |
| | | | For busbar cover between contactor and 3RB2. overload relay or wiring module for contactor assemblies | | | | | | | | |
| S6 | 3RT1. 5 | Length: 27 mm | ▶ | 3RT19 56-4EA3 | 1 | 1 unit | 101 | 0.020 | | | |
| S10/S12⁵⁾ | 3RT1. 6, 3RT1. 7 | Length: 42 mm | ▶ | 3RT19 66-4EA3 | 1 | 1 unit | 101 | 0.060 | | | |
| For busbar cover of the flat line connectors for reversing and wye-delta assemblies | | | | | | | | | | | |
| S6 | 3RT1. 5 | Length: 38 mm | ▶ | 3RT19 56-4EA4 | 1 | 1 unit | 101 | 0.030 | | | |
| Sealable covers | | | | | | | | | | | |
|  | S00 | 3RT1. 1, 3RH1. 6) | Sealable cover for preventing manual operation | A | 3RT19 16-4MA10 | 1 | 5 units | 101 | 0.010 | | |
| | S0 ... S12 | 3RT1. 2 ... 3RT1. 7 6) | 1 unit required per contactor | B | 3RT19 26-4MA10 | 1 | 5 units | 101 | 0.010 | | |

¹⁾ For connectable cross-sections of the contactors see Technical Information LV 1 T -> "Technical specifications".

²⁾ As standard for 3RT10 54-1 contactor (55 kW).

³⁾ Also fits on contactors S6 ... S12 with box terminals.

⁴⁾ Observe the note in Technical Information LV 1 T, "Technical specifications", "Conductor Cross-Sections".



⁵⁾ The 3RT19 66-4EA3 cover is required in addition for use in contactor assemblies (reversing/wye-delta).

⁶⁾ Exception: contactors and contactor relays auxiliary switch block mounted onto the front.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

| Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|----|--|--|---|------------|-----|--------------------------|
| Insulation stop for securely holding back the conductor insulation on conductors up to 1 mm² for contactors with Cage Clamp terminals | | | | | | | |
|  | | 3RT19 16-4JA02 | | 100 | 20 unit | 101 | 1000.000 |
| 3RT19 16-4JA02 | B | Insulation stop strip can be inserted in cable entry of Cage Clamp (2 strips per contactor required, can be removed in pairs) Fits into cable entries of all SIRIUS devices with Cage Clamp terminals of conductor cross-section up to 2.5 mm ² . | | | | | |
| Tools for opening Cage Clamp terminals | | | | | | | |
|  | | 8WA2 880 | | 1 | 1 unit | 041 | 0.034 |
| 8WA2 880 | C | For all SIRIUS devices with Cage Clamp terminals, up to max. 2.5 mm ² conductor cross-section (not suitable for devices with removable terminal) Length: approx. 175 mm; 3.5 x 0.5, green; partially insulated | | | | | |
| | C | 8WA2 803 | Length: approx. 175 mm; 3.5 x 0.5; green | 1 | 1 unit | 041 | 0.024 |
| Blank labels | | | | | | | |
| | | Unit labeling plates for "SIRIUS" | | | | | |
| | D | 3RT19 00-1SB10 | • 10 mm x 7 mm, pastel turquoise | 100 | 816 units | 101 | 24.000 |
| | C | 3RT19 00-1SB20 | • 20 mm x 7 mm, pastel turquoise | 100 | 340 units | 101 | 0.200 |
| | | Labels for sticking for "SIRIUS" | | | | | |
| 3RT19 00-1SB10 | D | 3RT19 00-1SB60 | • 19 mm x 6 mm, pastel turquoise | 100 | 3060 units | 101 | 15.000 |
| | C | 3RT19 00-1SD60 | • 19 mm x 6 mm, zinc/yellow | 100 | 3060 units | 101 | 12.000 |
| | | <u>Computer labeling system</u> For individual inscription of unit labeling plates | | Obtainable from: murrplastik Systemtechnik GmbH | | | |

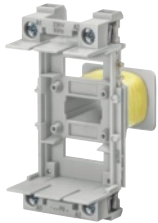
Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH contactors and contactor relays

Selection and ordering data

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT19 24-5A.01



3RT19 34-5A.01



3RT19 24-5A.02

| For contactors | | Rated control supply voltage U_s | | | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. | |
|--------------------------------------|-----------|---|----------|-------|----|-----------------------|-----------------------|---------|-----------------------|-----------------------|-------|
| | | 50 Hz | 50/60 Hz | 60 Hz | | Order No. | Price per PU | | Order No. | Price per PU | |
| Size | Type | V | V | V | | | kg | | | kg | |
| Solenoid coils · AC operation | | | | | | | | | | | |
| S0 | 3RT10 2., | 24 | -- | -- | ▶ | 3RT19 24-5AB01 | 0.100 B | | 3RT19 24-5AB02 | 0.100 | |
| | 3RT13 2., | 42 | -- | -- | B | 3RT19 24-5AD01 | 0.100 C | | 3RT19 24-5AD02 | 0.100 | |
| | 3RT15 2. | 48 | -- | -- | -- | A | 3RT19 24-5AH01 | 0.100 B | | 3RT19 24-5AH02 | 0.100 |
| | | 110 | -- | -- | -- | ▶ | 3RT19 24-5AF01 | 0.100 B | | 3RT19 24-5AF02 | 0.100 |
| | | 230 | -- | -- | ▶ | 3RT19 24-5AP01 | 0.100 B | | 3RT19 24-5AP02 | 0.100 | |
| | | 400 | -- | -- | ▶ | 3RT19 24-5AV01 | 0.100 C | | 3RT19 24-5AV02 | 0.100 | |
| | | -- | 24 | -- | ▶ | 3RT19 24-5AC21 | 0.100 B | | 3RT19 24-5AC22 | 0.100 | |
| | | -- | 42 | -- | B | 3RT19 24-5AD21 | 0.100 C | | 3RT19 24-5AD22 | 0.100 | |
| | | -- | 48 | -- | B | 3RT19 24-5AH21 | 0.100 C | | 3RT19 24-5AH22 | 0.100 | |
| | | -- | 110 | -- | ▶ | 3RT19 24-5AG21 | 0.100 B | | 3RT19 24-5AG22 | 0.100 | |
| | | -- | 220 | -- | B | 3RT19 24-5AN21 | 0.100 B | | 3RT19 24-5AN22 | 0.100 | |
| | | -- | 230 | -- | B | 3RT19 24-5AL21 | 0.100 B | | 3RT19 24-5AL22 | 0.100 | |
| | | 110 | -- | 120 | B | 3RT19 24-5AK61 | 0.100 B | | 3RT19 24-5AK62 | 0.100 | |
| | | 220 | -- | 240 | B | 3RT19 24-5AP61 | 0.100 C | | 3RT19 24-5AP62 | 0.100 | |
| | | -- | 100 | 110 | B | 3RT19 24-5AG61 | 0.100 C | | 3RT19 24-5AG62 | 0.100 | |
| | | -- | 200 | 220 | B | 3RT19 24-5AN61 | 0.100 C | | 3RT19 24-5AN62 | 0.100 | |
| | | -- | 400 | 440 | B | 3RT19 24-5AR61 | 0.100 C | | 3RT19 24-5AR62 | 0.100 | |
| | S2 | 3RT10 34 | 24 | -- | -- | B | 3RT19 34-5AB01 | 0.120 B | | 3RT19 34-5AB02 | 0.120 |
| | | | 42 | -- | -- | B | 3RT19 34-5AD01 | 0.120 B | | 3RT19 34-5AD02 | 0.120 |
| | | | 48 | -- | -- | B | 3RT19 34-5AH01 | 0.120 B | | 3RT19 34-5AH02 | 0.120 |
| 110 | | | -- | -- | B | 3RT19 34-5AF01 | 0.120 B | | 3RT19 34-5AF02 | 0.120 | |
| 230 | | | -- | -- | A | 3RT19 34-5AP01 | 0.120 B | | 3RT19 34-5AP02 | 0.120 | |
| 400 | | | -- | -- | C | 3RT19 34-5AV01 | 0.120 B | | 3RT19 34-5AV02 | 0.120 | |
| | | -- | 24 | -- | B | 3RT19 34-5AC21 | 0.120 B | | 3RT19 34-5AC22 | 0.120 | |
| | | -- | 42 | -- | B | 3RT19 34-5AD21 | 0.120 B | | 3RT19 34-5AD22 | 0.120 | |
| | | -- | 48 | -- | B | 3RT19 34-5AH21 | 0.120 B | | 3RT19 34-5AH22 | 0.120 | |
| | | -- | 110 | -- | C | 3RT19 34-5AG21 | 0.120 B | | 3RT19 34-5AG22 | 0.120 | |
| | | -- | 220 | -- | C | 3RT19 34-5AN21 | 0.120 B | | 3RT19 34-5AN22 | 0.120 | |
| | | -- | 230 | -- | C | 3RT19 34-5AL21 | 0.120 B | | 3RT19 34-5AL22 | 0.120 | |
| | | 110 | -- | 120 | B | 3RT19 34-5AK61 | 0.120 B | | 3RT19 34-5AK62 | 0.120 | |
| | | 220 | -- | 240 | B | 3RT19 34-5AP61 | 0.120 B | | 3RT19 34-5AP62 | 0.120 | |
| | | -- | 100 | 110 | B | 3RT19 34-5AG61 | 0.120 B | | 3RT19 34-5AG62 | 0.120 | |
| | | -- | 200 | 220 | B | 3RT19 34-5AN61 | 0.120 B | | 3RT19 34-5AN62 | 0.120 | |
| | | -- | 400 | 440 | B | 3RT19 34-5AR61 | 0.120 B | | 3RT19 34-5AR62 | 0.120 | |
| | | 3RT10 35, 3RT10 36, 3RT13 3., 3RT15 3. | 24 | -- | -- | B | 3RT19 35-5AB01 | 0.120 B | | 3RT19 35-5AB02 | 0.120 |
| | | | 42 | -- | -- | B | 3RT19 35-5AD01 | 0.120 B | | 3RT19 35-5AD02 | 0.120 |
| | | | 48 | -- | -- | B | 3RT19 35-5AH01 | 0.120 B | | 3RT19 35-5AH02 | 0.120 |
| | 110 | | -- | -- | ▶ | 3RT19 35-5AF01 | 0.120 B | | 3RT19 35-5AF02 | 0.120 | |
| | 230 | | -- | -- | ▶ | 3RT19 35-5AP01 | 0.120 B | | 3RT19 35-5AP02 | 0.120 | |
| | 400 | | -- | -- | C | 3RT19 35-5AV01 | 0.120 B | | 3RT19 35-5AV02 | 0.120 | |
| | | -- | 24 | -- | B | 3RT19 35-5AC21 | 0.120 B | | 3RT19 35-5AC22 | 0.120 | |
| | | -- | 42 | -- | B | 3RT19 35-5AD21 | 0.120 B | | 3RT19 35-5AD22 | 0.120 | |
| | | -- | 48 | -- | B | 3RT19 35-5AH21 | 0.120 B | | 3RT19 35-5AH22 | 0.120 | |
| | | -- | 110 | -- | B | 3RT19 35-5AG21 | 0.120 B | | 3RT19 35-5AG22 | 0.120 | |
| | | -- | 220 | -- | B | 3RT19 35-5AN21 | 0.120 B | | 3RT19 35-5AN22 | 0.120 | |
| | | -- | 230 | -- | B | 3RT19 35-5AL21 | 0.120 B | | 3RT19 35-5AL22 | 0.120 | |
| | | 110 | -- | 120 | B | 3RT19 35-5AK61 | 0.120 B | | 3RT19 35-5AK62 | 0.120 | |
| | | 220 | -- | 240 | B | 3RT19 35-5AP61 | 0.120 B | | 3RT19 35-5AP62 | 0.120 | |
| | | -- | 100 | 110 | B | 3RT19 35-5AG61 | 0.120 B | | 3RT19 35-5AG62 | 0.120 | |
| | | -- | 200 | 220 | B | 3RT19 35-5AN61 | 0.120 B | | 3RT19 35-5AN62 | 0.120 | |
| | | -- | 400 | 440 | C | 3RT19 35-5AR61 | 0.120 B | | 3RT19 35-5AR62 | 0.120 | |

* You can order this quantity or a multiple thereof.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH
contactors and contactor relays

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RT19 44-5A.01



3RT19 45-5A.01



3RT19 45-5A.02



3RT19 44-5B.42

| For contactors | | Rated control supply voltage U_s | | | | DT | Screw terminals | ⊕ | Weight per PU approx. | DT | Cage Clamp terminals | ⊖ | Weight per PU approx. | | | |
|--------------------------------------|----------|--|--|------------------------------------|-----------|---|-----------------|----------------|-----------------------|----------------|----------------------|----------------|-----------------------|----------------|----------------|-------|
| Size | Type | AC | | | DC | Order No. | Price per PU | kg | Order No. | Price per PU | kg | | | | | |
| | | 50 Hz | 50/60 Hz | 60 Hz | V | | | | | | | | | | | |
| Solenoid coils · AC operation | | | | | | | | | | | | | | | | |
| S3 | 3RT10 44 | 24 | -- | -- | -- | B | 3RT19 44-5AB01 | 0.190 | B | 3RT19 44-5AB02 | 0.190 | | | | | |
| | | 42 | -- | -- | -- | B | 3RT19 44-5AD01 | 0.190 | B | 3RT19 44-5AD02 | 0.190 | | | | | |
| | | 48 | -- | -- | -- | B | 3RT19 44-5AH01 | 0.190 | B | 3RT19 44-5AH02 | 0.190 | | | | | |
| | | 110 | -- | -- | -- | B | 3RT19 44-5AF01 | 0.190 | B | 3RT19 44-5AF02 | 0.190 | | | | | |
| | | 230 | -- | -- | -- | B | 3RT19 44-5AP01 | 0.190 | B | 3RT19 44-5AP02 | 0.190 | | | | | |
| | | 400 | -- | -- | -- | B | 3RT19 44-5AV01 | 0.190 | B | 3RT19 44-5AV02 | 0.190 | | | | | |
| | | -- | 24 | -- | -- | B | 3RT19 44-5AC21 | 0.190 | B | 3RT19 44-5AC22 | 0.190 | | | | | |
| | | -- | 42 | -- | -- | B | 3RT19 44-5AD21 | 0.190 | B | 3RT19 44-5AD22 | 0.190 | | | | | |
| | | 3RT10 45, 3RT10 46, 3RT13 4., 3RT14 46, 3RT15 4. | -- | 48 | -- | -- | B | 3RT19 44-5AH21 | 0.190 | B | 3RT19 44-5AH22 | 0.190 | | | | |
| | | | -- | 110 | -- | -- | B | 3RT19 44-5AG21 | 0.190 | B | 3RT19 44-5AG22 | 0.190 | | | | |
| | | | -- | 220 | -- | -- | B | 3RT19 44-5AN21 | 0.190 | B | 3RT19 44-5AN22 | 0.190 | | | | |
| | | | -- | 230 | -- | -- | B | 3RT19 44-5AL21 | 0.190 | B | 3RT19 44-5AL22 | 0.190 | | | | |
| | | | 110 | -- | 120 | -- | C | 3RT19 44-5AK61 | 0.190 | B | 3RT19 44-5AK62 | 0.190 | | | | |
| | | | 220 | -- | 240 | -- | B | 3RT19 44-5AP61 | 0.190 | B | 3RT19 44-5AP62 | 0.190 | | | | |
| | | | -- | 100 | 110 | -- | B | 3RT19 44-5AG61 | 0.190 | B | 3RT19 44-5AG62 | 0.190 | | | | |
| | | | -- | 200 | 220 | -- | B | 3RT19 44-5AN61 | 0.190 | B | 3RT19 44-5AN62 | 0.190 | | | | |
| | | -- | 400 | 440 | -- | B | 3RT19 44-5AR61 | 0.190 | B | 3RT19 44-5AR62 | 0.190 | | | | | |
| | | | 3RT10 45, 3RT10 46, 3RT13 4., 3RT14 46, 3RT15 4. | 24 | -- | -- | -- | B | 3RT19 45-5AB01 | 0.190 | B | 3RT19 45-5AB02 | 0.190 | | | |
| | | | | 42 | -- | -- | -- | B | 3RT19 45-5AD01 | 0.190 | B | 3RT19 45-5AD02 | 0.190 | | | |
| | | | | 48 | -- | -- | -- | B | 3RT19 45-5AH01 | 0.190 | B | 3RT19 45-5AH02 | 0.190 | | | |
| | | | | 110 | -- | -- | -- | B | 3RT19 45-5AF01 | 0.190 | B | 3RT19 45-5AF02 | 0.190 | | | |
| | | | | 230 | -- | -- | -- | B | 3RT19 45-5AP01 | 0.190 | B | 3RT19 45-5AP02 | 0.190 | | | |
| | | | | 400 | -- | -- | -- | C | 3RT19 45-5AV01 | 0.190 | B | 3RT19 45-5AV02 | 0.190 | | | |
| | | | | -- | 24 | -- | -- | B | 3RT19 45-5AC21 | 0.190 | B | 3RT19 45-5AC22 | 0.190 | | | |
| | | | | -- | 42 | -- | -- | B | 3RT19 45-5AD21 | 0.190 | B | 3RT19 45-5AD22 | 0.190 | | | |
| | | | | 3RT10 3., 3RT13 3., 3RT15 3. | -- | 48 | -- | -- | B | 3RT19 45-5AH21 | 0.190 | B | 3RT19 45-5AH22 | 0.190 | | |
| | | | | | -- | 110 | -- | -- | B | 3RT19 45-5AG21 | 0.190 | B | 3RT19 45-5AG22 | 0.190 | | |
| | | | | | -- | 220 | -- | -- | B | 3RT19 45-5AN21 | 0.190 | B | 3RT19 45-5AN22 | 0.190 | | |
| -- | | | | | 230 | -- | -- | B | 3RT19 45-5AL21 | 0.190 | B | 3RT19 45-5AL22 | 0.190 | | | |
| 110 | | | | | -- | 120 | -- | B | 3RT19 45-5AK61 | 0.190 | B | 3RT19 45-5AK62 | 0.190 | | | |
| 220 | | | | | -- | 240 | -- | B | 3RT19 45-5AP61 | 0.190 | B | 3RT19 45-5AP62 | 0.190 | | | |
| -- | | | | | 100 | 110 | -- | B | 3RT19 45-5AG61 | 0.190 | B | 3RT19 45-5AG62 | 0.190 | | | |
| -- | | | | | 200 | 220 | -- | C | 3RT19 45-5AN61 | 0.190 | B | 3RT19 45-5AN62 | 0.190 | | | |
| -- | | | | 400 | 440 | -- | B | 3RT19 45-5AR61 | 0.190 | B | 3RT19 45-5AR62 | 0.190 | | | | |
| Solenoid coils · DC operation | | | | | | | | | | | | | | | | |
| S2 | | | | 3RT10 3., 3RT13 3., 3RT15 3. | -- | -- | -- | 24 | B | 3RT19 34-5BB41 | 0.650 | B | 3RT19 34-5BB42 | 0.650 | | |
| | -- | | | | -- | -- | 42 | B | 3RT19 34-5BD41 | 0.650 | C | 3RT19 34-5BD42 | 0.650 | | | |
| | -- | | | | -- | -- | 48 | B | 3RT19 34-5BW41 | 0.650 | B | 3RT19 34-5BW42 | 0.650 | | | |
| | -- | | | | -- | -- | 60 | B | 3RT19 34-5BE41 | 0.650 | B | 3RT19 34-5BE42 | 0.650 | | | |
| | | | | | -- | -- | -- | 110 | B | 3RT19 34-5BF41 | 0.650 | B | 3RT19 34-5BF42 | 0.650 | | |
| | | | | | -- | -- | -- | 125 | B | 3RT19 34-5BG41 | 0.650 | C | 3RT19 34-5BG42 | 0.650 | | |
| | | | | | -- | -- | -- | 220 | B | 3RT19 34-5BM41 | 0.650 | B | 3RT19 34-5BM42 | 0.650 | | |
| | | | | | -- | -- | -- | 230 | B | 3RT19 34-5BP41 | 0.650 | B | 3RT19 34-5BP42 | 0.650 | | |
| | | | | | S3 | 3RT10 4., 3RT13 4., 3RT14 4., 3RT15 4. | -- | -- | -- | 24 | B | 3RT19 44-5BB41 | 1.000 | B | 3RT19 44-5BB42 | 1.000 |
| | | | | | | | -- | -- | -- | 42 | C | 3RT19 44-5BD41 | 1.000 | B | 3RT19 44-5BD42 | 1.000 |
| | | -- | | | | | -- | -- | 48 | B | 3RT19 44-5BW41 | 1.000 | B | 3RT19 44-5BW42 | 1.000 | |
| | | -- | | | | | -- | -- | 60 | B | 3RT19 44-5BE41 | 1.000 | B | 3RT19 44-5BE42 | 1.000 | |
| | | -- | | -- | | -- | 110 | B | 3RT19 44-5BF41 | 1.000 | B | 3RT19 44-5BF42 | 1.000 | | | |
| | | -- | | -- | | -- | 125 | B | 3RT19 44-5BG41 | 1.000 | B | 3RT19 44-5BG42 | 1.000 | | | |
| | | -- | | -- | | -- | 220 | B | 3RT19 44-5BM41 | 1.000 | B | 3RT19 44-5BM42 | 1.000 | | | |
| | | -- | | -- | | -- | 230 | B | 3RT19 44-5BP41 | 1.000 | B | 3RT19 44-5BP42 | 1.000 | | | |

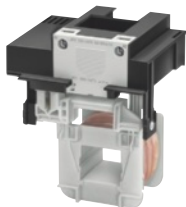
* You can order this quantity or a multiple thereof.

Accessories and Spare Parts



For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH contactors and contactor relays

PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 101



3RT19 55-5A...

| For contactors | | | Rated control supply voltage U_s min ... U_s max | DT | Screw terminals  | Weight per PU approx. | DT | Cage Clamp terminals  | Weight per PU approx. | |
|---|---|-------------|---|-----------------------|---|-----------------------|-------|--|-----------------------|----|
| Size | Type | V AC/DC | | | Order No. | Price per PU | kg | Order No. | Price per PU | kg |
| Withdrawable coils | | | | | | | | | | |
| <i>Conventional operating mechanism</i> | | | | | | | | | | |
| S6 | 3RT10 5, 3RT14 5 | 23 ... 26 | B | 3RT19 55-5AB31 | 0.650 B | 3RT19 55-5AB32 | 0.650 | | | |
| | | 42 ... 48 | B | 3RT19 55-5AD31 | 0.650 B | 3RT19 55-5AD32 | 0.650 | | | |
| | | 110 ... 127 | B | 3RT19 55-5AF31 | 0.650 B | 3RT19 55-5AF32 | 0.650 | | | |
| | | 200 ... 220 | B | 3RT19 55-5AM31 | 0.650 B | 3RT19 55-5AM32 | 0.650 | | | |
| | | 220 ... 240 | B | 3RT19 55-5AP31 | 0.650 B | 3RT19 55-5AP32 | 0.650 | | | |
| | | 240 ... 277 | B | 3RT19 55-5AU31 | 0.650 B | 3RT19 55-5AU32 | 0.650 | | | |
| | | 380 ... 420 | B | 3RT19 55-5AV31 | 0.650 B | 3RT19 55-5AV32 | 0.650 | | | |
| | | 440 ... 480 | B | 3RT19 55-5AR31 | 0.650 B | 3RT19 55-5AR32 | 0.650 | | | |
| | | 500 ... 550 | B | 3RT19 55-5AS31 | 0.650 B | 3RT19 55-5AS32 | 0.650 | | | |
| | | 575 ... 600 | B | 3RT19 55-5AT31 | 0.650 B | 3RT19 55-5AT32 | 0.650 | | | |
| S10 | 3RT10 6, 3RT14 6 | 23 ... 26 | B | 3RT19 65-5AB31 | 0.850 B | 3RT19 65-5AB32 | 0.850 | | | |
| | | 42 ... 48 | B | 3RT19 65-5AD31 | 0.850 B | 3RT19 65-5AD32 | 0.850 | | | |
| | | 110 ... 127 | B | 3RT19 65-5AF31 | 0.850 B | 3RT19 65-5AF32 | 0.850 | | | |
| | | 200 ... 220 | C | 3RT19 65-5AM31 | 0.850 B | 3RT19 65-5AM32 | 0.850 | | | |
| | | 220 ... 240 | B | 3RT19 65-5AP31 | 0.850 B | 3RT19 65-5AP32 | 0.850 | | | |
| | | 240 ... 277 | B | 3RT19 65-5AU31 | 0.850 B | 3RT19 65-5AU32 | 0.850 | | | |
| | | 380 ... 420 | B | 3RT19 65-5AV31 | 0.850 B | 3RT19 65-5AV32 | 0.850 | | | |
| | | 440 ... 480 | B | 3RT19 65-5AR31 | 0.850 B | 3RT19 65-5AR32 | 0.850 | | | |
| | | 500 ... 550 | C | 3RT19 65-5AS31 | 0.850 B | 3RT19 65-5AS32 | 0.850 | | | |
| | | 575 ... 600 | C | 3RT19 65-5AT31 | 0.850 B | 3RT19 65-5AT32 | 0.850 | | | |
| S10 | 3RT12 6 vacuum contactors | 23 ... 26 | B | 3RT19 66-5AB31 | 1.000 | -- | | | | |
| | | 42 ... 48 | B | 3RT19 66-5AD31 | 1.000 | -- | | | | |
| | | 110 ... 127 | A | 3RT19 66-5AF31 | 1.000 | -- | | | | |
| | | 200 ... 220 | C | 3RT19 66-5AM31 | 1.000 | -- | | | | |
| | | 220 ... 240 | A | 3RT19 66-5AP31 | 1.000 | -- | | | | |
| | | 240 ... 277 | C | 3RT19 66-5AU31 | 1.000 | -- | | | | |
| | | 380 ... 420 | B | 3RT19 66-5AV31 | 1.000 | -- | | | | |
| | | 440 ... 480 | C | 3RT19 66-5AR31 | 1.000 | -- | | | | |
| | | 500 ... 550 | C | 3RT19 66-5AS31 | 1.000 | -- | | | | |
| | | 575 ... 600 | C | 3RT19 66-5AT31 | 1.000 | -- | | | | |
| S12 | 3RT10 7, 3RT14 7, 3RT12 7 vacuum contactors | 23 ... 26 | B | 3RT19 75-5AB31 | 1.300 B | 3RT19 75-5AB32 | 1.300 | | | |
| | | 42 ... 48 | B | 3RT19 75-5AD31 | 1.300 B | 3RT19 75-5AD32 | 1.300 | | | |
| | | 110 ... 127 | B | 3RT19 75-5AF31 | 1.300 B | 3RT19 75-5AF32 | 1.300 | | | |
| | | 200 ... 220 | C | 3RT19 75-5AM31 | 1.300 B | 3RT19 75-5AM32 | 1.300 | | | |
| | | 220 ... 240 | B | 3RT19 75-5AP31 | 1.300 B | 3RT19 75-5AP32 | 1.300 | | | |
| | | 240 ... 277 | B | 3RT19 75-5AU31 | 1.300 B | 3RT19 75-5AU32 | 1.300 | | | |
| | | 380 ... 420 | B | 3RT19 75-5AV31 | 1.300 B | 3RT19 75-5AV32 | 1.300 | | | |
| | | 440 ... 480 | B | 3RT19 75-5AR31 | 1.300 B | 3RT19 75-5AR32 | 1.300 | | | |
| | | 500 ... 550 | C | 3RT19 75-5AS31 | 1.300 B | 3RT19 75-5AS32 | 1.300 | | | |
| | | 575 ... 600 | C | 3RT19 75-5AT31 | 1.300 B | 3RT19 75-5AT32 | 1.300 | | | |

* You can order this quantity or a multiple thereof.

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH
contactors and contactor relays

PU (UNIT, SET, M) = 1
PS* = 1 unit
PG = 101



3RT19 55-5N...

| For contactors | | | Rated control supply voltage U_s | DT | Screw terminals | Weight per PU approx. | DT | Cage Clamp terminals | Weight per PU approx. |
|----------------|------|---------|------------------------------------|--------------|-----------------|-----------------------|--------------|----------------------|-----------------------|
| Size | Type | V AC/DC | Order No. | Price per PU | kg | Order No. | Price per PU | kg | |

Withdrawable coils

Solid-state operating mechanisms

For 24 V DC PLC output

| | | | | | | | |
|------------|-------------------|-------------|---|-----------------------|---------|-----------------------|-------|
| S6 | 3RT10 5, | 21 ... 27.3 | C | 3RT19 55-5NB31 | 0.650 B | 3RT19 55-5NB32 | 0.650 |
| | 3RT14 5 | 96 ... 127 | B | 3RT19 55-5NF31 | 0.650 B | 3RT19 55-5NF32 | 0.650 |
| | | 200 ... 277 | B | 3RT19 55-5NP31 | 0.650 B | 3RT19 55-5NP32 | 0.650 |
| S10 | 3RT10 6, | 21 ... 27.3 | B | 3RT19 65-5NB31 | 0.900 B | 3RT19 65-5NB32 | 0.900 |
| | 3RT14 6 | 96 ... 127 | B | 3RT19 65-5NF31 | 0.900 B | 3RT19 65-5NF32 | 0.900 |
| | | 200 ... 277 | B | 3RT19 65-5NP31 | 0.900 B | 3RT19 65-5NP32 | 0.900 |
| S12 | 3RT10 7, | 21 ... 27.3 | B | 3RT19 75-5NB31 | 1.100 B | 3RT19 75-5NB32 | 1.100 |
| | 3RT14 7, | 96 ... 127 | B | 3RT19 75-5NF31 | 1.100 B | 3RT19 75-5NF32 | 1.100 |
| | 3RT12 7 | 200 ... 277 | B | 3RT19 75-5NP31 | 1.100 B | 3RT19 75-5NP32 | 1.100 |
| | vacuum contactors | 21 ... 27.3 | B | 3RT19 66-5NB31 | 0.650 | -- | |
| | | 96 ... 127 | C | 3RT19 66-5NF31 | 0.650 | -- | |
| | | 200 ... 277 | C | 3RT19 66-5NP31 | 0.650 | -- | |

For 24 V DC PLC output/PLC relay output, with remaining lifetime indicator (RLT)

(Withdrawable coil with lateral solid-state module)

| | | | | | | | |
|------------|----------|-------------|---|-----------------------|-------|----|--|
| S6 | 3RT10 5, | 96 ... 127 | B | 3RT19 55-5PF31 | 0.650 | -- | |
| | 3RT14 5 | 200 ... 277 | B | 3RT19 55-5PP31 | 0.650 | -- | |
| S10 | 3RT10 6, | 96 ... 127 | B | 3RT19 65-5PF31 | 1.300 | -- | |
| | 3RT14 6 | 200 ... 277 | B | 3RT19 65-5PP31 | 1.300 | -- | |
| S12 | 3RT10 7, | 96 ... 127 | B | 3RT19 75-5PF31 | 1.300 | -- | |
| | 3RT14 7 | 200 ... 277 | B | 3RT19 75-5PP31 | 1.300 | -- | |

With AS-Interface and remaining lifetime indicator (RLT)

(Withdrawable coil with lateral solid-state module)

| | | | | | | | |
|------------|----------|-------------|---|-----------------------|-------|----|--|
| S6 | 3RT10 5, | 96 ... 127 | B | 3RT19 55-5QF31 | 0.650 | -- | |
| | 3RT14 5 | 200 ... 277 | B | 3RT19 55-5QP31 | 0.650 | -- | |
| S10 | 3RT10 6, | 96 ... 127 | B | 3RT19 65-5QF31 | 1.300 | -- | |
| | 3RT14 6 | 200 ... 277 | B | 3RT19 65-5QP31 | 1.300 | -- | |
| S12 | 3RT10 7, | 96 ... 127 | B | 3RT19 75-5QF31 | 1.300 | -- | |
| | 3RT14 7 | 200 ... 277 | B | 3RT19 75-5QP31 | 1.300 | -- | |

Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH contactors and contactor relays

| For contactors | | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|--|----------------------------------|--|----|--------------------|--------------|-------------------|--------|-----|--------------------------|
| Size | Type | | | | | | | | |
| Arc chutes | | | | | | | | | |
| S2 | 3RT10 3. | Arc chutes, 3-pole | C | 3RT19 36-7A | | 1 | 1 unit | 101 | 0.110 |
| S3 | 3RT10 4., 3RT14 46 | | C | 3RT19 46-7A | | 1 | 1 unit | 101 | 0.300 |
| S6 | 3RT10 54 3RT10 55 3RT10 56 | | B | 3RT19 54-7A | | 1 | 1 unit | 101 | 0.760 |
| | | | B | 3RT19 55-7A | | 1 | 1 unit | 101 | 0.760 |
| | | | B | 3RT19 56-7A | | 1 | 1 unit | 101 | 0.760 |
| S10 | 3RT10 64 3RT10 65 3RT10 66 | | B | 3RT19 64-7A | | 1 | 1 unit | 101 | 1.350 |
| | | | B | 3RT19 65-7A | | 1 | 1 unit | 101 | 1.350 |
| | | | B | 3RT19 66-7A | | 1 | 1 unit | 101 | 1.350 |
| S12 | 3RT10 75 3RT10 76 | | B | 3RT19 75-7A | | 1 | 1 unit | 101 | 1.650 |
| | | | B | 3RT19 76-7A | | 1 | 1 unit | 101 | 1.650 |
| S6 | 3RT14 56 | | B | 3RT19 56-7B | | 1 | 1 unit | 101 | 0.720 |
| S10 | 3RT14 66 | | B | 3RT19 66-7B | | 1 | 1 unit | 101 | 1.350 |
| S12 | 3RT14 76 | | B | 3RT19 76-7B | | 1 | 1 unit | 101 | 1.400 |
| Contacts with fixing parts | | | | | | | | | |
| <i>For contactors with 3 main contacts</i> | | | | | | | | | |
| S2 | 3RT10 34 3RT10 35 3RT10 36 | Main contacts (3 NO contacts) for utilization category AC-3 (1 set = 3 movable and 6 fixed switching elements with fixing parts) | ▶ | 3RT19 34-6A | | 1 | 1 unit | 101 | 0.050 |
| | | | ▶ | 3RT19 35-6A | | 1 | 1 unit | 101 | 0.050 |
| | | | ▶ | 3RT19 36-6A | | 1 | 1 unit | 101 | 0.050 |
| S3 | 3RT10 44 3RT10 45 3RT10 46 | | ▶ | 3RT19 44-6A | | 1 | 1 unit | 101 | 0.110 |
| | | | ▶ | 3RT19 45-6A | | 1 | 1 unit | 101 | 0.110 |
| | | | ▶ | 3RT19 46-6A | | 1 | 1 unit | 101 | 0.110 |
| S6 | 3RT10 54 3RT10 55 3RT10 56 | | ▶ | 3RT19 54-6A | | 1 | 1 unit | 101 | 0.280 |
| | | | ▶ | 3RT19 55-6A | | 1 | 1 unit | 101 | 0.280 |
| | | | ▶ | 3RT19 56-6A | | 1 | 1 unit | 101 | 0.280 |
| S10 | 3RT10 64 3RT10 65 3RT10 66 | | ▶ | 3RT19 64-6A | | 1 | 1 unit | 101 | 0.550 |
| | | | ▶ | 3RT19 65-6A | | 1 | 1 unit | 101 | 0.550 |
| | | | ▶ | 3RT19 66-6A | | 1 | 1 unit | 101 | 0.550 |
| S12 | 3RT10 75 3RT10 76 | | ▶ | 3RT19 75-6A | | 1 | 1 unit | 101 | 0.900 |
| | | | A | 3RT19 76-6A | | 1 | 1 unit | 101 | 0.100 |
| S3 | 3RT14 46 | Main contacts (3 NO contacts) for utilization category AC-1 (1 set = 3 movable and 6 fixed switching elements with fixing parts) | B | 3RT19 46-6D | | 1 | 1 unit | 101 | 0.900 |
| S6 | 3RT14 56 | | B | 3RT19 56-6D | | 1 | 1 unit | 101 | 0.280 |
| S10 | 3RT14 66 | | B | 3RT19 66-6D | | 1 | 1 unit | 101 | 0.550 |
| S12 | 3RT14 76 | | A | 3RT19 76-6D | | 1 | 1 unit | 101 | 0.900 |
| <i>For 3RT12 vacuum contactors</i> | | | | | | | | | |
| S10 | 3RT12 64 3RT12 65 3RT12 66 | 3 vacuum interrupters with fixing parts | B | 3RT19 64-6V | | 1 | 1 unit | 101 | 1.530 |
| | | | B | 3RT19 65-6V | | 1 | 1 unit | 101 | 1.530 |
| | | | B | 3RT19 66-6V | | 1 | 1 unit | 101 | 1.530 |
| S12 | 3RT12 75 3RT12 76 | | B | 3RT19 75-6V | | 1 | 1 unit | 101 | 1.780 |
| | | | B | 3RT19 76-6V | | 1 | 1 unit | 101 | 1.780 |
| <i>For contactors with 4 main contacts</i> | | | | | | | | | |
| S2 | 3RT13 36 | Main contacts (4 NO contacts) for utilization category AC-1 (1 set = 4 movable and 8 fixed switching elements with fixing parts) | C | 3RT19 36-6E | | 1 | 1 unit | 101 | 0.060 |
| S3 | 3RT13 44 3RT13 46 | | C | 3RT19 44-6E | | 1 | 1 unit | 101 | 0.150 |
| | | | C | 3RT19 46-6E | | 1 | 1 unit | 101 | 0.150 |







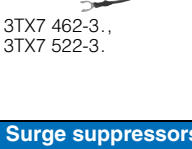

* You can order this quantity or a multiple thereof.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

Selection and ordering data

| For contactors | | Version | Rated control supply voltage U_s | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | | |
|---|----------|----------------------------------|---|-------------|-------------|-----------|--------------------|-------------------|-----|--------|--------------------------|-------|--|
| Size | Type | | V AC | V DC | | | | | | | | | |
| Surge suppressors¹⁾ · Varistors | | | | | | | | | | | | | |
|  | 2 | 3TC44 ²⁾ | Varistors³⁾ | 24 ... 48 | 24 ... 70 | A | 3TX7 402-3G | | 1 | 1 unit | 101 | 0.015 | |
| | | | With line spacer, for mounting onto the coil terminal | 48 ... 127 | 70 ... 150 | A | 3TX7 402-3H | | 1 | 1 unit | 101 | 0.015 | |
| | | | | 127 ... 240 | 150 ... 250 | A | 3TX7 402-3J | | 1 | 1 unit | 101 | 0.015 | |
| | | | | 240 ... 400 | -- | C | 3TX7 402-3K | | 1 | 1 unit | 101 | 0.025 | |
| | | | | 400 ... 600 | -- | C | 3TX7 402-3L | | 1 | 1 unit | 101 | 0.025 | |
|  | 4 and 6 | 3TB50 and 3TC56 | Varistors³⁾ | 24 ... 48 | 24 ... 70 | D | 3TX7 462-3G | | 1 | 1 unit | 101 | 0.020 | |
| | | | For sticking onto the contactor base or for mounting separately | 48 ... 127 | 70 ... 150 | C | 3TX7 462-3H | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 127 ... 240 | 150 ... 250 | B | 3TX7 462-3J | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 240 ... 400 | -- | A | 3TX7 462-3K | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 400 ... 600 | -- | C | 3TX7 462-3L | | 1 | 1 unit | 101 | 0.020 | |
|  | 8 and 12 | 3TC52 and 3TC56 | Varistors | 24 ... 48 | -- | D | 3TX7 462-3G | | 1 | 1 unit | 101 | 0.020 | |
| | | | For sticking onto the contactor base or for mounting separately | 48 ... 127 | -- | C | 3TX7 462-3H | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 127 ... 240 | -- | B | 3TX7 462-3J | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 240 ... 400 | -- | A | 3TX7 462-3K | | 1 | 1 unit | 101 | 0.020 | |
| | | | | 400 ... 600 | -- | C | 3TX7 462-3L | | 1 | 1 unit | 101 | 0.020 | |
|  | 8 ... 12 | 3TB52 ... 3TB56, 3TC52 and 3TC56 | Varistors³⁾ | -- | 24 ... 70 | B | 3TX7 522-3G | | 1 | 1 unit | 101 | 0.080 | |
| | | | For separate screw connection or snapping onto 35 mm standard mounting rail | -- | 70 ... 150 | B | 3TX7 522-3H | | 1 | 1 unit | 101 | 0.080 | |
| | | | | -- | 150 ... 250 | B | 3TX7 522-3J | | 1 | 1 unit | 101 | 0.080 | |
|  | 14 | 3TF68 and 3TF69 | Varistors³⁾ | -- | 24 ... 48 | C | 3TX7 572-3G | | 1 | 1 unit | 101 | 0.080 | |
| | | | For DC economy circuit; for snapping onto the side of auxiliary switches | -- | 48 ... 127 | C | 3TX7 572-3H | | 1 | 1 unit | 101 | 0.080 | |
| | | | | -- | 127 ... 240 | C | 3TX7 572-3J | | 1 | 1 unit | 101 | 0.080 | |
| Surge suppressors · RC elements | | | | | | | | | | | | | |
|  | 4 | 3TC48 | RC elements | 24 ... 48 | -- | C | 3TX7 462-3R | | 1 | 1 unit | 101 | 0.090 | |
| | | | For lateral snapping onto auxiliary switch or 35 mm standard mounting rail | -- | 24 ... 70 | B | 3TX7 522-3R | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 48 ... 127 | -- | A | 3TX7 462-3S | | 1 | 1 unit | 101 | 0.090 | |
| | | | | -- | 70 ... 150 | B | 3TX7 522-3S | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 127 ... 240 | -- | A | 3TX7 462-3T | | 1 | 1 unit | 101 | 0.090 | |
| | | | | -- | 150 ... 250 | B | 3TX7 522-3T | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 240 ... 400 | -- | A | 3TX7 462-3U | | 1 | 1 unit | 101 | 0.090 | |
|  | 6 ... 12 | 3TB50, 3TC52 and 3TC56 | RC elements | 24 ... 48 | -- | B | 3TX7 522-3R | | 1 | 1 unit | 101 | 0.090 | |
| | | | For lateral snapping onto auxiliary switch or 35 mm standard mounting rail | 48 ... 127 | -- | B | 3TX7 522-3S | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 127 ... 240 | -- | B | 3TX7 522-3T | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 240 ... 400 | -- | B | 3TX7 522-3U | | 1 | 1 unit | 101 | 0.090 | |
| | | | | 400 ... 600 | -- | B | 3TX7 522-3V | | 1 | 1 unit | 101 | 0.090 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Surge suppressors⁴⁾ · Diodes | | | | | | | | | | | | | |
|  | 6 ... 12 | 3TB50 ... 3TB56, 3TC48 ... 3TC56 | Diode assemblies | -- | 24 ... 250 | D | 3TX7 462-3D | | 1 | 1 unit | 101 | 0.015 | |
| | | | (diode and Zener diode) For DC solenoid system, for sticking onto the contactor base or for mounting separately | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

1) The surge suppressor is included in the scope of supply of the following contactors: 3TF68 and 3TF69 (AC operation): varistor circuit.




2) The connection piece for mounting the surge suppressor must be bent slightly.

3) Includes the peak value of the alternating voltage on the DC side.

4) Not for DC economy circuit.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

| For contactors | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|--|---|--|-----------------------|--|-------------|----------------------------|-------------------------------------|
| Size | Type | | | | | | | |
| Solid-state compatible auxiliary switch blocks with screw terminals | | | | | | | | |
|  | 14 2 and 4 | 3TF68 and 3TF69 3TC44... 3TC48 | For mounting onto the side of contactors For use in dusty atmosphere and solid-state circuits with rated operational currents I_e AC-14 and DC-13 from 1 mA to 300 mA at 3 V to 60 V With 1 changeover contact 2nd auxiliary switch block, left or right (replacement for 3TY6 561-1U, 3TY6 561-1V) | ▶ | 3TY7 561-1UA00 | 1 | 1 unit | 101 0.060 |
| 5TY7 561-1. | | | | | | | | |
| Coupling links for control by PLC | | | | | | | | |
| | 14 | 3TF68 and 3TF69 | Operating range: 17 to 30 V DC. Power consumption: 0.5 W at 24 V DC. Fitted with varistor. For technical specifications see Technical Information LV 1 T For snapping onto the side of auxiliary switch, with surge suppression | ▶ | 3TX7 090-0D | 1 | 1 unit | 101 0.080 |
| | | | | | | | | |
| Terminal covers for protection against inadvertent contact with exposed busbar connections | | | | | | | | |
|  | 14 | 3TF68 3TF69 | For screwing onto free screw end on middle connecting bar. 2 units required per contactor. (1 set = 2 units) | B | 3TX7 686-0A | 1 | 1 unit | 101 0.410 |
| 3TX7 6.6-0A | | | | B | 3TX7 696-0A | 1 | 1 unit | 101 0.410 |
|  | 6 8 and SIRIUS S6 10 and 14 and SIRIUS S10, S12 | 3TB50, 3TC48 3TB52 3RT1. 5 3TB54... 3TB56, 3TC52, 3TC56, 3RT1. 6 3RT1. 7 | Can be screwed on free screw end. Covers one busbar connection (1 set = 6 units). | M6 B M8 B M10 B | 3TX6 506-3B 3TX6 526-3B 3TX6 546-3B | 1 1 1 | 1 unit 1 unit 1 unit | 101 0.100 101 0.140 101 0.260 |
| 3TX6 526-3B | | | | | | | | |
| Links for paralleling (star jumpers) · 3-pole, without connection terminal¹⁾ | | | | | | | | |
| | 14 | 3TF68 | | C | 3TX7 680-0D | 1 | 1 unit | 101 0.250 |
| | | | Cover plates for links for paralleling | | | | | |
| | 14 | 3TF68 | A cover plate must be used in order to protect against inadvertent contact with exposed busbar connections (EN 50274). | C | 3TX7 680-0E | 1 | 1 unit | 101 0.080 |
| | | | | | | | | |
| Box terminals for laminated copper bars | | | | | | | | |
| | | | Without auxiliary conductor connection (1 set = 3 units) | | | | | |
| | 14 | 3TF68 | With single covers for protection against inadvertent contact (EN 50274) | C | 3TX7 570-1E | 1 | 1 unit | 101 0.780 |
| | | | | | | | | |
| | 14 | 3TF69 | Conductor cross-sections for auxiliary conductors: Solid wire 2 x (0.75 ... 2.5) mm ² Finely stranded with end sleeve 2 x (0.5 ... 2.5) mm ² Solid or stranded 2 x (18 ... 12) AWG Tightening torque 0.8 ... 1.4 Nm (7 ... 12 lb.in) | C | 3TX7 690-1F | 1 | 1 unit | 101 2.000 |

¹⁾ The link for paralleling can be reduced by one pole.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

| For contactors | | Remarks | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|-----------------------|-----------------|--|------------------------------------|----|----------------------|--------------|-------------------|--------|-----|--------------------------|
| Size | Type | | | | | | | | | |
| Arc chutes | | | | | | | | | | |
| 2 | 3TC44 17-0L.. | With cutout for mounting resistor | | B | 3TY2 442-0B | | 1 | 1 unit | 101 | 0.160 |
| Solenoid coils | | | | | | | | | | |
| 2 | 3TC44 | With series resistor Without varistor | 24 | C | 3TY6 443-0LB4 | | 1 | 1 unit | 101 | 0.400 |
| | | | 110 | C | 3TY6 443-0LF4 | | 1 | 1 unit | 101 | 0.400 |
| 4 | 3TC48 | | 24 | C | 3TY6 483-0LB4 | | 1 | 1 unit | 101 | 1.100 |
| | | | 110 | C | 3TY6 483-0LF4 | | 1 | 1 unit | 101 | 1.100 |
| 6 | 3TB50 | | 24 | C | 3TY6 503-0LB4 | | 1 | 1 unit | 101 | 1.100 |
| | | | 110 | D | 3TY6 503-0LF4 | | 1 | 1 unit | 101 | 1.100 |
| 8 | 3TB52 and 3TC52 | | 24 | D | 3TY6 523-0LB4 | | 1 | 1 unit | 101 | 1.100 |
| | | | 110 | D | 3TY6 523-0LF4 | | 1 | 1 unit | 101 | 1.100 |
| 10 | 3TB54 | | 24 | C | 3TY6 543-0LB4 | | 1 | 1 unit | 101 | 1.100 |
| | | | 110 | C | 3TY6 543-0LF4 | | 1 | 1 unit | 101 | 1.100 |
| 12 | 3TB56 and 3TC56 | | 24 | C | 3TY6 563-0LB4 | | 1 | 1 unit | 101 | 1.100 |
| | | | 110 | C | 3TY6 563-0LF4 | | 1 | 1 unit | 101 | 1.100 |

All spare parts not mentioned above are identical to those for the standard contactors.

| Auxiliary contacts | Rated operational current $I_e/AC-15/AC-14$ at | | | Auxiliary contacts | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|--------------------|--|-----------|-------|--------------------|---------|----|-----------|--------------|-------------------|-----|----|--------------------------|
| | 230/220 V | 400/380 V | 500 V | Ident. No. | Version | | | | | | | |
| | | | | | | | | | | | | |
| Number | A | A | A | NO | NC | NO | NC | | | | | |

Snap-on auxiliary switch blocks for 3TF2 contactors with screw terminals



3TX4 4...-A

For assembling contactors with several auxiliary contacts with 2, 4 and 5 auxiliary contacts according to DIN 50012 for 3TF2. 10 contactors (auxiliary contact 1 NO = 10E)

| | | | | | | | | | | | | | | |
|--|---|---|---|---------|----|----|----|----|---|--------------------|---|--------|-----|-------|
| 1 | 4 | 3 | 2 | 11E | -- | 1 | -- | -- | ▶ | 3TX4 401-1A | 1 | 1 unit | 101 | 0.050 |
| 3 | 4 | 3 | 2 | 22E | 1 | 2 | -- | -- | ▶ | 3TX4 412-1A | 1 | 1 unit | 101 | 0.050 |
| 4 | 4 | 3 | 2 | 23E | 1 | 3 | -- | -- | ▶ | 3TX4 413-1A | 1 | 1 unit | 101 | 0.050 |
| | | | | 32E | 2 | 2 | -- | -- | ▶ | 3TX4 422-1A | 1 | 1 unit | 101 | 0.050 |
| With 3 and 5 auxiliary contacts according to DIN 50005 for 3TF2 contactors | | | | | | | | | | | | | | |
| 2 | 4 | 3 | 2 | 20 | 2 | -- | -- | -- | ▶ | 3TX4 420-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 11 | 1 | 1 | -- | -- | ▶ | 3TX4 411-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 02 | -- | 2 | -- | -- | ▶ | 3TX4 402-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 11; U | -- | -- | 1 | 1 | D | 3TX4 411-2G | 1 | 1 unit | 101 | 0.050 |
| 4 | 4 | 3 | 2 | 40 | 4 | -- | -- | -- | ▶ | 3TX4 440-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 31 | 3 | 1 | -- | -- | ▶ | 3TX4 431-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 22 | 2 | 2 | -- | -- | ▶ | 3TX4 422-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | 22; 2 U | -- | -- | 2 | 2 | D | 3TX4 422-2G | 1 | 1 unit | 101 | 0.050 |

| For contactor | Rated control supply voltage U_s | Time setting range (minimum times) | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---------------|------------------------------------|------------------------------------|----|-----------|--------------|-------------------|-----|----|--------------------------|
| Type | | | | | | | | | |

OFF-delay devices for 3TF2 contactors with screw terminals



3TX4 490-1H

For DC-operated contactors for bridging short-time power failures up to 0.8 s

| | | | | | | | | | |
|---------------|---------|-----------------|---|--------------------|--|---|--------|-----|-------|
| 3TF2. ...0BB4 | 24 V DC | 0.25 s or 0.5 s | A | 3TX4 490-1H | | 1 | 1 unit | 101 | 0.085 |
|---------------|---------|-----------------|---|--------------------|--|---|--------|-----|-------|

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

| For contactors | Rated control supply voltage U_s | | Power consumption of LED at U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|----------------|------------------------------------|------|-----------------------------------|----|-----------|--------------|-------------------|-----|----|--------------------------|
| | V AC | V DC | | | | | | | | |

Surge suppressors for 3TF2 contactors for plugging onto contactors with and without auxiliary switch blocks



3TX4 490-3A

Version without LED

RC elements

| | | | | | | | | | |
|----------------|-------------|-------------|----|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0... | 24 ... 48 | 24 ... 70 | -- | B | 3TX4 490-3R | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | 48 ... 127 | 70 ... 150 | -- | B | 3TX4 490-3S | 1 | 1 unit | 101 | 0.010 |
| | 127 ... 240 | 150 ... 250 | -- | B | 3TX4 490-3T | 1 | 1 unit | 101 | 0.010 |
| | 240 ... 400 | -- | -- | B | 3TX4 490-3U | 1 | 1 unit | 101 | 0.015 |
| | 400 ... 600 | -- | -- | B | 3TX4 490-3V | 1 | 1 unit | 101 | 0.015 |

Varistors

| | | | | | | | | | |
|----------------|-------------|-------------|----|---|--------------------|---|----------|-----|-------|
| 3TF2. ...-0... | ≤ 48 | 24 ... 70 | -- | B | 3TX4 490-3G | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | 48 ... 127 | 70 ... 150 | -- | B | 3TX4 490-3H | 1 | 1 unit | 101 | 0.010 |
| | 127 ... 240 | 150 ... 250 | -- | B | 3TX4 490-3J | 1 | 1 unit | 101 | 0.010 |
| | 240 ... 400 | -- | -- | B | 3TX4 490-3K | 1 | 10 units | 101 | 0.015 |
| | 400 ... 600 | -- | -- | B | 3TX4 490-3L | 1 | 10 units | 101 | 0.015 |

Noise suppression diodes

| | | | | | | | | | |
|----------------|----|------------|----|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0... | -- | 12 ... 250 | -- | B | 3TX4 490-3A | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | | | | | | | | | |

Diode assemblies (diode and Zener diode)

For DC operation and short break times

| | | | | | | | | | |
|----------------|----|------------|----|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0... | -- | 24 ... 250 | -- | B | 3TX4 490-3B | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | | | | | | | | | |



3TX4 490-4G

Version with LED

Varistors

| | | | | | | | | | |
|----------------|-------------|-------------|-------------|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0... | 24 ... 48 | 12 ... 24 | 10 ... 120 | B | 3TX4 490-4G | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | 48 ... 127 | 24 ... 70 | 20 ... 470 | B | 3TX4 490-4H | 1 | 1 unit | 101 | 0.010 |
| | 127 ... 240 | 70 ... 150 | 50 ... 700 | B | 3TX4 490-4J | 1 | 1 unit | 101 | 0.010 |
| | -- | 150 ... 250 | 160 ... 950 | B | 3TX4 490-4K | 1 | 1 unit | 101 | 0.010 |

Noise suppression diodes

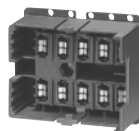
| | | | | | | | | | |
|----------------|----|-------------|-------------|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0... | -- | 24 ... 70 | 20 ... 470 | B | 3TX4 490-4A | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1... | -- | 70 ... 150 | 50 ... 700 | B | 3TX4 490-4B | 1 | 1 unit | 101 | 0.010 |
| | -- | 150 ... 250 | 160 ... 950 | B | 3TX4 490-4C | 1 | 1 unit | 101 | 0.010 |

Additional load modules for 3TF2 contactors for plugging onto contactors with and without auxiliary switch blocks¹⁾

For increasing the permissible residual current and for limiting the residual voltage

| | | | | | | | | |
|-----------------|-------------------------------------|----|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-0A... | 230/220, 50 Hz | -- | B | 3TX4 490-1J | 1 | 1 unit | 101 | 0.010 |
| 3TF2. ...-1A... | 230, 60 Hz | | | | | | | |
| | 230, 50/60 Hz | | | | | | | |
| | Operating range 0.8 ... 1.1 x U_s | | | | | | | |

Plug-in bases with solder pin connections for printed circuit boards, width 45 mm for 3TF2 and 3TK2 contactors



3TX4 491-2A

For 3TF2 and 3TK2 contactors
 With flat connectors 6.3 mm x 0.8 mm;
 Rated insulation voltage U_i : 400 V (degree of pollution 3);
 Rated impulse withstand voltage U_{imp} : 6 kV;
 Rated operational current I_e : 6 A;
 Ⓢ and Ⓜ rated data: max. 300 V, 6 A

| | | | | | | | | | |
|----------------|--|--|--|---|--------------------|---|---------|-----|-------|
| 3TF20 ...-3... | | | | A | 3TX4 491-2A | 1 | 5 units | 101 | 0.030 |
| 3TF20 ...-7... | | | | | | | | | |
| 3TK20 ...-3... | | | | | | | | | |
| 3TK20 ...-7... | | | | | | | | | |

Release tools

| | | | | | | | | |
|----------------|--|--|---|--------------------|---|--------|-----|-------|
| 3TF2. ...-7... | For releasing contactors from 3TK20 ...-7... | | D | 3TX4 491-2K | 1 | 1 unit | 101 | 0.010 |
|----------------|--|--|---|--------------------|---|--------|-----|-------|

¹⁾ Dimensions as for 3TX4 490-3 surge suppressor.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK
contactors

Accessories

| For contactors | Max. rated operational currents I_e /AC-1 of the contactors at 55 °C | Max. conductor cross-sections | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|--|-------------------------------|----|-----------------------|--------------|-------------------|--------|-----|--------------------------|
| Type | A | mm ² | | | | | | | |
| Links for paralleling (star jumpers) | | | | | | | | | |
| 3-pole, without connection terminals^{1) 2)} | | | | | | | | | |
| 3TG10 | 16 star jumpers can be reduced by one pole | -- | ▶ | 3RT19 16-4BA31 | | 1 | 1 unit | 101 | 0.010 |
| 3-pole, with connection terminals^{1) 3)} | | | | | | | | | |
| 3TG10 | 40 | 25 | ▶ | 3RT19 16-4BB31 | | 1 | 1 unit | 101 | 0.015 |
| 4-pole, with connection terminals^{1) 4)} | | | | | | | | | |
| 3TG10 | 50 | 25 | C | 3RT19 16-4BB41 | | 1 | 1 unit | 101 | 0.015 |

¹⁾ The links for paralleling can be reduced by one pole. The rated operational currents apply to each pole. The links for paralleling are insulated.

²⁾ Replacement for 3TX4 490-2C.

³⁾ Replacement for 3TX4 490-2A.

⁴⁾ Replacement for 3TX4 490-2B.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TH contactor relays

Selection and ordering data

| Version | Rated control supply voltage U_s | | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------|------------------------------------|----|----|-----------|--------------|-------------------|-----|----|-----------------------|
| | AC | DC | | | | | | | kg |
| | V | V | | | | | | | |

Surge suppressors¹⁾ for 3TH4 contactor relays



3TX7 402-3.

| | | | | | | | | | |
|--|-------------|-------------|---|--------------------|--|---|--------|-----|-------|
| Noise suppression diodes With line spacer, for mounting onto the coil terminal | -- | 24 ... 250 | A | 3TX7 402-3A | | 1 | 1 unit | 101 | 0.015 |
| Diode assemblies (diode and Zener diode) with line spacer, DC operation, for mounting onto the coil terminal | -- | 24 ... 250 | A | 3TX7 402-3D | | 1 | 1 unit | 101 | 0.015 |
| Varistors²⁾ With line spacer, for mounting onto the coil terminal | 24 ... 48 | 24 ... 70 | A | 3TX7 402-3G | | 1 | 1 unit | 101 | 0.015 |
| | 48 ... 127 | 70 ... 150 | A | 3TX7 402-3H | | 1 | 1 unit | 101 | 0.015 |
| | 127 ... 240 | 150 ... 250 | A | 3TX7 402-3J | | 1 | 1 unit | 101 | 0.015 |
| | 240 ... 400 | -- | C | 3TX7 402-3K | | 1 | 1 unit | 101 | 0.025 |
| | 400 ... 600 | -- | C | 3TX7 402-3L | | 1 | 1 unit | 101 | 0.025 |
| RC elements With line spacer, for mounting onto the coil terminal | 24 ... 48 | 24 ... 70 | A | 3TX7 402-3R | | 1 | 1 unit | 101 | 0.025 |
| | 48 ... 127 | 70 ... 150 | A | 3TX7 402-3S | | 1 | 1 unit | 101 | 0.025 |
| | 127 ... 240 | 150 ... 250 | A | 3TX7 402-3T | | 1 | 1 unit | 101 | 0.025 |
| | 240 ... 400 | -- | C | 3TX7 402-3U | | 1 | 1 unit | 101 | 0.025 |
| | 400 ... 600 | -- | C | 3TX7 402-3V | | 1 | 1 unit | 101 | 0.025 |
| Covers For switch position indicator | -- | -- | B | 3TX4 210-0P | | 1 | 1 unit | 101 | 0.010 |

Coupling links for control by PLC for 3TH4 contactor relays

3TX4 090
mounted to contactor

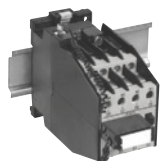
| | | | | | | | | | |
|--|--|--|---|--------------------|--|---|--------|-----|-------|
| Operating range: 17 to 30 V DC Power consumption: 0.5 W at 24 V DC For mounting directly to contactor coil without surge suppressor | | | A | 3TX4 090-0C | | 1 | 1 unit | 101 | 0.060 |
| For mounting directly to contactor coil with surge suppressor | | | A | 3TX4 090-0D | | 1 | 1 unit | 101 | 0.060 |

¹⁾ The OFF-delay of the NO contact and the ON-delay of the NC contact are increased if the contactor coils are attenuated against voltage peaks (noise suppression diode 6 to 10 times; diode assemblies 2 to 6 times, varistor +2 to 5 ms).

²⁾ Includes the peak value of the alternating voltage on the DC side.

| For contactors | Version | Rated control supply voltage U_s AC 50/60 Hz | Time setting range (minimum times) | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|---------|---|------------------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Type | | V | s | | | | | | | kg |

ON-delay devices



3TX4 180-0A

| | | | | | | | | | | |
|-----------------|--|-------------|-----|---|--------------------|--|---|--------|-----|-------|
| 3TH42/ 3TH43 | NTC thermistors Time tolerance + 100 %, -50 % | 220 ... 230 | 0.1 | B | 3TX4 180-0A | | 1 | 1 unit | 101 | 0.015 |
|-----------------|--|-------------|-----|---|--------------------|--|---|--------|-----|-------|

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TH contactor relays

| For contactors | Rated control supply voltage U_s | | OFF-delay | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|------------------------------------|---|-----------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Type | V | V | s | | | | | | | kg |

OFF-delay devices for bridging short-time power failures (up to 1.2 s)



3TX4 701-0AN1

| | | | | | | | | | | | |
|----------------------------------|-----|----|-------------|---|----------------------|--|--|---|--------|-----|-------|
| 3TH42 ...-0BF4 3TH43 ...-0BF4 | 110 | | 0.15 or 0.3 | A | 3TX4 701-0AN1 | | | 1 | 1 unit | 101 | 0.170 |
| 3TH42 ...-0BM4 3TH43 ...-0BM4 | 220 | | 0.6 or 1.2 | A | 3TX4 701-0AN1 | | | 1 | 1 unit | 101 | 0.170 |
| 3TH42 ...-0BP4 3TH43 ...-0BP4 | 230 | | 0.6 or 1.2 | A | 3TX4 701-0AN1 | | | 1 | 1 unit | 101 | 0.170 |
| 3TH42 ...-0BB4 3TH43 ...-0BB4 | | 24 | 0.4 or 0.8 | B | 3TX4 701-0BB4 | | | 1 | 1 unit | 101 | 0.170 |

| For contactors | Rated control supply voltage U_s | | Time setting range (minimum times) | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|------------------------------------|---|------------------------------------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Type | V | V | s | | | | | | | kg |

OFF-delay devices with screw terminals



3TX4 490-1A

| For DC-operated contactors for bridging short-time power failures up to 0.8 s | | | | | | | | | | | |
|---|--------------------|--|-----------------|---|--------------------|--|--|---|--------|-----|-------|
| 3TH2. ...-0BB4 | 24 V DC | | 0.25 s or 0.5 s | A | 3TX4 490-1H | | | 1 | 1 unit | 101 | 0.085 |
| 3TH2. ...-0BF4 | 110 V AC, 50/60 Hz | | 0.1 s or 0.2 s | A | 3TX4 490-1A | | | 1 | 1 unit | 101 | 0.085 |
| 3TH2. ...-0BM4, 3TH2. ...-0BP4 | 220 V AC, 50/60 Hz | | 0.4 s or 0.8 s | | | | | | | | |

| Contacts | Rated operational current I_n /AC-15/AC-14 at | | | | Contacts | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------|---|-----------|-----------|-------|-----------------------------|-------------|-----------|--------------|-------------------|-----|----|-----------------------|
| Number | A | A | A | A | Ident. No. acc. to EN 50011 | Version | | | | | | kg |
| | | 230/220 V | 400/380 V | 500 V | 690/660 V | | | | | | | |
| | | | | | | NO NC NO NC | | | | | | |

Snap-on auxiliary switch blocks for 3TH20 contactor relays with screw terminal






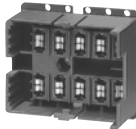
3TX4 440-0A

| With 8 contacts according to EN 50011, For snapping onto contactor relays with 4 NO, Ident. No. 40E (3TH20 40-0...) | | | | | | | | | | | | | | | |
|---|---|---|---|----|--------|----|----|----|----|---|--------------------|---|--------|-----|-------|
| 4 | 4 | 3 | 2 | -- | 80E | 4 | -- | -- | -- | ▶ | 3TX4 440-0A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 71E | 3 | 1 | -- | -- | ▶ | 3TX4 431-0A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 62E | 2 | 2 | -- | -- | ▶ | 3TX4 422-0A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 53E | 1 | 3 | -- | -- | ▶ | 3TX4 413-0A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 44E | -- | 4 | -- | -- | ▶ | 3TX4 404-0A | 1 | 1 unit | 101 | 0.050 |
| With 6 and 8 contacts according to EN 50005 | | | | | | | | | | | | | | | |
| 4 | 4 | 3 | 2 | -- | 40E | 4 | -- | -- | -- | ▶ | 3TX4 440-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 31E | 3 | 1 | -- | -- | ▶ | 3TX4 431-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 22E | 2 | 2 | -- | -- | ▶ | 3TX4 422-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 22; 2U | -- | -- | 2 | 2 | D | 3TX4 422-2G | 1 | 1 unit | 101 | 0.050 |
| 2 | 4 | 3 | 2 | -- | 20E | 2 | -- | -- | -- | ▶ | 3TX4 420-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 11E | 1 | 1 | -- | -- | ▶ | 3TX4 411-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 02E | -- | 2 | -- | -- | ▶ | 3TX4 402-2A | 1 | 1 unit | 101 | 0.050 |
| | | | | | 11; U | -- | -- | 1 | 1 | D | 3TX4 411-2G | 1 | 1 unit | 101 | 0.050 |

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Accessories for 3TH contactor relays

| For contactors | Rated control supply voltage U_s | | Power consumption of LED at U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg | |
|--|---|-------------------------------------|-----------------------------------|-------------|--------------------|--------------------|-------------------|----------|---------|--------------------------|-------|
| | Type | V AC | | | | | | | | | V DC |
| Surge suppressors¹⁾ | | | | | | | | | | | |
| for plugging onto contactors with and without auxiliary switch blocks | | | | | | | | | | | |
| <i>Version without LED</i> | | | | | | | | | | | |
|  3TX4 490-3A | RC elements | | | | | | | | | | |
| | 3TH2. ...-0... | 24 ... 48 | 24 ... 70 | -- | B | 3TX4 490-3R | | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 127 | 70 ... 150 | -- | B | 3TX4 490-3S | | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 150 ... 250 | -- | B | 3TX4 490-3T | | 1 | 1 unit | 101 | 0.010 |
| | | 240 ... 400 | -- | -- | B | 3TX4 490-3U | | 1 | 1 unit | 101 | 0.015 |
| | | 400 ... 600 | -- | -- | B | 3TX4 490-3V | | 1 | 1 unit | 101 | 0.015 |
| | Varistors | | | | | | | | | | |
| | 3TH2. ...-0... | ≤ 48 | 24 ... 70 | -- | B | 3TX4 490-3G | | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 127 | 70 ... 150 | -- | B | 3TX4 490-3H | | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 150 ... 250 | -- | B | 3TX4 490-3J | | 1 | 1 unit | 101 | 0.010 |
| | 240 ... 400 | -- | -- | B | 3TX4 490-3K | | 1 | 10 units | 101 | 0.015 | |
| | 400 ... 600 | -- | -- | B | 3TX4 490-3L | | 1 | 10 units | 101 | 0.015 | |
| Noise suppression diodes | | | | | | | | | | | |
| 3TH2. ...-0... | -- | 12 ... 250 | -- | B | 3TX4 490-3A | | 1 | 1 unit | 101 | 0.010 | |
| Diode assemblies (diode and Zener diode) For DC operation and short break times | | | | | | | | | | | |
| 3TH2. ...-0... | -- | 24 ... 250 | -- | B | 3TX4 490-3B | | 1 | 1 unit | 101 | 0.010 | |
| <i>Version with LED</i> | | | | | | | | | | | |
|  3TX4 490-4G | Varistors | | | | | | | | | | |
| | 3TH2. ...-0... | 24 ... 48 | 12 ... 24 | 10 ... 12 | B | 3TX4 490-4G | | 1 | 1 unit | 101 | 0.010 |
| | | 48 ... 27 | 24 ... 70 | 20 ... 470 | B | 3TX4 490-4H | | 1 | 1 unit | 101 | 0.010 |
| | | 127 ... 240 | 70 ... 150 | 50 ... 700 | B | 3TX4 490-4J | | 1 | 1 unit | 101 | 0.010 |
| | | -- | 150 ... 250 | 160 ... 950 | B | 3TX4 490-4K | | 1 | 1 unit | 101 | 0.010 |
| Noise suppression diodes | | | | | | | | | | | |
| 3TH2. ...-0... | -- | 24 ... 70 | 20 ... 470 | B | 3TX4 490-4A | | 1 | 1 unit | 101 | 0.010 | |
| | -- | 70 ... 150 | 50 ... 700 | B | 3TX4 490-4B | | 1 | 1 unit | 101 | 0.010 | |
| | -- | 150 ... 250 | 160 ... 950 | B | 3TX4 490-4C | | 1 | 1 unit | 101 | 0.010 | |
| Additional load modules (residual current) | | | | | | | | | | | |
| for plugging onto contactors without and with auxiliary switch blocks | | | | | | | | | | | |
|  3TX4 490-1J | For increasing the permissible residual current and for limiting the residual voltage of SIMATIC semiconductor outputs | | | | | | | | | | |
| | 3TH2. ...-0A... | 230/220, 50 Hz | -- | -- | B | 3TX4 490-1J | | 1 | 1 unit | 101 | 0.010 |
| | | 230, 60 Hz | -- | -- | | | | | | | |
| | | 230, 50/60 Hz | -- | -- | | | | | | | |
| | | Operating range 0.8 ... 1.1 x U_s | | | | | | | | | |
| Plug-in bases with solder pin connections for printed circuit boards, width 45 mm | | | | | | | | | | | |
|  3TX4 491-2A | For 3TH2 contactor relays; With flat connectors 1 x 6.3 mm ... 0.8 mm; Rated insulation voltage U_i : 400 V (degree of pollution 3); Rated impulse withstand voltage U_{imp} : 6 kV; Rated operational current I_g : 6 A; Ⓢ and ⓈA rated data: max. 300 V, 6 A | | | | | | | | | | |
| | 3TH20 ...-3... | | | | A | 3TX4 491-2A | | 1 | 5 units | 101 | 0.030 |
| | 3TH20 ...-7... | | | | | | | | | | |

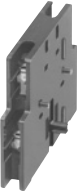



¹⁾ The OFF-delay of the NO contact and the ON-delay of the NC contact are increased if the contactor coils are attenuated against voltage peaks (noise suppression diode 6 to 10 times; diode assemblies 2 to 6 times, varistor +2 to 5 ms).

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

Selection and ordering data

| For contactors | Auxiliary contacts | | | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. | |
|--|--------------------|-----------------|----------|---------|----|---|--------------|-------------------|-------------|--------|-----------------------|-------|
| | Size | Type | NO NC NC | | | | | | | | | kg |
| Auxiliary switch blocks | | | | | | | | | | | | |
|  | 6 | 3TB50 | 1 | 1 | -- | Auxiliary switch block, left or right (replacement for 3TY6 501-1A/-1B) | ▶ | | 1 | 1 unit | 101 | 0.055 |
| | | | 1 | -- | 1 | Auxiliary switch block, right | ▶ | | 3TY6 501-1E | 1 | 1 unit | 101 |
| | 8 ... 12 | 3TB52 ... 3TB56 | 1 | 1 | -- | Auxiliary switch block, left | ▶ | 3TY6 561-1A | 1 | 1 unit | 101 | 0.075 |
| | | | 1 | 1 | -- | Auxiliary switch block, right | ▶ | 3TY6 561-1B | 1 | 1 unit | 101 | 0.075 |
| | | | 1 | -- | 1 | Auxiliary switch block, right | ▶ | 3TY6 561-1E | 1 | 1 unit | 101 | 0.075 |
| | | | 1 | -- | 1 | Auxiliary switch block, right | ▶ | 3TY6 561-1E | 1 | 1 unit | 101 | 0.075 |
| Solenoid coils | | | | | | | | | | | | |
| DC operation | | | | | | | | | | | | |
|  | 6 | 3TB50 | -- | -- | -- | | | | on request | | | |
| | 8 | 3TB52 | | | | | | | on request | | | |
| | 10 | 3TB54 | | | | | | | on request | | | |
| | 12 | 3TB56 | | | | | | | on request | | | |
| 3TY6 5 | | | | | | | | | | | | |
| Arc chutes | | | | | | | | | | | | |
|  | 6 | 3TB50 | -- | -- | -- | 1 arc chute, 3-pole | ▶ | 3TY6 502-0A | 1 | 1 unit | 101 | 0.750 |
| | 8 | 3TB52 | | | | | ▶ | 3TY6 522-0A | 1 | 1 unit | 101 | 1.200 |
| | 10 | 3TB54 | | | | | ▶ | 3TY6 542-0A | 1 | 1 unit | 101 | 1.500 |
| | 12 | 3TB56 | | | | | ▶ | 3TY6 562-0A | 1 | 1 unit | 101 | 1.600 |
| 3TY6 502-0A | | | | | | | | | | | | |
| Contacts with fixing parts | | | | | | | | | | | | |
| In order to ensure reliable operation of the contactors, only original replacement contacts should be used. | | | | | | | | | | | | |
|  | 6 | 3TB50 | -- | -- | -- | (1 set = | B | 3TY6 500-0A | 1 | 1 unit | 101 | 0.280 |
| | 8 | 3TB52 | | | | 3 moving and 6 fixed | B | 3TY6 520-0A | 1 | 1 unit | 101 | 0.360 |
| | 10 | 3TB54 | | | | switching elements) | B | 3TY6 540-0A | 1 | 1 unit | 101 | 0.530 |
| | 12 | 3TB56 | | | | | B | 3TY6 560-0A | 1 | 1 unit | 101 | 0.760 |
| 3TY6 520-0A | | | | | | | | | | | | |

For rated control supply voltages for solenoid coils, see page 3/131.


Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors


| For contactors | Auxiliary contacts | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|--------------------|---------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Size | Type | NO | NC | | | | | | kg |

Auxiliary switch blocks

| | | | | | | | | | | | |
|---|-----------------|-----------------|---|---|---|--------------------|-----------------------|--------|--------|-------|-------|
|  | 2 and 4 | 3TC44, 3TC48 | 1 | 1 | Auxiliary switch block, left or right (replacement for 3TY6 501-1A/-1B) | ▶ | 3TY6 501-1AA00 | 1 | 1 unit | 101 | 0.055 |
| | 4 | 3TC48 | 1 | 1 | 2nd auxiliary switch block, left ¹⁾ | ▶ | 3TY6 501-1K | 1 | 1 unit | 101 | 0.055 |
| | | | | | 2nd auxiliary switch block, right ¹⁾ | D | 3TY6 501-1L | 1 | 1 unit | 101 | 0.055 |
| | 8 and 12 | 3TC52, 3TC56 | 1 | 1 | Auxiliary switch block, left | ▶ | 3TY6 561-1A | 1 | 1 unit | 101 | 0.075 |
| | | | | | Auxiliary switch block, right | ▶ | 3TY6 561-1B | 1 | 1 unit | 101 | 0.075 |
| | | | | 2nd auxiliary switch block, left ¹⁾ | ▶ | 3TY6 561-1K | 1 | 1 unit | 101 | 0.075 | |
| | | | | 2nd auxiliary switch block, right ¹⁾ | ▶ | 3TY6 561-1L | 1 | 1 unit | 101 | 0.075 | |

3TY6 561-1A

Contacts with fixing parts

| | | | | | | | | | | | |
|---|--|-------|----|----|----------------------|---|--------------------|---|--------|-----|-------|
|  | In order to ensure reliable operation of the contactors, only original replacement contacts should be used. | | | | | | | | | | |
| | 2 | 3TC44 | -- | -- | (1 set = | B | 3TY2 440-0A | 1 | 1 unit | 101 | 0.070 |
| | 4 | 3TC48 | | | 2 moving and 4 fixed | B | 3TY2 480-0A | 1 | 1 unit | 101 | 0.100 |
| | 8 | 3TC52 | | | switching elements) | B | 3TY2 520-0A | 1 | 1 unit | 101 | 0.250 |
| | 12 | 3TC56 | | | | C | 3TY2 560-0A | 1 | 1 unit | 101 | 0.450 |

3TY2 520-0A

For rated control supply voltages for solenoid coils, see page 3/131.

Arc chutes

| | | | | | | | | | | | |
|---|-----------|-------|----|----|--------------|---|--------------------|---|--------|-----|-------|
|  | 2 | 3TC44 | -- | -- | 1 arc chute, | C | 3TY2 442-0A | 1 | 1 unit | 101 | 0.170 |
| | 4 | 3TC48 | | | 2-pole | C | 3TY2 482-0A | 1 | 1 unit | 101 | 0.500 |
| | 8 | 3TC52 | | | | C | 3TY2 522-0A | 1 | 1 unit | 101 | 1.200 |
| | 12 | 3TC56 | | | | C | 3TY2 562-0A | 1 | 1 unit | 101 | 2.130 |

3TC2 48

Solenoid coils

DC operation

| | | | | | | | |
|-----------|-------|----|----|--|--|----------------------|------------|
| 2 | 3TC44 | -- | -- | | | 3TY6 443-0B.. | on request |
| 4 | 3TC48 | | | | | 3TY6 483-0B.. | on request |
| 8 | 3TC52 | | | | | 3TY6 523-0B.. | on request |
| 12 | 3TC56 | | | | | 3TY6 563-0B.. | on request |

AC operation

| | | | | | | | |
|-----------|-------|----|----|--|--|----------------------|------------|
| 2 | 3TC44 | -- | -- | | | 3TY7 403-0A.. | on request |
| 4 | 3TC48 | | | | | 3TY6 483-0A.. | on request |
| 8 | 3TC52 | | | | | 3TY6 523-0A.. | on request |
| 12 | 3TC56 | | | | | 3TY6 566-0A.. | on request |



¹⁾ Can only be mounted on AC-operated contactors.


Accessories and Spare Parts

For 3T Contactors and Contactor Relays


Spare parts for 3TB, 3TC, 3TF, 3TK contactors

| For contactors | Version | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|-----------------------------------|---|------------------------------------|--------|--|--------------|-------------------|------------------|------------|-----------------------|
| Type | V AC/DC | | | | | | | | kg |
| Varistors | | | | | | | | | |
| 3TC7 | For sticking onto the contactor base | 24 110 | C C | 3TX2 746-2F 3TX2 746-2G | | 1 1 | 1 unit 1 unit | 101 101 | 0.150 0.150 |
| Contacts with fixing parts | | | | | | | | | |
| 3TC7 | Main contacts (1 set) for 3TC78: 2 units required per contactor | | C | 3TY2 740-0E | | 1 | 1 unit | 101 | 0.360 |
| Auxiliary switch blocks | | | | | | | | | |
| 3TC74 | 4 NO + 4 NC | | ▶ | 3TY2 741-2J | | 1 | 1 unit | 101 | 0.270 |
| 3TC78 | Auxiliary switch block left, with 2 NO + 2 NC | | ▶ | 3TY2 781-2C | | 1 | 1 unit | 101 | 0.190 |
| | Auxiliary switch block right, with 2 NO + 2 NC | | ▶ | 3TY2 781-2D | | 1 | 1 unit | 101 | 0.190 |
| Arc chutes | | | | | | | | | |
| 3TC7 | For 3TC78: 2 units required per contactor | | C | 3TY2 742-0C | | 1 | 1 unit | 101 | 3.900 |

| For contactors | Contacts Version | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|----------------|------------------|---|---|-----------|--------------|-------------------|-----|----|-----------------------|
| Size | Type | NO | NC | | | | | | kg |
| | |  |  | | | | | | |
| | | NO | NC | | | | | | |

| Auxiliary switch blocks | | | | | | | | | | | | |
|---|----|-----------------|----|----|----|--|---|-----------------------|---|--------|-----|-------|
| With screw terminals | | | | | | | | | | | | |
|  | 14 | 3TF68 and 3TF69 | 1 | 1 | -- | 1st auxiliary switch block, left or right Replacement for: 3TY7 561-1A/ -1B. | ▶ | 3TY7 561-1AA00 | 1 | 1 unit | 101 | 0.050 |
| | | | 1 | -- | 1 | Auxiliary switch block, left or right | ▶ | 3TY7 561-1EA00 | 1 | 1 unit | 101 | 0.050 |
| | | | 1 | 1 | -- | 2nd auxiliary switch block, left or right Replacement for: 3TY7 561-1K/ -1L. | ▶ | 3TY7 561-1KA00 | 1 | 1 unit | 101 | 0.050 |
| For coil reconnection with DC economy circuit, with screw terminals | | | | | | | | | | | | |
| | 14 | 3TF68 and 3TF69 | -- | -- | 1 | Auxiliary switch block | ▶ | 3TY7 681-1G | 1 | 1 unit | 101 | 0.050 |

| For contactor | Version | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. |
|---------------|---------|----|-----------|--------------|-------------------|-----|----|-----------------------|
| Size | Type | | | | | | | kg |

| Solenoid coils | | | | | | | | | | |
|---|--|----------------|--|--|--|--|---|--|--------------------------|--|
| AC operation | | | | | | | | | | |
|  | 14 | 3TF68 3TF69 | The solenoid coils are fitted as standard with varistors against overvoltage. The coil is supplied with switch-on electronics. | | | | ▶ | 3TY7 683-0C.. 3TY7 693-0C.. | on request on request | |
| | DC operation · DC economy circuit | | | | | | | | | |
| | 14 | 3TF68 3TF69 | Reversing contactors are required for size 14 contactors: Contactor type 3TF68 and 3TF69 Reversing contactor 3TC44 (70 mm wide, 85 mm high) The solenoid coils are supplied without reversing contactor. | | | | ▶ | 3TY7 683-0D.. 3TY7 693-0D.. | on request on request | |

| Vacuum interrupters | | | | | | | | | | |
|--|----|----------------|---------------------------------------|--|--------|--|--------|------------------|------------|----------------|
| In order to ensure reliable operation of the contactors, only original replacement interrupters should be used. | | | | | | | | | | |
| | 14 | 3TF68 3TF69 | 3 vacuum interrupters with components | | B C | 3TY7 680-0B 3TY7 690-0B | 1 1 | 1 unit 1 unit | 101 101 | 3.490 3.640 |

For rated control supply voltages for solenoid coils, see page 3/131.

For solid-state compatible auxiliary switch blocks, see page 3/120.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

| Version | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|---|------------------------------------|----|----------------------|--------------|-------------------|--------|-----|--------------------------|
| V AC | | | | | | | | |
| Reversing contactors (3TC44) | | | | | | | | |
| Complete with resistor and 1 m connecting cable and plug-in connector for 3TF68 ...-Q, 3TF69 ...- | 110 ... 120 | D | 3TY7 684-0QG7 | | 1 | 1 unit | 101 | 1.000 |
| | 220 ... 240 | D | 3TY7 684-0QL7 | | 1 | 1 unit | 101 | 1.000 |
| | 380 ... 420 | D | 3TY7 684-0QV7 | | 1 | 1 unit | 101 | 1.000 |
| Solenoid coils for main contactor, with rectifier bridge | | | | | | | | |
| For 3TF68 ...-Q | 110 ... 120 | D | 3TY7 683-0QG7 | | 1 | 1 unit | 101 | 2.700 |
| | 220 ... 240 | D | 3TY7 683-0QL7 | | 1 | 1 unit | 101 | 1.500 |
| | 380 ... 420 | D | 3TY7 683-0QV7 | | 1 | 1 unit | 101 | 1.460 |
| For 3TF69 ...-Q | 110 ... 120 | D | 3TY7 693-0QG7 | | 1 | 1 unit | 101 | 0.650 |
| | 220 ... 240 | D | 3TY7 693-0QL7 | | 1 | 1 unit | 101 | 1.500 |
| | 380 ... 420 | D | 3TY7 693-0QV7 | | 1 | 1 unit | 101 | 1.500 |

For rated control supply voltages for solenoid coils, see page 3/131.

For solid-state compatible auxiliary switch blocks, see page 3/120.

| For contactors | Version | Rated control supply voltage U_s | DT | Order No. | Price per PU | PU (UNIT, SET, M) | PS* | PG | Weight per PU approx. kg |
|--|--|---|--------------------|----------------------|--------------|-------------------|---------|-------|--------------------------|
| Type | | V AC | | | | | | | |
| Surge suppressors · RC elements | | | | | | | | | |
| 3TK10 to 3TK13 | | 24 ... 48 | D | 3TK19 30-0A | | 1 | 1 unit | 101 | 0.050 |
| | | 110 ... 415 | B | 3TK19 30-0B | | 1 | 1 unit | 101 | 0.050 |
| 3TK14 to 3TK17 | | 48 ... 110 | C | 3TK19 34-0C | | 1 | 1 unit | 101 | 0.050 |
| | | 220 ... 600 | B | 3TK19 34-0D | | 1 | 1 unit | 101 | 0.050 |
| Terminal covers | | | | | | | | | |
| 3TK10, 3TK11 | For mounting onto contactors | | B | 3TK19 40-0A | | 1 | 2 units | 101 | 0.150 |
| 3TK12, 3TK13 | | B | 3TK19 42-0A | | 1 | 2 units | 101 | 0.150 | |
| 3TK14, 3TK15 | | B | 3TK19 44-0A | | 1 | 2 units | 101 | 0.200 | |
| 3TK17 | | B | 3TK19 46-0A | | 1 | 2 units | 101 | 0.200 | |
| Auxiliary switch blocks | | | | | | | | | |
| 3TK1 | 1st auxiliary switch block, left or right | 1 NO + 1 NC | B | 3TK19 10-3A | | 1 | 1 unit | 101 | 0.050 |
| | | 2nd auxiliary switch block, left or right | B | 3TK19 10-3B | | 1 | 1 unit | 101 | 0.050 |
| Locking devices | | | | | | | | | |
| 3TK10, 3TK11 | For mechanical interlocking of 2 identical contactors, auxiliary contacts 2 NC | | B | 3TK19 20-0A | | 1 | 1 unit | 101 | 0.140 |
| 3TK12, 3TK13 | | B | 3TK19 22-0A | | 1 | 1 unit | 101 | 0.140 | |
| 3TK14, 3TK15, 3TK17 | Mechanical interlock, including mounting plate | | B | 3TK19 24-0A | | 1 | 1 unit | 101 | 6.750 |
| Arc chutes | | | | | | | | | |
| 3TK10 | 1 arc chute, 4-pole | | D | 3TK19 50-0A | | 1 | 1 unit | 101 | 0.650 |
| 3TK11 | | D | 3TK19 51-0A | | 1 | 1 unit | 101 | 0.650 | |
| 3TK12 | | D | 3TK19 52-0A | | 1 | 1 unit | 101 | 1.250 | |
| 3TK13 | | D | 3TK19 53-0A | | 1 | 1 unit | 101 | 1.250 | |
| 3TK14 | | D | 3TK19 54-0A | | 1 | 1 unit | 101 | 3.700 | |
| 3TK15 | | D | 3TK19 55-0A | | 1 | 1 unit | 101 | 3.700 | |
| 3TK17 | | D | 3TK19 57-0A | | 1 | 1 unit | 101 | 3.700 | |
| Solenoid coils | | | | | | | | | |
| 3TK10, 3TK11 | | | | 3TK19 70-0A.. | | on request | | | |
| 3TK12, 3TK13 | | | | 3TK19 72-0A.. | | on request | | | |
| 3TK14, 3TK15, 3TK17 | | | | 3TK19 74-0A.. | | on request | | | |
| Contacts with fixing parts | | | | | | | | | |
| 3TK10 | 4 moving and 8 fixed contacts | | D | 3TK19 60-0A | | 1 | 1 unit | 101 | 0.270 |
| 3TK11 | | D | 3TK19 61-0A | | 1 | 1 unit | 101 | 0.270 | |
| 3TK12 | | D | 3TK19 62-0A | | 1 | 1 unit | 101 | 0.580 | |
| 3TK13 | | D | 3TK19 63-0A | | 1 | 1 unit | 101 | 0.580 | |
| 3TK14 | | D | 3TK19 64-0A | | 1 | 1 unit | 101 | 2.400 | |
| 3TK15 | | D | 3TK19 65-0A | | 1 | 1 unit | 101 | 2.400 | |
| 3TK17 | | D | 3TK19 67-0A | | 1 | 1 unit | 101 | 2.400 | |

For rated control supply voltages for solenoid coils, see page 3/131.

Accessories and Spare Parts

For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

| For contactor type | 3TC44 | 3TC48 | 3TC5 | 3TF68/69 | 3TK10/11/12/13 | 3TK14/15/17 |
|------------------------------------|---------------|---------------|--------------------------------|--------------------------------|--------------------------------|---------------|
| Solenoid coil type | 3TY7 403-0A.. | 3TY6 483-0A.. | 3TY6 523-0A.. 3TY6 566-0A.. | 3TY7 683-0C.. 3TY7 693-0C.. | 3TK19 70-0A.. 3TK19 72-0A.. | 3TK19 74-0A.. |
| Rated control supply voltage U_s | | | | | | |

AC operation

Solenoid coils for 50 Hz

| | | | | | | |
|--------------|------------------|------------------|------------------|----|------------------|------------------|
| 24 V AC | B0 | B0 | -- | -- | B0 ³⁾ | -- |
| 110 V AC | F0 | F0 | F0 | -- | F0 ³⁾ | F0 ³⁾ |
| 230/220 V AC | P0 ¹⁾ | P0 ¹⁾ | P0 ¹⁾ | -- | P0 ³⁾ | P0 ³⁾ |
| 240 V AC | U0 | U0 | -- | -- | U0 ³⁾ | U0 ³⁾ |

AC operation

Solenoid coils for 50/60 Hz

| | | | | | | |
|--------------------|----|----|----|------------------|----|----|
| 24 V AC | C2 | -- | -- | -- | -- | -- |
| 110 V AC | G2 | -- | -- | -- | -- | -- |
| 120 V AC | K2 | -- | -- | -- | -- | -- |
| 220 V AC | N2 | -- | -- | -- | -- | -- |
| 230 V AC | L2 | -- | -- | -- | -- | -- |
| 110 V ... 132 V AC | -- | -- | -- | F7 | -- | -- |
| 200 V ... 240 V AC | -- | -- | -- | M7 | -- | -- |
| 230 V ... 277 V AC | -- | -- | -- | P7 ²⁾ | -- | -- |
| 380 V ... 460 V AC | -- | -- | -- | Q7 | -- | -- |
| 500 V ... 600 V AC | -- | -- | -- | S7 | -- | -- |

| For contactor type | 3TC4 | 3TB5, 3TC5 | 3TF68/69 |
|------------------------------------|--------------------------------|--|--------------------------------|
| Solenoid coil type | 3TY6 443-0B.. 3TY6 483-0B.. | 3TY6 503-0B.. 3TY6 523-0B.. 3TY6 543-0B.. 3TY6 563-0B.. | 3TY7 683-0D.. 3TY7 693-0D.. |
| Rated control supply voltage U_s | | | |

DC operation

| | | | |
|----------|----|----|----|
| 24 V DC | B4 | B4 | B4 |
| 48 V DC | W4 | -- | -- |
| 60 V DC | E4 | -- | -- |
| 110 V DC | F4 | F4 | F4 |
| 125 V DC | G4 | -- | G4 |
| 220 V DC | M4 | M4 | M4 |
| 230 V DC | P4 | -- | P4 |

- 1) Operating range at 220 V or 380 V:
0.85 to 1.15 x U_s ;
lower operating range limit according to IEC 60947.
- 2) Lower operating range limit at 220 V:
0.85 x U_s according to IEC 60947.
- 3) Rated control supply voltages U_s :
- | | | |
|------------|----------------|-----------------------|
| | 50 Hz | 60 Hz |
| B0: | 24 V | -- |
| F0: | 110 V | 120 V |
| P0: | 220 V to 230 V | 240 V (only 3TK1 974) |
| U0: | 230 V to 240 V | -- |

Accessories and Spare Parts

Notes

