

Controls – Contactors and Contactor Assemblies

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Controls – Contactors and Contactor Assemblies

Introduction

Overview

3



Size	S00	S0	S2
Type	3RT10 1	3RT10 2	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. 3/12, 3/20)			(p. 3/14, 3/22)			(p. 3/16, 3/24)			
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
1000 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. 3/110)	3RH19 21	(p. 3/110)	
	--		3RH19 21	(p. 3/114)	
Terminal covers	--		--		3RT19 36-4EA2 (p. 3/124)
Box terminal blocks	--		--		--
Surge suppressors	3RT19 16	(p. 3/119)	3RT19 26	(p. 3/119)	3RT19 26/36 (p. 3/119)

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

3RV10 motor starter protectors (protection equipment: circuit-breakers)

Type	3RV10 11	0.18 ... 12 A (Chap. 5)	3RV10 21	9 ... 25 A (Chapter 5)	3RV10 31	22 ... 50 A (Chapter 5)
Link modules	3RA19 11	(Chap. 5)	3RA19 21	(Chapter 5)	3RA19 31	(Chapter 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. 3/39)			(p. 3/40)			(p. 3/41)		
400 V	kW	3	4	5.5	5.5	7.5	11	15	18.5	22
Installation kits/wiring connectors		3RA19 13-2A	(p. 3/44)	3RA19 23-2A	(p. 3/44)	3RA19 33-2A	(p. 3/44)			
Mechanical interlocks		3RA19 12-2H	(p. 3/45)	3RA19 24-1A/2B	(p. 3/43)					

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. 3/48)		(p. 3/49)		(p. 3/50)	(p. 3/51)	
400 V	kW	5.5	7.5	11	15/18.5	22/30	37	45
Installation kits/wiring connectors		3RA19 13-2B	(p. 3/53)	3RA19 23-2B	(p. 3/53)	3RA19 33-2B/2C	(p. 3/53)	

Controls – Contactors and Contactor Assemblies



S3
3RT1. 4

S6
3RT1. 5

S10
3RT1. 6

S12
3RT1. 7

14
3TF6

	3RT10 44 (p. 3/18, 3/24)	3RT10 45	3RT10 46	3RT10 54 (p. 3/26)	3RT10 55	3RT10 56	3RT10 64 (p. 3/26)	3RT10 65	3RT10 66	3RT10 75 (p. 3/26)	3RT10 76	--		
	--			--			3RT12 64 (p. 3/30)	3RT12 65	3RT12 66	3RT12 75 (p. 3/30)	3RT12 76	3TF68 (p. 3/32)	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. 3/56)	3RT14 56	(p. 3/57)	3RT14 66	(p. 3/57)	3RT14 76	(p. 3/57)	--	--	--	--	--	
	140		275		400		690		--	--	--	--	--	
	3RT19 46-4EA1/2	(p. 3/124)	3RT19 56-4EA1/2/3	(p. 3/124)	3RT19 66-4EA1/2/3	(p. 3/124)	3TX7 686/696	(p. 3/135)	--	--	--	--	--	
	--		3RT19 55/56-4G	(p. 3/124)	3RT19 66-4G	(p. 3/124)	--							
			3RT19 56-1C	(RC element) (p. 3/120)			3TX7 572	(p. 3/134)						
	3RU11 46	18 ... 100 A (Chapter 5)	--		--		--		--			--		
	3RB20 46	12.5 ... 100 A (Chap. 5)	3RB20 56	50 ... 200 A (Chapter 5)	3RB20 66	55 ... 630 A (Chapter 5)	3RB20 66	160 ... 630 A (Chapter 5)	3RB20 66	160 ... 630 A (Chapter 5)	3RB20 66	160 ... 630 A (Chapter 5)	3RB20 66	160 ... 630 A (Chapter 5)
	3RB21 46		3RB21 56		3RB21 66		3RB21 66		3RB21 66		3RB21 66		3RB21 66	
			3RB2. 83 + 3RB29 56	20 ... 200 A (Chapter 5)	3RB2. 83 + 3RB29 66	63 ... 630 A (Chapter 5)								
	3RV10 41	45 ... 100 A (Chapter 5)	--		--		--		--			--		
	3RA19 41	(Chapter 5)	--		--		--		--			--		
	3RA13 44	3RA13 45	3RA13 46	--	--	--	--	--	--	--	--	3TD68 04	(p. 3/54)	
	(p. 3/42)											335		
	30	37	45	55	75	90	110	132	160	200	250	3TX7 680-1A		
	3RA19 43-2A	(p. 3/44)	3RA19 53-2A	(p. 3/44)	3RA19 63-2A	(p. 3/44)	3RA19 73-2A	(p. 3/44)	3TX7 686-1A					
			3RA19 54-2A	(p. 3/43)										
	3RA14 44	3RA14 45	--	--	--	--	--	--	--	--	--	3TE68 04	(p. 3/55)	
	(p. 3/52)											630		
	55	75	--	--	--	--	--	--	--	--	--	3TX7 680-1B		
	3RA19 43-2B/-2C	(p. 3/53)	3RA19 53-2B	(p. 3/53)	3RA19 63-2B	(p. 3/53)	3RA19 73-2B	(p. 3/53)						

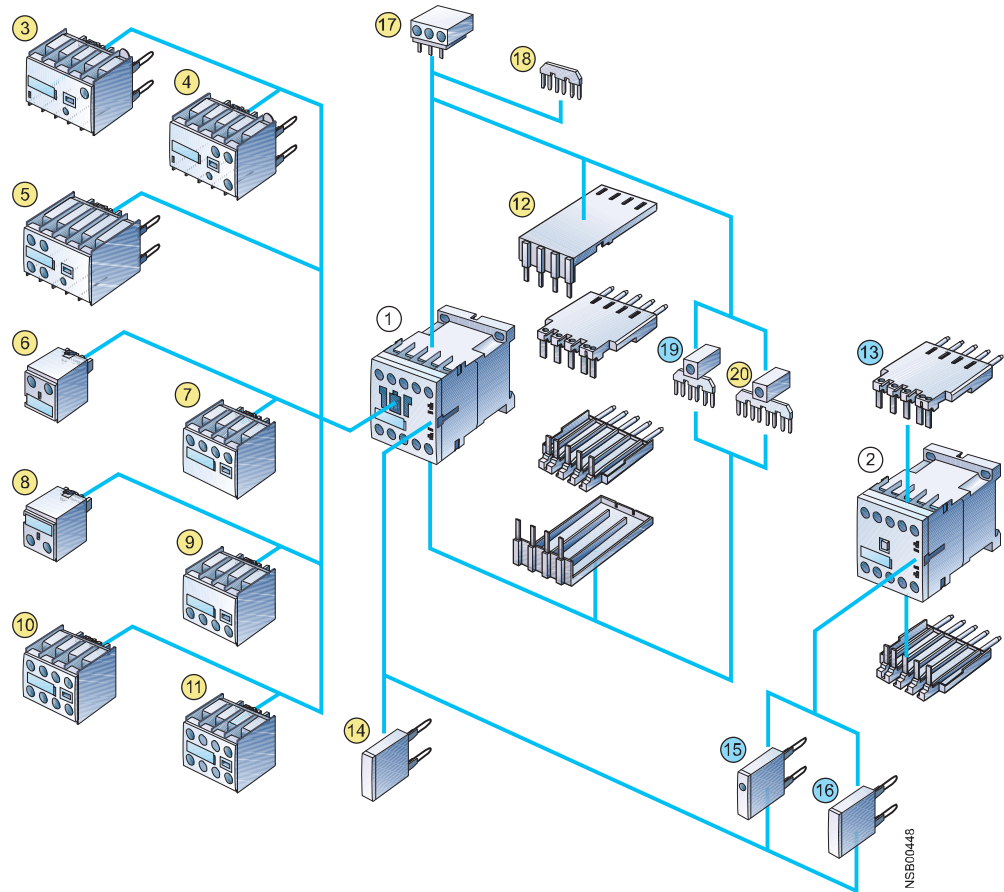
3RT, 3TB, 3TF Contactors for Switching Motors

General data

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.



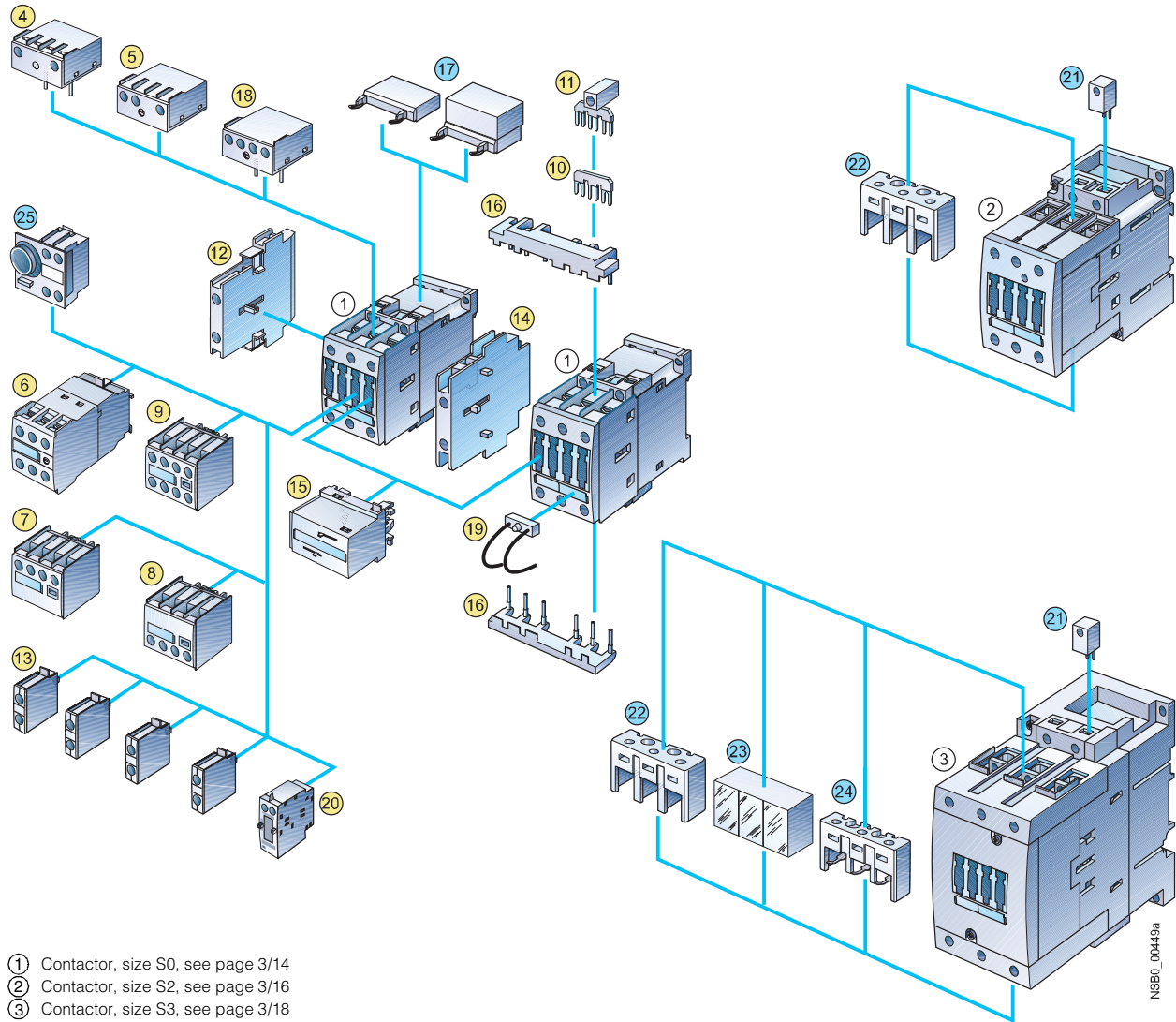
- ① Contactor (page 3/12)
 - ② Coupling relay (page 3/90)
 - ③ Solid-state time-delay block, ON-delay (page 3/118)
 - ④ Solid-state time-delay block, OFF-delay (page 3/118)
 - ⑤ Auxiliary switch block, solid-state time-delay (page 3/117) (ON or OFF-delay or wye-delta function)
 - ⑥ Single-pole auxiliary switch block, cable entry from above (page 3/110)
 - ⑦ 2-pole auxiliary switch block, cable entry from above (page 3/110)
 - ⑧ Single-pole auxiliary switch block, cable entry from below (page 3/110)
 - ⑨ 2-pole auxiliary switch block, cable entry from below (page 3/110)
 - ⑩ 4-pole auxiliary switch block (page 3/110) (terminal designations according to EN 50012 or EN 50005)
 - ⑪ 2-pole auxiliary switch block, standard design or solid-state compatible design (pages 3/110, 3/117) (terminal designations according to EN 50005)
 - ⑫ Solder pin adapter for contactors with 4-pole auxiliary switch block (page 3/123)
 - ⑬ Solder pin adapter for contactors and coupling relays (page 3/122)
 - ⑭ Additional load module for increasing the permissible residual current (page 3/121)
 - ⑮ Surge suppressor with LED (page 3/120)
 - ⑯ Surge suppressor without LED (page 3/120)
 - ⑰ 3-phase feeder terminal (page 3/53)
 - ⑱ Link for paralleling (star jumper), 3-pole, without terminal (page 3/53)
 - ⑲ Link for paralleling, 3-pole, with terminal (page 3/123)
 - ⑳ Link for paralleling, 4-pole, with terminal (page 3/123)
- For contactors
● For contactors and coupling relays (interface)

For contactor assemblies see pages 3/38 to 3/45
 Assembly kit for reversing contactor assemblies (mech. interlocking, wiring modules) see page 3/44
 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



- ① Contactor, size S0, see page 3/14
- ② Contactor, size S2, see page 3/16
- ③ Contactor, size S3, see page 3/18

For sizes S0 to S3:

- ④ Solid-state time-delay block, ON-delay (page 3/118)
- ⑤ Solid-state time-delay block, OFF-delay (page 3/118)
- ⑥ Auxiliary switch block, solid-state time-delay (page 3/117)
(ON or OFF-delay or wye-delta function)
- ⑦ 2-pole auxiliary switch block, cable entry from above (page 3/112)
- ⑧ 2-pole auxiliary switch block, cable entry from below (page 3/112)
- ⑨ 4-pole auxiliary switch block (page 3/112)
(terminal designations according to EN 50012 or EN 50005)
- ⑩ Link for paralleling (star jumper), 3-pole, without terminal (page 3/53)
- ⑪ Link for paralleling, 3-pole, with terminal (page 3/123)
- ⑫ 2-pole auxiliary switch block, laterally mountable (left or right)
(page 3/114) (terminal designations according to EN 50012 or EN 50005)
- ⑬ Single-pole auxiliary switch block (up to 4 can be snapped on)
(page 3/112)
- ⑭ Mechanical interlock, laterally mountable (page 3/43)
- ⑮ Mechanical interlock, mountable on the front (page 3/43)
- ⑯ Wiring connectors on the top and bottom (reversing duty) (page 3/45)
- ⑰ Surge suppressors (page 3/119) (varistor, RC element, diode assembly),
can be mounted on the top or bottom (different for S0 and S2/S3)

- ⑱ Interface for mounting directly onto contactor coil (page 3/122)
- ⑲ LED module for indicating contactor operation (page 3/122)

Only for size S0:

- ⑳ Pneumatic delay block (page 3/118)

Only for sizes S0 and S2:

- ㉑ Mechanical latching

Only for sizes S2 and S3:

- ㉒ Repeat coil terminal for making contactor assemblies (page 3/43)
- ㉓ Terminal cover for box terminals (page 3/124)

Only for size S3:

- ㉔ Terminal cover for cable lug and bar connection (page 3/124)
- ㉕ Auxiliary conductor terminal, 3-pole (page 3/122)

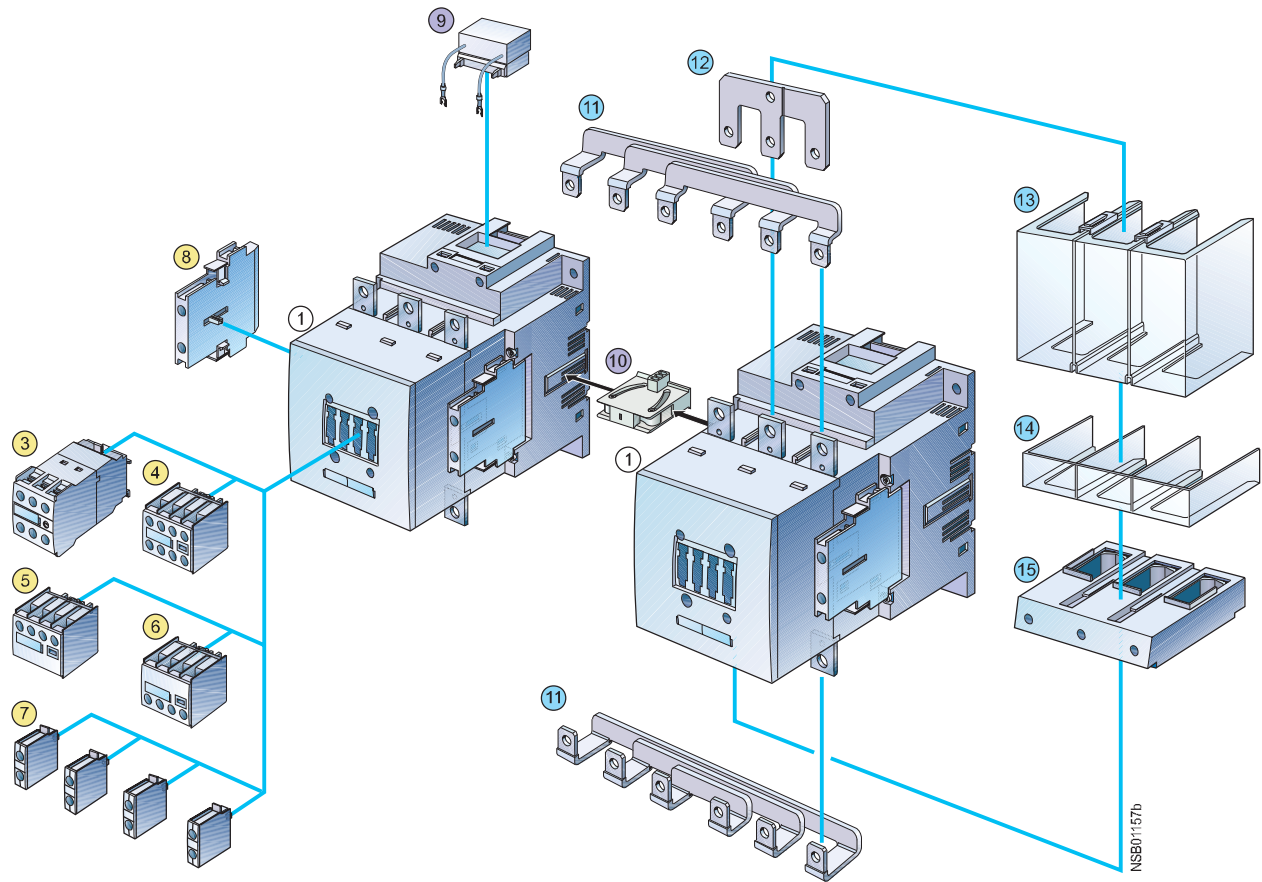
- Accessories identical for sizes S0 to S3
- Accessories differ according to size

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

General data

3RT1 contactors
Sizes S6 to S12 with accessories



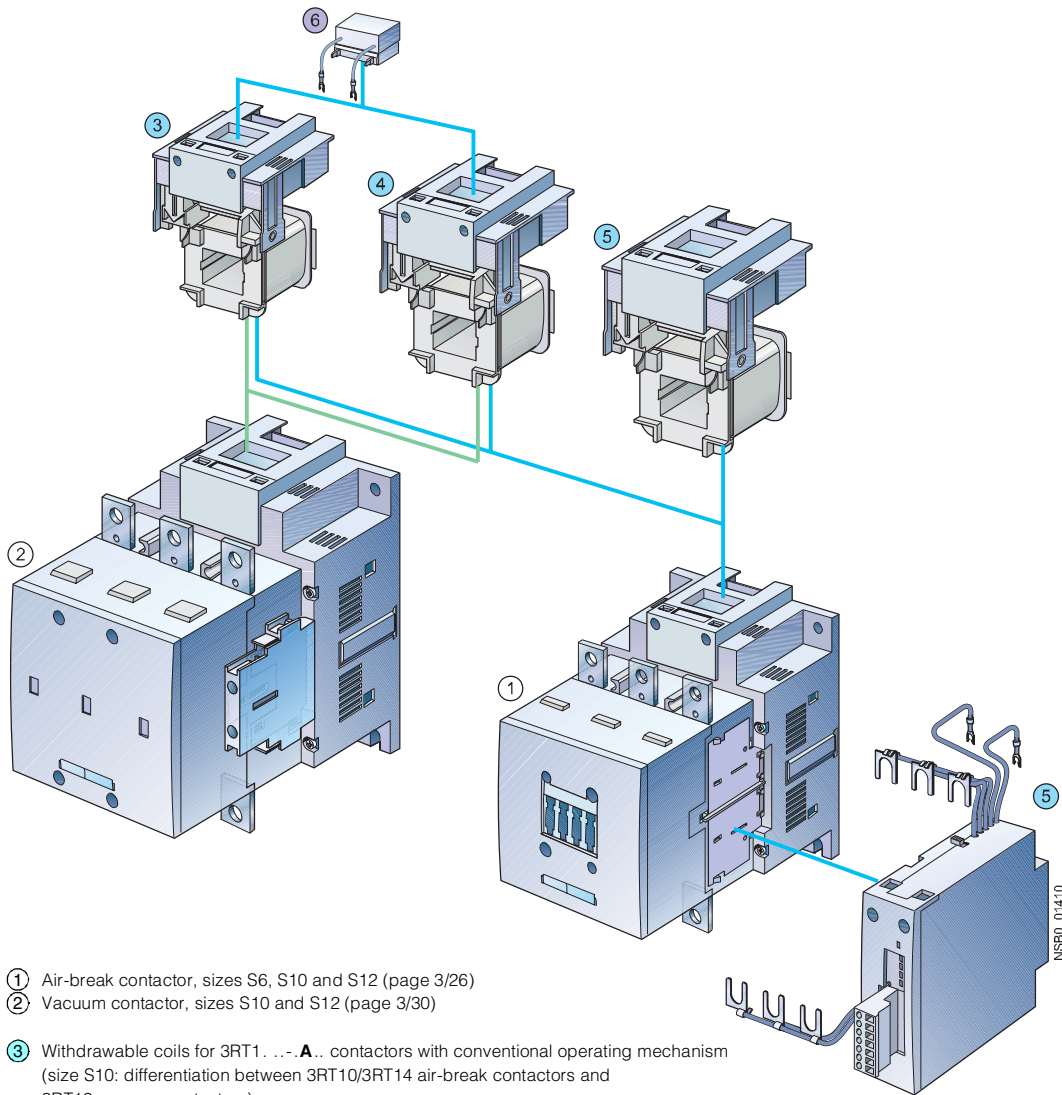
① 3RT10 and 3RT14 air-break contactors, sizes S6, S10 and S12 (page 3/26 and 3/57)

- ③ Auxiliary switch block, solid-state time-delay (page 3/117) (ON or OFF-delay or wye-delta function)
- ④ 4-pole auxiliary switch block (page 3/110) (terminal designations according to EN 50012 or EN 50005)
- ⑤ 2-pole auxiliary switch block, cable entry from above (page 3/112)
- ⑥ 2-pole auxiliary switch block, cable entry from below (page 3/112)
- ⑦ 1-pole auxiliary switch block (up to 4 can be snapped on) (page 3/112)
- ⑧ 2-pole auxiliary switch block, laterally mountable (left or right) (page 3/112) (terminal designations according to EN 50012 or EN 50005) (identical for S0 to S12)
- ⑨ Surge suppressor (RC element) (page 3/120), for plugging into top of withdrawable coil
- ⑩ Mechanical interlock, laterally mountable (page 3/43)

- ⑪ Wiring connectors on the top and bottom (reversing duty) (page 3/45)
- ⑫ Link for paralleling (star jumper), 3-pole, with through hole (page 3/123), different for sizes S6 and S10/S12
- ⑬ Terminal cover for cable lug and bar connection (page 3/124), different for sizes S6 and S10/S12
- ⑭ Terminal cover for box terminal (page 3/124), different for sizes S6 and S10/S12
- ⑮ Box terminal block (page 3/124), 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 -> SIRIUS Overload Relays.

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



- ① Air-break contactor, sizes S6, S10 and S12 (page 3/26)
- ② Vacuum contactor, sizes S10 and S12 (page 3/30)
- ③ Withdrawable coils 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 coils 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 coils 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 3/119), plug-mountable on withdrawable coils
 - 3RT1...-A.. with conventional operating mechanism.
 - 3RT1...-N.. with solid-state operating mechanism.

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

For mountable overload relays see Protection Equipment: Overload Relays

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

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

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.

The 3RT1 contactors are available with screw terminals or with Cage Clamp terminals.

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

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 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 identification plate.

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 currents ≤ 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 electronic 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 more information about short circuit protection of the contactors with overload relay, see "Overload Relays". When installing fuseless motor feeders, the combinations of circuit-breakers and contactors described under "Fuseless Load Feeders" must be used.

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.

Overvoltage damping

3RT1 contactors can be retrofitted with RC elements, varistors, diodes or diode assemblies (assembly of diode and Zener diode for short tripping times) for suppressing 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 connections. 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 circuit-breaker) 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; the plug-in direction is indicated here with "+" and "-".

Coupling relays are supplied either without overvoltage damping 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)

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 magnetic 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 auxiliary contacts (identical auxiliary switch blocks from S0 to S12). Of these, no more than 4 are permitted to be NC contacts.

3RT10 and 3RT14 contactors:

Auxiliary contacts mounted laterally and on front

3RT12 vacuum contactors:

Auxiliary contacts mounted laterally

Contactors with conventional operating mechanism

Version 3RT1...-A:

The magnetic 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 :

A single coil covers several control supply voltages of similar ranges which are used worldwide, e.g. UC 110-115-120-127 V or UC 220-230-240 V.

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 magnetic coil is supplied selectively with the power required for reliable switching and holding by series-connected 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 UC 200 to 277 V ($U_{s \text{ min}}$ to $U_{s \text{ max}}$) covers the voltages 200-208-220-230-240-254-277 V used worldwide.
- **Extended operating range 0.7 to $1.25 \times U_s$:**
The wide range for the rated control supply voltage and the additionally allowed coil operating range of $0.8 \times U_{s \text{ min}}$ to $1.1 \times U_{s \text{ max}}$ 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 $\geq 0.8 \times U_{s \text{ min}}$ and higher the electronics will reliably switch the contactor ON, and as of $\leq 0.5 \times U_{s \text{ min}}$ it is reliably switched off. The differential travel 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 installations.

- 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:

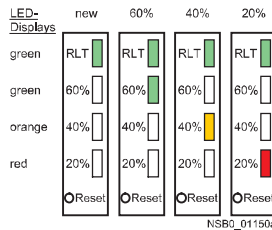
When used with converters, the control cables must be routed separately from the load cables of the converter.

Indication of remaining lifetime (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, duty type, etc. Routine checks/visual inspections by the service personnel are needed in order to monitor the state of the main contacts. The "remaining lifetime indication" function 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

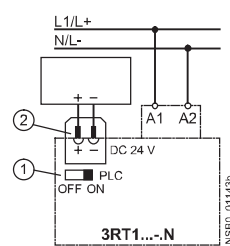
3RT1. ...-N version: for 24 V DC PLC output

2 control options:

- Control without an interface 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-operated connector is part of the scope of supply. The control supply voltage which supplies the solenoid operating mechanism must be connected to A1/A2.

Note:

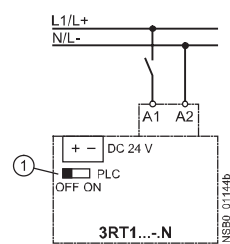
Set the slide switch for PLC operation to "PLC ON" before commissioning (factory setting: "PLC OFF").



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

Note:

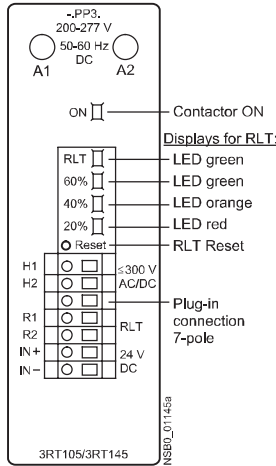
Slide switch must be in "PLC OFF" position (= factory setting).



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 indication of remaining lifetime (RLT)

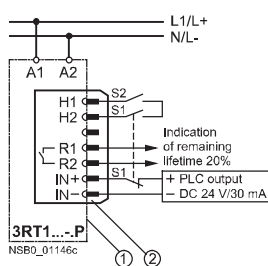


To supply the solenoid and the remaining lifetime indicator with power, the control supply voltage U_s must be connected to terminals A1/A2 of the laterally mounted solid-state module. The control inputs of the contactor are connected to a 7-pole plug-in connection; the screwless spring-operated connector 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 indicators
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 an interface directly through a 24 V DC ≥ 30 mA PLC output (EN 61131-2) by way of terminals IN+/IN-.

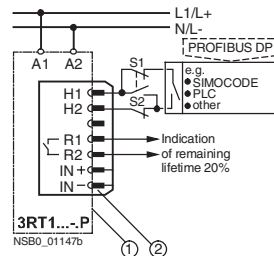


- Solid-state module of 3RT1...-P contactor
 - Plug-in connection, 7-pole
- S1 Selector switch for switching from automatic control through PLC semiconductor output to local control
- S2 Local control option

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 startup or in the event of a fault and the contactor can be controlled manually.

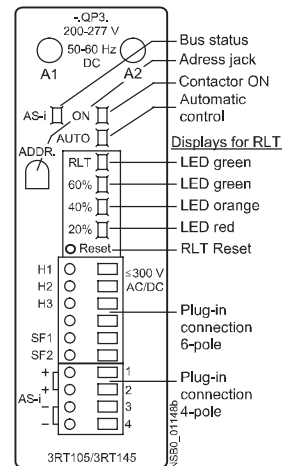
- Contactor control through relay outputs, e.g. by
 - PLC
 - SIMOCODE

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.



- Solid-state module of 3RT1...-P contactor
 - Plug-in connection, 7-pole
- S1 Selector switch for switching from automatic control, e.g. by means of SIMOCODE-DP or PLC relay output, to local control
- S2 Local control option

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-operated connectors (6-pole for external connection and 4-pole for AS-Interface connection) are part of the scope of supply.

- LED indicators:
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 (RLT)
- AS-Interface addressing socket "ADDR":
The contactor address can be assigned after installation.

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

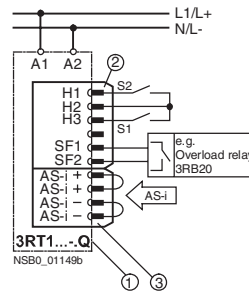
3RT10 contactors, 3-pole, 3 ... 250 kW

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 connector 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 (RLT)
 - Signal through free input, e.g. overload relay tripped.



- ① Solid-state module of 3RT1 ...-Q contactor
- ② Plug-in connection, 6-pole
- ③ Plug-in connection, 4-pole
- S1 Selector switch for switching from automatic control, e.g. by means of AS-Interface, to local control
S1 open: Automatic mode
- S2 Local control option

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 startup 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 (according to AS-Interface specification)
AS-Interface current input	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 behavior

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

LED	States	Description of state
AS-Interface	On (Green)	Station address 0
	On (Red)	No AS-Interface communication
	Flashing (Yellow)	AS-Interface communication OK
	Flashing (Red)	

Contactor diagnostics using the application program

Inputs

Input signals	Device status
DI0 "Ready"	0 Device not ready/manual operation 1 Device ready/automatic operation
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
Screw terminals



3RT10 1.-1A...

3RT10 1.-1AP04-3MA0

Rated data		AC-1, T_U : 40 °C	Auxiliary contacts		Rated control supply voltage U_s at 50/60 Hz	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Operational current I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Operational current I_e up to 690 V A	Ident. No.	Version NO NC	V AC		Order No.	Price per PU				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	1	1 unit	101	0.205
						110	▶	3RT10 15-1AF01	1	1 unit	101	0.203
						230	▶	3RT10 15-1AP01	1	1 unit	101	0.203
	01	--	1	24	▶	110	▶	3RT10 15-1AB02	1	1 unit	101	0.205
						230	▶	3RT10 15-1AF02	1	1 unit	101	0.203
							▶	3RT10 15-1AP02	1	1 unit	101	0.204
9	4	22	10 E	1	--	24	▶	3RT10 16-1AB01	1	1 unit	101	0.204
						110	▶	3RT10 16-1AF01	1	1 unit	101	0.205
						230	▶	3RT10 16-1AP01	1	1 unit	101	0.200
	01	--	1	24	▶	110	▶	3RT10 16-1AB02	1	1 unit	101	0.206
						230	▶	3RT10 16-1AF02	1	1 unit	101	0.203
							▶	3RT10 16-1AP02	1	1 unit	101	0.205
12	5.5	22	10 E	1	--	24	▶	3RT10 17-1AB01	1	1 unit	101	0.204
						110	▶	3RT10 17-1AF01	1	1 unit	101	0.203
						230	▶	3RT10 17-1AP01	1	1 unit	101	0.204
	01	--	1	24	▶	110	▶	3RT10 17-1AB02	1	1 unit	101	0.204
						230	▶	3RT10 17-1AF02	1	1 unit	101	0.203
							▶	3RT10 17-1AP02	1	1 unit	101	0.204

Size S00¹⁾

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

7	3	18	22 E	2	2	230	▶	3RT10 15-1AP04-3MA0	1	1 unit	101	0.245
9	4	22	22 E	2	2	230	▶	3RT10 16-1AP04-3MA0	1	1 unit	101	0.245
12	5.5	22	22 E	2	2	230	▶	3RT10 17-1AP04-3MA0	1	1 unit	101	0.245

For other voltages, see page 3/29.

For accessories, see page 3/110.

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 Cage Clamp terminals



3RT10 1.-2A...



3RT10 1.-2AP04-3MA0

Rated data AC-2 and AC-3, T_{cu} : up to 60 °C		AC-1, T_{cu} : 40 °C	Auxiliary contacts		Rated control supply voltage U_s at 50/60 Hz	DT	Cage Clamp terminal	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Operational cur- rent I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Operational cur- rent I_e up to 690 V A	Ident. No.	Version NO NC	V AC		Order No.	Price per PU			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 15-2AB01	1	1 unit	101	0.203
						110	▶	3RT10 15-2AF01	1	1 unit	101	0.200
						230	▶	3RT10 15-2AP01	1	1 unit	101	0.201
			01	--	1	24	▶	3RT10 15-2AB02	1	1 unit	101	0.201
						110	▶	3RT10 15-2AF02	1	1 unit	101	0.201
						230	▶	3RT10 15-2AP02	1	1 unit	101	0.201
9	4	22	10 E	1	--	24	▶	3RT10 16-2AB01	1	1 unit	101	0.203
						110	▶	3RT10 16-2AF01	1	1 unit	101	0.201
						230	▶	3RT10 16-2AP01	1	1 unit	101	0.201
			01	--	1	24	▶	3RT10 16-2AB02	1	1 unit	101	0.201
						110	▶	3RT10 16-2AF02	1	1 unit	101	0.200
						230	▶	3RT10 16-2AP02	1	1 unit	101	0.201
12	5.5	22	10 E	1	--	24	▶	3RT10 17-2AB01	1	1 unit	101	0.201
						110	▶	3RT10 17-2AF01	1	1 unit	101	0.199
						230	▶	3RT10 17-2AP01	1	1 unit	101	0.199
			01	--	1	24	▶	3RT10 17-2AB02	1	1 unit	101	0.202
						110	▶	3RT10 17-2AF02	1	1 unit	101	0.200
						230	▶	3RT10 17-2AP02	1	1 unit	101	0.201

Size S00¹⁾

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

7	3	18	22 E	2	2	230	B	3RT10 15-2AP04-3MA0	1	1 unit	101	0.248
9	4	22	22 E	2	2	230	B	3RT10 16-2AP04-3MA0	1	1 unit	101	0.240
12	5.5	22	22 E	2	2	230	B	3RT10 17-2AP04-3MA0	1	1 unit	101	0.247

For other voltages, see page 3/29.

For accessories, see page 3/110.

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 Screw terminals



3RT10 2.-1A.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	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	Ident. No.	Version			Order No.	Price per PU			kg
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								
A	kW	A	NO NC	V AC						

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

Size S0

9	4	40 ¹⁾	--	--	--	24	▶	3RT10 23-1AB00	1	1 unit	101	0.339
						110	▶	3RT10 23-1AF00	1	1 unit	101	0.338
						230	▶	3RT10 23-1AP00	1	1 unit	101	0.337
12	5.5	40 ¹⁾	--	--	--	24	▶	3RT10 24-1AB00	1	1 unit	101	0.338
						110	▶	3RT10 24-1AF00	1	1 unit	101	0.337
						230	▶	3RT10 24-1AP00	1	1 unit	101	0.339
17	7.5	40 ¹⁾	--	--	--	24	▶	3RT10 25-1AB00	1	1 unit	101	0.341
						110	▶	3RT10 25-1AF00	1	1 unit	101	0.336
						230	▶	3RT10 25-1AP00	1	1 unit	101	0.339
25	11	40 ¹⁾	--	--	--	24	▶	3RT10 26-1AB00	1	1 unit	101	0.340
						110	▶	3RT10 26-1AF00	1	1 unit	101	0.336
						230	▶	3RT10 26-1AP00	1	1 unit	101	0.339

Size S0

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

9	4	40 ¹⁾	22 E	2	2	24	▶	3RT10 23-1AB04	1	1 unit	101	0.407
						110	▶	3RT10 23-1AF04	1	1 unit	101	0.406
						230	▶	3RT10 23-1AP04	1	1 unit	101	0.409
12	5.5	40 ¹⁾	22 E	2	2	24	▶	3RT10 24-1AB04	1	1 unit	101	0.409
						110	▶	3RT10 24-1AF04	1	1 unit	101	0.405
						230	▶	3RT10 24-1AP04	1	1 unit	101	0.408
17	7.5	40 ¹⁾	22 E	2	2	24	▶	3RT10 25-1AB04	1	1 unit	101	0.411
						110	▶	3RT10 25-1AF04	1	1 unit	101	0.410
						230	▶	3RT10 25-1AP04	1	1 unit	101	0.407
25	11	40 ¹⁾	22 E	2	2	24	▶	3RT10 26-1AB04	1	1 unit	101	0.410
						110	▶	3RT10 26-1AF04	1	1 unit	101	0.406
						230	▶	3RT10 26-1AP04	1	1 unit	101	0.408

Size S0

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

12	5.5	40 ¹⁾	22 E	2	2	230	B	3RT10 24-1AL24-3MA0	1	1 unit	101	0.415
17	7.5	40 ¹⁾	22 E	2	2	230	A	3RT10 25-1AL24-3MA0	1	1 unit	101	0.415
25	11	40 ¹⁾	22 E	2	2	230	A	3RT10 26-1AL24-3MA0	1	1 unit	101	0.415

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/126.

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

1) Minimum conductor cross-section 10 mm².

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

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

AC operation Cage Clamp terminals



3RT10 2.-3A.00

Rated data		AC-1, T_U : 40 °C	Auxiliary contacts		Rated control supply voltage U_s at 50 Hz	DT	Cage Clamp terminals for coil connections	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Operational cur- rent I_e up to 400 V	Rating of induction motors at 50 Hz and 400 V	Operational cur- rent I_e up to 690 V	Ident. No.	Version	V AC		Order No.	Price per PU			kg	
For screw and snap-on mounting onto 35 mm standard mounting rail												
<i>Size S0</i>												
9	4	40 ¹⁾	--	--	--	24 110 230	B B ▶ 3RT10 23-3AB00 3RT10 23-3AF00 3RT10 23-3AP00		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.335 0.335 0.334
12	5.5	40 ¹⁾	--	--	--	24 110 230	B B ▶ 3RT10 24-3AB00 3RT10 24-3AF00 3RT10 24-3AP00		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.335 0.333 0.335
17	7.5	40 ¹⁾	--	--	--	24 110 230	B B ▶ 3RT10 25-3AB00 3RT10 25-3AF00 3RT10 25-3AP00		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.335 0.335 0.336
25	11	40 ¹⁾	--	--	--	24 110 230	B B ▶ 3RT10 26-3AB00 3RT10 26-3AF00 3RT10 26-3AP00		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.337 0.338 0.337

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/126.

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

1) Minimum conductor cross-section 10 mm².

* You can order this quantity or a multiple thereof.

Siemens LV 1 - 2006

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

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

AC operation Screw terminals



3RT10 3.-1A.00



3RT10 3.-1A.04

Rated data		AC-1, T_U : 40 °C	Auxiliary contacts		Rated control supply voltage U_s at 50 Hz	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Operational current I_e up to 500 V	Rating of induction motors at 50 Hz and 400 V	Operational current I_e up to 690 V	Ident. No.	Version	V AC		Order No.	Price per PU			kg
A	kW	A	NO	NC							

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

Size S2

32	15	50	--	--	--	24	▶	3RT10 34-1AB00	1	1 unit	101	0.810
						110	▶	3RT10 34-1AF00	1	1 unit	101	0.815
						230	▶	3RT10 34-1AP00	1	1 unit	101	0.813
40	18.5	60	--	--	--	24	▶	3RT10 35-1AB00	1	1 unit	101	0.838
						110	▶	3RT10 35-1AF00	1	1 unit	101	0.835
						230	▶	3RT10 35-1AP00	1	1 unit	101	0.839
50	22	60	--	--	--	24	▶	3RT10 36-1AB00	1	1 unit	101	0.841
						110	▶	3RT10 36-1AF00	1	1 unit	101	0.836
						230	▶	3RT10 36-1AP00	1	1 unit	101	0.838

Size S2

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

32	15	50	22 E	2	2	24	▶	3RT10 34-1AB04	1	1 unit	101	0.908
						110	▶	3RT10 34-1AF04	1	1 unit	101	0.912
						230	▶	3RT10 34-1AP04	1	1 unit	101	0.908
40	18.5	60	22 E	2	2	24	▶	3RT10 35-1AB04	1	1 unit	101	0.931
						110	▶	3RT10 35-1AF04	1	1 unit	101	0.931
						230	▶	3RT10 35-1AP04	1	1 unit	101	0.930
50	22	60	22 E	2	2	24	▶	3RT10 36-1AB04	1	1 unit	101	0.929
						110	▶	3RT10 36-1AF04	1	1 unit	101	0.940
						230	▶	3RT10 36-1AP04	1	1 unit	101	0.929

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/126.

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

AC operation
Cage Clamp terminals



3RT10 3.-3A.00

Rated data		Auxiliary contacts		Rated control supply voltage U_s at 50 Hz	DT	Cage Clamp terminals for coil connections	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	Ident.	Version			Order No.	Price per PU			kg
Operational current I_e up to	Rating of induction motors at 50 Hz and 400 V	Operational current I_e up to								
A	kW	A		V AC						

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

Size S2

32	15	50	--	--	--	24	B	3RT10 34-3AB00	1	1 unit	101	0.808
			--	--	--	110	B	3RT10 34-3AF00	1	1 unit	101	0.815
			--	--	--	230	▶	3RT10 34-3AP00	1	1 unit	101	0.811
40	18.5	60	--	--	--	24	B	3RT10 35-3AB00	1	1 unit	101	0.836
			--	--	--	110	B	3RT10 35-3AF00	1	1 unit	101	0.837
			--	--	--	230	▶	3RT10 35-3AP00	1	1 unit	101	0.834
50	22	60	--	--	--	24	B	3RT10 36-3AB00	1	1 unit	101	0.839
			--	--	--	110	B	3RT10 36-3AF00	1	1 unit	101	0.831
			--	--	--	230	▶	3RT10 36-3AP00	1	1 unit	101	0.837

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/127.

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

* You can order this quantity or a multiple thereof.

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

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

AC operation Screw terminals



3RT10 4.-1A.00

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, T_U : up to 60 °C	AC-1, T_U : 40 °C	Ident. No.	Version			Order No.	Price per PU				kg
Operational current I_e up to	Rating of induction motors at 50 Hz and 400 V	Operational current I_e up to									
A	kW	A	NO	NC	V AC						

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

Size S3

65	30	100	--	--	--	24 110 230	▶ ▶ ▶	3RT10 44-1AB00 3RT10 44-1AF00 3RT10 44-1AP00	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.701 1.709 1.704
80	37	120	--	--	--	24 110 230	▶ ▶ ▶	3RT10 45-1AB00 3RT10 45-1AF00 3RT10 45-1AP00	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.831 1.830 1.825
95	45	120	--	--	--	24 110 230	▶ ▶ ▶	3RT10 46-1AB00 3RT10 46-1AF00 3RT10 46-1AP00	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.838 1.829 1.838

Size S3

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

65	30	100	22 E	2	2	24 110 230	▶ ▶ ▶	3RT10 44-1AB04 3RT10 44-1AF04 3RT10 44-1AP04	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.809 1.805 1.807
80	37	120	22 E	2	2	24 110 230	B ▶ ▶	3RT10 45-1AB04 3RT10 45-1AF04 3RT10 45-1AP04	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.930 1.951 1.935
95	45	120	22 E	2	2	24 110 230	B ▶ ▶	3RT10 46-1AB04 3RT10 46-1AF04 3RT10 46-1AP04	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.942 1.960 1.944

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/128.

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

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

AC operation
Cage Clamp terminals



3RT10 4.-3A.00

Rated data		Auxiliary contacts		Rated control supply voltage U_s at 50 Hz		DT	Cage Clamp terminals for coil connections		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						Order No.	Price per PU				
Operational current I_e up to 500 V	Rating of induction motors at 50 Hz and 400 V kW	Operational current I_e up to 690 V	Ident. No.	Version								kg
A		A	NO	NC	V AC							
For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail												
Size S3												
65	30	100	--	--	--	24	B	3RT10 44-3AB00	1	1 unit	101	1.720
						110	B	3RT10 44-3AF00	1	1 unit	101	1.715
						230	▶	3RT10 44-3AP00	1	1 unit	101	1.695
80	37	120	--	--	--	24	B	3RT10 45-3AB00	1	1 unit	101	1.845
						110	B	3RT10 45-3AF00	1	1 unit	101	1.848
						230	▶	3RT10 45-3AP00	1	1 unit	101	1.815
95	45	120	--	--	--	24	B	3RT10 46-3AB00	1	1 unit	101	1.854
						110	B	3RT10 46-3AF00	1	1 unit	101	1.843
						230	▶	3RT10 46-3AP00	1	1 unit	101	1.840

For other voltages, see page 3/29.
For accessories, see page 3/112.
For spare parts, see page 3/129.

* You can order this quantity or a multiple thereof.

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

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

DC operation · DC solenoid system
Screw terminals



3RT10 1.-1B...

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, T_U : up to 60 °C	AC-1, T_U : 40 °C					Order No.	Price per PU				kg
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	Ident. No.	Version							
A	400 V kW	A	NO	NC	AC V						

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	1	1 unit	101	0.263
							220	A	3RT10 15-1BM41	1	1 unit	101
			01	--	1	24	▶	3RT10 15-1BB42	1	1 unit	101	0.262
							220	B	3RT10 15-1BM42	1	1 unit	101
9	4	22	10 E	1	--	24	▶	3RT10 16-1BB41	1	1 unit	101	0.264
							220	B	3RT10 16-1BM41	1	1 unit	101
			01	--	1	24	▶	3RT10 16-1BB42	1	1 unit	101	0.263
							220	B	3RT10 16-1BM42	1	1 unit	101
12	5.5	22	10 E	1	--	24	▶	3RT10 17-1BB41	1	1 unit	101	0.263
							220	B	3RT10 17-1BM41	1	1 unit	101
			01	--	1	24	▶	3RT10 17-1BB42	1	1 unit	101	0.262
							220	B	3RT10 17-1BM42	1	1 unit	101

Size S00

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

7	3	18	22 E	2	2	24	▶	3RT10 15-1BB44-3MA0	1	1 unit	101	0.308
9	4	22	22 E	2	2	24	▶	3RT10 16-1BB44-3MA0	1	1 unit	101	0.309
12	5.5	22	22 E	2	2	24	▶	3RT10 17-1BB44-3MA0	1	1 unit	101	0.304

For other voltages, see page 3/29.

For accessories, see page 3/110.

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
Cage Clamp terminals



3RT10 1.-2B...

3RT10 1.-2BB44-3MA0

Rated data		Auxiliary contacts		Rated control supply voltage U_s	DT	Cage Clamp 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	Ident. No.	Version			Order No.	Price per PU			
Operational current I_e up to	Rating of induction motors at 50 Hz and up to	Operational current I_e up to								
400 V	400 V	690 V								
A	kW	A	NO NC	V DC						kg

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 15-2BB41	1	1 unit	101	0.260
					220	B	3RT10 15-2BM41	1	1 unit	101	0.252	
9	4	22	01	--	1	24	▶	3RT10 15-2BB42	1	1 unit	101	0.261
					220	B	3RT10 15-2BM42	1	1 unit	101	0.256	
			10 E	1	--	24	▶	3RT10 16-2BB41	1	1 unit	101	0.259
12	5.5	22				220	B	3RT10 16-2BM41	1	1 unit	101	0.253
			01	--	1	24	▶	3RT10 16-2BB42	1	1 unit	101	0.261
						220	B	3RT10 16-2BM42	1	1 unit	101	0.253
12	5.5	22	10 E	1	--	24	▶	3RT10 17-2BB41	1	1 unit	101	0.261
						220	B	3RT10 17-2BM41	1	1 unit	101	0.254
			01	--	1	24	▶	3RT10 17-2BB42	1	1 unit	101	0.261
					220	B	3RT10 17-2BM42	1	1 unit	101	0.255	

Size S00

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

7	3	18	22 E	2	2	24	B	3RT10 15-2BB44-3MA0	1	1 unit	101	0.308
9	4	22	22 E	2	2	24	A	3RT10 16-2BB44-3MA0	1	1 unit	101	0.308
12	5.5	22	22 E	2	2	24	B	3RT10 17-2BB44-3MA0	1	1 unit	101	0.308

For other voltages, see page 3/29.

For accessories, see page 3/110.

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

* You can order this quantity or a multiple thereof.

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

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

DC operation · DC solenoid system
Screw terminals



3RT10 2.-1B0.40

3RT10 2.-1BB44-3MA0

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, T_U : up to 60 °C	AC-1, T_U : 40 °C	Ident. No.	Version			Order No.	Price per PU			kg
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								
A	kW	A	NO NC	V DC						

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

Size S0

9	4	40 ¹⁾	--	--	--	24 220	▶ B	3RT10 23-1BB40 3RT10 23-1BM40	1 1	1 unit 1 unit	101 101	0.570 0.576
12	5.5	40 ¹⁾	--	--	--	24 220	▶ A	3RT10 24-1BB40 3RT10 24-1BM40	1 1	1 unit 1 unit	101 101	0.566 0.579
17	7.5	40 ¹⁾	--	--	--	24 220	▶ A	3RT10 25-1BB40 3RT10 25-1BM40	1 1	1 unit 1 unit	101 101	0.570 0.575
25	11	40 ¹⁾	--	--	--	24 220	▶ A	3RT10 26-1BB40 3RT10 26-1BM40	1 1	1 unit 1 unit	101 101	0.569 0.580

Size S0

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

9	4	40 ¹⁾	22 E	2	2	24 220	▶ B	3RT10 23-1BB44 3RT10 23-1BM44	1 1	1 unit 1 unit	101 101	0.639 0.644
12	5.5	40 ¹⁾	22 E	2	2	24 220	▶ B	3RT10 24-1BB44 3RT10 24-1BM44	1 1	1 unit 1 unit	101 101	0.641 0.645
17	7.5	40 ¹⁾	22 E	2	2	24 220	▶ B	3RT10 25-1BB44 3RT10 25-1BM44	1 1	1 unit 1 unit	101 101	0.640 0.645
25	11	40 ¹⁾	22 E	2	2	24 220	▶ B	3RT10 26-1BB44 3RT10 26-1BM44	1 1	1 unit 1 unit	101 101	0.643 0.645

Size S0

With permanently mounted auxiliary switch block

Terminal designations according to EN 50012

12	5.5	40 ¹⁾	22 E	2	2	24	A	3RT10 24-1BB44-3MA0	1	1 unit	101	0.641
17	7.5	40 ¹⁾	22 E	2	2	24	A	3RT10 25-1BB44-3MA0	1	1 unit	101	0.640
25	11	40 ¹⁾	22 E	2	2	24	A	3RT10 26-1BB44-3MA0	1	1 unit	101	0.642

For other voltages, see page 3/29.

For accessories, see page 3/112.

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

1) Minimum conductor cross-section 10 mm².

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

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

DC operation · DC solenoid system
Cage Clamp terminals



3RT10 2.-3B.40

Rated data		Auxiliary contacts		Rated control supply voltage U_s	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC-2 and AC-3, T_{ij} : up to 60 °C	AC-1, T_{ij} : 40 °C	Ident. No.	Version			Order No.	Price per PU			kg
Operational current I_e up to 400 V	Rating of induction motors at 50 Hz and 400 V kW	Operational current I_e up to 690 V	NO NC	V DC						

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

Size S0

9	4	40 ¹⁾	--	--	--	24	▶	3RT10 23-3BB40	1	1 unit	101	0.566
			--	--	--	220	B	3RT10 23-3BM40	1	1 unit	101	0.572
12	5.5	40 ¹⁾	--	--	--	24	▶	3RT10 24-3BB40	1	1 unit	101	0.568
			--	--	--	220	B	3RT10 24-3BM40	1	1 unit	101	0.570
17	7.5	40 ¹⁾	--	--	--	24	▶	3RT10 25-3BB40	1	1 unit	101	0.570
			--	--	--	220	B	3RT10 25-3BM40	1	1 unit	101	0.572
25	11	40 ¹⁾	--	--	--	24	▶	3RT10 26-3BB40	1	1 unit	101	0.569
			--	--	--	220	B	3RT10 26-3BM40	1	1 unit	101	0.575

For other voltages, see page 3/29.

For accessories, see page 3/112.

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

1) Minimum conductor cross-section 10 mm².

* You can order this quantity or a multiple thereof.

Siemens LV 1 · 2006

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

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

DC operation · DC solenoid system
Screw terminals



3RT10 3.-1B.40

3RT10 4.-1B.40

3RT10 4.-1B.44

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, T_{ij} : up to 60 °C	AC-1, T_{ij} : 40 °C	Operational current I_e up to 50 Hz and 500 V	Ratings of induction motors at 50 Hz and 400 V	Operational current I_e up to 690 V	Ident. No.	Version	Order No.	Price per PU		kg
A	kW	A			NO	NC	V DC			

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

Size S2

32	15	50	--	--	--	24	▶	3RT10 34-1BB40	1	1 unit	101	1.433
						220	A	3RT10 34-1BM40	1	1 unit	101	1.446
40	18.5	60	--	--	--	24	▶	3RT10 35-1BB40	1	1 unit	101	1.443
						220	B	3RT10 35-1BM40	1	1 unit	101	1.439
50	22	60	--	--	--	24	▶	3RT10 36-1BB40	1	1 unit	101	1.435
						220	B	3RT10 36-1BM40	1	1 unit	101	1.444

Size S2

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

32	15	50	22 E	2	2	24	▶	3RT10 34-1BB44	1	1 unit	101	1.530
						220	A	3RT10 34-1BM44	1	1 unit	101	1.530
40	18.5	60	22 E	2	2	24	▶	3RT10 35-1BB44	1	1 unit	101	1.522
						220	B	3RT10 35-1BM44	1	1 unit	101	1.523
50	22	60	22 E	2	2	24	▶	3RT10 36-1BB44	1	1 unit	101	1.533
						220	B	3RT10 36-1BM44	1	1 unit	101	1.508

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

Size S3

65	30	100	--	--	--	24	▶	3RT10 44-1BB40	1	1 unit	101	2.808
						220	B	3RT10 44-1BM40	1	1 unit	101	2.793
80	37	120	--	--	--	24	▶	3RT10 45-1BB40	1	1 unit	101	2.828
						220	B	3RT10 45-1BM40	1	1 unit	101	2.781
95	45	120	--	--	--	24	▶	3RT10 46-1BB40	1	1 unit	101	2.817
						220	B	3RT10 46-1BM40	1	1 unit	101	2.767

Size S3

With mounted auxiliary switch block (removable)

Terminal designations according to EN 50012

65	30	100	22 E	2	2	24	▶	3RT10 44-1BB44	1	1 unit	101	2.921
						220	B	3RT10 44-1BM44	1	1 unit	101	2.880
80	37	120	22 E	2	2	24	▶	3RT10 45-1BB44	1	1 unit	101	2.919
						220	B	3RT10 45-1BM44	1	1 unit	101	2.870
95	45	120	22 E	2	2	24	▶	3RT10 46-1BB44	1	1 unit	101	2.913
						220	B	3RT10 46-1BM44	1	1 unit	101	2.887

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/128.

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
Cage Clamp terminals



3RT10 3-3B.40



3RT10 4-3B.40

Rated data		Auxiliary contacts		Rated control supply voltage U_c	DT	Cage Clamp terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
AC-2 and AC-3, T_{li} : up to 60 °C	AC-1, T_{li} : 40 °C	Operational current I_e up to 500 V	Rating of induction motors at 50 Hz and 400 V kW	Operational current I_e up to 690 V	Ident. No.	Version	Order No.	Price per PU				
A	A	A	kW	A	NO	NC						
For screw and snap-on mounting onto 35 mm standard mounting rail												
Size S2												
32	15	50	--	--	--	24	▶	3RT10 34-3BB40	1	1 unit	101	1.435
						220	B	3RT10 34-3BM40	1	1 unit	101	1.452
40	18.5	60	--	--	--	24	▶	3RT10 35-3BB40	1	1 unit	101	1.426
						220	B	3RT10 35-3BM40	1	1 unit	101	1.454
50	22	60	--	--	--	24	▶	3RT10 36-3BB40	1	1 unit	101	1.443
						220	A	3RT10 36-3BM40	1	1 unit	101	1.455
For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail												
Size S3												
65	30	100	--	--	--	24	▶	3RT10 44-3BB40	1	1 unit	101	2.807
						220	B	3RT10 44-3BM40	1	1 unit	101	2.749
80	37	120	--	--	--	24	▶	3RT10 45-3BB40	1	1 unit	101	2.807
						220	B	3RT10 45-3BM40	1	1 unit	101	2.770
95	45	120	--	--	--	24	▶	3RT10 46-3BB40	1	1 unit	101	2.821
						220	B	3RT10 46-3BM40	1	1 unit	101	2.760

For other voltages, see page 3/29.
For accessories, see page 3/112.
For spare parts, see page 3/129.
For multi-unit packing and reusable packaging, see Appendix -> Ordering Notes.

* You can order this quantity or a multiple thereof.

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: bar connections, for 3RT10 54 (55 kW) box terminals¹⁾



3RT1. 5.

3RT1. 6.

3RT1. 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_{ij} : up to 60 °C		AC-1, T_{ij} : 40 °C							Order No.	Price per PU				
	Operational current I_e up to	Ratings of induction motors at 50 Hz and			Operational current I_e up to										
	500 V	230 V	400 V	500 V	690 V	690 V									
	A	kW	kW	kW	kW	A	NO	NC	V AC/DC					kg	
Conventional operating mechanism															
S6	115	37	55	75	110	160	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 54-1AF36 3RT10 54-1AP36	1 1	1 unit 1 unit	101 101	3.641 3.619
	150	45	75	90	132	185	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 55-6AF36 3RT10 55-6AP36	1 1	1 unit 1 unit	101 101	3.344 3.331
	185	55	90	110	160	215	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 56-6AF36 3RT10 56-6AP36	1 1	1 unit 1 unit	101 101	3.369 3.350
S10	225	55	110	160	200	275	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 64-6AF36 3RT10 64-6AP36	1 1	1 unit 1 unit	101 101	6.508 6.428
	265	75	132	160	250	330	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 65-6AF36 3RT10 65-6AP36	1 1	1 unit 1 unit	101 101	6.554 6.500
	300	90	160	200	250	330	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 66-6AF36 3RT10 66-6AP36	1 1	1 unit 1 unit	101 101	6.599 6.520
S12	400	132	200	250	400	430	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 75-6AF36 3RT10 75-6AP36	1 1	1 unit 1 unit	101 101	10.340 10.070
	500	160	250	355	400	610	2	2	110 ... 127 220 ... 240	▶ ▶	3RT10 76-6AF36 3RT10 76-6AP36	1 1	1 unit 1 unit	101 101	10.490 10.355
Solid-state operating mechanism · for 24 V DC PLC output															
S6	115	37	55	75	110	160	2	2	96 ... 127 200 ... 277	▶ ▶	3RT10 54-1NF36 3RT10 54-1NP36	1 1	1 unit 1 unit	101 101	3.630 3.950
	150	45	75	90	132	185	2	2	96 ... 127 200 ... 277	▶ ▶	3RT10 55-6NF36 3RT10 55-6NP36	1 1	1 unit 1 unit	101 101	3.325 3.325
	185	55	90	110	160	215	2	2	96 ... 127 200 ... 277	▶ ▶	3RT10 56-6NF36 3RT10 56-6NP36	1 1	1 unit 1 unit	101 101	3.335 3.334
S10	225	55	110	160	200	275	2	2	96 ... 127 200 ... 277	A A	3RT10 64-6NF36 3RT10 64-6NP36	1 1	1 unit 1 unit	101 101	6.664 6.526
	265	75	132	160	250	330	2	2	96 ... 127 200 ... 277	A A	3RT10 65-6NF36 3RT10 65-6NP36	1 1	1 unit 1 unit	101 101	6.711 6.600
	300	90	160	200	250	330	2	2	96 ... 127 200 ... 277	B A	3RT10 66-6NF36 3RT10 66-6NP36	1 1	1 unit 1 unit	101 101	6.720 6.600
S12	400	132	200	250	400	430	2	2	96 ... 127 200 ... 277	A A	3RT10 75-6NF36 3RT10 75-6NP36	1 1	1 unit 1 unit	101 101	10.352 10.079
	500	160	250	355	400	610	2	2	96 ... 127 200 ... 277	A A	3RT10 76-6NF36 3RT10 76-6NP36	1 1	1 unit 1 unit	101 101	10.501 10.235

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/130.

1) Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with bar connections instead of box terminals. Without additional charge. In the 8th position of the Order No. the "1" must be replaced with "6", e.g. 3RT10 54-6..

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: Cage Clamp terminals

Withdrawable coils

Integrated coil circuit (varistor)

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

Size	Rated data					Auxiliary contacts, lateral	Rated control supply voltage U_s	DT	Cage Clamp 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	Operational current I_e up to				
	500 V	230 V	400 V	500 V	690 V	690 V	A	NO	NC	V AC/DC				kg
Conventional operating mechanism														
S6	115	37	55	75	110	160	2	2	110 ... 127 220 ... 240	B			101	3.641
										B			101	3.628
											B			101
S10	150	45	75	90	132	185	2	2	110 ... 127 220 ... 240	B			101	3.332
										B			101	3.374
										B			101	3.350
S12	185	55	90	110	160	215	2	2	110 ... 127 220 ... 240	B			101	6.508
										B			101	6.428
										B			101	6.554
S6	225	55	110	160	200	275	2	2	110 ... 127 220 ... 240	B			101	6.500
										B			101	6.599
										B			101	6.520
S10	265	75	132	160	250	330	2	2	110 ... 127 220 ... 240	B			101	10.340
										B			101	10.070
										B			101	10.490
S12	300	90	160	200	250	330	2	2	110 ... 127 220 ... 240	B			101	10.366
										B			101	10.366
										B			101	10.366
Solid-state operating mechanism · for 24 V DC PLC output														
S6	115	37	55	75	110	160	2	2	96 ... 127 200 ... 277	B			101	3.630
										B			101	3.950
										B			101	3.325
S10	150	45	75	90	132	185	2	2	96 ... 127 200 ... 277	B			101	3.325
										B			101	3.325
										B			101	3.335
S12	185	55	90	110	160	215	2	2	96 ... 127 200 ... 277	B			101	6.664
										B			101	6.526
										B			101	6.711
S6	225	55	110	160	200	275	2	2	96 ... 127 200 ... 277	B			101	6.600
										B			101	6.720
										B			101	6.600
S10	265	75	132	160	250	330	2	2	96 ... 127 200 ... 277	B			101	10.352
										B			101	10.079
										B			101	10.501
S12	300	90	160	200	250	330	2	2	96 ... 127 200 ... 277	B			101	10.235
										B			101	10.235
										B			101	10.235

For other voltages, see page 3/29.

For accessories, see page 3/112.

For spare parts, see page 3/131.

- 1) Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with bar connections instead of box terminals. Without additional charge. In the 8th position of the Order No. the "3" must be replaced with "2", e.g. 3RT10 54-2...

* You can order this quantity or a multiple thereof.

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: bar connections, for 3RT10 54 (55 kW) box terminals¹⁾
Remaining lifetime indication (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_{10} : up to 60 °C		AC-1, T_{10} : 40 °C		Operational current I_g up to		NO	NC			Order No.	Price per PU				
	500 V	230 V	400 V	500 V	690 V	690 V	A	A	V AC/DC							kg
Solid-state operating mechanism · for 24 V DC PLC output/ PLC relay output, with indication of remaining lifetime (RLT)																
S6	115	37	55	75	110	160	1	1	96 ... 127 200 ... 277	B B	3RT10 54-1PF35 3RT10 54-1PP35	1 1	1 unit 1 unit	101 101	4.200 4.440	
	150	45	75	90	132	185	1	1	96 ... 127 200 ... 277	B B	3RT10 55-6PF35 3RT10 55-6PP35	1 1	1 unit 1 unit	101 101	3.875 3.884	
	185	55	90	110	160	215	1	1	96 ... 127 200 ... 277	B B	3RT10 56-6PF35 3RT10 56-6PP35	1 1	1 unit 1 unit	101 101	3.913 4.093	
S10	225	55	110	160	200	275	1	1	96 ... 127 200 ... 277	B B	3RT10 64-6PF35 3RT10 64-6PP35	1 1	1 unit 1 unit	101 101	5.700 6.960	
	265	75	132	160	250	330	1	1	96 ... 127 200 ... 277	B B	3RT10 65-6PF35 3RT10 65-6PP35	1 1	1 unit 1 unit	101 101	7.203 7.004	
	300	90	160	200	250	330	1	1	96 ... 127 200 ... 277	B B	3RT10 66-6PF35 3RT10 66-6PP35	1 1	1 unit 1 unit	101 101	4.852 7.050	
S12	400	132	200	250	400	430	1	1	96 ... 127 200 ... 277	B B	3RT10 75-6PF35 3RT10 75-6PP35	1 1	1 unit 1 unit	101 101	10.781 10.505	
	500	160	250	355	400	610	1	1	96 ... 127 200 ... 277	B B	3RT10 76-6PF35 3RT10 76-6PP35	1 1	1 unit 1 unit	101 101	9.100 10.665	
Solid-state operating mechanism · with AS-Interface and indication of remaining lifetime (RLT)																
S6	115	37	55	75	110	160	1	1	96 ... 127 200 ... 277	B B	3RT10 54-1QF35 3RT10 54-1QP35	1 1	1 unit 1 unit	101 101	4.190 4.167	
	150	45	75	90	132	185	1	1	96 ... 127 200 ... 277	B B	3RT10 55-6QF35 3RT10 55-6QP35	1 1	1 unit 1 unit	101 101	3.892 3.886	
	185	55	90	110	160	215	1	1	96 ... 127 200 ... 277	B B	3RT10 56-6QF35 3RT10 56-6QP35	1 1	1 unit 1 unit	101 101	3.100 3.888	
S10	225	55	110	160	200	275	1	1	96 ... 127 200 ... 277	B B	3RT10 64-6QF35 3RT10 64-6QP35	1 1	1 unit 1 unit	101 101	7.018 6.930	
	265	75	132	160	250	330	1	1	96 ... 127 00 ... 277	B B	3RT10 65-6QF35 3RT10 65-6QP35	1 1	1 unit 1 unit	101 101	5.700 7.000	
	300	90	160	200	250	330	1	1	96 ... 127 200 ... 277	B B	3RT10 66-6QF35 3RT10 66-6QP35	1 1	1 unit 1 unit	101 101	5.700 7.018	
S12	400	132	200	250	400	430	1	1	96 ... 127 200 ... 277	B B	3RT10 75-6QF35 3RT10 75-6QP35	1 1	1 unit 1 unit	101 101	9.100 10.513	
	500	160	250	355	400	610	1	1	96 ... 127 200 ... 277	B B	3RT10 76-6QF35 3RT10 76-6QP35	1 1	1 unit 1 unit	101 101	11.730 9.100	

For other voltages, see page 3/29.
 For accessories, see page 3/112.
 For spare parts, see page 3/130.

1) Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with bar connections instead of box terminals.
 Without additional charge. In the 8th position of the Order No. the "1" must be replaced with "6", e.g. 3RT10 54-6...

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

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

Rated control supply voltages

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

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

Sizes S00 ... S3

• AC operation¹⁾

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

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

For USA and Canada³⁾

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

For Japan

50/60 Hz ⁴⁾	60 Hz ⁵⁾					
100 V AC	110 V AC	G6	G6	G6	G6	G6
200 V AC	220 V AC	N6	N6	N6	N6	N6
400 V AC	440 V AC	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 (40 ... 60 Hz, DC)

Conventional operating mechanism

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

Solid-state operating mechanism

$U_{s \min} \dots U_{s \max}$ 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/DC	B3		--
96 ... 127 V AC/DC	F3		F3
200 ... 277 V AC/DC	P3		P3

1) For deviating coil voltages and coil operating ranges of sizes S00 and S0, the 24 V DC SITOP Power supply 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 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 magnetic 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 laterally mounted 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: bar connections



3RT12 7.

3RT12 7.

Size	Rated data AC-2 and AC-3, T_U : up to 60 °C					AC-1, T_U : 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.
	Operational current I_e up to 1000 V	Ratings of induction motors at 50 Hz and 230 V	400 V	500 V	690 V	1000 V	Operational current I_e up to	NO	NC	V AC/DC						kg
Conventional operating mechanism																
S10	225	55	110	160	200	330	2	2	110 ... 127 220 ... 240	A A	3RT12 64-6AF36 3RT12 64-6AP36		1 1	1 unit 1 unit	101 101	7.355 7.225
	265	75	132	160	250	330	2	2	110 ... 127 220 ... 240	A A	3RT12 65-6AF36 3RT12 65-6AP36		1 1	1 unit 1 unit	101 101	7.386 7.300
	300	90	160	200	250	330	2	2	110 ... 127 220 ... 240	A A	3RT12 66-6AF36 3RT12 66-6AP36		1 1	1 unit 1 unit	101 101	7.331 7.318
S12	400	132	200	250	400	610	2	2	110 ... 127 220 ... 240	A A	3RT12 75-6AF36 3RT12 75-6AP36		1 1	1 unit 1 unit	101 101	10.500 10.397
	500	160	250	355	500	610	2	2	110 ... 127 220 ... 240	A A	3RT12 76-6AF36 3RT12 76-6AP36		1 1	1 unit 1 unit	101 101	10.534 10.400
Solid-state operating mechanism · for 24 V DC PLC output																
S10	225	55	110	160	200	330	2	2	96 ... 127 200 ... 277	B B	3RT12 64-6NF36 3RT12 64-6NP36		1 1	1 unit 1 unit	101 101	7.400 7.394
	265	75	132	160	250	330	2	2	96 ... 127 200 ... 277	B B	3RT12 65-6NF36 3RT12 65-6NP36		1 1	1 unit 1 unit	101 101	7.400 7.399
	300	90	160	200	250	330	2	2	96 ... 127 200 ... 277	B B	3RT12 66-6NF36 3RT12 66-6NP36		1 1	1 unit 1 unit	101 101	7.402 7.407
S12	400	132	200	250	400	610	2	2	96 ... 127 200 ... 277	B B	3RT12 75-6NF36 3RT12 75-6NP36		1 1	1 unit 1 unit	101 101	7.250 10.250
	500	160	250	355	500	610	2	2	96 ... 127 200 ... 277	B B	3RT12 76-6NF36 3RT12 76-6NP36		1 1	1 unit 1 unit	101 101	10.580 10.246

For other voltages, see page 3/29.

For more 3TF68/69 vacuum contactors (335 kW and 450 kW), see page 3/32.

For accessories, see page 3/114.

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

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

Overview

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, page 3/135) may have to be fitted onto the connecting bars, depending on the configuration with other devices.

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

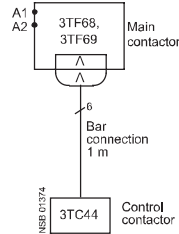
3TF6 vacuum contactors, 3-pole, 335 ... 450 kW

Selection and ordering data

Auxiliary and control conduct.: screw terminals
Main conductors: bar connections
Size 14



3TF68



3TF6. 33-Q..

Rated data		AC -1		Auxiliary contacts		Rated control supply voltage		DT		Order No.		Price per PU		PU (UNIT, SET, M)		PS*		PG		Weight per PU approx.		
AC-2 and AC-3 (up to 55 °C)				Version																kg		
Operational current I_e up to 690 V	Ratings of induction motors at 50 Hz and					Operational current I_e (at 40 °C)	NO	NC	V													
	230 V	400 V	500 V	690 V	1000 V																	
A	kW		kW	kW	kW	A																
AC operation^{1) 2)}																						
630	200	335	434	600	--	700	4	4	110 ... 132 AC, 50/60 Hz	▶	3TF68 44-0CF7			1	1 unit	101	19.364					
									200 ... 240 AC, 50/60 Hz	▶	3TF68 44-0CM7			1	1 unit	101	19.820					
630	200	335	434	600	600	700	4	4	110 ... 132 AC, 50/60 Hz	C	3TF68 44-8CF7			1	1 unit	101	19.670					
									200 ... 240 AC, 50/60 Hz	B	3TF68 44-8CM7			1	1 unit	101	20.270					
820	260	450	600	800	--	910	4	4	110 ... 132 AC, 50/60 Hz	A	3TF69 44-0CF7			1	1 unit	101	21.833					
									200 ... 240, 50/60 Hz	▶	3TF69 44-0CM7			1	1 unit	101	22.105					
820	260	450	600	800	800	910	4	4	110 ... 132 AC, 50/60 Hz	C	3TF69 44-8CF7			1	1 unit	101	22.307					
									200 ... 240 AC, 50/60 Hz	C	3TF69 44-8CM7			1	1 unit	101	22.454					
DC operation · DC economy circuit																						
630	200	335	434	600	--	700	3	3	24 DC	C	3TF68 33-1DB4			1	1 unit	101	19.532					
					600					C	3TF68 33-8DB4			1	1 unit	101	17.900					
820	260	450	600	800	--	910	3	3	24 DC	C	3TF69 33-1DB4			1	1 unit	101	22.666					
					800					C	3TF69 33-8DB4			1	1 unit	101	12.258					
AC operation · Version for AC controls which are subj. to strong interference																						
630	200	335	434	600	--	700	3	3	110 ... 120 AC, 50/60 Hz	C	3TF68 33-1QG7			1	1 unit	101	18.592					
									220 ... 240 AC, 50/60 Hz	C	3TF68 33-1QL7			1	1 unit	101	21.100					
									380 ... 420 AC, 50/60 Hz	C	3TF68 33-1QV7			1	1 unit	101	20.739					
						600	700	3	3	110 ... 120 AC, 50/60 Hz	C	3TF68 33-8QG7			1	1 unit	101	21.000				
									220 ... 240 AC, 50/60 Hz	C	3TF68 33-8QL7			1	1 unit	101	21.034					
820	260	450	600	800	--	910	3	3	110 ... 120 AC, 50/60 Hz	C	3TF69 33-1QG7			1	1 unit	101	22.512					
									220 ... 240 AC, 50/60 Hz	C	3TF69 33-1QL7			1	1 unit	101	22.400					
									380 ... 420 AC, 50/60 Hz	C	3TF69 33-1QV7			1	1 unit	101	22.625					
						800	910	3	3	110 ... 120 AC, 50/60 Hz	C	3TF69 33-8QG7			1	1 unit	101	21.900				
									220 ... 240 AC, 50/60 Hz	C	3TF69 33-8QL7			1	1 unit	101	22.897					

Reversing contactors supplied: 3TC44 17-4A..

For accessories, see page 3/134, for spare parts, see page 3/144.

1) Built-in overvoltage damping: varistor circuit.

2) For more information on EMC, see LV 1 T.

3TF68/69 vacuum contactors are supplied with integrated overvoltage damping for the main conducting paths (for description, see LV 1 T). The overvoltage damping circuit is not required if 3TF68/69 contactors are used in circuits with DC choppers, frequency converters or speed-variable drives, 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 voltage damping. Without additional charge. The order number must include "-Z" and the order code "A02".

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

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

Rated control supply voltages

Contactor	Type	
		3TF 3TF68...-C/D 3TF69...-C/D
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation - Magnetic 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

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: bar connections*



3TB50

Size	Rated data					Auxiliary contacts			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 (up to 55 °C)		AC -1			Version											
	Operational current I_e up to	Ratings of induction motors at 50 Hz and				Operational current I_e (at 40 °C)											
	690 V	230 V	400 V	500 V	690 V	A	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	6.436	
8	170	55	90	110	132	230	2	2	24	B	3TB52 17-0BB4		1	1 unit	101	8.468	
10	250	75	132	160	200	325	2	2	24	C	3TB54 17-0BB4		1	1 unit	101	16.510	
12	400	115	200	255	355	425	2	2	24	C	3TB56 17-0BB4		1	1 unit	101	19.318	

*For accessories, see page 3/134.
For spare parts, see page 3/142.*

Contactor	Type	3TB	3TB56
		3TB50/3TB52/3TB54	3TB56
Rated control supply voltages (the 10th and 11th position of the order number must be changed)			
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 connectors and solder pin connectors 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	Ratings of induction motors at 50 Hz and	Ident. No.	Version							
at 400/380 V	230/220 V 400/380 V	500 V 660 V								
A	kW	kW	kW	kW						kg

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



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

AC operation

5	1.3	2.2	2.9	3.8	10 E	1	--	A	3TF28 10-0AP0	1	1 unit	101	0.194
					01 E	--	1	A	3TF28 01-0AP0	1	1 unit	101	0.193
9	2.4	4	4	4	10 E	1	--	A	3TF20 10-0AP0	1	1 unit	101	0.192
					01 E	--	1	A	3TF20 01-0AP0	1	1 unit	101	0.193

DC operation · DC solenoid system

5	1.3	2.2	2.9	3.8	10 E	1	--	A	3TF28 10-0BB4	1	1 unit	101	0.214
					01 E	--	1	A	3TF28 01-0BB4	1	1 unit	101	0.214
9	2.4	4	4	4	10 E	1	--	A	3TF20 10-0BB4	1	1 unit	101	0.214
					01 E	--	1	A	3TF20 01-0BB4	1	1 unit	101	0.214

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



3TF20 ...-3...

AC operation

9	2.4	4	4	--	10 E	1	--	B	3TF20 10-3AP0	1	1 unit	101	0.166
					01 E	--	1	B	3TF20 01-3AP0	1	1 unit	101	0.163

DC operation · DC solenoid system

9	2.4	4	4	--	10 E	1	--	B	3TF20 10-3BB4	1	1 unit	101	0.187
					01 E	--	1	C	3TF20 01-3BB4	1	1 unit	101	0.187

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



3TF20 ...-7...

AC operation

9	2.4	4	4	--	10 E	1	--	C	3TF20 10-7AP0	1	1 unit	101	0.161
					01 E	--	1	B	3TF20 01-7AP0	1	1 unit	101	0.160

DC operation · DC solenoid system

9	2.4	4	4	--	10 E	1	--	B	3TF20 10-7BB4	1	1 unit	101	0.184
					01 E	--	1	B	3TF20 01-7BB4	1	1 unit	101	0.185

Contactors with solder pin connectors for printed circuit boards · for screw mounting (diagonal)



3TF20 ...-6...

AC operation

9	2.4	4	4	--	10 E	1	--	C	3TF20 10-6AP0	1	1 unit	101	0.164
					01 E	--	1	B	3TF20 01-6AP0	1	1 unit	101	0.164

DC operation · DC solenoid system

9	2.4	4	4	--	10 E	1	--	B	3TF20 10-6BB4	1	1 unit	101	0.186
					01 E	--	1	B	3TF20 01-6BB4	1	1 unit	101	0.184

For accessories, see page 3/136.

* 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	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Operational current I_e	Ratings of induction motors at 50 Hz and	Ident. No.	Version							
at 400/380 V A	230/220 V kW	400/380 V kW	500 V 660 V kW	NO NC						kg

3TF2 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	11 E	1	1	C	3TF29 11-0AP0	1	1 unit	101	0.220
					22 E	2	2	C	3TF29 22-0AP0	1	1 unit	101	0.228
9	2.4	4	4	4	11 E	1	1	C	3TF22 11-0AP0	1	1 unit	101	0.220
					22 E	2	2	C	3TF22 22-0AP0	1	1 unit	101	0.228

DC operation · DC solenoid system

3TF22 ...-0..., 3TF29 ...-0...	5	1.3	2.2	2.9	3.8	11 E	1	1	C	3TF29 11-0BB4	1	1 unit	101	0.241
						22 E	2	2	C	3TF29 22-0BB4	1	1 unit	101	0.251
	9	2.4	4	4	4	11 E	1	1	C	3TF22 11-0BB4	1	1 unit	101	0.238
						22 E	2	2	C	3TF22 22-0BB4	1	1 unit	101	0.250

For accessories, see page 3/136.

Rated control supply voltages

Contactors	Type	3TF20 3TF28
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation		
Coils for AC 50 and 60 Hz Rated control supply voltage U_s		
Coils for AC 50 Hz		
50 Hz	60 Hz	
V AC	V AC	
24	29	B0
110	132	F0
230/220	276	P0 ¹⁾
Coils for AC 50 and 60 Hz		
V AC		
230		L2
DC operation		
Rated control supply voltage U_s		
V DC		
24		B4

Contactors	Type	3TF22 3TF29
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation		
Coils for AC 50 and 60 Hz Rated control supply voltage U_s		
Coils for AC 50 Hz		
50 Hz	60 Hz	
V AC	V AC	
230/220	276	P0 ¹⁾
DC operation		
Rated control supply voltage U_s		
V DC		
24		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, 3TB, 3TF Contactors for Switching Motors

Notes

3

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 voltages > 500 V, a dead interval of 50 ms on reversing must be taken into account)

Sizes S00 to S12

- As components 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 "SIRIUS Overload Relays".

The 3RA13 contactor assemblies have screw connections and are suitable for screwing or snapping 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 overload relays for direct mounting or individual mounting or thermistor motor protection tripping units must be ordered separately.

Components for customer assembly

Installation 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 for AC 50 Hz 400 V		Size	Order No.					Fully wired and tested contactor assemblies
Rating	Operational current I_e		Contactor	Mechanical interlock ¹⁾	Mechanical interlock ²⁾	Mechanical interlock ³⁾	Installation kit	
kW	A							
3	7	S00	3RT10 15	-- ⁴⁾	--	--	3RA19 13-2A ⁵⁾	3RA13 15-8XB30-1 . . 3RA13 16-8XB30-1 . . 3RA13 17-8XB30-1 . .
4	9		3RT10 16					
5.5	12		3RT10 17					
5.5	12	S0	3RT10 24	3RA19 24-1A	3RA19 24-2B	--	3RA19 23-2A ⁶⁾	3RA13 24-8XB30-1 . . 3RA13 25-8XB30-1 . . 3RA13 26-8XB30-1 . .
7.5	17		3RT10 25					
11	25		3RT10 26					
15	32	S2	3RT10 34	3RA19 24-1A	3RA19 24-2B	--	3RA19 33-2A ⁷⁾	3RA13 34-8XB30-1 . . 3RA13 35-8XB30-1 . . 3RA13 36-8XB30-1 . .
18.5	40		3RT10 35					
22	50		3RT10 36					
30	65	S3	3RT10 44	3RA19 24-1A	3RA19 24-2B	--	3RA19 43-2A ⁷⁾	3RA13 44-8XB30-1 . . 3RA13 45-8XB30-1 . . 3RA13 46-8XB30-1 . .
37	80		3RT10 45					
45	95		3RT10 46					
55	115	S6	3RT10 54	--	--	3RA19 54-2A	3RA19 53-2A 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 installation kit.

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

6) Installation kit contains: wiring connectors on the top and bottom.

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

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

3RA13, 3RA14 Contactor Assemblies 3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

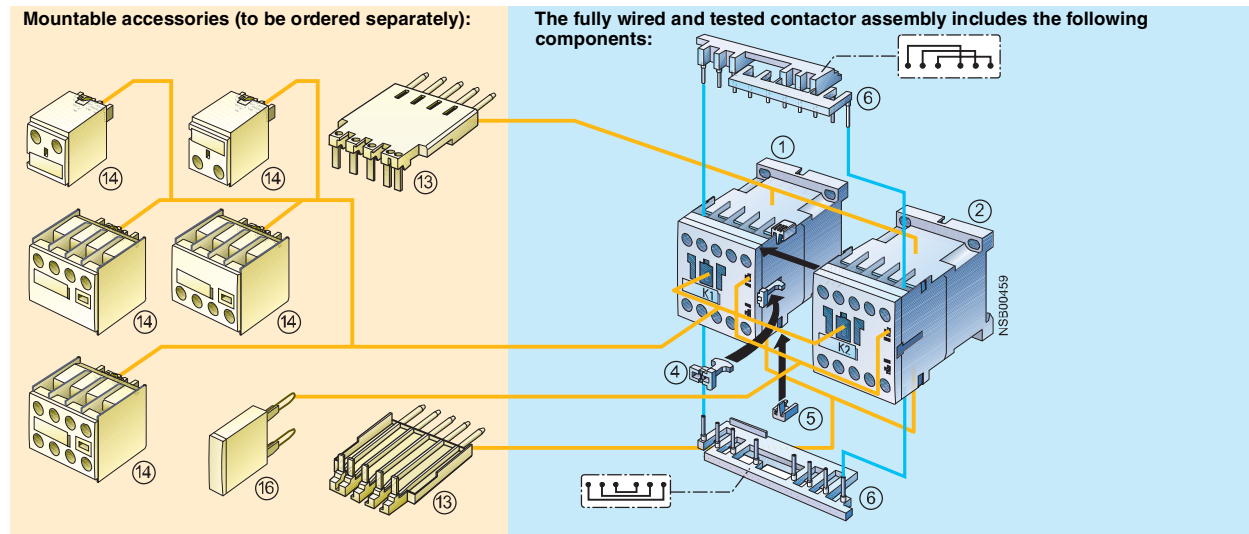
Selection and ordering data

Size S00 · up to 5.5 kW

Rated data AC-2 and AC-3		Rated control supply voltage U_s ¹⁾		DT	Fully wired and tested contactor assemblies ²⁾		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											
7	2.2	3	3.5	4	24 AC	A	3RA13 15-8XB30-1AB0	1	1 unit	101	0.429
					110 AC	A	3RA13 15-8XB30-1AF0	1	1 unit	101	0.430
					230 AC	A	3RA13 15-8XB30-1AP0	1	1 unit	101	0.427
9	3	4	4.5	5.5	24 AC	A	3RA13 16-8XB30-1AB0	1	1 unit	101	0.429
					110 AC	A	3RA13 16-8XB30-1AF0	1	1 unit	101	0.428
					230 AC	A	3RA13 16-8XB30-1AP0	1	1 unit	101	0.425
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	0.425
					230 AC	A	3RA13 17-8XB30-1AP0	1	1 unit	101	0.430
DC operation											
7	2.2	3	3.5	4	24 DC	▶	3RA13 15-8XB30-1BB4	1	1 unit	101	0.548
9	3	4	4.5	5.5	24 DC	▶	3RA13 16-8XB30-1BB4	1	1 unit	101	0.547

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.



Accessories	Order No.	Page	Individual parts	Order No.		Page
				K1	K2	
13 Solder pin adapters	3RT19 16-4KA1	3/122	1 2 Contactors, 3 kW	3RT10 15	3RT10 15	3/12
14 Auxiliary switch block, front	3RH19 11-1....	3/110	1 2 Contactors, 4 kW	3RT10 16	3RT10 16	3/12
(auxiliary switch block according to EN 50005 must be used)			1 2 Contactors, 5.5 kW	3RT10 17	3RT10 17	3/12
16 Surge suppressors	3RT19 16-1....	3/119, 3/120	4 5 6 Installation kit	3RA19 13-2A		3/44

The installation kit contains:

- 4 Mechanical interlock
- 5 2 connecting clips for 2 contactors
- 6 Wiring connectors on the top and bottom for connecting the main conducting paths, electrical interlock included¹⁾, interruptible (NC contact interlock)

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

* You can order this quantity or a multiple thereof.

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3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

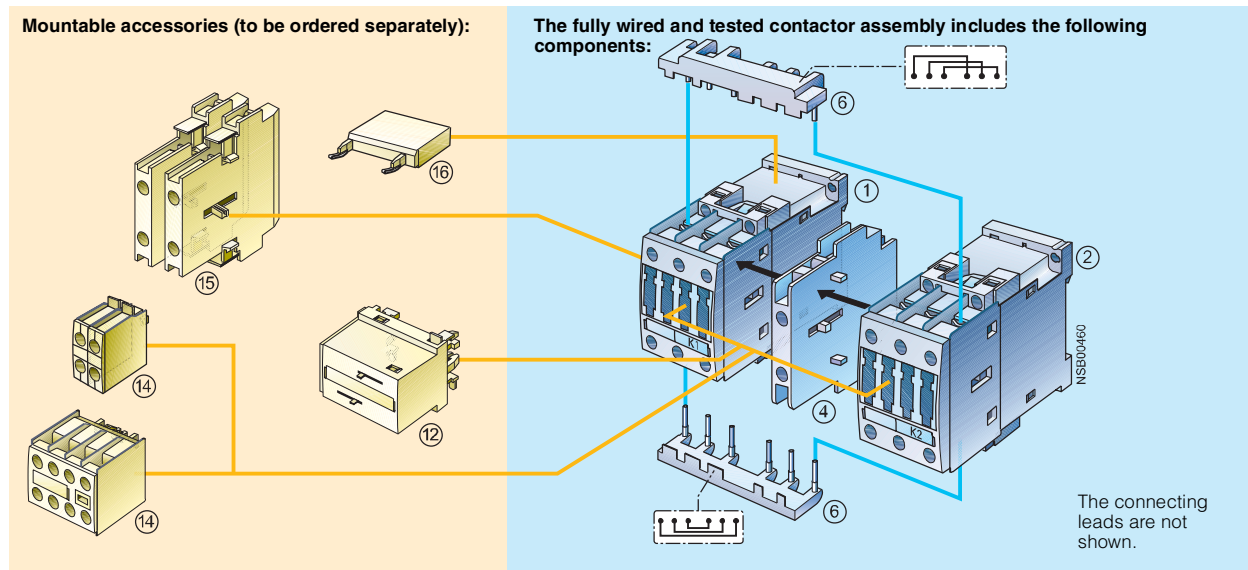
3RA13 complete units, 3 ... 45 kW

Size S0 · up to 11 kW



Rated data AC-2 and AC-3		Rated control supply voltage U_s 1)	DT	Fully wired and tested contactor assemblies		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									
12	3	5.5	7.5	7.5	24 AC	A	▶	3RA13 24-8XB30-1AC2	1 1 unit 101 0.766
					110 AC	A	▶	3RA13 24-8XB30-1AG2	1 1 unit 101 0.763
					230 AC	A	▶	3RA13 24-8XB30-1AL2	1 1 unit 101 0.777
17	4	7.5	10	11	24 AC	A	▶	3RA13 25-8XB30-1AC2	1 1 unit 101 0.760
					110 AC	A	▶	3RA13 25-8XB30-1AG2	1 1 unit 101 0.763
					230 AC	A	▶	3RA13 25-8XB30-1AL2	1 1 unit 101 0.773
25	5.5	11	11	11	24 AC	A	▶	3RA13 26-8XB30-1AC2	1 1 unit 101 0.755
					110 AC	A	▶	3RA13 26-8XB30-1AG2	1 1 unit 101 0.760
					230 AC	A	▶	3RA13 26-8XB30-1AL2	1 1 unit 101 0.774
DC operation									
12	3	5.5	7.5	7.5	24 DC	▶	3RA13 24-8XB30-1BB4	1 1 unit 101 1.224	
17	4	7.5	10	11	24 DC	A	▶	3RA13 25-8XB30-1BB4	1 1 unit 101 1.222
25	5.5	11	11	11	24 DC	A	▶	3RA13 26-8XB30-1BB4	1 1 unit 101 1.229

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	3/43	1 2 Contactors, 5.5 kW	3RT10 24	3RT10 24	3/14
14 Auxiliary switch block, front	3RH19 21-1CA..	3/112	1 2 Contactors, 7.5 kW	3RT10 25	3RT10 25	3/14
14 Auxiliary switch block, lateral	3RH19 21-1EA..	3/114	1 2 Contactors, 11 kW	3RT10 26	3RT10 26	3/14
15 Surge suppressors	3RT19 26-1....	3/119	4 Mechanical interlock, lateral	3RA19 24-2B		3/43
			6 Installation kit	3RA19 23-2A		3/44

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

3RA13, 3RA14 Contactor Assemblies 3RA13 Reversing Contactor Assemblies

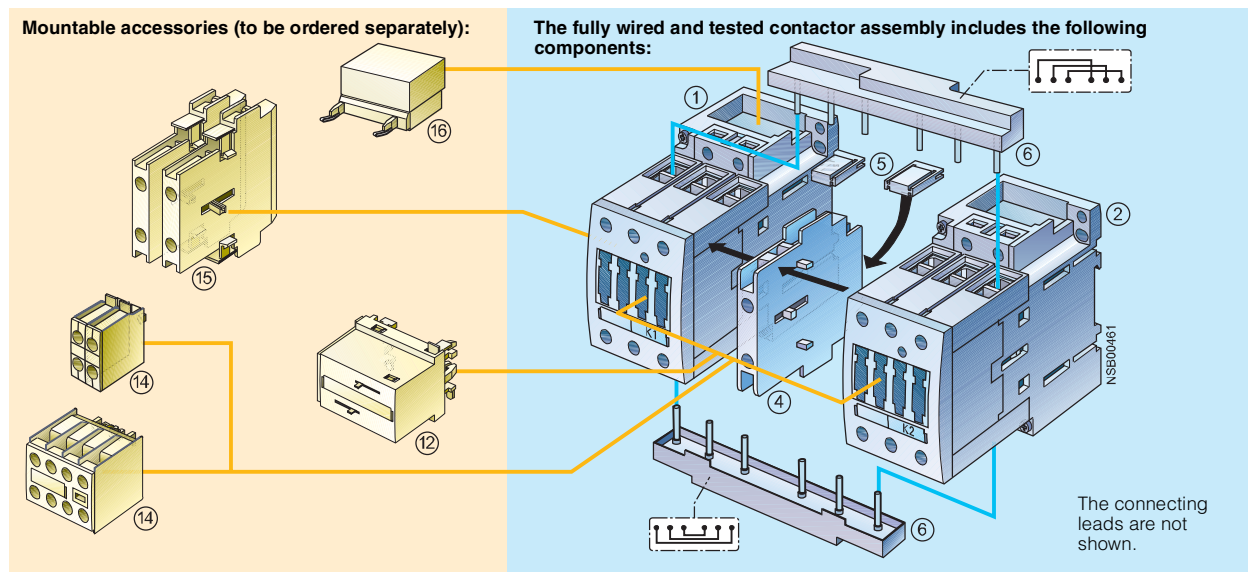
3RA13 complete units, 3 ... 45 kW

Size S2 · up to 22 kW



Rated data AC-2 and AC-3		Rated control supply voltage U_s 1)		DT		Fully wired and tested contactor assemblies		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
	500 V	230 V	400 V	500 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	2,255
					110 AC	A	3RA13 34-8XB30-1AG2	1	1 unit	101	2,265
					230 AC	A	3RA13 34-8XB30-1AL2	1	1 unit	101	2,220
40	11	18.5	22	22	24 AC	A	3RA13 35-8XB30-1AC2	1	1 unit	101	2,315
					110 AC	A	3RA13 35-8XB30-1AG2	1	1 unit	101	2,320
					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	2,340
					110 AC	B	3RA13 36-8XB30-1AG2	1	1 unit	101	2,315
					230 AC	A	3RA13 36-8XB30-1AL2	1	1 unit	101	2,290
DC operation											
32	7.5	15	18.5	18.5	24 DC	A	3RA13 34-8XB30-1BB4	1	1 unit	101	3,440
40	11	18.5	22	22	24 DC	A	3RA13 35-8XB30-1BB4	1	1 unit	101	3,445
50	15	22	30	22	24 DC	A	3RA13 36-8XB30-1BB4	1	1 unit	101	3,454

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	K2	
12	Mechanical interlock, front	3RA19 24-1A	3/43	1 2	1 2	3/16
14	Auxiliary switch block, front	3RH19 21-1CA..	3/112	1 2	1 2	3/16
15	Auxiliary switch block, lateral	3RH19 21-1EA..	3/114	1 2	1 2	3/16
16	Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/119	4	4	3/43
				5 6	5 6	3/44
				The installation kit contains:		
				5	2 connecting clips for 2 contactors with a clearance of 10 mm	
				6	Wiring connectors on the top and bottom for connecting the main conducting paths	

* You can order this quantity or a multiple thereof.

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3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies

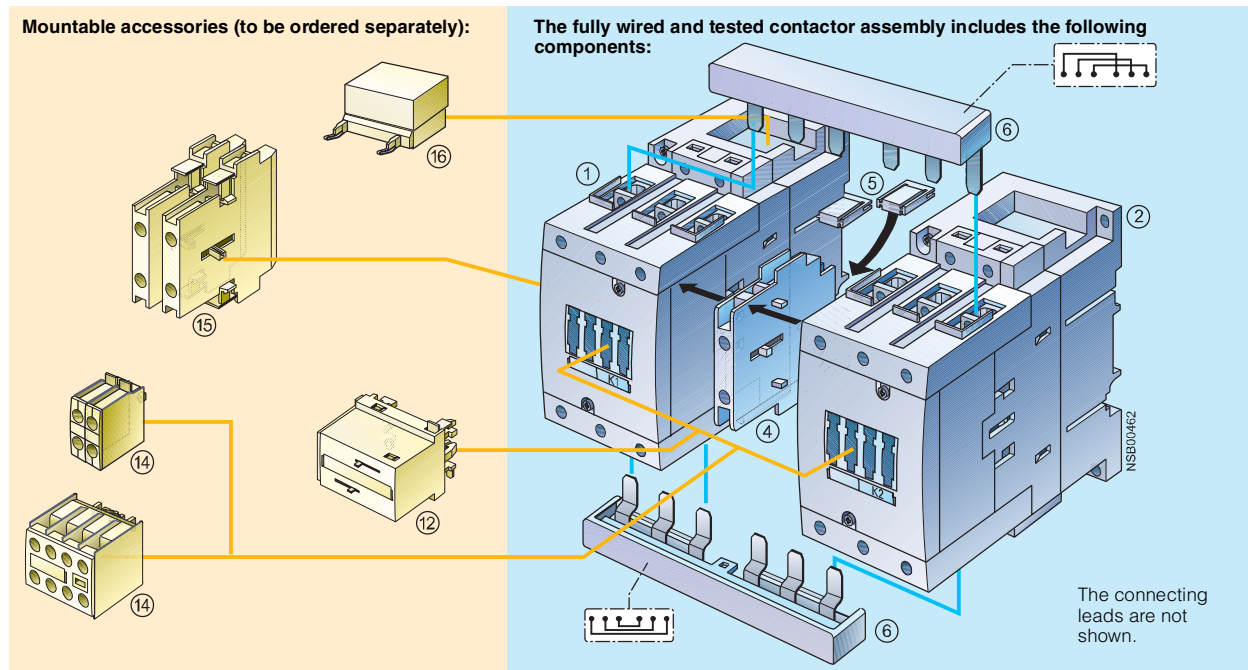
3RA13 complete units, 3 ... 45 kW

Size S3 · up to 45 kW



Rated data AC-2 and AC-3		Rated control supply voltage U_s 1)	DT	Fully wired and tested contactor assemblies		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
500 V	230 V	400 V	500 V	690 V					
A	kW	kW	kW	kW	V				
AC operation at 50/60 Hz									
65	18.5	30	37	45	24 AC	B			
					110 AC	B			
					230 AC	B			
80	22	37	45	55	24 AC	B			
					110 AC	B			
					230 AC	B			
95	22	45	55	55	24 AC	B			
					110 AC	B			
					230 AC	B			
DC operation									
65	18.5	30	37	45	24 DC	B			6.380
80	22	37	45	55	24 DC	B			6.430
95	22	45	55	55	24 DC	B			6.471

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




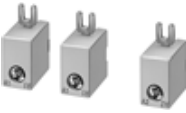


Accessories	Order No.	Page	Individual parts	Order No.	Page
				K1	K2
12 Mechanical interlock, front	3RA19 24-1A	3/43	1 2 Contactors, 30 kW	3RT10 44	3RT10 44
14 Auxiliary switch block, front	3RH19 21-1CA..	3/112	1 2 Contactors, 37 kW	3RT10 45	3RT10 45
15 Auxiliary switch block, lateral	3RH19 21-1EA..	3/114	1 2 Contactors, 45 kW	3RT10 46	3RT10 46
16 Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/119	4 Mechanical interlock, lateral	3RA19 24-2B	3/43
			5 6 Installation kit	3RA19 43-2A	3/44
			The installation kit contains:		
			5	2 connecting clips for 2 contactors with a clearance of 10 mm	
			6	Wiring connectors on the top and bottom for connecting the main conducting paths	

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										
 3RA19 24-1A mounted onto 2 contactors	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										
 3RA19 54-2A	3RT1. 2	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	0.045
	3RT1. 3	S10								
	3RT1. 4	S12								
	3RT1. 7									
 3RA19 54-2C	3RT10 4.-A	S3	Adapter, laterally mountable, for mechanical interlocking of contactor S3 (only for AC operation) with contactor S6 using 3RA1954-2A locking device (must be ordered separately) incl. connecting clips	A	3RA19 54-2C		1	1 unit	101	0.050
	with 3RT10 5	S6								
Coil repeat terminals										
 3RA19 23-3B	3RT10 3	S2, S3	For the coil connectors A1 and A2 for reversing starters (contactor sizes S2 and S3). 2 x A1 and 1 x A2 required per assembly. (1 set contains 10 x A1 and 5 x A2)	B	3RA19 23-3B		1	1 set	101	0.082
	3RT10 4									
Base plates										
	3RT10 5	S6	For customer assembly of reversing contactor assemblies	B	3RA19 52-2A		1	1 unit	101	1.249
	3RT1. 6	S10								
	3RT1. 7	S12								
				B	3RA19 62-2A		1	1 unit	101	2.091
				B	3RA19 72-2A		1	1 unit	101	2.322

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


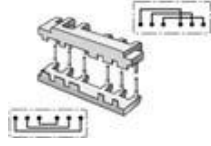

2) Can also be used for size S0 4-pole contactors.

* You can order this quantity or a multiple thereof.

3RA13, 3RA14 Contactor Assemblies

3RA13 Reversing Contactor Assemblies







Components for customer assembly

Type	For contactors	Size	Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Installation kits for making 3-pole contactor assemblies										
 <p>3RA19 13-2A</p>	3RT10 1	S00	The installation kit contains: ▶ mechanical interlock 2 connecting clips for 2 contactors wiring connectors on the top and bottom		3RA19 13-2A		1	1 set	101	0.041
	3RT10 2	S0	The installation kit contains: ▶ wiring connectors on the top and bottom		3RA19 23-2A		1	1 set	101	0.052
 <p>3RA19 23-2A</p>	3RT10 3	S2	The installation kit contains: ▶ 2 connecting clips for 2 contactors wiring connectors on the top and bottom		3RA19 33-2A		1	1 set	101	0.122
	3RT10 4	S3	The installation kit contains: ▶ 2 connecting clips for 2 contactors wiring connectors on the top and bottom		3RA19 43-2A		1	1 set	101	0.294
 <p>3RA19 43-2A</p>	3RT10 5	S6	The installation kit contains: wiring connectors on the top and bottom	A	3RA19 53-2A		1	1 set	101	1.294
	3RT1. 6	S10		A	3RA19 63-2A		1	1 set	101	2.419
	3RT1. 7	S12		A	3RA19 73-2A		1	1 set	101	3.040

3RA13, 3RA14 Contactor Assemblies 3RA13 Reversing Contactor Assemblies

Components for customer assembly

For contactors	Size	Contact- tor clear- ance mm	Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Wiring connectors										
3RT10 1	S00-S00	0	Top (in-phase) Bottom (phase reversal)	▶	3RA19 13-3D 3RA19 13-3E		1 1	5 unit 5 unit	101 101	0.011 0.014
3RT10 2	S0-S0 and S0-S0	0 and 10	Top (in-phase) Bottom (phase reversal)	▶	3RA19 23-3D 3RA19 23-3E		1 1	5 unit 5 unit	101 101	0.021 0.019
3RT10 3	S2-S2	10	Top (in-phase) Bottom (phase reversal)	▶	3RA19 33-3D 3RA19 33-3E		1 1	1 unit 1 unit	101 101	0.066 0.054
3RT10 4	S3-S3	10	Top (in-phase) Bottom (phase reversal)	▶	3RA19 43-3D 3RA19 43-3E		1 1	1 unit 1 unit	101 101	0.157 0.137
3RT10 5	S6-S6	10	Top (in-phase)	A	3RA19 53-3D		1	1 set	101	0.615
3RT10 6	S10-S10	10	Top (phase reversal)	B	3RA19 63-3D		1	1 set	101	1.235

For contactors	Size	Contact- tor clear- ance mm	Interlock- ing	Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	
Mechanical connectors												
	3RT1. 1 ¹⁾	S00-S00	0	Laterally mountable	For 3 and 4-pole contactors	▶	3RA19 12-2H		1	10 sets	101	0.001
	3RT1. 2	S0-S0	0 10 ²⁾	Mountable on front Laterally mountable	For 3 and 4-pole contactors	▶	3RA19 22-2C 3RT19 22-2D		1 1	10 sets 10 sets	101 101	0.025 0.110
	3RT1. 3 3RT1. 4	S2-S2 S3-S3	0	Mountable on front	For 3-pole contactors	▶	3RA19 32-2C		1	10 sets	101	0.001
	3RT1. 3 3RT1. 4 3RT1. 5	S2-S2 S3-S3 S6-S6	10	Laterally mountable	For 3-pole contactors	▶	3RA19 32-2D		1	10 sets	101	0.003
	3RT1. 3	S2-S2	10	Laterally mountable	For 4-pole contactors	▶	3RA19 32-2G		1	10 sets	101	0.007
	3RT1. 4	S3-S3	10	Laterally mountable	For 4-pole contactors	▶	3RA19 42-2G		1	10 sets	101	0.008

1) This pack contains 10 additional interlocks.

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

* 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

Overview

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 components for customer assembly.

A dead interval of 50 ms on reversing is already integrated in the timing 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 screwing or snapping 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	Line/delta contactor	Wye contactor	Order No. complete	Accessories for customer assembly	Installation kit A, for double infeed					
Rating kW	Operational current I_e A	motor current A					Timing relay						
5.5	12	1.9 ... 2.8	S00-S00-S00	3RT10 15	3RT10 15	3RA14 15-8XB31-1...	3RT19 16-2G.51	--					
		2.4 ... 3.4											
		3.1 ... 4.3											
		3.8 ... 5.5											
		4.8 ... 6.9											
7.5	17	6 ... 8.6	3RT10 17	3RT10 17	3RA141 6-8XB31-1...	3RP15 74-1N.30	--						
		7.8 ... 10.9											
		9.5 ... 13.8											
		12.1 ... 17											
		15.5 ... 21.5											
11	25	3.1 ... 4.3	S0-S0-S0	3RT10 24	3RT10 24	3RA14 23-8XC21-1...	3RP15 74-1N.30	--					
		3.8 ... 5.5											
		4.8 ... 6.9											
		6 ... 8.6											
		7.8 ... 10.9											
15	32	9.5 ... 13.8	3RT10 26	3RT10 26	3RA14 25-8XC21-1...	3RP15 74-1N.30	--						
		12.1 ... 17.2											
		15.5 ... 21.5											
		19 ... 25											
		24.1 ... 34											
18.5	40	29.3 ... 37.9	3RT10 26	3RT10 26	3RA14 25-8XC21-1...	3RP15 74-1N.30	--						
		34.5 ... 40											
22	50	9.5 ... 13.8	S2-S2-S0	3RT10 34	3RT10 26	3RA14 34-8XC21-1...	3RP15 74-1N.30	3RA19 33-2C ³⁾					
		12.1 ... 17.2											
		15.5 ... 21.5											
		19 ... 27.6											
		24.1 ... 34											
37	80	31 ... 43	S2-S2-S2	3RT10 35	3RT10 34	3RA14 35-8XC21-1...	3RP15 74-1N.30	3RA19 33-2B ³⁾					
		37.9 ... 55.2											
		48.3 ... 65											
		62.1 ... 77.8											
		69 ... 86											
45	86	62.1 ... 77.8	3RT10 36	3RT10 36	3RA14 36-8XC21-1...	3RP15 74-1N.30	3RA19 43-2C ³⁾						
		69 ... 86											
		77.6 ... 108.6											
		98.3 ... 129.3											
		120.7 ... 150											
55	115	31 ... 43	S3-S3-S2	3RT10 44	3RT10 35	3RA14 44-8XC21-1...	3RP15 74-1N.30	3RA19 43-2C ³⁾					
		37.9 ... 55.2											
		48.3 ... 69											
		62.1 ... 77.6											
		77.6 ... 108.6											
75	150	98.3 ... 129.3	3RT10 45	3RT10 36	3RA14 45-8XC21-1...	3RP15 74-1N.30	--						
		120.7 ... 150											
		86 ... 160						S6-S6-S3	3RT10 54	3RT10 44	--	3RP15 74-1N.30	--
		86 ... 195											
		86 ... 230											
86 ... 280													
86 ... 280													
200	350	95 ... 350	S10-S10-S6	3RT10 64	3RT10 54	--	3RP15 74-1N.30	--					
		430 ... 430											
250	430	95 ... 430	3RT10 65	3RT10 55	3RT10 55	--	3RP15 74-1N.30	--					
		95 ... 430											
315	540	277 ... 540	S12-S12-S10	3RT10 75	3RT10 64	--	3RP15 74-1N.30	--					
		277 ... 610											
355	610	277 ... 610	3RT10 76	3RT10 65	3RT10 65	--	3RP15 74-1N.30	--					
		277 ... 690											
400	690	277 ... 690	3RT10 76	3RT10 66	3RT10 66	--	3RP15 74-1N.30	--					
		277 ... 850											

- Installation kit contains mechanical interlock, 3 connecting clips; wiring connectors on the top (connection between mains and delta contactor) and on the bottom (connection between delta and wye contactor); neutral point.
- The installation kit contains 5 connecting clips; wiring connectors on the top (connection between mains and delta contactor) and on the bottom (connection between delta and wye contactor); star jumper.

- Installation kit contains wiring connector on the bottom (connection between delta contactor and wye contactor) and star jumper.
- Wiring connector on top from reversing contactor assembly (note conductor cross-sections).
- Only use wiring connector on top of reversing contactor assembly (note conductor cross-sections); star jumpers must be ordered separately.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Components for customer assembly

Installation kits with wiring connectors 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 supply terminals, mechanical interlocks (exception: in the case of the kit for size S00 contactor assemblies the mechanical interlock between the delta contactor and the wye contactor is included in the kit) and base plates – must be ordered separately.

The wiring installation 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 wye contactors (bottom).

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

Motor protection

Overload relays or thermistor motor protection trip 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 LV 1 T).



Installation kit B, for single infeed	Star jumper	Base plates	Overload relays, thermal (trip class CLASS 10)		Overload relays, solid-state (trip class CLASS 10)					
			Setting range	Order No.	Setting range	Order No.				
3RA19 13-2B ¹⁾	3RT19 16-4BA31	--	1.1 ... 1.6	3RU11 16-1AB0	0.32 ... 1.25	3RB20 16-1NB0				
			1.4 ... 2	3RU11 16-1BB0						
			1.8 ... 2.5	3RU11 16-1CB0	1 ... 4	3RB20 16-1PB0				
			2.2 ... 3.2	3RU11 16-1DB0						
			2.8 ... 4	3RU11 16-1EB0						
			3.5 ... 5	3RU11 16-1FB0						
			4.5 ... 6.3	3RU11 16-1GB0						
			5.5 ... 8	3RU11 16-1HB0						
7 ... 10	3RU11 16-1JB0	3 ... 12	3RB20 16-1SB0							
1.8 ... 2.5	3RU11 26-1CB0									
2.2 ... 3.2	3RU11 26-1DB0									
2.8 ... 4	3RU11 26-1EB0									
3.5 ... 5	3RU11 26-1FB0									
4.5 ... 6.3	3RU11 26-1GB0									
5.5 ... 8	3RU11 26-1HB0									
7 ... 10	3RU11 26-1JB0			1 ... 4	3RB20 16-1PB0 ⁶⁾					
9 ... 12.5	3RU11 26-1KB0									
11 ... 16	3RU11 26-4AB0									
14 ... 20	3RU11 26-4BB0									
17 ... 22	3RU11 26-4CB0									
20 ... 25	3RU11 26-4DB0									
3RA19 33-3D ⁴⁾	3RT19 26-4BA31	3RA19 32-2E	5.5 ... 8			3RU11 36-1HB0	3 ... 12	3RB20 26-1SB0 ⁷⁾		
			7 ... 10			3RU11 36-1JB0				
			9 ... 12.5	3RU11 36-1KB0	6 ... 25	3RB20 36-1QB0				
			11 ... 16	3RU11 36-4AB0						
			14 ... 20	3RU11 36-4BB0						
	18 ... 25	3RU11 36-4DB0								
	22 ... 32	3RU11 36-4EB0								
	3RT19 36-4BA31	3RA19 32-2F	28 ... 40	3RU11 36-4FB0	12.5 ... 50	3RB20 36-1UB0				
			36 ... 45	3RU11 36-4GB0						
			40 ... 50	3RU11 36-4HB0						
3RA19 43-3D ⁴⁾			3RT19 36-4BA31	3RA19 42-2E			18 ... 25	3RU11 46-4DB0	12.5 ... 50	3RB20 46-1UB0
							22 ... 32	3RU11 46-4EB0		
	28 ... 40	3RU11 46-4FB0								
	36 ... 45	3RU11 46-4HB0			25 ... 100	3RB20 46-1EB0				
	45 ... 63	3RU11 46-4JB0								
	57 ... 75	3RU11 46-4KB0								
	70 ... 90	3RU11 46-4LB0								
3RA19 53-3D ⁴⁾	3RT19 46-4BA31	3RA19 52-2E	--	--	50 ... 200	3RB20 56-1FC2				
3RA19 63-3D ⁴⁾	3RT19 56-4BA31	3RA19 62-2E	--	--	55 ... 250	3RB20 66-1GC2				
3RA19 73-2A ⁵⁾	3RT19 66-4BA31	3RA19 72-2E	--	--	160 ... 630	3RB20 66-1MC2				

6) Only stand-alone installations possible in combination with the 3RB29 13-0AA1 terminal bracket for stand-alone installation.

7) Only stand-alone installation possible in combination with the 3RB29 23-0AA1 terminal bracket for stand-alone installation.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

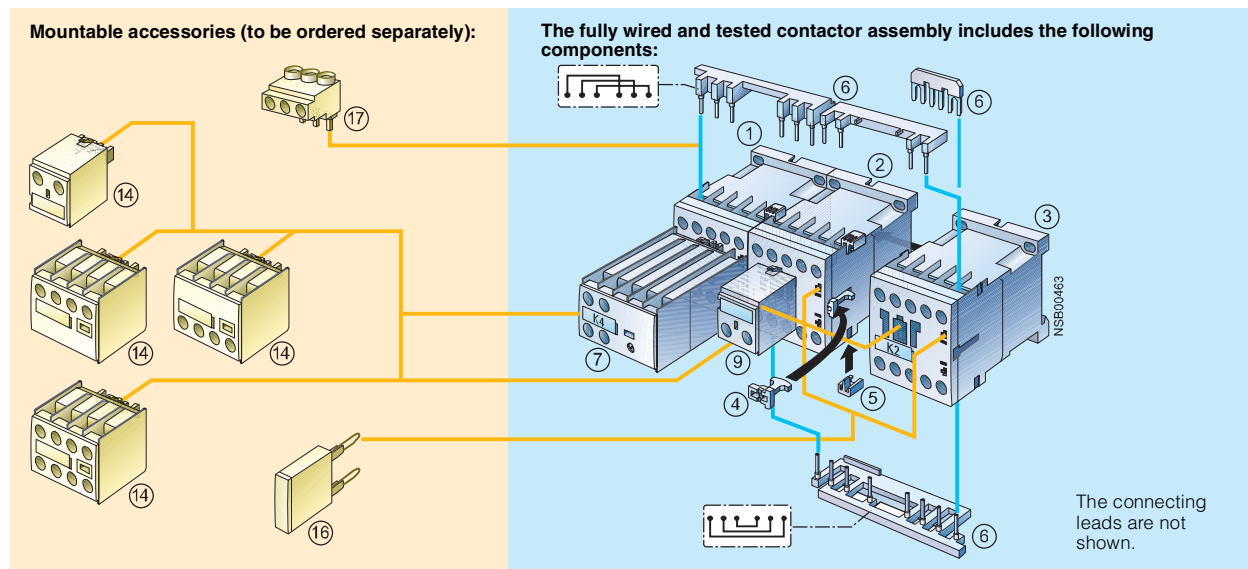
Selection and ordering data

Size S00-S00-S00 - up to 7.5 kW



Rated data AC-3		Rated control supply voltage $U_s^{1)}$		DT	Fully wired and tested contactor assemblies		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Operational current I_e at	Ratings of induction motors at 50 Hz and current I_e at				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	0.940
					110 AC	C	3RA14 15-8XB31-1AF0	1	1 unit	101	0.934
					230 ... 230 AC	▶	3RA14 15-8XB31-1AP0	1	1 unit	101	0.948
17	4.7	7.5	10.3	9.2	24 AC	B	3RA14 16-8XB31-1AB0	1	1 unit	101	0.995
					110 AC	B	3RA14 16-8XB31-1AF0	1	1 unit	101	0.935
					230 AC	▶	3RA14 16-8XB31-1AP0	1	1 unit	101	0.928
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	▶	3RA14 16-8XB31-1BB4	1	1 unit	101	1.117

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 ¹⁾	K3 ²⁾	K2 ²⁾	
14 Auxiliary switch block, front	3RH19 11-1....	3/110	1 2 3 Contactors, 5.5 kW	3RT10 15	3RT10 15	3RT10 15	3/12
16 Surge suppressors	3RT19 16-1....	3/119, 3/120	1 2 3 Contactors, 7.5 kW	3RT10 17	3RT10 17	3RT10 15	3/12
17 3-phase line-side terminal	3RA19 13-3K	3/53	7 Solid-state time-delay auxiliary switch block, front		3RT19 16-2G.51		3/117
			9 Auxiliary switch block with 1 unassigned NO contact		3RH19 11-1BA10		3/110
			4 5 6 Installation kit		3RA19 13-2B		3/53
			The installation kit contains:				
			4 Mechanical interlock				
			5 3 connecting clips				
			6 Wiring connectors 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

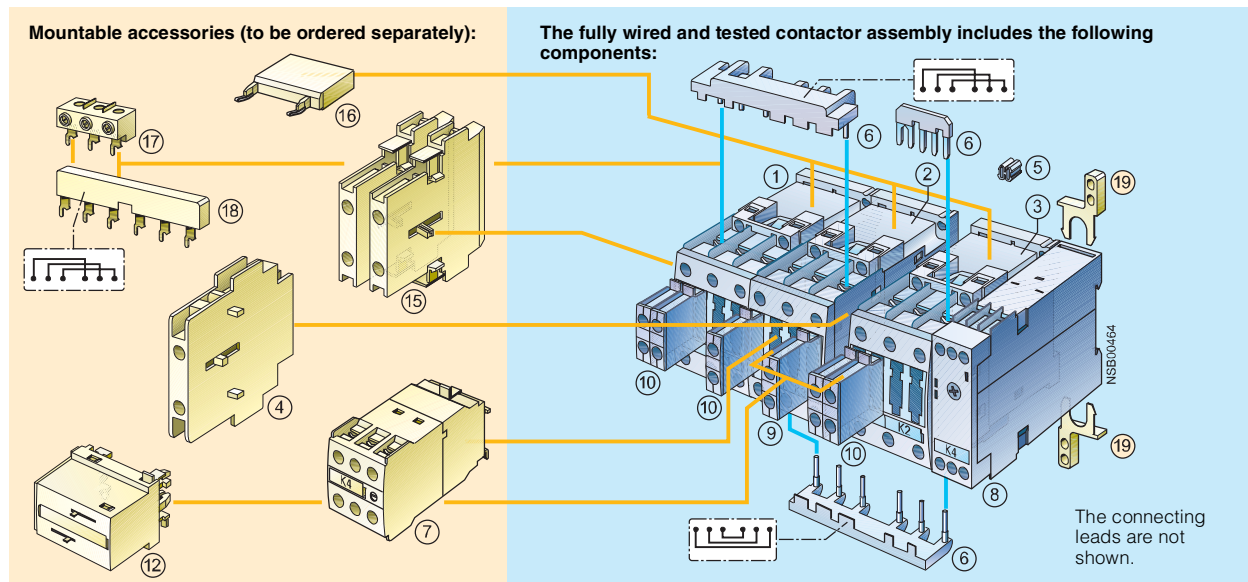
3RA14 complete units, 3 ... 75 kW

Size S0-S0-S0 · up to 18.5 kW



Rated data AC-3		Rated control supply voltage U_s ¹⁾		DT	Fully wired and tested contactor assemblies		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											
25	7.1	11	15.6	19	24 AC	C	3RA14 23-8XC21-1AC2	1	1 unit	101	1.760
					110 AC	C	3RA14 23-8XC21-1AG2	1	1 unit	101	1.760
					230 AC	▶	3RA14 23-8XC21-1AL2	1	1 unit	101	1.779
32 / 40	11.4	15 / 18.5	19	19	24 AC	C	3RA14 25-8XC21-1AC2	1	1 unit	101	1.740
					110 AC	C	3RA14 25-8XC21-1AG2	1	1 unit	101	1.735
					230 AC	▶	3RA14 25-8XC21-1AL2	1	1 unit	101	1.771
DC operation											
25	7.1	11	15.6	19	24 DC	▶	3RA14 23-8XC21-1BB4	1	1 unit	101	2.385
32 / 40	11.4	15 / 18.5	19	19	24 DC	▶	3RA14 25-8XC21-1BB4	1	1 unit	101	2.448

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	K3	K2	Page
④ Mechanical interlock, lateral	3RA19 24-2B	3/43	①②③	①②③	3RT10 24	3RT10 24	3RT10 24	3/14
⑦ Solid-state time-delay auxiliary switch block, front ¹⁾	3RT19 26-2G...	3/117	①②③	①②③	3RT10 26	3RT10 26	3RT10 24	3/14
⑫ Mechanical interlock, front	3RA19 24-1A	3/43	⑧	⑧	3RP15 74-1N.30			4)
⑮ Auxiliary switch block, lateral	3RH19 21-1EA..	3/114	⑨	⑨	3RH19 21-1CA10			3/112
⑯ Surge suppressors	3RT19 26-1....	3/119	⑩	⑩	3RH19 21-1CA01			
⑰ 3-phase line-side terminal ²⁾	3RV19 15-5A	3/53			3RH19 21-1CA10			3/112
⑱ 3-phase busbar ²⁾	3RT19 26-4CC20	3/53			3RA19 23-2B			3/53
⑲ Push-in lug ³⁾ for timing relay screw mounting	3RP19 03	4)	⑤⑥					

The installation kit contains:

- ⑤ Connecting clips
- ⑥ Wiring connectors 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 part of 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 22.5 mm industrial enclosure.

* You can order this quantity or a multiple thereof.

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3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

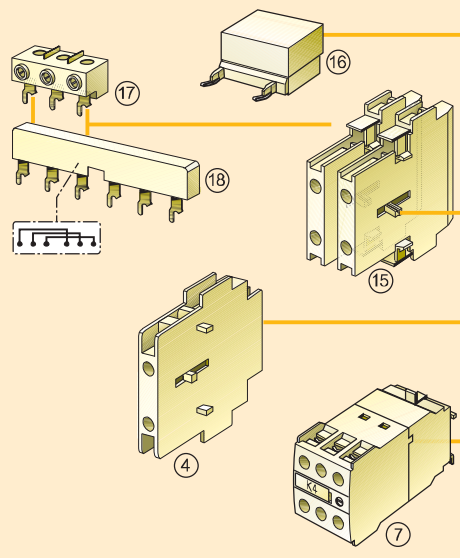
Size S2-S2-S0 · up to 30 kW



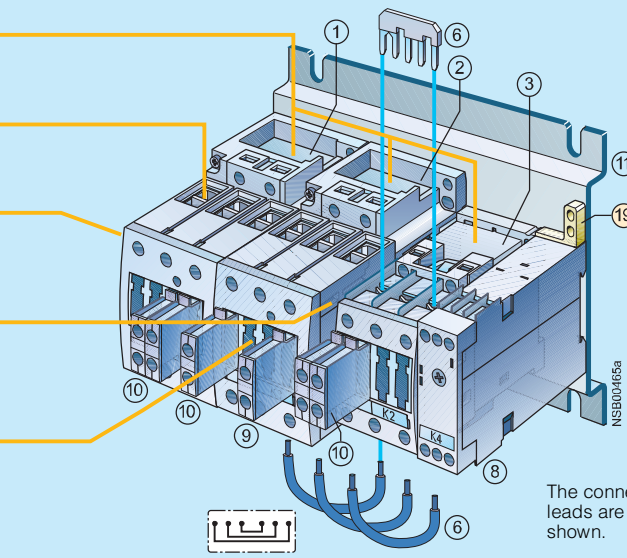
Rated data AC-3		Rated control supply voltage U_s ¹⁾	DT	Fully wired and tested contactor assemblies		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Operational current I_e up to	Ratings of induction motors at 50 Hz and				Order No.	Price per PU			kg	
400 V	230 V	400 V	500 V	690 V						
A	kW	kW	kW	kW	V					
AC operation, 50/60 Hz										
50 / 65	19.6	22 / 30	35	34	230 AC	▶ 3RA14 34-8XC21-1AL2	1	1 unit	101	3.070
					24 AC	C ▶ 3RA14 34-8XC21-1AC2	1	1 unit	101	3.140
					110 AC	C ▶ 3RA14 34-8XC21-1AG2	1	1 unit	101	3.120
DC operation										
50 / 65	19.6	22 / 30	35	34	24 DC	▶ 3RA14 34-8XC21-1BB4	1	1 unit	101	4.520

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 leads are not shown.

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	3/43	1) 2) 3) Contactors, 22/30 kW	3RT10 34	3RT10 34	3RT10 26	3/14
7) Solid-state time-delay auxiliary switch block, front ²⁾	3RT19 26-2G...	3/117	8) Timing relay, lateral	3RP15 74-1N.30			4)
15) Auxiliary switch block, lateral	3RH19 21-1EA...	3/114	9) Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/112
16) Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/119, 3/120	10) Auxiliary switch block for local control	3RH19 21-1CA01 3RH19 21-1CA10			3/112
17) 3-phase line-side terminal	3RV19 35-5A	3/53	11) Base plate	3RA19 32-2E			3/53
18) Three-phase busbar	3RV19 35-1A	3/53	16) Installation kit	3RA19 33-2C			3/53
19) Push-in lug ³⁾ for timing relay screw mounting	3RP19 03	4)	The installation kit contains the star jumper on the top and the wiring jumper on the bottom for connecting the main conducting paths.				

- Use the 3RA19 32-2B base plate for this configuration.
- 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.
- Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
- See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

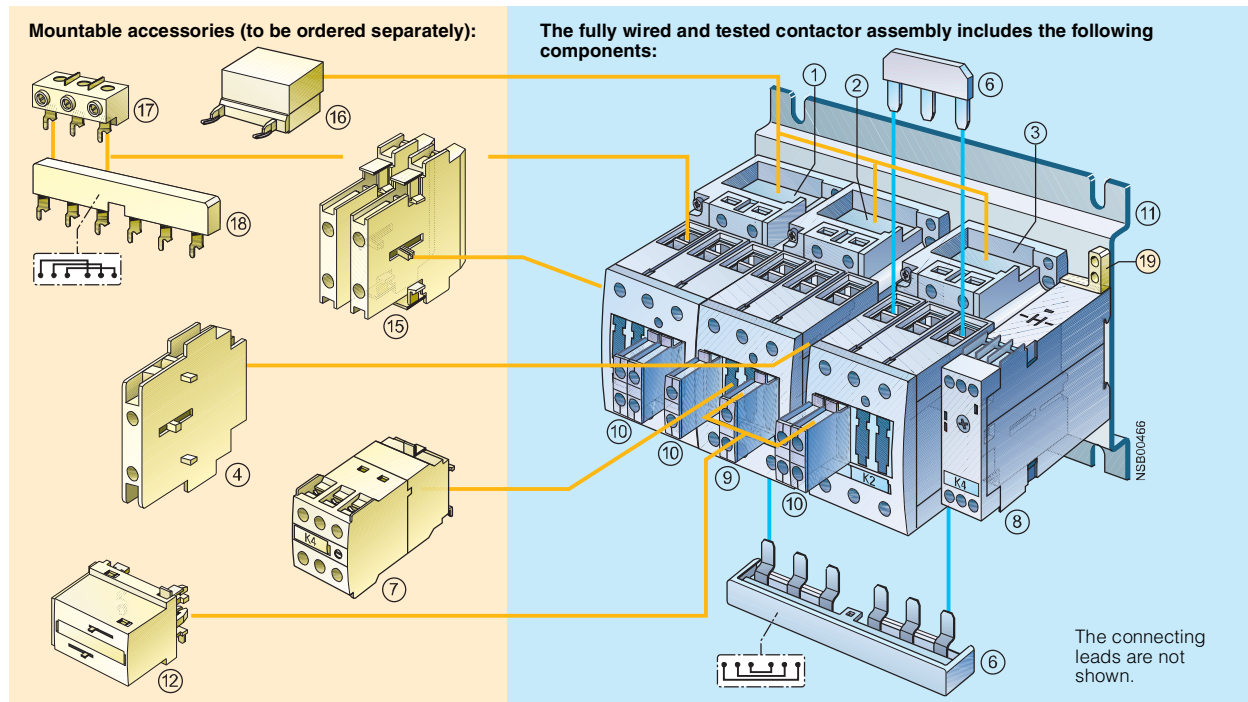
3RA14 complete units, 3 ... 75 kW

Size S2-S2-S2 · up to 45 kW



Rated data AC-3		Rated control supply voltage U_s ¹⁾	DT	Fully wired and tested contactor assemblies	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and up to				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								
80	25	37	51	63	24 AC	C	3RA14 35-8XC21-1AC2	1 1 unit 101 3.725
					110 AC	C	3RA14 35-8XC21-1AG2	1 1 unit 101 3.665
					230 AC	▶	3RA14 35-8XC21-1AL2	1 1 unit 101 3.650
86	27	45	55	63	24 AC	C	3RA14 36-8XC21-1AC2	1 1 unit 101 3.750
					110 AC	C	3RA14 36-8XC21-1AG2	1 1 unit 101 3.710
					230 AC	▶	3RA14 36-8XC21-1AL2	1 1 unit 101 3.685
DC operation								
80	25	37	51	63	24 DC	B	3RA14 35-8XC21-1BB4	1 1 unit 101 5.515
86	27	45	55	63	24 DC	B	3RA14 36-8XC21-1BB4	1 1 unit 101 5.482

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	3/43	①②③ Contactors, 37 kW	3RT10 35	3RT10 35	3RT10 34	3/16
⑦ Solid-state time-delay auxiliary switch block, front ¹⁾	3RT19 26-2G...	3/117	①②③ Contactors, 45 kW	3RT10 36	3RT10 36	3RT10 34	3/16
⑫ Mechanical interlock, front	3RA19 24-1A	3/43	⑧ Timing relay, lateral	3RP15 74-1N.30			3)
⑮ Auxiliary switch block, lateral	3RH19 21-1EA...	3/114	⑨ Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/112
⑯ Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/119, 3/120	⑩ Auxiliary switch block for local control	3RH19 21-1CA01 3RH19 21-1CA10			3/112
⑰ 3-phase line-side terminal	3RV19 35-5A	3/53					
⑱ Three-phase busbar	3RV19 35-1A	3/53	⑪ Base plate	3RA19 32-2F			3/53
			⑫ Installation kit	3RA19 33-2B			3/53

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 part of 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 22.5 mm industrial enclosure.

* You can order this quantity or a multiple thereof.

Siemens LV 1 · 2006

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3RA13, 3RA14 Contactor Assemblies

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

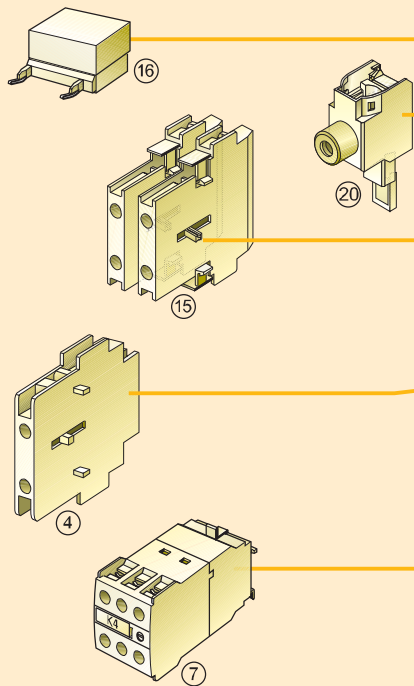
Size S3-S3-S2 · up to 75 kW



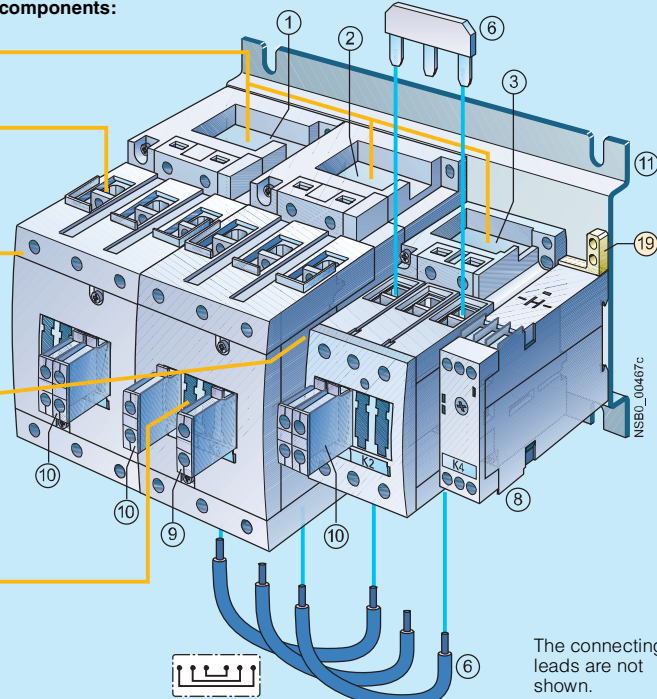
Rated data AC-3		Rated control supply voltage U_s ¹⁾		DT	Fully wired and tested contactor assemblies		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Operational current I_e at	Ratings of induction motors at 50 Hz and				Order No.	Price per PU				kg	
	400 V	230 V	400 V	500 V							690 V
A	kW	kW	kW	kW	V						
AC operation, 50/60 Hz											
115	37	55	81	93	24 AC	B	3RA14 44-8XC21-1AC2	1	1 unit	101	5.700
115	37	55	81	93	110 AC	B	3RA14 44-8XC21-1AG2	1	1 unit	101	5.680
					230 AC	B	3RA14 44-8XC21-1AL2	1	1 unit	101	5.826
150	47	75	103	110	24 AC	B	3RA14 45-8XC21-1AC2	1	1 unit	101	5.365
					110 AC	B	3RA14 45-8XC21-1AG2	1	1 unit	101	1.770
					230 AC	B	3RA14 45-8XC21-1AL2	1	1 unit	101	5.971
DC operation											
115	37	55	81	93	24 DC	B	3RA14 44-8XC21-1BB4	1	1 unit	101	8.520
150	47	75	103	110	24 DC	B	3RA14 45-8XC21-1BB4	1	1 unit	101	8.539

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 leads are not shown.

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	3/43	1) 2) 3) 1) 2) 3) 8) 9)	3RT10 44 3RT10 45	3RT10 44 3RT10 45	3RT10 35 3RT10 36	3/16 3/16 4)
7) Solid-state time-delay auxiliary switch block, front ²⁾	3RT19 26-2G...	3/117	9)			3RH19 21-1CA10	3/112
15) Auxiliary switch block, lateral	3RH19 21-1EA...	3/114	10)				
16) Surge suppressors	3RT19 .6-1....	3/119			3RH19 21-1CA01		
19) Push-in lug ³⁾ for timing relay screw mounting	3RP19 03	4)	11)		3RH19 21-1CA10		3/112
20) 1-phase line-side terminal	3RA19 43-3L	3/53	6)		3RA19 42-2E		3/53
					3RA19 43-2C		3/53

- Use the 3RA19 42-2B base plate for this configuration.
- 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.

- Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.
- See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

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
Installation kits								
The installation kit contains: mechanical interlock, 3 connecting clips, star jumper, wiring connectors on the top and bottom	S00-S00-S00	▶	3RA19 13-2B		1	1 set	101	0.048
The installation kit contains: 5 connecting clips, star jumper, wiring connectors on the top and bottom	S0-S0-S0	▶	3RA19 23-2B		1	1 set	101	0.061
The installation kit contains: star jumper, wiring connector on the bottom	S2-S2-S0	▶	3RA19 33-2C		1	1 set	101	0.051
	S2-S2-S2	▶	3RA19 33-2B		1	1 set	101	0.072
	S3-S3-S2	▶	3RA19 43-2C		1	1 set	101	0.139
(Wiring connector on the top is not included in the scope of supply. A double infeed between the line contactor and the delta contactor is recommended.)	S3-S3-S3	▶	3RA19 43-2B		1	1 set	101	0.165
	S6-S6-S6	A	3RA19 53-2B		1	1 set	101	0.843
	S10-S10-S10	A	3RA19 63-2B		1	1 set	101	1.782
	S12-S12-S12	B	3RA19 73-2B		1	1 set	101	2.205
1-phase line-side terminals								
Conductor cross-section: 95 mm ²	S3	A	3RA19 43-3L		1	1 unit	101	0.280
3-phase line-side terminals								
Line-side 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	0.022
Conductor cross-section: 25 mm ²	S0	▶	3RV19 15-5A		1	1 unit	101	0.043
Conductor cross-section: 50 mm ²	S2	▶	3RV19 35-5A		1	1 unit	101	0.115
Three-phase busbars								
Bridging phase-by-phase of all line-side terminals of the line contactor (K1) and the delta contactor (K3)	S0 S2	D	3RT19 26-4CC20 3RV19 35-1A		1	1 unit	101	0.033 0.140
Links for paralleling, 3-pole (star jumpers)								
Without connection terminal (the links for paralleling can be reduced by one pole)	S00 S0 S2 S3 S6¹⁾ S10, S12¹⁾	▶	3RT19 16-4BA31 3RT19 26-4BA31 3RT19 36-4BA31 3RT19 46-4BA31 3RT19 56-4BA31 3RT19 66-4BA31		1	1 unit	101	0.003 0.006 0.015 0.028 0.161 0.533
Base plates								
For customer assembly of contactor assemblies for wye-delta starting with a laterally mounted timing relay								
Side-by-side mounting 10 mm clearance between K3 and K2	S2, S2, S0 S2, S2, S2	B	3RA19 32-2E 3RA19 32-2F		1	1 unit	101	0.441 0.484
Side-by-side mounting 10 mm clearance between K1, K3 and K2	S3, S3, S2 S6, S6, S3 S6, S6, S6 S10, S10, S6 S10, S10, S10 S12, S12, S10 S12, S12, S12	B	3RA19 42-2E 3RA19 52-2E 3RA19 52-2F 3RA19 62-2E 3RA19 62-2F 3RA19 72-2E 3RA19 72-2F		1	1 unit	101	0.668 1.805 1.945 3.177 3.392 3.597 3.681
For customer assembly of contactor assemblies for wye-delta starting with a front-mounted timing relay, 10 mm clearance between K1, K3 and K2	S2, S2, S0 S2, S2, S2 S3, S3, S2	B	3RA19 32-2B 3RA19 32-2B 3RA19 42-2B		1	1 unit	101	0.429 0.429 0.707

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 individual mounting or thermistor motor protection trip 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 circuit diagrams.

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

Auxiliary contacts

The contactor assemblies each have 2 NO + 2 NC contacts per 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	Order No.	Price per PU	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									
	690 V	230 V	400 V	500 V	690 V									
	A	kW	kW	kW	kW	NO	NC	V AC						kg

Complete units

AC operation, 50/60 Hz

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 54.000
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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 units 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 trip 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	Order No.	Price per PU	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				
	A	kW	kW	kW	kW				kg
				V AC					

Complete units, reversing time up to 10 s

AC operation, 50 Hz

Without main conducting path connection between mains and delta contactor

14	1090	315	630	800	1000	110	C	3TE68 04-5CF0	1	1 unit	101	58.000
						230/220 ¹⁾	C	3TE68 04-5CP0	1	1 unit	101	58.000

For motor protection, overload relays for individual mounting 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.

* You can order this quantity or a multiple thereof.

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 drives that normally only have to carry the current.

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

For more detailed descriptions about the sizes S3 to S12, see 3RT10 Motor Contactors.

Selection and ordering data

Size	Rated data AC-1, $T_U: 40\text{ }^\circ\text{C}$	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	Ratings of AC loads (p.f. = 0.95) at							
	up to 690 V	230 V 400 V 500 V 690 V							
	A	kW kW kW kW V							kg

With screw terminals · for screwing and snapping onto 35 mm and 75 mm standard mounting rails



3RT14 46-1A..0

AC operation

S3	140	53	92	115	159	24 AC, 50 Hz	B	3RT14 46-1AB00	1	1 unit	101	1.850
						110 AC, 50 Hz	B	3RT14 46-1AF00	1	1 unit	101	1.828
						230 AC, 50 Hz	▶	3RT14 46-1AP00	1	1 unit	101	1.834

DC operation · DC solenoid system

S3	140	53	92	115	159	24 DC	▶	3RT14 46-1BB40	1	1 unit	101	2.835
						220 DC	B	3RT14 46-1BM40	1	1 unit	101	2.779

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: bar connections

Size	Rated data AC-1, T_U : 40 °C	Auxiliary 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 690 V A	Ratings of AC loads (p.f. = 0.95) at 230 V 400 V 500 V 690 V kW kW kW kW NO NC V								kg			
Conventional operating mechanism													
S6	275	105	180	225	310	2	2	110 ... 127 220 ... 240	▶	3RT14 56-6AF36 3RT14 56-6AP36	1 1 unit 1 1 unit	101	3.360 3.330
S10	400	151	263	329	454	2	2	110 ... 127 220 ... 240	▶	3RT14 66-6AF36 3RT14 66-6AP36	1 1 unit 1 1 unit	101	6.586 6.551
S12	690	261	454	568	783	2	2	110 ... 127 220 ... 240	A ▶	3RT14 76-6AF36 3RT14 76-6AP36	1 1 unit 1 1 unit	101	10.465 10.366
Solid-state operating mechanism · for 24 V DC PLC output													
S6	275	105	180	225	310	2	2	96 ... 127 200 ... 277	B A	3RT14 56-6NF36 3RT14 56-6NP36	1 1 unit 1 1 unit	101	3.327 3.400
S10	400	151	263	329	454	2	2	96 ... 127 200 ... 277	B A	3RT14 66-6NF36 3RT14 66-6NP36	1 1 unit 1 1 unit	101	12.569 6.550
S12	690	261	454	568	783	2	2	96 ... 127 200 ... 277	B A	3RT14 76-6NF36 3RT14 76-6NP36	1 1 unit 1 1 unit	101	10.489 10.192
Solid-state operating mechanism · for 24 V DC PLC output/PLC relay output, with indication of remaining lifetime (RLT)													
S6	275	105	180	225	310	1	1	96 ... 127 200 ... 277	B B	3RT14 56-6PF35 3RT14 56-6PP35	1 1 unit 1 1 unit	101	3.895 4.197
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	10.650
Solid-state operating mechanism · with AS-Interface and indication of remaining lifetime (RLT)													
S6	275	105	180	225	310	1	1	96 ... 127 200 ... 277	B B	3RT14 56-6QF35 3RT14 56-6QP35	1 1 unit 1 1 unit	101	3.100 3.100
S10	400	151	263	329	454	1	1	200 ... 277	B	3RT14 66-6QP35	1 1 unit	101	10.200
S12	690	261	454	568	783	1	1	200 ... 277	B	3RT14 76-6QP35	1 1 unit	101	6.459

For other voltages, see page 3/29.
 For accessories, see page 3/112.
 For spare parts, see page 3/126.

* You can order this quantity or a multiple thereof.

Siemens LV 1 - 2006

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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.

Selection and ordering data

AC operation, 4 NO contacts Screw terminals

Rated data AC-1, T_U : 40/60 °C	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 AC loads (p.f. = 0.95) at 50 Hz and 400 V kW		Order No.	Price per PU			kg

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

Size S00¹⁾

18 / 16	12 / 11	24, 50/60 Hz	▶	3RT13 16-1AB00	1	1 unit	101	0.206
		110, 50/60 Hz	▶	3RT13 16-1AF00	1	1 unit	101	0.204
		230, 50/60 Hz	▶	3RT13 16-1AP00	1	1 unit	101	0.203
22 / 20	14.5 / 13	24, 50/60 Hz	▶	3RT13 17-1AB00	1	1 unit	101	0.205
		110, 50/60 Hz	▶	3RT13 17-1AF00	1	1 unit	101	0.203
		230, 50/60 Hz	▶	3RT13 17-1AP00	1	1 unit	101	0.203

Size S0

35 / 30 ²⁾	22 / 20	24, 50 Hz	▶	3RT13 25-1AB00	1	1 unit	101	0.393
		110, 50 Hz	▶	3RT13 25-1AF00	1	1 unit	101	0.392
		230, 50 Hz	▶	3RT13 25-1AP00	1	1 unit	101	0.394
40 / 35 ²⁾	26 / 23	24, 50 Hz	▶	3RT13 26-1AB00	1	1 unit	101	0.393
		110, 50 Hz	▶	3RT13 26-1AF00	1	1 unit	101	0.391
		230, 50 Hz	▶	3RT13 26-1AP00	1	1 unit	101	0.394



3RT13 1.-1A.00



3RT13 2.-1A.00

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 the Catalog LV 1 T).

[For other voltages, see page 3/29.](#)

[For accessories, see page 3/110.](#)

[For spare parts, see page 3/126.](#)

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 .

2) Minimum conductor cross-section 10 mm².

AC operation, 4 NO contacts Cage Clamp terminals

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

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

Size S00¹⁾

18 / 16	12 / 11	24, 50/60 Hz	B	3RT13 16-2AB00	1	1 unit	101	0.202
		110, 50/60 Hz	B	3RT13 16-2AF00	1	1 unit	101	0.198
		230, 50/60 Hz	▶	3RT13 16-2AP00	1	1 unit	101	0.202
22 / 20	14.5 / 13	24, 50/60 Hz	B	3RT13 17-2AB00	1	1 unit	101	0.201
		110, 50/60 Hz	B	3RT13 17-2AF00	1	1 unit	101	0.200
		230, 50/60 Hz	▶	3RT13 17-2AP00	1	1 unit	101	0.201

Size S00:

Snap-on auxiliary switch blocks according to EN 50005.

[For other voltages, see page 3/29.](#)

[For accessories, see page 3/110.](#)

[For spare parts, see page 3/127.](#)

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

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

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

AC and DC operation, 4 NO contacts
Screw terminals

Rated data AC-1, T_U : 40/60 °C		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 AC loads (p.f. = 0.95) at 50 Hz and 400 V kW			Order No.	Price per PU				kg
A	kW	V							

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

AC operation

Size S2

60 / 55	39 / 36	24 AC, 50 Hz	B	3RT13 36-1AB00		1	1 unit	101	0.989
		110 AC, 50 Hz	B	3RT13 36-1AF00		1	1 unit	101	0.994
		230 AC, 50 Hz	▶	3RT13 36-1AP00		1	1 unit	101	0.985

Size S3

110 / 100	72 / 66	24 AC, 50 Hz	B	3RT13 44-1AB00		1	1 unit	101	2.200
		110 AC, 50 Hz	B	3RT13 44-1AF00		1	1 unit	101	2.194
		230 AC, 50 Hz	▶	3RT13 44-1AP00		1	1 unit	101	2.170
140 / 120	92 / 79	24 AC, 50 Hz	B	3RT13 46-1AB00		1	1 unit	101	2.188
		110 AC, 50 Hz	B	3RT13 46-1AF00		1	1 unit	101	2.208
		230 AC, 50 Hz	▶	3RT13 46-1AP00		1	1 unit	101	2.168

DC operation · DC solenoid system

Size S00

18 / 16	12 / 11	24 DC	▶	3RT13 16-1BB40		1	1 unit	101	0.264
		220 DC	B	3RT13 16-1BM40		1	1 unit	101	0.262
22 / 20	14.5 / 13	24 DC	▶	3RT13 17-1BB40		1	1 unit	101	0.263
		220 DC	B	3RT13 17-1BM40		1	1 unit	101	0.260

Size S0

35 / 30 ¹⁾	22 / 20	24 DC	▶	3RT13 25-1BB40		1	1 unit	101	0.624
		220 DC	B	3RT13 25-1BM40		1	1 unit	101	0.628
40 / 35 ¹⁾	26 / 23	24 DC	▶	3RT13 26-1BB40		1	1 unit	101	0.625
		220 DC	B	3RT13 26-1BM40		1	1 unit	101	0.630

Size S2

60 / 55	39 / 36	24 DC	▶	3RT13 36-1BB40		1	1 unit	101	1.576
		220 DC	B	3RT13 36-1BM40		1	1 unit	101	1.591

Size S3

110 / 100	72 / 66	24 DC	B	3RT13 44-1BB40		1	1 unit	101	3.183
		220 DC	B	3RT13 44-1BM40		1	1 unit	101	3.135
140 / 120	92 / 79	24 DC	B	3RT13 46-1BB40		1	1 unit	101	3.193
		220 DC	B	3RT13 46-1BM40		1	1 unit	101	3.134

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 the Catalog LV 1 T).

For other voltages, see page 3/29.

For accessories, see page 3/110.

For spare parts, see page 3/126.

1) Minimum conductor cross-section 10 mm².

* You can order this quantity or a multiple thereof.

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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, 4 NO contacts
Cage Clamp terminals

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

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

DC operation · DC solenoid system

Size S00

18 / 16	12 / 11	24 DC	▶	3RT13 16-2BB40	1	1 unit	101	0.260
		220 DC	B	3RT13 16-2BM40	1	1 unit	101	0.253
22 / 20	14.5 / 13	24 DC	A	3RT13 17-2BB40	1	1 unit	101	0.260
		220 DC	B	3RT13 17-2BM40	1	1 unit	101	0.254



3RT13 1.-2B..0

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

For other voltages, see page 3/29.

For accessories, see page 3/110.

For spare parts, see page 3/127.

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.

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

Surge suppression

Control circuit

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

Selection and ordering data

Screw terminals
Screw mounting



3TK13

Rated data AC-1		Auxiliary 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 690 V (at 40 °C)	Ratings of AC loads (p.f. = 0.95) at				Version		V AC					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 230 ... 240, 50 Hz 110/120, 50/60 Hz 24, 50 Hz	B D C D	3TK10 42-0AP0 3TK10 42-0AU0 3TK10 42-0AF0 3TK10 42-0AB0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	4.423 4.449 4.379 4.432
250	90	165	280	200	2	2	220 ... 230, 50 Hz 230 ... 240, 50 Hz 110/120, 50/60 Hz 24, 50 Hz	B D D D	3TK11 42-0AP0 3TK11 42-0AU0 3TK11 42-0AF0 3TK11 42-0AB0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	4.746 4.476 4.634 4.738
300	110	195	340	325	2	2	220 ... 230, 50 Hz 230 ... 240, 50 Hz 110/120, 50/60 Hz 24, 50 Hz	B D D D	3TK12 42-0AP0 3TK12 42-0AU0 3TK12 42-0AF0 3TK12 42-0AB0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	7.158 7.167 7.127 7.129
350	130	230	395	370	2	2	220 ... 230, 50 Hz 230 ... 240, 50 Hz 110/120, 50/60 Hz 24, 50 Hz	B D D D	3TK13 42-0AP0 3TK13 42-0AU0 3TK13 42-0AF0 3TK13 42-0AB0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	7.156 7.172 7.118 7.136
550	205	360	620	510	2	2	220 ... 230, 50 Hz ¹⁾ 230 ... 240, 50 Hz 110/120, 50/60 Hz	B D C	3TK14 42-0AP0 3TK14 42-0AU0 3TK14 42-0AF0	1 1 1	1 unit 1 unit 1 unit	101 101 101	18.938 19.041 19.094
800	300	525	905	575	2	2	220 ... 230, 50 Hz ¹⁾ 230 ... 240, 50 Hz 110/120, 50/60 Hz	B D C	3TK15 42-0AP0 3TK15 42-0AU0 3TK15 42-0AF0	1 1 1	1 unit 1 unit 1 unit	101 101 101	19.068 19.100 19.076
1000	375	655	1135	--	2	2	220 ... 230, 50 Hz ¹⁾ 230 ... 240, 50 Hz 110/120, 50/60 Hz	B D D	3TK17 42-0AP0 3TK17 42-0AU0 3TK17 42-0AF0	1 1 1	1 unit 1 unit 1 unit	101 101 101	20.030 20.080 20.100

For accessories, see page 3/134 onwards.
For spare parts, see page 3/142 onwards.

1) At 60 Hz: 240 V.

* 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

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 connectors and solder pin connectors 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 $I_e = 16 \text{ A}$ (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	Ratings of induction motors at 50 Hz and	Version							
at 400/380 V	230/220 V	400/380 V	500 V	690/660 V					
A	kW	kW	kW	kW					kg
				NO					
				NC					

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



AC operation

9	2.4	4	4	4	4	--	B	3TK20 40-0AP0	1	1 unit	101	0.190
					3	1	B	3TK20 31-0AP0	1	1 unit	101	0.188
					2	2	B	3TK20 22-0AP0	1	1 unit	101	0.188

DC operation - DC solenoid system

9	2.4	4	4	4	4	--	B	3TK20 40-0BB4	1	1 unit	101	0.210
					3	1	B	3TK20 31-0BB4	1	1 unit	101	0.210
					2	2	B	3TK20 22-0BB4	1	1 unit	101	0.209

3TK20 ...0...

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



AC operation

9	2.4	4	4	--	4	--	C	3TK20 40-3AP0	1	1 unit	101	0.166
					3	1	C	3TK20 31-3AP0	1	1 unit	101	0.164
					2	2	C	3TK20 22-3AP0	1	1 unit	101	0.180

DC operation - DC solenoid system

9	2.4	4	4	--	4	--	C	3TK20 40-3BB4	1	1 unit	101	0.185
					3	1	C	3TK20 31-3BB4	1	1 unit	101	0.187
					2	2	C	3TK20 22-3BB4	1	1 unit	101	0.189

3TK20 ...3...

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



AC operation

9	2.4	4	4	--	4	--	B	3TK20 40-7AP0	1	1 unit	101	0.161
					3	1	B	3TK20 31-7AP0	1	1 unit	101	0.163
					2	2	B	3TK20 22-7AP0	1	1 unit	101	0.162

DC operation - DC solenoid system

9	2.4	4	4	--	4	--	B	3TK20 40-7BB4	1	1 unit	101	0.183
					3	1	B	3TK20 31-7BB4	1	1 unit	101	0.187
					2	2	B	3TK20 22-7BB4	1	1 unit	101	0.183

3TK20 ...7...

Contactors with solder pin connectors for printed circuit boards¹⁾ for screw mounting (diagonal)



AC operation

9	2.4	4	4	--	4	--	B	3TK20 40-6AP0	1	1 unit	101	0.159
					3	1	B	3TK20 31-6AP0	1	1 unit	101	0.160
					2	2	B	3TK20 22-6AP0	1	1 unit	101	0.159

DC operation - DC solenoid system

9	2.4	4	4	--	4	--	B	3TK20 40-6BB4	1	1 unit	101	0.182
					3	1	B	3TK20 31-6BB4	1	1 unit	101	0.183
					2	2	B	3TK20 22-6BB4	1	1 unit	101	0.181

3TK20 ...6...

For accessories, see page 3/137.

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

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

3TK20 Contactors

4-pole, 4 kW

Contactor	Type	3TK20
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation		
Coils for AC 50 and 60 Hz Rated control supply voltage U_s		
Coils for AC 50 Hz		
50 Hz	60 Hz	
V AC	V AC	
230/220	276	P0¹⁾

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.](#)

Contactor	Type	3TK20
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
DC operation		
Rated control supply voltage U_s		
V DC		
24		B4

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⁾ Screw terminals

Rated data		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 : 40/60 °C			Order No.	Price per PU				
Operational current I_e	Ratings of induction motors at 50 Hz and	Operational current I_e							
400 V	400 V								
A	kW	A	V						kg

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

AC operation		DC operation · DC solenoid system							
Size S00 ²⁾		Size S00							
9	4	18 / 16	24 AC, 50/60 Hz	B	3RT15 16-1AB00	1	1 unit	101	0.205
			110 AC, 50/60 Hz	B	3RT15 16-1AF00	1	1 unit	101	0.204
			230 AC, 50/60 Hz	▶	3RT15 16-1AP00	1	1 unit	101	0.202
12	5.5	22 / 20	24 AC, 50/60 Hz	A	3RT15 17-1AB00	1	1 unit	101	0.205
			110 AC, 50/60 Hz	▶	3RT15 17-1AF00	1	1 unit	101	0.203
			230 AC, 50/60 Hz	▶	3RT15 17-1AP00	1	1 unit	101	0.205
25	11	40 / 35 ³⁾	24 AC, 50 Hz	B	3RT15 26-1AB00	1	1 unit	101	0.395
			110 AC, 50 Hz	▶	3RT15 26-1AF00	1	1 unit	101	0.390
			230 AC, 50 Hz	▶	3RT15 26-1AP00	1	1 unit	101	0.393
40	18.5	55 / 50	24 AC, 50 Hz	B	3RT15 35-1AB00	1	1 unit	101	0.983
			110 AC, 50 Hz	B	3RT15 35-1AF00	1	1 unit	101	0.991
			230 AC, 50 Hz	▶	3RT15 35-1AP00	1	1 unit	101	0.984
9	4	18 / 16	24 DC	▶	3RT15 16-1BB40	1	1 unit	101	0.263
			220 DC	B	3RT15 16-1BM40	1	1 unit	101	0.262
			24 DC	▶	3RT15 17-1BB40	1	1 unit	101	0.265
12	5.5	22 / 20	220 DC	B	3RT15 17-1BM40	1	1 unit	101	0.259
			24 DC	▶	3RT15 26-1BB40	1	1 unit	101	0.625
			220 DC	B	3RT15 26-1BM40	1	1 unit	101	0.626
20	11	40 / 35 ³⁾	24 DC	▶	3RT15 26-1BB40	1	1 unit	101	0.625
			220 DC	B	3RT15 26-1BM40	1	1 unit	101	0.626
			24 DC	▶	3RT15 35-1BB40	1	1 unit	101	1.583
40	18.5	55 / 50	220 DC	B	3RT15 35-1BM40	1	1 unit	101	1.585

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 the Catalog LV 1 T).

For other voltages, see page 3/29.
 For accessories, see page 3/110.
 For spare parts, see page 3/126.

- 1) For switching poles; 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

3RT15 Contactors

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

AC and DC operation
2 NO contacts + 2 NC contacts¹⁾
Cage Clamp terminals

Rated data	AC-1, T_U : 40/60 °C	Rated control supply voltage U_s	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC-2 and AC-3, T_U : up to 60 °C				Order No.	Price per PU			
Operational current I_e	Ratings of induction motors at 50 Hz and	Operational current I_e						
400 V	400 V							
A	kW	A	V					kg

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



3RT15 1.-2....

AC operation

Size S00²⁾

9	4	18 / 16	24 AC, 50/60 Hz	B	3RT15 16-2AB00	1	1 unit	101	0.198
			110 AC, 50/60 Hz	B	3RT15 16-2AF00	1	1 unit	101	0.196
			230 AC, 50/60 Hz	▶	3RT15 16-2AP00	1	1 unit	101	0.201
12	5.5	22 / 20	24 AC, 50/60 Hz	B	3RT15 17-2AB00	1	1 unit	101	0.200
			110 AC, 50/60 Hz	B	3RT15 17-2AF00	1	1 unit	101	0.199
			230 AC, 50/60 Hz	▶	3RT15 17-2AP00	1	1 unit	101	0.201

DC operation · DC solenoid system

Size S00

9	4	18 / 16	24 DC	▶	3RT15 16-2BB40	1	1 unit	101	0.260
			220 DC	B	3RT15 16-2BM40	1	1 unit	101	0.256
12	5.5	22 / 20	24 DC	B	3RT15 17-2BB40	1	1 unit	101	0.262
			220 DC	B	3RT15 17-2BM40	1	1 unit	101	0.255

For other voltages, see page 3/29.

For accessories, see page 3/110.

For spare parts, see page 3/127.

- 1) For switching poles; 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 .

* You can order this quantity or a multiple thereof.

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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 switching contactors are special variants of the size S00 to S3 SIRIUS contactors. The capacitors are recharged by means of the mounted leading NO contacts and resistors; only then do the main contacts close.

This prevents disturbances in the power system and welding of the contactors.

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

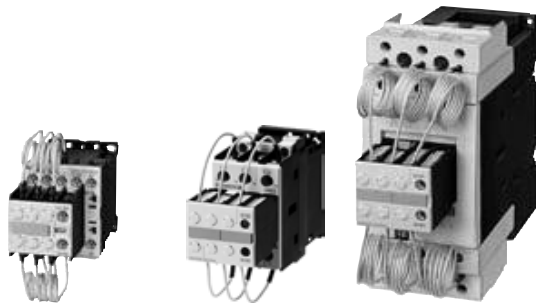
The auxiliary switch block which is snapped onto the capacitor contactor contains the three leading NO contacts and in the case of S00 one standard NC contact (in addition to one NO contact in the basic unit) and in the case of S0 and S3 one standard NO contact, which is unassigned. Size S00 also contains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

In addition, a 2-pole auxiliary contact 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 making and switching capacity of the basic 3RT10 contactor variant, see Technical Specifications.

Selection and ordering data

AC operation Screw terminals



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⁾												
Capacitor rating at operating voltage 50/60 Hz												
230 V	400 V	525 V	690 V				Order No.	Price per PU				kg
kvar	kvar	kvar	kvar	NO	NC	V AC	Hz					
For screw and snap-on mounting onto 35 mm standard mounting rails												
Size S00												
3 ... 7.5	5 ... 12.5	7.5 ... 15	10 ... 21	1	1	24	50 / 60	▶ 3RT16 17-1AB03	1	1 unit	101	0.278
						110		B 3RT16 17-1AF03	1	1 unit	101	0.276
						230		▶ 3RT16 17-1AP03	1	1 unit	101	0.275
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	0.430
						230		▶ 3RT16 27-1AP01	1	1 unit	101	0.431
Size S3												
3.5 ... 30	5 ... 50	7.5 ... 60	10 ... 84	1	--	24	50	B 3RT16 47-1AB01	1	1 unit	101	2.037
						110		B 3RT16 47-1AF01	1	1 unit	101	2.040
						230		▶ 3RT16 47-1AP01	1	1 unit	101	2.033

For other voltages, see page 3/29.

For accessories, see page 3/114.

- 1) For size S3: 55 °C.
- 2) Operating range: 0.85 ... 1.1 x 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 Tolerance 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 coil operating range) is -40 °C to +70 °C.

Uninterrupted duty at temperatures > +55 °C reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the operating 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 coils of the contactor relays have an extended tolerance from 0.7 to 1.25 x U_S and are fitted as standard with varistors to provide protection against voltage surges. The opening delay is consequently 2 to 5 ms longer than for standard contactors.

3RH11...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.

3RH1122-2K.40

These contactor relays have an extended tolerance 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 fitted with varistor



3RH11 22-2K.40:



3RH11 22-2K.40-0LA0

Rated operational current I _b /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.
Version				Order No.	Price per PU			kg
230 V	400 V	500 V	690 V	A				
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⁾	▶	3RH11 22-2KB40 3RH11 22-2KF40	1 1	1 unit 1 unit	101 101	0.255 0.256
6	3	2	1	2	1 ³⁾	24 110	A A	3RH11 22-2KB40-0LA0 3RH11 22-2KF40-0LA0	1 1	1 unit 1 unit	101 101	0.284 0.285

- 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 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 Tolerance 0.7 ... 1.25 x 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

With screw terminals

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

Solenoid fitted with varistor



3TH4

Contacts	Rated operational current I_e /AC-15/AC-14	Contacts ¹⁾	Rated control supply voltage U_s	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.				
		Ident. No. acc. to EN 50011												
		230 V 400 V 500 V 690 V												
Number	A	A	A	A	NO	NC	V			kg				
3TH42 contactor relays · DC operation · DC solenoid system														
8	10	6	4	2	44 E	4	4	24 DC	B	3TH42 44-0LB4	1	1 unit	101	0.674
								110 DC	B	3TH42 44-0LF4	1	1 unit	101	0.661
								24 DC	C	3TH42 53-0LB4	1	1 unit	101	0.669
								110 DC	C	3TH42 53-0LF4	1	1 unit	101	0.660
62 E	6	2	24 DC	B	3TH42 62-0LB4	1	1 unit	101	0.667					
										110 DC	B	3TH42 62-0LF4	1	1 unit

For accessories, see page 3/139.

1) Contacts not extendable.

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

Contactors with Extended Tolerance $0.7 \dots 1.25 \times U_s$, 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 terminals. 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 $-40 \text{ }^\circ\text{C}$ to $+70 \text{ }^\circ\text{C}$.

Uninterrupted duty at temperatures $> +55 \text{ }^\circ\text{C}$ reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the operating 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 coils of the contactors have an extended tolerance from 0.7 to $1.25 \times U_s$ and are fitted as standard with varistors to provide protection against voltage surges. The opening delay is consequently 2 to 5 ms longer than for standard contactors.

3RT10 ...-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 leads for mounting the 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, unassigned auxiliary contacts. It is only possible to extend the number of auxiliary contacts with size S00.

Mounting

At ambient temperatures up to $70 \text{ }^\circ\text{C}$, 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 leads.

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

These contactors have an extended tolerance 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 $> 60 \text{ }^\circ\text{C} \leq 70 \text{ }^\circ\text{C}$, a clearance of 10 mm is required when they are mounted side by side.

3RT10 contactors with contactor control unit, extended tolerance

Control and auxiliary circuits

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

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

The contactors are energized using series-connected control electronics, ensuring the coil operating range of 0.7 to $1.25 \times U_s$ at an ambient temperature of $70 \text{ }^\circ\text{C}$. They are supplied as complete self-contained 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 $70 \text{ }^\circ\text{C}$, 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 operating range of the coils) is $-40 \text{ }^\circ\text{C}$ to $+70 \text{ }^\circ\text{C}$.

Uninterrupted duty at temperatures $> +55 \text{ }^\circ\text{C}$ reduces the mechanical endurance, the current-carrying capacity of the conducting paths and the operating 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).

3

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

Contactors with Extended Tolerance 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 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 _{ij} : 70 °C		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 400 V	Rating of induction motors at 230 V 400 V 500 V 690 V	Version				Order No.	Price per PU			kg
A	kW kW kW kW	NO	NC	V DC						

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	0.256 0.256
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	0.256 0.255
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	0.283 0.285

Size S0

Cage Clamp terminals for coil connections 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	0.580 0.574
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	0.581 0.575
17	4	7.5	10	11	2	2 ⁵⁾	24 110	B B	3RT10 25-3KB44-0LA0 3RT10 25-3KF44-0LA0	1 1	1 unit 1 unit	101 101	0.760 0.745
25	5.5	11	11	11	2	2 ⁵⁾	24 110	B B	3RT10 26-3KB44-0LA0 3RT10 26-3KF44-0LA0	1 1	1 unit 1 unit	101 101	0.758 0.742

Size S2

Cage Clamp terminals for coil connections and auxiliary contacts

32	7.5	15	18.5	18.5	2	2 ⁵⁾	24 110	B B	3RT10 34-3KB44-0LA0 3RT10 34-3KF44-0LA0	1 1	1 unit 1 unit	101 101	1.630 1.664
40	11	18.5	22	22	2	2 ⁵⁾	24 110	B B	3RT10 35-3KB44-0LA0 3RT10 35-3KF44-0LA0	1 1	1 unit 1 unit	101 101	1.648 1.656
50	15	22	30	22	2	2 ⁵⁾	24 110	B B	3RT10 36-3KB44-0LA0 3RT10 36-3KF44-0LA0	1 1	1 unit 1 unit	101 101	1.647 1.669

Size S3

Cage Clamp terminals for coil connections and auxiliary contacts

65	18.5	30	37	43	2	2 ⁵⁾	24 110	B B	3RT10 44-3KB44-0LA0 3RT10 44-3KF44-0LA0	1 1	1 unit 1 unit	101 101	3.070 3.028
80	22	37	45	55	2	2 ⁵⁾	24 110	B B	3RT10 45-3KB44-0LA0 3RT10 45-3KF44-0LA0	1 1	1 unit 1 unit	101 101	3.085 2.670
95	22	45	55	55	2	2 ⁵⁾	24 110	B B	3RT10 46-3KB44-0LA0 3RT10 46-3KF44-0LA0	1 1	1 unit 1 unit	101 101	3.090 3.042

For spare parts, see page 3/127.

- 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) One 4-pole auxiliary switch block according to EN 50005 can be mounted; no clearance required up to 70 °C.
- 3) Version without series resistor.
- 4) 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.
- 5) The number of auxiliary contacts cannot be increased; no clearance required up to 70 °C.

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

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

3RT10 motor contactors, 5.5 ... 45 kW

DC operation · DC solenoid system

Screw terminals

For screw and snap-on mounting onto standard mounting rail

Contactors control unit

Solenoid fitted with varistor

Rated data AC-2 and AC-3 T_{ij} : up to 70 °C		Auxiliary contacts ¹⁾			Rated control supply voltage U_s	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Rated operational current I_e at	Rating of induction motors at 50 Hz	Ident. No.	Version				Order No.	Price per PU			kg	
400 V	400 V											
A	kW	NO	NC	V DC								
For screw and snap-on mounting onto 35 mm standard mounting rail												
Size S0												
17	7.5	--	--	--	24	B	3RT10 25-1XB40-0LA2		1	1 unit	101	0.625
		--	--	--	110	B	3RT10 25-1XF40-0LA2		1	1 unit	101	0.340
25	11	--	--	--	24	B	3RT10 26-1XB40-0LA2		1	1 unit	101	0.627
		--	--	--	110	B	3RT10 26-1XF40-0LA2		1	1 unit	101	0.445
Size S2												
32	15	--	--	--	24	B	3RT10 34-1XB40-0LA2		1	1 unit	101	1.432
		--	--	--	110	B	3RT10 34-1XF40-0LA2		1	1 unit	101	1.505
40	18.5	--	--	--	24	B	3RT10 35-1XB40-0LA2		1	1 unit	101	1.491
		--	--	--	110	B	3RT10 35-1XF40-0LA2		1	1 unit	101	1.432
50	22	--	--	--	24	B	3RT10 36-1XB40-0LA2		1	1 unit	101	1.491
		--	--	--	110	B	3RT10 36-1XF40-0LA2		1	1 unit	101	1.432
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		1	1 unit	101	2.864
		--	--	--	110	B	3RT10 44-1XF40-0LA2		1	1 unit	101	2.775
80	37	--	--	--	24	B	3RT10 45-1XB40-0LA2		1	1 unit	101	2.871
		--	--	--	110	B	3RT10 45-1XF40-0LA2		1	1 unit	101	2.720
95	45	--	--	--	24	B	3RT10 46-1XB40-0LA2		1	1 unit	101	2.913
		--	--	--	110	B	3RT10 46-1XF40-0LA2		1	1 unit	101	2.913

1) Auxiliary switch blocks mountable as standard contactors.

* You can order this quantity or a multiple thereof.

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

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

3RT10 motor contactors, 5.5 ... 45 kW

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



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

Rated data AC-2 and AC-3 T _v : up to 70 °C		Auxiliary contacts ¹⁾		Rated control supply voltage U _s	DT	Cage Clamp terminals for coil connections	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Rated operational current I _e at 400 V	Rating of induction motors at 50 Hz 400 V	Ident. No.	Version			Order No.	Price per PU			kg	
A	kW	NO	NC	V DC							
For screw and snap-on mounting onto 35 mm standard mounting rail											
Size S0											
17	7.5	--	--	--	24	B	3RT10 25-3XB40-0LA2	1	1 unit	101	0.340
		--	--	--	110	B	3RT10 25-3XF40-0LA2	1	1 unit	101	0.645
25	11	--	--	--	24	B	3RT10 26-3XB40-0LA2	1	1 unit	101	0.630
		--	--	--	110	B	3RT10 26-3XF40-0LA2	1	1 unit	101	0.639
Size S2											
32	15	--	--	--	24	C	3RT10 34-3XB40-0LA2	1	1 unit	101	1.466
		--	--	--	110	B	3RT10 34-3XF40-0LA2	1	1 unit	101	1.500
40	18.5	--	--	--	24	C	3RT10 35-3XB40-0LA2	1	1 unit	101	1.486
		--	--	--	110	B	3RT10 35-3XF40-0LA2	1	1 unit	101	1.515
50	22	--	--	--	24	B	3RT10 36-3XB40-0LA2	1	1 unit	101	1.489
		--	--	--	110	B	3RT10 36-3XF40-0LA2	1	1 unit	101	1.466
For screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail											
Size S3											
65	30	--	--	--	24	B	3RT10 44-3XB40-0LA2	1	1 unit	101	2.855
		--	--	--	110	B	3RT10 44-3XF40-0LA2	1	1 unit	101	2.787
80	37	--	--	--	24	B	3RT10 45-3XB40-0LA2	1	1 unit	101	2.720
		--	--	--	110	B	3RT10 45-3XF40-0LA2	1	1 unit	101	2.720
95	45	--	--	--	24	B	3RT10 46-3XB40-0LA2	1	1 unit	101	2.913
		--	--	--	110	B	3RT10 46-3XF40-0LA2	1	1 unit	101	2.913

1) Auxiliary switch blocks mountable as standard contactors.

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

Contactors with Extended Tolerance $0.7 \dots 1.25 \times U_s$, 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
With screw terminals
For screw fixing
Solenoid fitted with varistor

Size	Rated data AC-2 and AC-3		Auxiliary contacts ¹⁾				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 at 400 V A	Ratings of induction motors at 230 V kW 400 V kW 500 V kW 690 V kW	NO	NC	V DC	kg								
Contactors for switching AC voltage · DC operation · DC solenoid system														
6	110	37 55	75	90	2	1	24 110	C C	3TB50 17-0LB4 3TB50 17-0LF4		1 1	1 unit 1 unit	101 101	6.674 6.640
8	170	55 90	110	132	2	1	24 110	C C	3TB52 17-0LB4 3TB52 17-0LF4		1 1	1 unit 1 unit	101 101	9.250 9.222
10	250	75 132	160	200	2	1	24 110	C C	3TB54 17-0LB4 3TB54 17-0LF4		1 1	1 unit 1 unit	101 101	16.800 8.845
12	400	115 200	255	355	2	1	110	C	3TB56 17-0LF4		1	1 unit	101	19.793

1) The number of auxiliary contacts cannot be increased.

* You can order this quantity or a multiple thereof.

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

Contactors with Extended Tolerance 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

With screw terminals

3TC44: for screw and snap-on mounting onto 35 mm standard mounting rail

3TC48 to 3TC56: for screw fixing

Solenoid fitted with varistor



3TC48

Size	Utilization category	Rated operational current I _e at 750 V A	Rating of AC loads at					Auxiliary contacts ¹⁾		Rated control supply voltage U _s V DC	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
			220 V	440 V	600 V	750 V	NO	NC									
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-OLB4		1	1 unit	101	1.321	
	DC-3/DC-5	7.5	5	9	9	4	110	C	3TC44 17-OLF4	1							1 unit
4	DC-1	75	16.5	33	45	56	2	1	24	C	3TC48 17-OLB4		1	1 unit	101	4.857	
	DC-3/DC-5	75	13	27	38	45	110	C	3TC48 17-OLF4	1							1 unit
8	DC-1	170	48	97	132	165	2	1	24	C	3TC52 17-OLB4		1	1 unit	101	10.722	
	DC-3/DC-5	170	41	82	110	110	110	C	3TC52 17-OLF4	1							1 unit
12	DC-1	400	88	176	240	300	2	1	24	C	3TC56 17-OLB4		1	1 unit	101	24.150	
	DC-3/DC-5	400	70	140	200	250	110	C	3TC56 17-OLF4	1							1 unit

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 750V/400A 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 operating range is available for use in electrically driven vehicles and in switchgear with significant fluctuations in the operating voltage (see page 3/74).

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

3TC Contactors for Switching DC Voltage

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



Size	Rated data DC-3 and DC-5 ¹⁾	Auxiliary contacts ²⁾	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 ³⁾	Version								kg
	Ratings of DC motors at 110 V 220 V 440 V 600 V 750 V									
A	kW kW kW kW kW	NO NC V								

3TC44 to 3TC56 2-pole contactors · Operating voltage up to 440 V

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 110 DC 220 DC	▶ ▶ ▶	3TC44 17-0AB4 3TC44 17-0AF4 3TC44 17-0AM4	1 1 1	1 unit 1 unit 1 unit	101 101 101	1.050 1.046 1.050
---	----	-----	---	---	---	---	---	---	---------------------------	-------------	--	-------------	----------------------------	-------------------	-------------------------

Screw mounting

4	75	6.5	13	27	38	45	2	2	24 DC 110 DC 220 DC	▶ ▶ A	3TC48 17-0AB4 3TC48 17-0AF4 3TC48 17-0AM4	1 1 1	1 unit 1 unit 1 unit	101 101 101	4.680 4.745 4.513
8	220 ⁴⁾	20	41	82	110	110	2	2	24 DC 110 DC 220 DC	C C C	3TC52 17-0AB4 3TC52 17-0AF4 3TC52 17-0AM4	1 1 1	1 unit 1 unit 1 unit	101 101 101	10.589 9.826 9.878
12	400	35	70	140	200	250	2	2	24 DC 110 DC 220 DC	C C C	3TC56 17-0AB4 3TC56 17-0AF4 3TC56 17-0AM4	1 1 1	1 unit 1 unit 1 unit	101 101 101	17.870 19.318 22.870

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⁾ 110 / 110 AC	▶ ▶	3TC44 17-0BP0 3TC44 17-0BF0	1 1	1 unit 1 unit	101 101	0.673 0.683
---	----	-----	---	---	---	---	---	---	--	--------	--	--------	------------------	------------	----------------

Screw mounting

4	75	6.5	13	27	38	45	2	2	220 / 230 AC ⁵⁾ 110 AC	▶ C	3TC48 17-0BP0 3TC48 17-0BF0	1 1	1 unit 1 unit	101 101	3.447 3.487
8	220 ⁴⁾	20	41	82	110	110	2	2	220 / 230 AC ⁵⁾ 110 AC	A C	3TC52 17-0BP0 3TC52 17-0BF0	1 1	1 unit 1 unit	101 101	7.005 7.041
12	400	35	70	140	200	250	2	2	220 / 230 AC ⁵⁾ 110 AC	C C	3TC56 17-0BP0 3TC56 17-0BF0	1 1	1 unit 1 unit	101 101	14.437 14.363

For more rated control supply voltages U_s , see page 3/77.

- For the permissible load for utilization category DC-1, see Technical Specifications.
- The auxiliary switch complement cannot be altered on DC-operated contactors.
- The following rated operational currents are permitted for reversing duty with 3TC44 to 3TC56 contactors:

Contactor Type	Rated operating voltage	
	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
- For > 600 V: $I_e = 170$ A.
- Operating range at 220 V: 0.85 to 1.15 x 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	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Operational current I_e									
	Ratings of DC motors at									
			110 V 220 V 440 V 600 V 750 V 1200 V 1500 V							
	A	kW	kW	kW	kW	kW	kW	NO	NC	V
										kg

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

DC operation

12	400	35	70	140	200	250	--	--	4	4	24 DC	C	3TC74 14-0EB		1	1 unit	101	10.728
											110 DC	C	3TC74 14-0EF		1	1 unit	101	10.660

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	10.850
----	-----	----	----	-----	-----	-----	----	----	---	---	----------------------------	---	---------------------	--	---	--------	-----	--------

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

DC operation

12	400	35	70	140	200	250	400	500	4	4	24 DC	C	3TC78 14-0EB		1	1 unit	101	22.500
											110 DC	C	3TC78 14-0EF		1	1 unit	101	15.960

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	23.824
----	-----	----	----	-----	-----	-----	-----	-----	---	---	----------------------------	---	---------------------	--	---	--------	-----	--------

For more rated control supply voltages U_s , see below.

For spare parts, see page 3/144.

- For the permissible load for utilization category DC-1, see Technical Specifications.
- The auxiliary switch complement cannot be altered on DC-operated contactors.
- Upper operating range limit at 230 V: $1.14 \times U_s$.

Contactors type	3TC44	3TC48	3TC52/56	3TC74/78
Rated control supply voltage U_s				

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

AC operation · 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 · 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) Coil 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: $1.14 \times U_s$.

* You can order this quantity or a multiple thereof.

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

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.

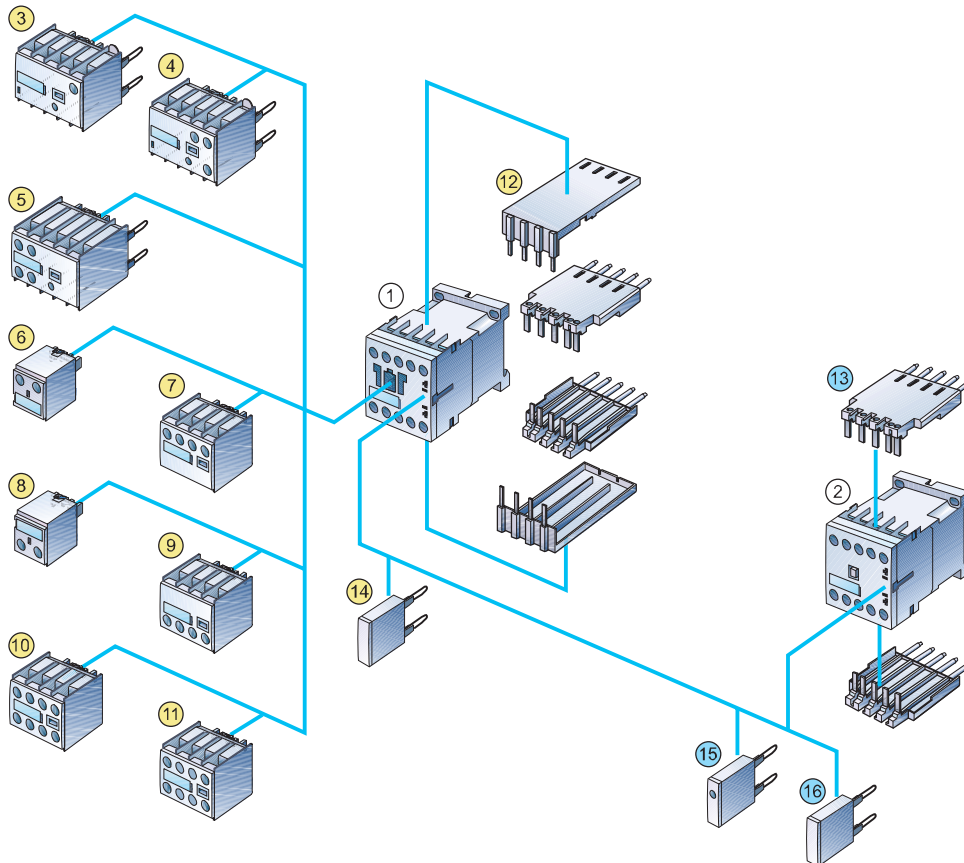
Contactor relays and coupling relays
Size S00 with accessories

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 3/79
- ② Coupling relay for auxiliary circuits, see page 3/88
- ③ Solid-state time-delay block, ON-delay, see page 3/118
- ④ Solid-state time delay block, OFF-delay, see page 3/118
- ⑤ Auxiliary switch block with solid-state time delay, see page 3/117
(versions: ON or OFF-delay)
- ⑥ 1-pole auxiliary switch block, cable entry from above, see page 3/110
- ⑦ 2-pole auxiliary switch block, cable entry from above, see page 3/110
- ⑧ Single-pole auxiliary switch block, cable entry from below, see page 3/110
- ⑨ 2-pole auxiliary switch block, cable entry from below, see page 3/110
- ⑩ 4-pole auxiliary switch block, see page 3/110
(terminal designations according to EN 50011 or EN 50005)
- ⑪ 2-pole auxiliary switch block, standard design or solid-state compatible version, see page 3/110
(terminal designations according to EN 50005)
- ⑫ Solder pin adapter for contactor relays with 4-pole auxiliary switch block, see page 3/123
- ⑬ Solder pin adapter for contactor relays and coupling relays, see page 3/122
- ⑭ Additional load module for increasing the permissible residual current, see page 3/121
- ⑮ Surge suppressor with LED, see page 3/120
- ⑯ Surge suppressor without LED, see page 3/120

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

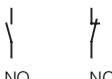
Selection and ordering data

AC and DC operation
Screw terminals



3RH11 ...-1...

3RH12 ...-1...

Rated operational current I_g /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. Version			Order No. Price per PU				
A	 NO NC	V						kg

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

AC operation

AC 50/60 Hz¹⁾

• Size S00

Terminal designations according to EN 50011

6	40 E	4	--	24	▶ 3RH11 40-1AB00	1	1 unit	101	0.204
				110	▶ 3RH11 40-1AF00	1	1 unit	101	0.202
				230	▶ 3RH11 40-1AP00	1	1 unit	101	0.204
31 E	3	1	24	▶ 3RH11 31-1AB00	1	1 unit	101	0.204	
			110	▶ 3RH11 31-1AF00	1	1 unit	101	0.202	
			230	▶ 3RH11 31-1AP00	1	1 unit	101	0.203	
22 E	2	2	24	▶ 3RH11 22-1AB00	1	1 unit	101	0.203	
			110	▶ 3RH11 22-1AF00	1	1 unit	101	0.202	
			230	▶ 3RH11 22-1AP00	1	1 unit	101	0.204	

With permanently mounted auxiliary switch block

6	44 E	4	4	230	▶ 3RH12 44-1AP00	1	1 unit	101	0.254
	62 E	6	2	230	▶ 3RH12 62-1AP00	1	1 unit	101	0.251

DC operation - DC solenoid system

6	40 E	4	--	24	▶ 3RH11 40-1BB40	1	1 unit	101	0.264
				220	▶ 3RH11 40-1BM40	1	1 unit	101	0.261
				24	▶ 3RH11 31-1BB40	1	1 unit	101	0.262
31 E	3	1	220	▶ 3RH11 31-1BM40	1	1 unit	101	0.259	
			24	▶ 3RH11 22-1BB40	1	1 unit	101	0.264	
22 E	2	2	220	▶ 3RH11 22-1BM40	1	1 unit	101	0.260	

With permanently mounted auxiliary switch block

6	44 E	4	4	24	▶ 3RH12 44-1BB40	1	1 unit	101	0.312
	62 E	6	2	24	▶ 3RH12 62-1BB40	1	1 unit	101	0.313

For other voltages, see page 3/81.

For accessories, see page 3/110 and 3/113.

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

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

* You can order this quantity or a multiple thereof.

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

AC and DC operation Cage Clamp terminals



3RH11 ...2...

3RH12 ...2...

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

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

AC operation

AC 50/60 Hz¹⁾

• Size S00

Terminal designations according to EN 50011

6	40 E	4	--	24	▶	3RH11 40-2AB00	1	1 unit	101	0.201
				110	▶	3RH11 40-2AF00	1	1 unit	101	0.199
				230	▶	3RH11 40-2AP00	1	1 unit	101	0.200
31 E	3	1	24	▶	3RH11 31-2AB00	1	1 unit	101	0.200	
			110	▶	3RH11 31-2AF00	1	1 unit	101	0.199	
			230	▶	3RH11 31-2AP00	1	1 unit	101	0.199	
22 E	2	2	24	▶	3RH11 22-2AB00	1	1 unit	101	0.201	
			110	▶	3RH11 22-2AF00	1	1 unit	101	0.200	
			230	▶	3RH11 22-2AP00	1	1 unit	101	0.199	

With permanently mounted auxiliary switch block

6	44 E	4	4	230	B	3RH12 44-2AP00	1	1 unit	101	0.253
	62 E	6	2	230	B	3RH12 62-2AP00	1	1 unit	101	0.254

DC operation · DC solenoid system

6	40 E	4	--	24	▶	3RH11 40-2BB40	1	1 unit	101	0.260
				220	B	3RH11 40-2BM40	1	1 unit	101	0.257
31 E	3	1	24	▶	3RH11 31-2BB40	1	1 unit	101	0.259	
			220	B	3RH11 31-2BM40	1	1 unit	101	0.254	
22 E	2	2	24	▶	3RH11 22-2BB40	1	1 unit	101	0.261	
			220	B	3RH11 22-2BM40	1	1 unit	101	0.255	

With permanently mounted auxiliary switch block

6	44 E	4	4	24	A	3RH12 44-2BB40	1	1 unit	101	0.311
	62 E	6	2	24	A	3RH12 62-2BB40	1	1 unit	101	0.314

For other voltages, see page 3/81.

For accessories, see page 3/110 and 3/113.

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

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 .

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

Contactor	Type	3RH11
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		

AC operation

Coils for AC 50 and 60 Hz

Rated control supply voltage U_s	Control supply voltage at	
V AC 50/60 Hz¹⁾	V AC 60 Hz	Option
24	--	B0
42	--	D0
48	--	H0
110	--	F0
220	--	N2
230	--	P0
400	--	V0
For Japan ²⁾		
100	110	G6
200	220	N6
400	440	R6
For USA and Canada ³⁾		
V AC 50 Hz	V AC 60 Hz	
110	120	K6
220	240	P6

DC operation

Rated control supply voltage U_s	
V DC	Option
12	A4
24	B4
42	D4
48	W4
60	E4
110	F4
125	G4
220	M4
230	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 continuous 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 22-1BB40

Rated operational current I_e /AC-15/AC-14 at 230 V	Contacts	Rated control supply voltage U_s	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A	Ident. No. acc. to EN 50011 Version 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.	Price per PU	PU	PS*	PG	Weight per PU approx.
				24	42							
				24	B		3RH14 40-1AB00		1	1 unit	101	0.385
				42	B		3RH14 40-1AD00		1	1 unit	101	0.380
				110	B		3RH14 40-1AF00		1	1 unit	101	0.385
				230	A		3RH14 40-1AP00		1	1 unit	101	0.384
	31 E	3	1	24	B		3RH14 31-1AB00		1	1 unit	101	0.385
				42	B		3RH14 31-1AD00		1	1 unit	101	0.386
				110	B		3RH14 31-1AF00		1	1 unit	101	0.385
				230	B		3RH14 31-1AP00		1	1 unit	101	0.386
	22 E	2	2	24	B		3RH14 22-1AB00		1	1 unit	101	0.389
				42	B		3RH14 22-1AD00		1	1 unit	101	0.388
				110	B		3RH14 22-1AF00		1	1 unit	101	0.387
				230	▶		3RH14 22-1AP00		1	1 unit	101	0.389

DC operation · DC solenoid system

6	40 E	4	--	DC		DT	Order No.	Price per PU	PU	PS*	PG	Weight per PU approx.
				24	220							
				24	▶		3RH14 40-1BB40		1	1 unit	101	0.509
				110	B		3RH14 40-1BF40		1	1 unit	101	0.504
				220	B		3RH14 40-1BM40		1	1 unit	101	0.502
	31 E	3	1	24	B		3RH14 31-1BB40		1	1 unit	101	0.504
				110	B		3RH14 31-1BF40		1	1 unit	101	0.510
				220	B		3RH14 31-1BM40		1	1 unit	101	0.494
	22 E	2	2	24	▶		3RH14 22-1BB40		1	1 unit	101	0.504
				110	B		3RH14 22-1BF40		1	1 unit	101	0.505
				220	B		3RH14 22-1BM40		1	1 unit	101	0.510

For accessories, see page 3/110 and 3/113.

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 .

3RH, 3TH Contactor Relays

3TH4 contactor relays, 8- and 10-pole

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_e /AC-15/AC-14 at	Contacts	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	230/ 400/ 500 V 220 V 380 V	Ident. No. Version acc. to EN 50011							
Number	A A A A	NO NC NO NC							kg

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	--	--	--	B	3TH42 80-0AP0	1	1 unit	101	0.422
					71 E	7	1	--	--	B	3TH42 71-0AP0	1	1 unit	101	0.420
					62 E	6	2	--	--	B	3TH42 62-0AP0	1	1 unit	101	0.420
					53 E	5	3	--	--	C	3TH42 53-0AP0	1	1 unit	101	0.420
					44 E	4	4	--	--	B	3TH42 44-0AP0	1	1 unit	101	0.419
					44 E, U	3	3	1	1	B	3TH42 93-0AP0	1	1 unit	101	0.425

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

8	10	6	4	2	80 E	8	--	--	--	B	3TH42 80-0BB4	1	1 unit	101	0.664
					71 E	7	1	--	--	B	3TH42 71-0BB4	1	1 unit	101	0.663
					62 E	6	2	--	--	B	3TH42 62-0BB4	1	1 unit	101	0.673
					53 E	5	3	--	--	B	3TH42 53-0BB4	1	1 unit	101	0.662
					44 E	4	4	--	--	B	3TH42 44-0BB4	1	1 unit	101	0.660
					44 E, U	3	3	1	1	B	3TH42 93-0BB4	1	1 unit	101	0.667

For accessories, see page 3/139.

Spare parts

Magnetic 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 $1.1 \times U_s$;
lower operating range limit according to IEC 60947.

* You can order this quantity or a multiple thereof.

3RH, 3TH Contactor Relays

3TH4 contactor relays, 8- and 10-pole



3TH43 ...-0A..

3TH43 ...-0B..

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.
	230 V 400 V 500 V 690 V	Ident. No. acc. to EN 50011							
Number	A A A A	Version							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 $U_s = AC\ 50\ Hz\ 230/220\ V^1)$

10	10	6	4	2	100 E	10	--	--	--	▶	3TH43 10-0AP0	1	1 unit	101	0.465
					91 E	9	1	--	--	▶	3TH43 91-0AP0	1	1 unit	101	0.465
					82 E	8	2	--	--	▶	3TH43 82-0AP0	1	1 unit	101	0.465
					73 E	7	3	--	--	▶	3TH43 73-0AP0	1	1 unit	101	0.463
					73 E,U	6	2	1	1	▶	3TH43 46-0AP0	1	1 unit	101	0.466
					64 E	6	4	--	--	▶	3TH43 64-0AP0	1	1 unit	101	0.462
					55 E	5	5	--	--	▶	3TH43 55-0AP0	1	1 unit	101	0.463
					55 E,U	4	4	1	1	▶	3TH43 94-0AP0	1	1 unit	101	0.465

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	0.707
					82 E	8	2	--	--	▶	3TH43 82-0BB4	1	1 unit	101	0.705
					73 E	7	3	--	--	▶	3TH43 73-0BB4	1	1 unit	101	0.697
					73 E U	6	2	1	1	▶	3TH43 46-0BB4	1	1 unit	101	0.706
					64 E	6	4	--	--	▶	3TH43 64-0BB4	1	1 unit	101	0.708
					55 E	5	5	--	--	▶	3TH43 55-0BB4	1	1 unit	101	0.705
					55 E U	4	4	1	1	▶	3TH43 94-0BB4	1	1 unit	101	0.707

For accessories, see page 3/139.

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

Spare parts
Magnetic coils:
AC operation: 3TY7 403-0A.
DC operation: 3TY4 803-0B.
Contacts:
The contacts cannot be replaced on 3TH43 contactor relays.

Contactor	Type	3TH42/3TH43	
Rated control supply voltages (the 10th and 11th position of the order number must be changed)			
AC operation			
Coils for AC 50 Hz		Coils for AC 50 and 60 Hz	
Rated control supply voltage U_s	Control supply voltage at	Rated control supply voltage U_s	
V AC 50 Hz	V AC 60 Hz	V AC 50/60 Hz	Option
24	29	24	C2
36	42	42	D2
42	50	110	G2
48	58	115	J2
60	72	120	K2
110	132	220	N2
125/127	150/152	230	L2
230/220	276	240	P2
240	288	440	R2
400/380	480/460		
415	500		
500	600		
For Japan			
100	100-110		G6 ²⁾
200	200-220		N6 ²⁾
For USA and Canada			
110	120		K6 ²⁾
220	240		P6 ²⁾
DC operation			
Rated control supply voltage U_s		Option	
V DC			
12			A4
24			B4
30			C4
36			V4
42			D4
48			W4
60			E4
110			F4
125			G4
220			M4
230			P4
240			Q4

- 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 .

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

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 terminals are finger-safe according to EN 50274.

3TH27 latched auxiliary contactors

The contactor coil and the coil of the release solenoid are both designed for continuous 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/ 400/ 500 V 220 V 380 V	Ident. No. Version acc. to EN 50011							
Number	A A A A		NO NC						kg

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



AC operation

4	4	3	2	1	40 E	4	--	A	3TH20 40-0AP0	1	1 unit	101	0.194
					31 E	3	1	A	3TH20 31-0AP0	1	1 unit	101	0.193
					22 E	2	2	A	3TH20 22-0AP0	1	1 unit	101	0.193

DC operation - DC solenoid system

4	4	3	2	1	40 E	4	--	A	3TH20 40-0BB4	1	1 unit	101	0.214
					31 E	3	1	A	3TH20 31-0BB4	1	1 unit	101	0.215
					22 E	2	2	A	3TH20 22-0BB4	1	1 unit	101	0.216

3TH20 ...0A...

Contactor relays with 6.3 mm x 0.8 mm flat connectors



AC operation

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

4	4	3	2	--	40 E	4	--	B	3TH20 40-3AP0	1	1 unit	101	0.166
					31 E	3	1	B	3TH20 31-3AP0	1	1 unit	101	0.164
					22 E	2	2	B	3TH20 22-3AP0	1	1 unit	101	0.165

for screw mounting (diagonal)

4	4	3	2	--	40 E	4	--	C	3TH20 40-7AP0	1	1 unit	101	0.161
					31 E	3	1	B	3TH20 31-7AP0	1	1 unit	101	0.162
					22 E	2	2	B	3TH20 22-7AP0	1	1 unit	101	0.162

3TH20 ...-3...

DC operation - DC solenoid system

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

4	4	3	2	--	40 E	4	--	B	3TH20 40-3BB4	1	1 unit	101	0.187
					31 E	3	1	B	3TH20 31-3BB4	1	1 unit	101	0.185
					22 E	2	2	B	3TH20 22-3BB4	1	1 unit	101	0.185

for screw mounting (diagonal)

4	4	3	2	--	40 E	4	--	C	3TH20 40-7BB4	1	1 unit	101	0.183
					31 E	3	1	B	3TH20 31-7BB4	1	1 unit	101	0.183
					22 E	2	2	B	3TH20 22-7BB4	1	1 unit	101	0.183

3TH20 ...-7...

Contactor relays with solder pin connectors for printed circuit boards



AC operation

For screw mounting (diagonal)

4	4	3	2	--	40 E	4	--	C	3TH20 40-6AP0	1	1 unit	101	0.162
					31 E	3	1	B	3TH20 31-6AP0	1	1 unit	101	0.162
					22 E	2	2	C	3TH20 22-6AP0	1	1 unit	101	0.162

DC operation - DC solenoid system

For screw mounting (diagonal)

4	4	3	2	--	40 E	4	--	C	3TH20 40-6BB4	1	1 unit	101	0.184
					31 E	3	1	B	3TH20 31-6BB4	1	1 unit	101	0.185
					22 E	2	2	B	3TH20 22-6BB4	1	1 unit	101	0.187

3TH20...-6...

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



AC operation

8	4	3	2	--	80 E	8	0	C	3TH22 80-0AP0	1	1 unit	101	0.234
					71 E	7	1	C	3TH22 71-0AP0	1	1 unit	101	0.233
					62 E	6	2	C	3TH22 62-0AP0	1	1 unit	101	0.235
					53 E	5	3	C	3TH22 53-0AP0	1	1 unit	101	0.234
					44 E	4	4	C	3TH22 44-0AP0	1	1 unit	101	0.234

DC operation - DC solenoid system

8	4	3	2	--	80 E	8	0	C	3TH22 80-0BB4	1	1 unit	101	0.255
					71 E	7	1	C	3TH22 71-0BB4	1	1 unit	101	0.256
					62 E	6	2	C	3TH22 62-0BB4	1	1 unit	101	0.258
					53 E	5	3	C	3TH22 53-0BB4	1	1 unit	101	0.255
					44 E	4	4	C	3TH22 44-0BB4	1	1 unit	101	0.257

3TH22...-0A...

For accessories, see page 3/140.

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

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/ 400/ 500 V 220 V 380 V	690/ 660 V	Ident. No. acc. to EN 50011						
Number	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 40 E 4 -- C 3TH27 40-0AP0 1 1 unit 101 0.350
	31 E 3 1 B 3TH27 31-0AP0 1 1 unit 101 0.350
	22 E 2 2 B 3TH27 22-0AP0 1 1 unit 101 0.345
DC operation - DC solenoid system	
4	4 3 2 1 40 E 4 -- B 3TH27 40-0BB4 1 1 unit 101 0.396
	31 E 3 1 B 3TH27 31-0BB4 1 1 unit 101 0.401
	22 E 2 2 B 3TH27 22-0BB4 1 1 unit 101 0.399

For accessories, see page 3/140.

Contactor	Type	3TH20 ..-0...
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation		
Coils for AC 50 and 60 Hz		
Rated control supply voltage U_s		
Coils for AC 50 Hz		
50 Hz	60 Hz	
V AC	V AC	
24	29	B0
110	132	F0
230/220	276	P0 ¹⁾
DC operation		
Rated control supply voltage U_s		
V DC		
24		B4
110		F4
220		M4

Contactor	Type	3TH20 ..-3..., 3TH20 ..-6..., 3TH20 ..-7..., 3TH22, 3TH27
Rated control supply voltages (the 10th and 11th position of the order number must be changed)		
AC operation		
Coils for AC 50 and 60 Hz		
Rated control supply voltage U_s		
Coils for AC 50 Hz		
50 Hz	60 Hz	
V AC	V AC	
230/220	276	P0 ¹⁾
DC operation		
Rated control supply voltage U_s		
V DC		
24		B4

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.

* You can order this quantity or a multiple thereof.

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
- Screw terminals
- Low power consumption
- Extended operating range of the coils
- Integrated coil circuit



3RH11 ...-1.B40

Surge suppressors	Rated operational current I_{op} / AC-15/AC-14 at 230 V	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A		Ident. No. acc. to EN 50011	Version 	Order No. Price per PU				kg

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, coil operating range **0.7 to 1.25 x U_s**
 Power consumption of the 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	1	1 unit	101	0.258
		31 E	3	1	▶	3RH11 31-1HB40	1	1 unit	101	0.258
		22 E	2	2	▶	3RH11 22-1HB40	1	1 unit	101	0.259
Built-in diode	6	40 E	4	--	▶	3RH11 40-1JB40	1	1 unit	101	0.258
		31 E	3	1	▶	3RH11 31-1JB40	1	1 unit	101	0.259
		22 E	2	2	▶	3RH11 22-1JB40	1	1 unit	101	0.260
Built-in varistor	6	40 E	4	--	▶	3RH11 40-1KB40	1	1 unit	101	0.259
		31 E	3	1	▶	3RH11 31-1KB40	1	1 unit	101	0.259
		22 E	2	2	▶	3RH11 22-1KB40	1	1 unit	101	0.259

Rated control supply voltage $U_s = 24$ V DC, coil operating range **0.85 to 1.85 x U_s**
 Power consumption of the 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 40-1MB40-0KT0	1	1 unit	101	0.259
		31 E	3	1	B	3RH11 31-1MB40-0KT0	1	1 unit	101	0.259
		22 E	2	2	A	3RH11 22-1MB40-0KT0	1	1 unit	101	0.262
Built-in diode	6	40 E	4	--	B	3RH11 40-1VB40	1	1 unit	101	0.260
		31 E	3	1	A	3RH11 31-1VB40	1	1 unit	101	0.260
		22 E	2	2	B	3RH11 22-1VB40	1	1 unit	101	0.261
Built-in varistor	6	40 E	4	--	B	3RH11 40-1WB40	1	1 unit	101	0.260
		31 E	3	1	A	3RH11 31-1WB40	1	1 unit	101	0.260
		22 E	2	2	A	3RH11 22-1WB40	1	1 unit	101	0.261

For accessories, see page 3/110 and 3/113.

3RH, 3TH Contactor Relays

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

- DC operation
- Cage Clamp terminals
- Low power consumption
- Extended operating range of the coils
- Integrated coil circuit



3RH11 ...-2.B40

Surge suppressors	Rated operational current I_{ed} / AC-15/AC-14 at 230 V	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Ident. No. acc. to EN 50011	Version	Order No.	Price per PU			kg
	A							

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, coil operating range **0.7 to 1.25 x U_s**

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

Diode, varistor or RC element attachable	6	40 E	4	--	B	3RH11 40-2HB40	1	1 unit	101	0.254
		31 E	3	1	B	3RH11 31-2HB40	1	1 unit	101	0.253
		22 E	2	2	▶	3RH11 22-2HB40	1	1 unit	101	0.255
Built-in diode	6	40 E	4	--	B	3RH11 40-2JB40	1	1 unit	101	0.256
		31 E	3	1	▶	3RH11 31-2JB40	1	1 unit	101	0.256
		22 E	2	2	▶	3RH11 22-2JB40	1	1 unit	101	0.255
Built-in varistor	6	40 E	4	--	▶	3RH11 40-2KB40	1	1 unit	101	0.256
		31 E	3	1	▶	3RH11 31-2KB40	1	1 unit	101	0.254
		22 E	2	2	▶	3RH11 22-2KB40	1	1 unit	101	0.255

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

Power consumption of the 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 40-2MB40-OKT0	1	1 unit	101	0.255
		31 E	3	1	B	3RH11 31-2MB40-OKT0	1	1 unit	101	0.255
		22 E	2	2	B	3RH11 22-2MB40-OKT0	1	1 unit	101	0.256
Built-in diode	6	40 E	4	--	B	3RH11 40-2VB40	1	1 unit	101	0.256
		31 E	3	1	B	3RH11 31-2VB40	1	1 unit	101	0.256
		22 E	2	2	B	3RH11 22-2VB40	1	1 unit	101	0.256
Built-in varistor	6	40 E	4	--	B	3RH11 40-2WB40	1	1 unit	101	0.255
		31 E	3	1	B	3RH11 31-2WB40	1	1 unit	101	0.256
		22 E	2	2	B	3RH11 22-2WB40	1	1 unit	101	0.255

For accessories, see page 3/110 and 3/113.

* You can order this quantity or a multiple thereof.

3RT Coupling Relays

**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
Screw terminals
Low power consumption
Extended operating range of the coils
Integrated coil circuit

Surge suppressors	Rated data AC-2 and AC-3, T_U : up to 60 °C	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Operational current I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Ident. No. Version NO NC	Order No. Price per PU				kg

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

Size S00



3RT10 1.-1HB4.

Terminal designations according to EN 50012
Rated control supply voltage $U_s = 24$ V DC, coil operating range **0.7 to 1.25 x U_s**
Power consumption of the coils **2.3 W** at 24 V (no auxiliary switch blocks can be mounted)

Diode, varistor or RC element, attachable	7	3	10 01	1 -- 1	--	▶	3RT10 15-1HB41 3RT10 15-1HB42	1 1	1 unit 1 unit	101 101	0.259 0.258
Built-in diode	7	3	10 01	1 -- 1	--	▶	3RT10 15-1JB41 3RT10 15-1JB42	1 1	1 unit 1 unit	101 101	0.259 0.261
Built-in varistor	7	3	10 01	1 -- 1	--	▶	3RT10 15-1KB41 3RT10 15-1KB42	1 1	1 unit 1 unit	101 101	0.261 0.259
Diode, varistor or RC element, attachable	9	4	10 01	1 -- 1	--	▶	3RT10 16-1HB41 3RT10 16-1HB42	1 1	1 unit 1 unit	101 101	0.258 0.260
Built-in diode	9	4	10 01	1 -- 1	--	▶	3RT10 16-1JB41 3RT10 16-1JB42	1 1	1 unit 1 unit	101 101	0.261 0.261
Built-in varistor	9	4	10 01	1 -- 1	--	▶	3RT10 16-1KB41 3RT10 16-1KB42	1 1	1 unit 1 unit	101 101	0.260 0.260
Diode, varistor or RC element, attachable	12	5.5	10 01	1 -- 1	--	▶	3RT10 17-1HB41 3RT10 17-1HB42	1 1	1 unit 1 unit	101 101	0.260 0.260
Built-in diode	12	5.5	10 01	1 -- 1	--	▶	3RT10 17-1JB41 3RT10 17-1JB42	1 1	1 unit 1 unit	101 101	0.258 0.258
Built-in varistor	12	5.5	10 01	1 -- 1	--	▶	3RT10 17-1KB41 3RT10 17-1KB42	1 1	1 unit 1 unit	101 101	0.261 0.261

For accessories, see page 3/119.

3RT Coupling Relays

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

- DC operation
- Cage Clamp terminals
- Low power consumption
- Extended operating range of the coils
- Integrated coil circuit

Surge suppressors	Rated data AC-2 and AC-3, T_U : up to 60 °C	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Opera- tional current I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Ident. No. NO NC	Order No. Price per PU				kg

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

Size S00



3RT10 1.-2JB4

Terminal designations according to EN 50012

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

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

Diode, varistor or RC element, attachable	7	3	10 -- 1 01 1 --	▶ ▶	3RT10 15-2HB41 3RT10 15-2HB42	1 1	1 unit 1 unit	101 101	0.254 0.254
Built-in diode	7	3	10 -- 1 01 1 --	▶ ▶	3RT10 15-2JB41 3RT10 15-2JB42	1 1	1 unit 1 unit	101 101	0.255 0.255
Built-in varistor	7	3	10 -- 1 01 1 --	▶ ▶	3RT10 15-2KB41 3RT10 15-2KB42	1 1	1 unit 1 unit	101 101	0.257 0.256
Diode, varistor or RC element, attachable	9	4	10 -- 1 01 1 --	B B	3RT10 16-2HB41 3RT10 16-2HB42	1 1	1 unit 1 unit	101 101	0.254 0.256
Built-in diode	9	4	10 -- 1 01 1 --	▶ ▶	3RT10 16-2JB41 3RT10 16-2JB42	1 1	1 unit 1 unit	101 101	0.256 0.256
Built-in varistor	9	4	10 -- 1 01 1 --	▶ ▶	3RT10 16-2KB41 3RT10 16-2KB42	1 1	1 unit 1 unit	101 101	0.255 0.255
Diode, varistor or RC element, attachable	12	5.5	10 -- 1 01 1 --	B B	3RT10 17-2HB41 3RT10 17-2HB42	1 1	1 unit 1 unit	101 101	0.257 0.253
Built-in diode	12	5.5	10 -- 1 01 1 --	▶ ▶	3RT10 17-2JB41 3RT10 17-2JB42	1 1	1 unit 1 unit	101 101	0.255 0.256
Built-in varistor	12	5.5	10 -- 1 01 1 --	▶ ▶	3RT10 17-2KB41 3RT10 17-2KB42	1 1	1 unit 1 unit	101 101	0.256 0.256

For accessories, see page 3/119.

* You can order this quantity or a multiple thereof.

3RT Coupling Relays

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

*DC operation
Screw terminals
Low power consumption
Extended operating range of the coils
Integrated coil circuit*

Surge suppressors	Rated data AC-2 and AC-3, T_u : up to 60 °C		Auxiliary contacts		DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Opera- tional current I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Ident. No.	Version		Order No.	Price per PU				
			NO	NC							kg

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

Size S00



3RT10 1.-1VB4.

Terminal designations according to DIN 50012.

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

Power consumption of the 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-OKT0 3RT10 15-1MB42-OKT0	1 1	1 unit 1 unit	101 101	0.260 0.260
Built-in diode	7	3	10 01	1 --	-- 1	B B	3RT10 15-1VB41 3RT10 15-1VB42	1 1	1 unit 1 unit	101 101	0.262 0.260
Built-in varistor	7	3	10 01	1 --	-- 1	A B	3RT10 15-1WB41 3RT10 15-1WB42	1 1	1 unit 1 unit	101 101	0.260 0.260
Diode, varistor or RC element, attachable	9	4	10 01	1 --	-- 1	B B	3RT10 16-1MB41-OKT0 3RT10 16-1MB42-OKT0	1 1	1 unit 1 unit	101 101	0.261 0.261
Built-in diode	9	4	10 01	1 --	-- 1	B B	3RT10 16-1VB41 3RT10 16-1VB42	1 1	1 unit 1 unit	101 101	0.261 0.260
Built-in varistor	9	4	10 01	1 --	-- 1	B B	3RT10 16-1WB41 3RT10 16-1WB42	1 1	1 unit 1 unit	101 101	0.260 0.260
Diode, varistor or RC element, attachable	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-1MB41-OKT0 3RT10 17-1MB42-OKT0	1 1	1 unit 1 unit	101 101	0.262 0.260
Built-in diode	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-1VB41 3RT10 17-1VB42	1 1	1 unit 1 unit	101 101	0.260 0.261
Built-in varistor	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-1WB41 3RT10 17-1WB42	1 1	1 unit 1 unit	101 101	0.261 0.260

For accessories, see page 3/119.

3RT Coupling Relays

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

DC operation
Cage Clamp terminals
Low power consumption
Extended operating range of the coils
Integrated coil circuit

Surge suppressors	Rated data AC-2 and AC-3, T_U : up to 60 °C		Auxiliary contacts		DT	Cage Clamp terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Opera- tional current I_e up to 400 V A	Rating of induction motors at 50 Hz and 400 V kW	Ident. No.	Version		Order No.	Price per PU				
			NO	NC							kg

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

Size S00



3RT10 1.-2WB4.

Terminal designations according to DIN 50012

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

Power consumption of the 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 15-2MB41-OKT0 3RT10 15-2MB42-OKT0	1 1	1 unit 1 unit	101 101	0.255 0.257
Built-in diode	7	3	10 01	1 --	-- 1	B B	3RT10 15-2VB41 3RT10 15-2VB42	1 1	1 unit 1 unit	101 101	0.258 0.257
Built-in varistor	7	3	10 01	1 --	-- 1	B B	3RT10 15-2WB41 3RT10 15-2WB42	1 1	1 unit 1 unit	101 101	0.257 0.258
Diode, varistor or RC element, attachable	9	4	10 01	1 --	-- 1	B B	3RT10 16-2MB41-OKT0 3RT10 16-2MB42-OKT0	1 1	1 unit 1 unit	101 101	0.257 0.257
Built-in diode	9	4	10 01	1 --	-- 1	B B	3RT10 16-2VB41 3RT10 16-2VB42	1 1	1 unit 1 unit	101 101	0.258 0.255
Built-in varistor	9	4	10 01	1 --	-- 1	B B	3RT10 16-2WB41 3RT10 16-2WB42	1 1	1 unit 1 unit	101 101	0.255 0.257
Diode, varistor or RC element, attachable	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-2MB41-OKT0 3RT10 17-2MB42-OKT0	1 1	1 unit 1 unit	101 101	0.256 0.250
Built-in diode	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-2VB41 3RT10 17-2VB42	1 1	1 unit 1 unit	101 101	0.255 0.255
Built-in varistor	12	5.5	10 01	1 --	-- 1	B B	3RT10 17-2WB41 3RT10 17-2WB42	1 1	1 unit 1 unit	101 101	0.256 0.257

For accessories, see page 3/119.

* You can order this quantity or a multiple thereof.

3RT Coupling Relays

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

*DC operation
Screw terminals
Low power consumption
Extended operating range of the coils
Integrated coil circuit*

Surge suppressors	Rated data AC-2 and AC-3, T_U : up to 60 °C	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Operational current I_e up to 400 V	Rating of induction motors at 50 Hz and 400 V	Ident. No.	Order No.	Price per PU			
A		kW	NO NC					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 coils **4.2 W** at 24 V (2 single-pole auxiliary switch blocks can be mounted)

Varistor mounted	12	5.5	--	--	--	▶	3RT10 24-1KB40	1	1 unit	101	0.576
	17	7.5	--	--	--	▶	3RT10 25-1KB40	1	1 unit	101	0.577
	25	11	--	--	--	▶	3RT10 26-1KB40	1	1 unit	101	0.582



3RT10 2.-1KB40

For accessories, see page 3/112.

*DC operation
Cage Clamp terminals
Low power consumption
Extended operating range of the coils
Integrated coil circuit*

Surge suppressors	Rated data AC-2 and AC-3, T_U : up to 60 °C	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Operational current I_e up to 400 V	Rating of induction motors at 50 Hz and 400 V	Ident. No.	Order No.	Price per PU			
A		kW	NO NC					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 coils **4.2 W** at 24 V (2 single-pole auxiliary switch blocks can be mounted)

Varistor mounted	12	5.5	--	--	--	B	3RT10 24-3KB40	1	1 unit	101	0.578
	17	7.5	--	--	--	▶	3RT10 25-3KB40	1	1 unit	101	0.580
	25	11	--	--	--	▶	3RT10 26-3KB40	1	1 unit	101	0.581



3RT10 2.-3KB40

For accessories, see page 3/112.

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Relay couplers

Application

AC and DC operation

DIN VDE 0110 Part 1, DIN VDE 0435, DIN VDE 0660 and EN 50005



In the coupling links in double-decker format, the connections are arranged on two levels; the units are extremely compact. Connection method: Screw terminals or spring-loaded terminals. For test purposes, versions are available with manual O 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 legend plate.

In accordance with the technical specifications of electronic systems, the coupling elements 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_c	Contacts Version	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC 50/60 Hz	 	mm							kg
V	NO CO								
3TX7 002 relay coupling links with screw terminals									
Output coupling links									
24	1 1 ¹⁾	--	11.5	▶ 3TX7 002-1AB00 ▶ 3TX7 002-1AB02		1 1	1 unit 1 unit	101 101	0.033 0.032
24 230	--	1	17.5	▶ 3TX7 002-1BB00 ▶ 3TX7 002-1BF00		1 1	1 unit 1 unit	101 101	0.041 0.042
24	2 ²⁾ --	-- 2 ^{1) 2)}	22.5	▶ 3TX7 002-1CB00 ▶ 3TX7 002-1FB02		1 1	1 unit 1 unit	101 101	0.055 0.055
Input coupling links									
24 110	1	--	11.5	▶ 3TX7 002-2AB00 ▶ 3TX7 002-2AE00		1 1	1 unit 1 unit	101 101	0.032 0.032
230 ²⁾	1	--	11.5	▶ 3TX7 002-2AF00 ▶ 3TX7 002-2AF05		1 1	1 unit 1 unit	101 101	0.033 0.039
230	--	1 ^{1) 3)}	17.5	▶ 3TX7 002-2BF02		1	1 unit	101	0.043
3TX7 003 relay coupling links with spring-loaded terminals									
Output coupling links									
24	1	--	11.5	▶ 3TX7 003-1AB00		1	1 unit	101	0.030
24	--	1	17.5	▶ 3TX7 003-1BB00		1	1 unit	101	0.039
24	2 ²⁾	--	22.5	▶ 3TX7 003-1CB00		1	1 unit	101	0.050
Input coupling links									
230	1	--	11.5	A 3TX7 003-2AF00		1	1 unit	101	0.031

3TX7 003

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 conductor length, see Technical Specifications.

* You can order this quantity or a multiple thereof.



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3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Relay couplers

Rated control supply voltage U_s	Contacts Version	Manual-O-automatic switch for testing purposes	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC 50/60 Hz										
V	NO	CO	mm							kg
3TX7 004 relay couplers with screw terminals										
Output coupling links										
24	--	1	without	6.2	▶ 3TX7 004-1LB00		1	1 unit	101	0.033
230	--	1	without	6.2	▶ 3TX7 004-1LF00		1	1 unit	101	0.034
	--	1	without	12.5 ¹⁾	▶ 3TX7 004-1BF05		1	1 unit	101	0.057
24	--	1 ²⁾	without	6.2	▶ 3TX7 004-1LB02		1	1 unit	101	0.033
24	1	--	without	6.2	▶ 3TX7 004-1MB00		1	1 unit	101	0.037
230	1	--	without	6.2	▶ 3TX7 004-1MF00		1	1 unit	101	0.037
24	--	1	with	12.5	▶ 3TX7 004-1BB10		1	1 unit	101	0.052
Input coupling links										
24	1 ²⁾	--	without	6.2	▶ 3TX7 004-2MB02		1	1 unit	101	0.037
110	1 ²⁾	--	without	6.2	▶ 3TX7 004-2ME02		1	1 unit	101	0.037
230	1 ²⁾	--	without	6.2	▶ 3TX7 004-2MF02		1	1 unit	101	0.038



3TX7 004-1LB0.

3TX7 005 relay couplers with spring-loaded terminals										
Output coupling links										
24	--	1	without	6.2	▶ 3TX7 005-1LB00		1	1 unit	101	0.028
230	--	1	without	6.2	▶ 3TX7 005-1LF00		1	1 unit	101	0.030
24	--	1 ²⁾	without	6.2	▶ 3TX7 005-1LB02		1	1 unit	101	0.028
24	1	--	without	6.2	▶ 3TX7 005-1MB00		1	1 unit	101	0.034
230	1	--	without	6.2	▶ 3TX7 005-1MF00		1	1 unit	101	0.034
Input coupling links										
24	1 ²⁾	--	without	6.2	C 3TX7 005-2MB02		1	1 unit	101	0.034
230	1 ²⁾	--	without	6.2	B 3TX7 005-2MF02		1	1 unit	101	0.034



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 "Transformers and Power Supplies".

- 1) For long conductors.
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.	
Connecting combs										
	Type								kg	
	3TX7 004	24 terminals, blue Width 6.2 mm	▶	3TX7 004-8AA00		1	1 unit	101	0.017	
Connecting leads										
	3TX7 002, 3TX7 003, 3TX7 004, 3TX7 005	24 terminals with supply, blue	A	3TX7 004-8BA00		1	1 unit	101	0.050	

3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Relay couplers with plug-in design


Benefits

Advantages

- Plug-in relay with spring-loaded 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
- Safe isolation according to EN 50178
- 230 V AC/DC versions available

Selection and ordering data

Rated control supply voltage U_s	Contacts Version		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
V	NO	CO							kg	
Plug-in relays with screw terminals, 6.2 mm, complete with relay										
	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 relays 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 relays with spring-loaded terminals, 6.2 mm, complete with relay										
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 relays with spring-loaded 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 variants 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.

* You can order this quantity or a multiple thereof.

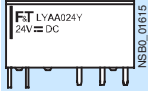
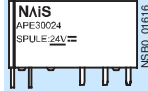
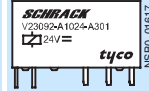
3TX7, 3RS18 Coupling Relays



3TX7 Coupling Relays, Narrow Design

Relay couplers with plug-in design

	Rated control supply voltage U_s V	Used for	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Individual relay modules¹⁾, 6.2 mm, 1 changeover contact									
	12 DC	Complete units 24 V AC/DC Complete units, 24 V AC/DC, hard gold-plated	A A	3TX7 014-7BQ00 3TX7 014-7BQ02		1 1	20 units 20 units	101 101	0.035 0.035
	24 DC	Complete units 24 V DC Complete units 24 V DC, hard gold-plated	A A	3TX7 014-7BM00 3TX7 014-7BM02		1 1	20 units 20 units	101 101	0.035 0.035
	60 DC	Complete units 115 V and 230 V AC/DC Complete units 115 V and 230 V AC/DC, hard gold-plated	A A	3TX7 014-7BP00 3TX7 014-7BP02		1 1	20 units 20 units	101 101	0.035 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									
		3TX7 014 and 3TX7 015	A	3TX7 014-7CE00		1	10 units	101	0.035

1) The variants 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.

Selective help to assign relay single modules				Versions to be supplied		
Complete device			Single device			
3TX7 014-..		NO (13/14)	3TX7 014-..	FTR-LY..	APE..	V23092-..
3TX7 015-..	(+)A1/(-)A2	CO (11/12/14)				
..1AM00 ¹⁾	24 V DC	NO	..7BM00 ¹⁾	..CA024Y	..30024	..A1024-A301
..1BM00 ¹⁾	24 V DC	CO	..7BM00 ¹⁾	..CA024Y	..30024	..A1024-A301
..1BB00 ¹⁾	24 V AC/DC	CO	..7BQ00 ¹⁾	..CA012Y	..30012	..A1012-A301
..1BE00 ¹⁾	115 V AC/DC	CO	..7BP00 ¹⁾	--	..30060	..A1060-A301
..1BF00 ¹⁾	230 V AC/DC	CO	..7BP00 ¹⁾	--	..30060	..A1060-A301
..1BM02 ²⁾	24 V DC	CO	..7BM02 ²⁾	..CA024V	..30124	..A1024-A201
..1BB02 ²⁾	24 V AC/DC	CO	..7BQ02 ²⁾	..CA012V	..30112	..A1012-A201
..1BE02 ²⁾	115 V AC/DC	CO	..7BP02 ²⁾	--	..30160	..A1060-A201
..1BF02 ²⁾	230 V AC/DC	CO	..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

DIN VDE 0110 Part 1, DIN VDE 0435, DIN VDE 0660 and EN 50005 optocouplers: DIN VDE 0884, DIN VDE 0411 Part 500, IEC 61131-2 (programmable logic controllers).

In the coupling links in double-decker format, the connections are arranged on two levels; the units are extremely compact. Connection method: Screw terminals or spring-loaded 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 legend plate.

In accordance with the technical specifications of electronic systems, the coupling elements 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	Contacts	Switching current	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC 50/60 Hz V	Version	A	mm							kg
3TX7 002 semiconductor couplers with screw terminals										
Output coupling links										
24 DC	1 transistor	1.8	12.5	▶	3TX7 002-3AB00		1	1 unit	101	0.033
	1 transistor	1.5	11.5	▶	3TX7 002-3AB01		1	1 unit	101	0.035
Input coupling links										
24 AC/DC	1 transistor	0.1	12.5	▶	3TX7 002-4AB00		1	1 unit	101	0.031
110 ... 240 AC	1 transistor	0.1	12.5	▶	3TX7 002-4AG00		1	1 unit	101	0.035



3TX7 002

Rated control supply voltage U_s	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.
AC 50/60 Hz V	V	A		mm							kg
3TX7 004 semiconductor couplers with screw terminals											
Output coupling links											
24 DC	≤ 48 V DC	0.5	without	6.2	▶	3TX7 004-3AB04		1	1 unit	101	0.034
24 DC	≤ 30 V DC	1.5			▶	3TX7 004-3PB54		1	1 unit	101	0.029
24 DC	≤ 30 V DC	3	without	6.2	▶	3TX7 004-3PB74		1	1 unit	101	0.032
110 ... 230 AC/DC	≤ 30 V DC	3			▶	3TX7 004-3PG74		1	1 unit	101	0.033
24 DC	≤ 30 V DC	5	without	12.5	▶	3TX7 004-3AC04		1	1 unit	101	0.052
24 DC	≤ 30 V DC	5	with	B	▶	3TX7 004-3AC14		1	1 unit	101	0.061
24 DC	24 ... 250 V AC	2	without	12.5	▶	3TX7 004-3AC03		1	1 unit	101	0.060
Input coupling links											
AC/DC 110 ... 230	≤ 30 V DC	0.1	without	6.2	▶	3TX7 004-4PG24		1	1 unit	101	0.034



3TX7 004-3AB04

3TX7 005 semiconductor couplers with spring-loaded terminals											
Output coupling links											
24 DC	≤ 48 V DC	0.5	without	6.2	▶	3TX7 005-3AB04		1	1 unit	101	0.031
24 DC	≤ 30 V DC	1.5			▶	3TX7 005-3PB54		1	1 unit	101	0.025
24 DC	≤ 30 V DC	3	without	6.2	A	3TX7 005-3PB74		1	1 unit	101	0.027
110 ... 230 AC/DC	≤ 30 V DC	3			A	3TX7 005-3PG74		1	1 unit	101	0.027
24 DC	≤ 30 V DC	5	without	12.5	▶	3TX7 005-3AC04		1	1 unit	101	0.047
24 DC	≤ 30 V DC	5	with	C	▶	3TX7 005-3AC14		1	1 unit	101	0.051
24 DC	24 ... 250 V AC	2	without	12.5	C	3TX7 005-3AC03		1	1 unit	101	0.056
Input coupling links											
110 ... 230 AC/DC	≤ 30 V 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".

* You can order this quantity or a multiple thereof.

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3TX7, 3RS18 Coupling Relays

3TX7 Coupling Relays, Narrow Design

Semiconductor couplers

Accessories

For coupling link	Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Type								
Connecting combs								
	3TX7 004	24 terminals, blue Width 6.2 mm	▶	3TX7 004-8AA00		1	1 unit	101 0.017
Connecting leads								
	3TX7 002, 3TX7 003, 3TX7 004, 3TX7 005	24 terminals with supply, blue	A	3TX7 004-8BA00		1	1 unit	101 0.050

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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 housing. The series comprises relays with 1, 2 and 3 changeover contacts with screw and spring-loaded terminals for combined voltages and wide voltage ranges.

The relay coils are protected internally with suppression diodes.

Benefits

- Wide-range voltage: One product for all voltages
- The industrial housing supports the same connection methods as the timing relay including spring-loaded terminals, 2 wires can be clamped
- Versions with electronically optimized outputs (hard gold-plated)
- Up to 3 changeover contacts with 22.5 mm width

Selection and ordering data

Rated control supply voltage U_s	Contacts Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
AC 50/60 Hz V	CO							kg
Coupling relays with industrial housing with screw terminals, 22.5 mm								
Wide-range voltage								
24 ... 240 AC/DC	2 3 3 ¹⁾	A C C	3RS18 00-1BW00 3RS18 00-1HW00 3RS18 00-1HW01		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.143 0.168 0.168
Combination voltage								
24 AC/DC and 110 ... 120 AC	1 2 3 3 ¹⁾	C C C C	3RS18 00-1AQ00 3RS18 00-1BQ00 3RS18 00-1HQ00 3RS18 00-1HQ01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	0.116 0.142 0.173 0.173
24 AC/DC and 220 ... 240 AC	1 2 3 3 ¹⁾	C C C C	3RS18 00-1AP00 3RS18 00-1BP00 3RS18 00-1HP00 3RS18 00-1HP01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	0.112 0.142 0.166 0.170
Coupling relays with industrial housing with spring-loaded terminals, 22.5 mm								
Wide-range voltage								
24 ... 240 AC/DC	2 3 3 ¹⁾	C C C	3RS18 00-2BW00 3RS18 00-2HW00 3RS18 00-2HW01		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.128 0.144 0.145
Combination voltage								
24 AC/DC and 10 ... 120 AC	1 2 3 3 ¹⁾	C C C C	3RS18 00-2AQ00 3RS18 00-2BQ00 3RS18 00-2HQ00 3RS18 00-2HQ01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	0.104 0.120 0.147 0.147
24 AC/DC and 20 ... 240 AC	1 2 3 3 ¹⁾	C C C C	3RS18 00-2AP00 3RS18 00-2BP00 3RS18 00-2HP00 3RS18 00-2HP01		1 1 1 1	1 unit 1 unit 1 unit 1 unit	101 101 101 101	0.104 0.122 0.143 0.147

1) Hard gold-plated contacts.




* You can order this quantity or a multiple thereof.

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LZX Plug-in Relays

Relay couplers

Version	Rated control supply voltage U_s V	Contacts Version	Width mm	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
Complete units, 11- and 14-pole, PT series												
 LZX:PT3A5L24	Complete units with socket For snap-on mounting onto 35 mm standard mounting rail	24 DC	3	27	C	LZX:PT3A5L24		1	1 unit	101	0.099	
		24 AC	4		C	LZX:PT5A5L24		1	1 unit	101	0.099	
		24 AC	3		C	LZX:PT3A5R24		1	1 unit	101	0.099	
		24 AC	4		C	LZX:PT5A5R24		1	1 unit	101	0.100	
	Consisting of: Plug-in relay, socket, LED module (24-V-DC-LED module with freewheel diode, AC without freewheel diode), fixing/ejection bracket and label	115 AC	3	27	C	LZX:PT3A5S15		1	1 unit	101	0.099	
			4		C	LZX:PT5A5S15		1	1 unit	101	0.099	
		230 AC	3		C	LZX:PT3A5T30		1	1 unit	101	0.099	
			4		C	LZX:PT5A5T30		1	1 unit	101	0.099	
	Complete units with socket (logical isolation) For snap-on mounting onto 35 mm standard mounting rail	24 DC	3	27	C	LZX:PT3B5L24		1	1 unit	101	0.106	
		24 AC	4		C	LZX:PT5B5L24		1	1 unit	101	0.112	
115 AC		4		C	LZX:PT5B5R24		1	1 unit	101	0.112		
115 AC		3		C	LZX:PT3B5S15		1	1 unit	101	0.105		
115 AC		4	27	C	LZX:PT5B5S15		1	1 unit	101	0.112		
230 AC		3		C	LZX:PT3B5T30		1	1 unit	101	0.106		
230 AC		4		C	LZX:PT5B5T30		1	1 unit	101	0.112		
Consisting of: Plug-in relay, socket with logical isolation, LED module (24-V-DC-LED module with freewheel diode, AC without freewheel diode), fixing/ejection bracket and label												
Complete units, 8-pole, 5 mm pinning, RT series												
 LZX:RT4B4AT30	Complete units with socket For snap-on mounting onto 35 mm standard mounting rail	24 DC	1	15.5	▶	LZX:RT3A4L24		1	1 unit	101	0.061	
		24 AC	2		▶	LZX:RT4A4L24		1	1 unit	101	0.061	
		24 AC	1		C	LZX:RT3A4R24		1	1 unit	101	0.060	
		24 AC	2		C	LZX:RT4A4R24		1	1 unit	101	0.060	
	Consisting of: Print relay, standard socket, LED module (24-V-LED-DC with freewheel diode, AC without freewheel diode), fixing/ejection bracket and label	115 AC	1	15.5	C	LZX:RT3A4S15		1	1 unit	101	0.060	
			2		C	LZX:RT4A4S15		1	1 unit	101	0.060	
		230 AC	1		A	LZX:RT3A4T30		1	1 unit	101	0.060	
			2		▶	LZX:RT4A4T30		1	1 unit	101	0.060	
	Complete units with socket (logical isolation) For snap-on mounting onto 35 mm standard mounting rail	24 DC	1	15.5	C	LZX:RT3B4L24		1	1 unit	101	0.065	
		24 AC	2		A	LZX:RT4B4L24		1	1 unit	101	0.065	
24 AC		1		C	LZX:RT3B4R24		1	1 unit	101	0.064		
24 AC		2		C	LZX:RT4B4R24		1	1 unit	101	0.064		
115 AC		1	15.5	C	LZX:RT3B4S15		1	1 unit	101	0.064		
		2		C	LZX:RT4B4S15		1	1 unit	101	0.065		
230 AC		1		C	LZX:RT3B4T30		1	1 unit	101	0.064		
		2		C	LZX:RT4B4T30		1	1 unit	101	0.064		
Consisting of: Print relay with safe isolation, socket with logical isolation, LED module (24-V-DC-LED module with freewheel diode, AC without freewheel diode), fixing/ejection bracket and label												
Complete units, 5-pole, 3.2 mm pinning, RY series												
 LZX:RY1A4L24	Complete units with socket (logical isolation) For snap-on mounting onto 35 mm standard mounting rail	24 DC	1	15.5	C	LZX:RY1A4L24		1	1 unit	101	0.048	
		Consisting of: Print relays Sockets with logical isolation LED modules (24-V-DC-LED module with freewheel diode) Fixing/ejection brackets and label				C	LZX:RY213024		1	1 unit	101	0.009
						C	LZX:RY78626		1	1 unit	101	0.035
						▶	LZX:RPML0024		1	1 unit	101	0.003
					C	LZX:RY16016		100	10 units	101	0.100	

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 safe isolation (see the technical specifications of the relay types).


Safe isolation: Safe isolation prevents voltage of one circuit affecting another circuit with sufficient protection (DIN VDE 106 Part 101).

LZX Plug-in Relays

Relay couplers

Version	Rated control supply voltage U_s	Contacts Version	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	V		mm							kg	
Print relays, 8- and 11-pole, 5 mm pinning, RT series											
<i>Individual modules for customer assembly</i>											
 LZX:RT314024	Print relays	24 DC	1	12.7	C	LZX:RT315024		1	1 unit	101	0.016
	• With hard gold-plating	24 AC	1	12.7	C	LZX:RT315524		1	1 unit	101	0.013
		230 AC	1	12.7	C	LZX:RT315730		1	1 unit	101	0.015
	Print relays	24 DC	1	12.7	▶	LZX:RT314024		1	1 unit	101	0.016
		24 DC	2	12.7	▶	LZX:RT424024		1	1 unit	101	0.015
		24 AC	1	12.7	C	LZX:RT314524		1	1 unit	101	0.007
		24 AC	2	12.7	▶	LZX:RT424524		1	1 unit	101	0.014
		115 AC	1	12.7	C	LZX:RT314615		1	1 unit	101	0.013
		115 AC	2	12.7	▶	LZX:RT424615		1	1 unit	101	0.012
		230 AC	1	12.7	▶	LZX:RT314730		1	1 unit	101	0.007
	230 AC	2	12.7	▶	LZX:RT424730		1	1 unit	101	0.010	
Standard sockets for mounting onto standard mounting rail	--	--	15.5	▶	LZX:RT78625		1	1 unit	101	0.042	
Sockets with logical isolation, for mounting onto standard mounting rail	--	--	15.5	▶	LZX:RT78626		1	1 unit	101	0.047	
<i>Accessories for RT</i>											
LED modules											
• Red											
 LZX:RPML0024	with freewheel diode	24 DC	--	15.5	▶	LZX:RPML0024		1	1 unit	101	0.003
	without freewheel diode	24 AC/DC	--		▶	LZX:RPML0524		1	1 unit	101	0.003
		110 ... 230 AC/DC	--		▶	LZX:RPML0730		1	1 unit	101	0.003
• Green											
 LZX:RPMG0024	with freewheel diode	24 DC	--	15.5	▶	LZX:RPMG0024		1	1 unit	101	0.003
	without freewheel diode	24 AC/DC	--		C	LZX:RPMG0524		1	1 unit	101	0.003
		110 ... 230 AC/DC	--		▶	LZX:RPMG0730		1	1 unit	101	0.003
Fixing/ejection brackets	--	--			C	LZX:RY16016		100	10 units	101	0.100
Labels	--	--	15.5	▶	LZX:PT16040		100	20 units	101	0.100	
RC elements	24 ... 48 AC	--	15.5	C	LZX:RPMU0548		1	1 unit	101	0.004	
	110 ... 230 AC	--		▶	LZX:RPMU0730		1	1 unit	101	0.003	
Freewheel diodes with connection to A1	6 ... 230 DC	--	15.5	▶	LZX:RPMT00A0		1	1 unit	101	0.002	

Print relays, 5-pole, RY series

<i>Individual modules for customer assembly</i>											
 LZX:RY78626	Print relays	24 DC	1	10.7	C	LZX:RY213024		1	1 unit	101	0.009
	Label on relay: RY213024, RY613024 or JS24N-K										
	Sockets with logical isolation, for mounting onto standard mounting rail	--	--	15.5	C	LZX:RY78626		1	1 unit	101	0.035
Fixing/ejection brackets	--	--			C	LZX:RY16016		100	10 units	101	0.100

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.

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LZX Plug-in Relays

Relay couplers

Version	Rated control supply voltage U_s	Contacts Version	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	V		mm							kg	
Industrial relays, 8-, 11-, and 14-pole, PT series											
<i>Individual modules for customer assembly</i>											
Mini industrial relays											
 LZX:PT570024  LZX:PT78702	<ul style="list-style-type: none"> With test bracket and mechanical contact position indicator, without LED¹⁾ 	24 DC	2 3 4	22.5		LZX:PT270024 LZX:PT370024 LZX:PT570024		1 1 unit	101	0.030 0.031 0.031	
		24 AC	2 3 4	22.5	C A	LZX:PT270524 LZX:PT370524 LZX:PT570524		1 1 unit	101	0.030 0.031 0.031	
		115 AC	2 3 4	22.5	C A	LZX:PT270615 LZX:PT370615 LZX:PT570615		1 1 unit	101	0.028 0.030 0.030	
		230 AC	2 3 4	22.5		LZX:PT270730 LZX:PT370730 LZX:PT570730		1 1 unit	101	0.029 0.030 0.030	
		<ul style="list-style-type: none"> With hard gold-plating 	24 DC 230 AC	4	22.5		LZX:PT580024 LZX:PT580730		1 1 unit	101	0.031 0.031
		<ul style="list-style-type: none"> Without test bracket 	24 DC 24 AC 230 AC	4	22.5	C C C	LZX:PT520024 LZX:PT520524 LZX:PT520730		1 1 unit	101	0.031 0.032 0.031
		Sockets for mounting onto standard mounting rail	--	--	27		LZX:PT78702 LZX:PT78703 LZX:PT78704		1 1 unit	101	0.051 0.062 0.063
	<i>Accessories for PT</i>										
	LED modules										
	 LZX:RPML0024  LZX:PT16016  LZX:PT16040	<ul style="list-style-type: none"> Red 	with freewheel diode	24 DC	--	12.5	LZX:RPML0024		1 1 unit	101	0.003
			without freewheel diode	24 AC/DC 110 ... 230 AC/DC			LZX:RPML0524 LZX:RPML0730		1 1 unit	101	0.003 0.003
			<ul style="list-style-type: none"> Green 	with freewheel diode	24 DC	--	12.5	LZX:RPMG0024		1 1 unit	101
		without freewheel diode	24 AC 110 ... 230 AC/DC			LZX:RPMG0524 LZX:RPMG0730		1 1 unit	101	0.003 0.003	
	Fixing/ejection brackets	--	--	26		LZX:PT16016		100 10 units	101	0.100	
	Labels	--	--	26		LZX:PT16040		100 10 units	101	0.100	
	RC elements	24 ... 48 AC 110 ... 230 AC	--	26	C	LZX:RPMU0548 LZX:RPMU0730		1 1 unit	101	0.004 0.003	
	Freewheel diodes with connection to A1	6 ... 230 DC	--	26		LZX:RPMT00A0		1 1 unit	101	0.002	


for PT relays²⁾

 LZX:PT78802  LZX:PT78604	Logical sockets	with logical arrangement of the contacts								
		2 CO contacts			C	LZX:PT78802		1 1 unit	101	0.063
		3 CO contacts			C	LZX:PT78803		1 1 unit	101	0.070
		4 CO contacts			C	LZX:PT78804		1 1 unit	101	0.075
	Sockets with top slide, pinning 3.5 mm	2 different conductor cross-sections can be connected, without LEDs								
		2 CO contacts			C	LZX:PT78602		1 1 unit	101	0.043
		4 CO contacts			C	LZX:PT78604		1 1 unit	101	0.051

- 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.
- Accessories for LZX:RPM LED modules and LZX:PT16016 fixing/ejection brackets cannot be used with these sockets.

LZX Plug-in Relays

Relay couplers

Version	Rated control supply voltage U_s	Contacts Version	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	V		mm							kg	
Industrial relays, 11-pole, MT series											
<i>Individual modules for customer assembly</i>											
Industrial relays with test bracket											
	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
	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
	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
	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
Sockets for mounting onto standard mounting rail											
	--	--	--	38	▶	LZX:MT78750		1	1 unit	101	0.063
Fixing brackets											
	--	--	--	--	▶	LZX:MT28800		1	1 unit	101	0.001

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".

* You can order this quantity or a multiple thereof.

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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 in accordance with DIN VDE 0106 Part 100.

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 (VDE 0660 Part 102)

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		Main contacts	Rated control supply voltage U_s	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Utilization category	AC-2 and AC-3									
AC-1 Switching of resistive loads at 55 °C		Version 								
Operating current I_e up to 400 V	Power of three-phase loads at 50 Hz and 400 V		Operating current I_e up to 400 V ¹⁾	Power of three-phase loads at 50 Hz and 400 V	NO NC V					
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

20	13	8.4	4	4 --	24	▶	3TG10 10-0AC2	1	1 unit	101	0.157
					110	A	3TG10 10-0AG2	1	1 unit	101	0.158
					230	▶	3TG10 10-0AL2	1	1 unit	101	0.156
				3 1	24	▶	3TG10 01-0AC2	1	1 unit	101	0.157
					110	D	3TG10 01-0AG2	1	1 unit	101	0.158
					230	▶	3TG10 01-0AL2	1	1 unit	101	0.157

DC operation

20	13	8.4	4	4 --	24	▶	3TG10 10-0BB4	1	1 unit	101	0.157
				3 1	24	▶	3TG10 01-0BB4	1	1 unit	101	0.157

3TG10 ..-0...

With 6.3 x 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

16	10	8.4	4	4 --	24	D	3TG10 10-1AC2	1	1 unit	101	0.146
					110	D	3TG10 10-1AG2	1	1 unit	101	0.146
					230	▶	3TG10 10-1AL2	1	1 unit	101	0.145
				3 1	24	D	3TG10 01-1AC2	1	1 unit	101	0.147
					110	D	3TG10 01-1AG2	1	1 unit	101	0.146
					230	▶	3TG10 01-1AL2	1	1 unit	101	0.144

DC operation

16	10	8.4	4	4 --	24	D	3TG10 10-1BB4	1	1 unit	101	0.146
		8.4	4	3 1	24	D	3TG10 01-1BB4	1	1 unit	101	0.146

3TG10 ..-1...

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

Overview

Snap-on auxiliary contact blocks

The auxiliary switch blocks and the maximum number of blocks that can be mounted are described in "Motor Contactors" and "Contactor Relays".

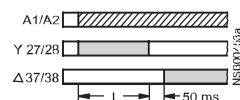
Solid-state time-delay auxiliary switch block

The timer module, which is available in "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 an interval time of 50 ms between the two. The delay time of the NO contact can be set 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 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 variant operates without an auxiliary power supply; minimum on-time: 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 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 variant operates without an auxiliary power supply; minimum on-time: 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 damping opening surges.

Solid-state time-delay block with semiconductor output

The timer module, which is available in "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.

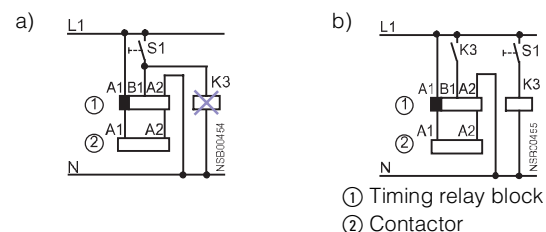
The solid-state, time-delay block cannot be mounted on size S00 coupling relays.

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.

Note on configuration



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 in accordance with (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 power 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.

A contactor opens after a delay when the capacitors of the contactor coil, built into the OFF-delay device, are switched in parallel. In the event of voltage failures, the capacitors are discharged via the coil and thereby delay the opening of the contactor.

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

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)
Sizes 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 overvoltage damping or with a varistor or diode connected as standard, according to the version.

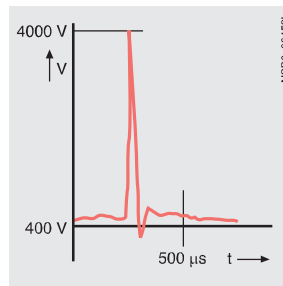
Note:

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 conducting path and the EMC interference 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

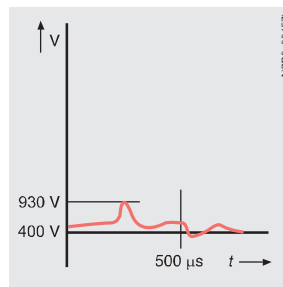
Since the EMC interference suppression module achieves a significant reduction in radio-frequency components and the voltage level in three phases, the contact endurance is also improved considerably. This makes an important contribution towards enhancing the reliability and availability of the system as a whole.

Dispensing with fine graduations

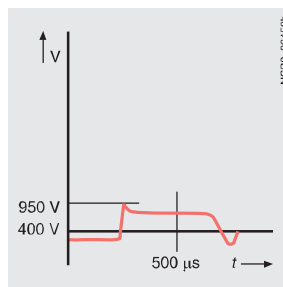
There is no need for fine graduations within each performance class, as smaller motors inherently have a higher inductance, so that one solution for all fixed-speed drives up to 5.5 kW is adequate.

Two electrical variants 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 drives). There is no limiting below the knee-point voltage, however.



Accessories and Spare Parts

For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

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 DC V, operating range 17 V to 30 V.

Low power consumption in conformity with the technical specifications of the solid-state systems. A light-emitting diode indicates the circuit 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

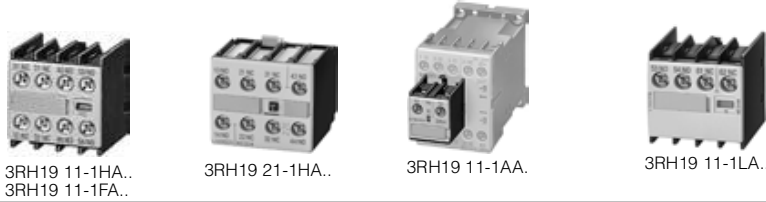
When contactors and contactor relays are used in safety-oriented applications, it must be ensured that it is impossible to operate the contactors manually.

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



For contactors	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Ident. No.	Version		Order No.	Price per PU			kg
Type	NO NC NO NC						

Auxiliary switch blocks for snapping onto the front according to EN 50012

Size S00

For assembling contactors with 2, 4 and 5 auxiliary contacts

3RT10 1.-1...1, 3RT10 1.-2...1 Ident. No. 10 E	11 E	--	1	--	--	▶	3RH19 11-1HA01	1	1 unit	101	0.035
	22 E	1	2	--	--	▶	3RH19 11-1HA12	1	1 unit	101	0.046
	23 E	1	3	--	--	▶	3RH19 11-1HA13	1	1 unit	101	0.051
	32 E	2	2	--	--	▶	3RH19 11-1HA22	1	1 unit	101	0.052

Sizes S0 ... S12¹⁾

4-pole

3RT10 2, 3RT1. 3 ... 3RT1. 7	31	3	1	--	--	▶	3RH19 21-1HA31	1	1 unit	101	0.074
	22	2	2	--	--	▶	3RH19 21-1HA22	1	1 unit	101	0.073
	13	1	3	--	--	▶	3RH19 21-1HA13	1	1 unit	101	0.073
	22²⁾	2	2	--	--	B	3RH19 21-1XA22-0MA0	1	1 unit	101	0.073

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 and 5 auxiliary contacts

3RT1. 1, 3RH11, 3RH14	20	2	--	--	--	▶	3RH19 11-1FA20	1	1 unit	101	0.041
	11	1	1	--	--	▶	3RH19 11-1FA11	1	1 unit	101	0.041
	02	--	2	--	--	▶	3RH19 11-1FA02	1	1 unit	101	0.040
	11 U	--	--	1	1	▶	3RH19 11-1FB11	1	1 unit	101	0.040
	40	4	--	--	--	▶	3RH19 11-1FA40	1	1 unit	101	0.052
	31	3	1	--	--	▶	3RH19 11-1FA31	1	1 unit	101	0.052
	22	2	2	--	--	▶	3RH19 11-1FA22	1	1 unit	101	0.052
	22 U	--	--	2	2	▶	3RH19 11-1FC22	1	1 unit	101	0.052
	11, 11 U	1	1	1	1	▶	3RH19 11-1FB22	1	1 unit	101	0.052

1 and 2-pole auxiliary switch blocks. Cable entry from one side

• Cable entry from above

3RT1. 1, 3RH11, 3RH14	--	1	--	--	--	▶	3RH19 11-1AA10	1	1 unit	101	0.016
	--	--	1	--	--	▶	3RH19 11-1AA01	1	1 unit	101	0.016
	--	1	1	--	--	▶	3RH19 11-1LA11	1	1 unit	101	0.052
	--	2	--	--	--	▶	3RH19 11-1LA20	1	1 unit	101	0.052

• Cable entry from below

3RT1. 1, 3RH11, 3RH14	--	1	--	--	--	▶	3RH19 11-1BA10	1	1 unit	101	0.015
	--	--	1	--	--	▶	3RH19 11-1BA01	1	1 unit	101	0.016
	--	1	1	--	--	▶	3RH19 11-1MA11	1	1 unit	101	0.052
	--	2	--	--	--	▶	3RH19 11-1MA20	1	1 unit	101	0.053

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

1) Exception: 3RT16.

2) With location digits 5, 6, 7, 8.

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays



3RH19 11-2HA .



3RH19 21-2HA .
3RH19 21-2FA..

For contactors	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	Ident. No.	Version	Order No.	Price per PU			kg

**Auxiliary switch blocks for snapping onto the front
according to EN 50012**

Size S00

For assembling contactors with 2, 4 and 5 auxiliary contacts

3RT10 1.-1...1,	11 E	--	1	--	--	▶	3RH19 11-2HA01	1	1 unit	101	0.040
3RT10 1.-2...1	22 E	1	2	--	--	▶▶	3RH19 11-2HA12	1	1 unit	101	0.052
Ident. No. 10 E	23 E	1	3	--	--	▶▶▶	3RH19 11-2HA13	1	1 unit	101	0.058
	32 E	2	2	--	--	▶▶▶	3RH19 11-2HA22	1	1 unit	101	0.059

Sizes S0 ... S12¹⁾

4-pole

3RT10 2,	31	3	1	--	--	▶	3RH19 21-2HA31	1	1 unit	101	0.070
3RT1. 3 ... 3RT1. 7	22	2	2	--	--	▶▶	3RH19 21-2HA22	1	1 unit	101	0.069
	13	1	3	--	--	▶▶▶	3RH19 21-2HA13	1	1 unit	101	0.068
	22²⁾	2	2	--	--	▶▶▶	3RH19 21-2XA22-0MA0	1	1 unit	101	0.071

**Auxiliary switch blocks for snapping onto the front
according to EN 50005**

Size S00

2 and 4-pole auxiliary switch blocks for assembling contactors with 3 and 5 auxiliary contacts

3RT1. 1,	20	2	--	--	--	▶	3RH19 11-2FA20	1	1 unit	101	0.045
3RH11,	11	1	1	--	--	▶▶	3RH19 11-2FA11	1	1 unit	101	0.045
3RH14	02	--	2	--	--	▶▶▶	3RH19 11-2FA02	1	1 unit	101	0.046
	11 U	--	--	1	1	A	3RH19 11-2FB11	1	1 unit	101	0.046
	40	4	--	--	--	▶	3RH19 11-2FA40	1	1 unit	101	0.059
	31	3	1	--	--	▶▶	3RH19 11-2FA31	1	1 unit	101	0.057
	22	2	2	--	--	▶▶▶	3RH19 11-2FA22	1	1 unit	101	0.058
	22 U	--	--	2	2	▶▶▶	3RH19 11-2FC22	1	1 unit	101	0.058
	11, 11 U	1	1	1	1	B	3RH19 11-2FB22	1	1 unit	101	0.058

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

1) Exception: 3RT16.

2) With location digits 5, 6, 7, 8

* 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



3RH19 21-1F..



3RH19 21-1C..



3RH19 21-1LA..



3RH19 21-1MA..

For contactors	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Ident. No.	Version		Order No.	Price per PU			
Type	NO NC NO NC						kg

Auxiliary switch blocks for snapping onto the front according to EN 50005

Sizes S0 to S12¹⁾

4-pole auxiliary switch blocks											
3RT1. 2,	40	4	--	--	--	▶	3RH19 21-1FA40	1	1 unit	101	0.074
3RT1. 3	31	3	1	--	--	▶▶	3RH19 21-1FA31	1	1 unit	101	0.074
...	22	2	2	--	--	▶▶▶	3RH19 21-1FA22	1	1 unit	101	0.073
3RT1. 7	04	--	4	--	--	▶▶▶▶	3RH19 21-1FA04	1	1 unit	101	0.072
	22 U	--	--	2	2	▶▶▶▶▶	3RH19 21-1FC22	1	1 unit	101	0.074
1-pole auxiliary switch blocks to EN 50005 and EN 50012											
3RT1. 2	--	1	--	--	--	▶▶▶	3RH19 21-1CA10	1	1 unit	101	0.020
...	--	--	1	--	--	▶▶▶▶	3RH19 21-1CA01	1	1 unit	101	0.019
3RT1. 7	--	--	--	1	--	▶▶▶▶▶	3RH19 21-1CD10	1	1 unit	101	0.020
	--	--	--	--	1	▶▶▶▶▶▶	3RH19 21-1CD01	1	1 unit	101	0.019
2-pole auxiliary switch blocks with cable entry from one side											
• Cable entry from above											
3RT1. 2,	--	1	1	--	--	▶▶▶	3RH19 21-1LA11	1	1 unit	101	0.074
3RT1. 3	--	2	--	--	--	▶▶▶▶	3RH19 21-1LA20	1	1 unit	101	0.075
...	--	--	2	--	--	▶▶▶▶▶	3RH19 21-1LA02	1	1 unit	101	0.074
3RT1. 7											
• Cable entry from below											
3RT1. 2,	--	1	1	--	--	▶▶▶	3RH19 21-1MA11	1	1 unit	101	0.074
3RT1. 3	--	2	--	--	--	▶▶▶▶	3RH19 21-1MA20	1	1 unit	101	0.076
...	--	--	2	--	--	▶▶▶▶▶	3RH19 21-1MA02	1	1 unit	101	0.073
3RT1. 7											

1) Exception: 3RT16.



2RH19 21-2F..



3RH19 21-2C..

For contactors	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Ident. No.	Version		Order No.	Price per PU			
Type	NO NC NO NC						kg

Auxiliary switch blocks for snapping onto the front according to EN 50005

Sizes S0 to S12¹⁾

4-pole auxiliary switch blocks											
3RT1. 2,	40	4	--	--	--	▶	3RH19 21-2FA40	1	1 unit	101	0.071
3RT1. 3	31	3	1	--	--	▶▶	3RH19 21-2FA31	1	1 unit	101	0.070
...	22	2	2	--	--	▶▶▶	3RH19 21-2FA22	1	1 unit	101	0.069
3RT1. 7	04	--	4	--	--	▶▶▶▶	3RH19 21-2FA04	1	1 unit	101	0.068
	22 U	--	--	2	2	▶▶▶▶▶	3RH19 21-2FC22	1	1 unit	101	0.069
1-pole auxiliary switch blocks to EN 50005 and EN 50012											
3RT1. 2	--	1	--	--	--	▶▶▶	3RH19 21-2CA10	1	1 unit	101	0.018
...	--	--	1	--	--	▶▶▶▶	3RH19 21-2CA01	1	1 unit	101	0.017
3RT1. 7											

1) Exception: 3RT16.

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays

Snap-on auxiliary switch blocks according to EN 50011 for assembling contactor relays with 8 contacts.



3RH19 11-1GA..

For contactor relays		Contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Ident. No.	Version			Order No.	Price per PU			kg
		NO	NC					

Snap-on auxiliary switch blocks according to EN 50011

For assembling contactor relays with 8 contacts

3RH11 40,	80 E	4	--	▶	3RH19 11-1GA40	1	1 unit	101	0.052
3RH14 40	71 E	3	1	▶	3RH19 11-1GA31	1	1 unit	101	0.052
(Ident. No. 40 E)	62 E	2	2	▶	3RH19 11-1GA22	1	1 unit	101	0.052
	53 E	1	3	▶	3RH19 11-1GA13	1	1 unit	101	0.052
	44 E	--	4	▶	3RH19 11-1GA04	1	1 unit	101	0.052

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



3RH19 11-2GA..

For contactor relays		Contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Ident. No.	Version			Order No.	Price per PU			kg
		NO	NC					

Snap-on auxiliary switch blocks according to EN 50011

For assembling contactor relays with 8 contacts

3RH11 40,	80 E	4	--	▶	3RH19 11-2GA40	1	1 unit	101	0.059
(Ident. No. 40 E)	71 E	3	1	▶	3RH19 11-2GA31	1	1 unit	101	0.059
	62 E	2	2	▶	3RH19 11-2GA22	1	1 unit	101	0.058
	53 E	1	3	▶	3RH19 11-2GA13	1	1 unit	101	0.058
	44 E	--	4	▶	3RH19 11-2GA04	1	1 unit	101	0.058

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

* 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



3RH19 21-1DA11
3RH19 21-1JA11

3RH19 21-1EA..
3RH19 21-1KA..

For contactors	Auxiliary contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	Version		Order No.	Price per PU			kg
	NO	NC					

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	1	1 unit	101 0.047

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole							
3RT1. 4 ... 3RT1. 7	1	1	▶	3RH19 21-1JA11	1	1 unit	101 0.047

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	1	1 unit	101 0.048
	1	1	▶	3RH19 21-1EA11	1	1 unit	101 0.048
	--	2	▶	3RH19 21-1EA02	1	1 unit	101 0.048

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole							
3RT1. 4 ... 3RT1. 7	2	--	▶	3RH19 21-1KA20	1	1 unit	101 0.048
	1	1	▶	3RH19 21-1KA11	1	1 unit	101 0.048
	--	2	▶	3RH19 21-1KA02	1	1 unit	101 0.048



Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Accessories for 3RT, 3RH contactors and contactor relays



3RH19 21-2DA11
3RH19 21-2JA11

3RH19 21-2EA..
3RH19 21-2KA..

For contactors	Auxiliary contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	Version		Order No.	Price per PU			kg
	 NO  NC						

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 21-2DA11	1	1 unit	101	0.050
---------------------	---	---	---	-----------------------	---	--------	-----	-------

Sizes S3 ... S12

Second laterally mountable auxiliary switch block (right or left), 2-pole

3RT1. 4 ... 3RT1. 7	1	1	B	3RH19 21-2JA11	1	1 unit	101	0.051
---------------------	---	---	---	-----------------------	---	--------	-----	-------

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 21-2EA20	1	1 unit	101	0.050
	--	2	▶	3RH19 21-2EA02	1	1 unit	101	0.051

Sizes S3 ... S12





Second laterally mountable auxiliary switch block (right or left), 2-pole

3RT1. 4 ... 3RT1. 7	2	--	C	3RH19 21-2KA20	1	1 unit	101	0.049
	--	2	C	3RH19 21-2KA02	1	1 unit	101	0.050



3RH19 11-1NF ..

3RH19 21-1FE22

For contactors	Version	Contacts	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	Version	Version		Order No.	Price per PU			kg
		 NO  NO  NC  NC						

Solid-state compatible auxiliary switch blocks, for snapping onto the front, according to EN 50005

Size S00

3RT1. 1, 3RH11, 3RH14	For use in dusty atmosphere and solid-state circuits with rated operating 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	▶	3RH19 11-1NF11	1	1 unit	101	0.042
		2	--	--	--	▶	3RH19 11-1NF20	1	1 unit	101	0.041
		--	--	--	2	▶	3RH19 11-1NF02	1	1 unit	101	0.041

Sizes S0 ... S12

3RT1. 2 ... 3RT1. 7	For use in dusty atmosphere and solid-state circuits with rated operating 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 according to EN 60947-4-1, Appendix F 1 NO + 1 NC standard auxiliary switches; For technical specifications, see LV 1 T.	1	1	1	1	▶	3RH19 21-1FE22	1	1 unit	101	0.073
---------------------------	---	---	---	---	---	---	-----------------------	---	--------	-----	-------

* 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







3RH19 11-2NF ..



3RH19 21-2JE22



3RH19 21-2DE11
3RH19 21-2JE11

For contactors	Version	Contacts	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type		Version     NO NO NC NC		Order No. Price per PU				kg

Solid-state compatible auxiliary switch blocks, for snapping onto the front, according to EN 50005

Size S00

3RT1. 1, 3RH11, 3RH14	For use in dusty atmosphere and solid-state circuits with rated operating 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	▶	3RH19 11-2NF11	1	1 unit	101	0.047
		2 -- -- --	▶	3RH19 11-2NF20	1	1 unit	101	0.047
		-- -- -- 2	▶	3RH19 11-2NF02	1	1 unit	101	0.046

Sizes S0 ... S12

3RT1. 2 ... 3RT1. 7	For use in dusty atmosphere and solid-state circuits with rated operating 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 according to EN 60947-4-1, Appendix F 1 NO + 1 NC standard auxiliary switches; For technical specifications, see LV 1 T.	1 1 1 1	B	3RH19 21-2FE22	1	1 unit	101	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 use in dusty atmosphere and solid-state circuits with rated operating 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 according to EN 60947-4-1, Appendix F	1 -- -- 1	▶	3RH19 21-2DE11	1	1 unit	101	0.049

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 use in dusty atmosphere and solid-state circuits with rated operating 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 according to EN 60947-4-1, Appendix F	1 -- -- 1	B	3RH19 21-2JE11	1	1 unit	101	0.052

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, Part 5										
Size S00										
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	0.085
			0.5 ... 10	▶	3RT19 16-2EJ21		1	1 unit	101	0.084
			5 ... 100	B	3RT19 16-2EJ31		1	1 unit	101	0.086
		100 ... 127 AC ³⁾	0.05 ... 1	C	3RT19 16-2EC11		1	1 unit	101	0.087
			0.5 ... 10	▶	3RT19 16-2EC21		1	1 unit	101	0.087
			5 ... 100	▶	3RT19 16-2EC31		1	1 unit	101	0.086
		200 ... 240 AC ³⁾	0.05 ... 1	D	3RT19 16-2ED11		1	1 unit	101	0.088
			0.5 ... 10	▶	3RT19 16-2ED21		1	1 unit	101	0.089
			5 ... 100	▶	3RT19 16-2ED31		1	1 unit	101	0.090
OFF-delay without auxiliary voltage (varistor integrated)⁴⁾										
3RT19 16-2....	3RT1. 1, 3RH11 ²⁾ 3RH14	1 NO + 1 NC 24 AC/DC ³⁾	0.05 ... 1	▶	3RT19 16-2FJ11		1	1 unit	101	0.087
			0.5 ... 10	▶	3RT19 16-2FJ21		1	1 unit	101	0.088
			5 ... 100	▶	3RT19 16-2FJ31		1	1 unit	101	0.089
		100 ... 127 AC/DC ³⁾	0.05 ... 1	D	3RT19 16-2FK11		1	1 unit	101	0.086
			0.5 ... 10	▶	3RT19 16-2FK21		1	1 unit	101	0.087
			5 ... 100	B	3RT19 16-2FK31		1	1 unit	101	0.088
		200 ... 240 AC/DC ³⁾	0.05 ... 1	D	3RT19 16-2FL11		1	1 unit	101	0.089
			0.5 ... 10	▶	3RT19 16-2FL21		1	1 unit	101	0.089
			5 ... 100	▶	3RT19 16-2FL31		1	1 unit	101	0.089
OFF-delay with auxiliary voltage										
3RT10 1 3RH11	1 CO	24 AC/DC	0.5 ... 10	B	3RT19 16-2LJ21		1	1 unit	101	0.083
		100 ... 127 AC	0.5 ... 10	B	3RT19 16-2LC21		1	1 unit	101	0.085
		200 ... 240 AC	0.5 ... 10	B	3RT19 16-2LD21		1	1 unit	101	0.085
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	0.086
		100 ... 127 AC ³⁾	1.5 ... 30	D	3RT19 16-2GC51		1	1 unit	101	0.087
		200 ... 240 AC ³⁾	1.5 ... 30	▶	3RT19 16-2GD51		1	1 unit	101	0.090
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	0.081
			0.5 ... 10	▶	3RT19 26-2EJ21		1	1 unit	101	0.081
			5 ... 100	A	3RT19 26-2EJ31		1	1 unit	101	0.082
		100 ... 127 AC ⁵⁾	0.05 ... 1	C	3RT19 26-2EC11		1	1 unit	101	0.083
			0.5 ... 10	▶	3RT19 26-2EC21		1	1 unit	101	0.083
			5 ... 100	D	3RT19 26-2EC31		1	1 unit	101	0.083
		200 ... 240 AC ⁵⁾	0.05 ... 1	D	3RT19 26-2ED11		1	1 unit	101	0.085
			0.5 ... 10	▶	3RT19 26-2ED21		1	1 unit	101	0.085
			5 ... 100	B	3RT19 26-2ED31		1	1 unit	101	0.085
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	0.085	
		0.5 ... 10	▶	3RT19 26-2FJ21		1	1 unit	101	0.084	
		5 ... 100	▶	3RT19 26-2FJ31		1	1 unit	101	0.085	
		100 ... 127 AC/DC ⁵⁾	0.05 ... 1	D	3RT19 26-2FK11		1	1 unit	101	0.087
			0.5 ... 10	▶	3RT19 26-2FK21		1	1 unit	101	0.086
			5 ... 100	C	3RT19 26-2FK31		1	1 unit	101	0.087
		200 ... 240 AC/DC ⁵⁾	0.05 ... 1	D	3RT19 26-2FL11		1	1 unit	101	0.086
			0.5 ... 10	A	3RT19 26-2FL21		1	1 unit	101	0.084
			5 ... 100	A	3RT19 26-2FL31		1	1 unit	101	0.086
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	0.084
		100 ... 127 AC ⁵⁾	1.5 ... 30	▶	3RT19 26-2GC51		1	1 unit	101	0.085
		200 ... 240 AC ⁵⁾	1.5 ... 30	▶	3RT19 26-2GD51		1	1 unit	101	0.088

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 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 leads.

* 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

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	0.051
		0.5 ... 10	▶ B	3RT19 16-2CG21		1	1 unit	101	0.051
		5 ... 100	B	3RT19 16-2CG31		1	1 unit	101	0.054
3RT1. 1, 3RH11 ¹⁾ 3RH14	90 ... 240 AC/DC	0.05 ... 1	D	3RT19 16-2CH11		1	1 unit	101	0.052
		0.5 ... 10	▶ D	3RT19 16-2CH21		1	1 unit	101	0.052
		5 ... 100	▶ D	3RT19 16-2CH31		1	1 unit	101	0.051
• 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	0.057
		0.5 ... 10	B	3RT19 16-2DG21		1	1 unit	101	0.057
		5 ... 100	B	3RT19 16-2DG31		1	1 unit	101	0.057
3RT1. 1, 3RH11 ¹⁾ 3RH14	90 ... 240 AC/DC	0.05 ... 1	D	3RT19 16-2DH11		1	1 unit	101	0.053
		0.5 ... 10	▶ D	3RT19 16-2DH21		1	1 unit	101	0.060
		5 ... 100	B	3RT19 16-2DH31		1	1 unit	101	0.058

Sizes S0 ... S3



3RT19 26-2C...



3RT19 26-2D...

For mounting onto coil terminals on top of the contactors									
• 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	0.048
		0.5 ... 10	B	3RT19 26-2CG21		1	1 unit	101	0.049
		5 ... 100	D	3RT19 26-2CG31		1	1 unit	101	0.048
3RT10 2, 3RT10 3, 3RT10 4, 3RT13 ²⁾ 3RT15	90 ... 240 AC/DC	0.05 ... 1	▶	3RT19 26-2CH11		1	1 unit	101	0.048
		0.5 ... 10	▶	3RT19 26-2CH21		1	1 unit	101	0.047
		5 ... 100	▶	3RT19 26-2CH31		1	1 unit	101	0.048
• 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	0.051
		5 ... 100	D	3RT19 26-2DG31		1	1 unit	101	0.051
3RT10 2, 3RT10 3, 3RT10 4, 3RT13 ²⁾ 3RT15	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	0.143	
		3RT1. 1, 3RT1. 2, 3RH1 ...-1BM40	220/230 AC/DC		D	3RT19 16-2BL01		1	1 unit	0.144
				▶	3RT19 16-2BE01		1	1 unit	101	0.114
3RT1. 1 ... 3RT1. 4, 3RH1 ...-1BB40	24 DC									

Pneumatic delay blocks, terminal designation according to EN 50005



3RT19 26-2P...

For mounting onto the front of size S0 ³⁾ contactors									
Auxiliary contacts 1 NO and 1 NC									
• ON-delay									
3RT1. 2	0.1 ... 30		C	3RT19 26-2PA01		1	1 unit	101	0.078
		1 ... 60	C	3RT19 26-2PA11		1	1 unit	101	0.078
• OFF-delay									
3RT1. 2	0.1 ... 30		C	3RT19 26-2PR01		1	1 unit	101	0.078
		1 ... 60	C	3RT19 26-2PR11		1	1 unit	101	0.078

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	0.122	
		110 AC/DC		B	3RT19 26-3AF31		1	1 unit	101	0.130
			230 AC/DC	B	3RT19 26-3AP31		1	1 unit	101	0.125

- Cannot be fitted onto coupling relays.
- Not to be used for 3RT10 4. and 3RT13 4. contactors with $U_s \leq 42$ V.
- In addition to these, no other auxiliary contacts are permitted.

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.
Type		AC operation	DC operation							kg
		V AC	V DC							

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

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.
3RT1., 3RH1	Varistors	24 ... 48	24 ... 70	▶	3RT19 16-1BB00		1	1 unit	101	0.008
		48 ... 127	70 ... 150	▶	3RT19 16-1BC00		1	1 unit	101	0.008
		127 ... 240	150 ... 250	A	3RT19 16-1BD00		1	1 unit	101	0.008
		240 ... 400	--	▶	3RT19 16-1BE00		1	1 unit	101	0.008
		400 ... 600	--	A	3RT19 16-1BF00		1	1 unit	101	0.009
3RT1., 3RH1	RC elements	24 ... 48	24 ... 70	▶	3RT19 16-1CB00		1	1 unit	101	0.009
		48 ... 127	70 ... 150	▶	3RT19 16-1CC00		1	1 unit	101	0.009
		127 ... 240	150 ... 250	▶	3RT19 16-1CD00		1	1 unit	101	0.009
		240 ... 400	--	▶	3RT19 16-1CE00		1	1 unit	101	0.009
		400 ... 600	--	▶	3RT19 16-1CF00		1	1 unit	101	0.009
3RT1., 3RH1	Noise suppression diodes	--	12 ... 250	▶	3RT19 16-1DG00		1	1 unit	101	0.007
3RT1., 3RH1	Diode assembly (diode and Zener diode) for DC operation	--	12 ... 250	▶	3RT19 16-1EH00		1	1 unit	101	0.008

Size S0



3RT19 26-1B0.00

For fitting onto the coil terminals at top or bottom

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.
3RT1. 2	Varistors	24 ... 48	24 ... 70	▶	3RT19 26-1BB00		1	1 unit	101	0.023
		48 ... 127	70 ... 150	▶	3RT19 26-1BC00		1	1 unit	101	0.023
		127 ... 240	150 ... 250	▶	3RT19 26-1BD00		1	1 unit	101	0.024
		240 ... 400	--	▶	3RT19 26-1BE00		1	1 unit	101	0.028
		400 ... 600	--	B	3RT19 26-1BF00		1	1 unit	101	0.029
3RT1. 2	RC elements	24 ... 48	24 ... 70	▶	3RT19 26-1CB00		1	1 unit	101	0.023
		48 ... 127	70 ... 150	▶	3RT19 26-1CC00		1	1 unit	101	0.023
		127 ... 240	150 ... 250	▶	3RT19 26-1CD00		1	1 unit	101	0.023
		240 ... 400	--	▶	3RT19 26-1CE00		1	1 unit	101	0.024
		400 ... 600	--	B	3RT19 26-1CF00		1	1 unit	101	0.027
3RT1. 2	Diode assembly For DC operation									
	• Connectable at the top (e.g. for contactor with overload relay)	--	24	▶	3RT19 26-1ER00		1	1 unit	101	0.023
		--	30 ... 250	▶	3RT19 26-1ES00		1	1 unit	101	0.024
	• Connectable at the bottom (e.g. for fuseless load feeders)	--	24	▶	3RT19 26-1TR00		1	1 unit	101	0.024
		--	30 ... 250	A	3RT19 26-1TS00		1	1 unit	101	0.023

- 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".

* 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

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 26-1B0.00



3RT19 36-1C.00

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.
Type		AC operation	DC operation							
Surge suppressors without LED (also for Cage Clamp terminals)										
Sizes S2 and S3										
For fitting onto the coil terminals at top or bottom										
3RT1. 3, 3RT1. 4	Varistors	24 ... 48	24 ... 70	▶	3RT19 26-1BB00		1	1 unit	101	0.023
		48 ... 127	70 ... 150	▶	3RT19 26-1BC00		1	1 unit	101	0.023
		127 ... 240	150 ... 250	▶	3RT19 26-1BD00		1	1 unit	101	0.024
		240 ... 400	--	▶	3RT19 26-1BE00		1	1 unit	101	0.028
		400 ... 600	--	B	3RT19 26-1BF00		1	1 unit	101	0.029
3RT1. 3 ³⁾ , 3RT1. 4	RC elements	24 ... 48	24 ... 70	▶	3RT19 36-1CB00		1	1 unit	101	0.039
		48 ... 127	70 ... 150	▶	3RT19 36-1CC00		1	1 unit	101	0.039
		127 ... 240	150 ... 250	▶	3RT19 36-1CD00		1	1 unit	101	0.039
		240 ... 400	--	▶	3RT19 36-1CE00		1	1 unit	101	0.041
		400 ... 600	--	B	3RT19 36-1CF00		1	1 unit	101	0.040
3RT1. 3, 3RT1. 4	Diode assembly For DC operation									
	• Connectable at the top (e.g. for contactor with overload relay)		24	▶	3RT19 36-1ER00		1	1 unit	101	0.024
			30 ... 250	▶	3RT19 36-1ES00		1	1 unit	101	0.024
	• Connectable at the bottom (e.g. for fuseless load feeders)		24	▶	3RT19 36-1TR00		1	1 unit	101	0.024
			30 ... 250	B	3RT19 36-1TS00		1	1 unit	101	0.024

Sizes S6 ... S12



3RT19 56-1C.00

For connecting to withdrawable coil with screw terminals with contactors with

- 3RT1. ...-A... conventional operating mechanism
- 3RT1. ...-N... solid-state operating mechanism

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.
Type		AC operation	DC operation							
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										
3RT1. 5, 3RT1. 6, 3RT1. 7	RC elements	24 ... 48	24 ... 70	▶	3RT19 56-1CB00		1	1 unit	101	0.033
		48 ... 127	70 ... 150	▶	3RT19 56-1CC00		1	1 unit	101	0.032
		127 ... 240	150 ... 250	▶	3RT19 56-1CD00		1	1 unit	101	0.033
		240 ... 400	--	▶	3RT19 56-1CE00		1	1 unit	101	0.033
		400 ... 600	--	C	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, the Order No. must be supplemented with "Z" and the order code "X90".

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 LEDs at U_s	DT	Order No. ²⁾	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type		AC operation	DC operation								
Surge suppressors with LED (also for Cage Clamp terminals)											

Surge suppressors with LED (also for Cage Clamp terminals)

Size S00



3RT19 16-1L.00


For contactors	Version	Rated control supply voltage $U_s^{1)}$		Power consumption of LEDs at U_s	DT	Order No. ²⁾	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type		AC operation	DC operation								
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											
3RT1, 3RH1.	Varistors	24 ... 48	12 ... 24	10 ... 120	▶	3RT19 16-1JJ00		1	1 unit	101	0.008
		48 ... 127	24 ... 70	20 ... 470	▶	3RT19 16-1JK00		1	1 unit	101	0.008
		127 ... 240	70 ... 150	50 ... 700	▶	3RT19 16-1JL00		1	1 unit	101	0.009
		--	150 ... 250	160 ... 950	A	3RT19 16-1JP00		1	1 unit	101	0.008
3RT1, 3RH1.	Noise suppression diodes	--	24 ... 70	20 ... 470	▶	3RT19 16-1LM00		1	1 unit	101	0.007
		--	50 ... 150	50 ... 700	▶	3RT19 16-1LN00		1	1 unit	101	0.007
		--	150 ... 250	160 ... 950	▶	3RT19 16-1LP00		1	1 unit	101	0.007

1) Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

2) For packs of 10 or 5 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	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	▶ A C	3RT19 16-1PA1 3RT19 16-1PA2 3RT19 16-1PA3		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.078 0.078 0.081
	3RT10 1	Varistors up to 400 V up to 575 V up to 690 V	A B D	3RT19 16-1PB1 3RT19 16-1PB2 3RT19 16-1PB3		1 1 1	1 unit 1 unit 1 unit	101 101 101	0.084 0.090 0.087
	3RT19 16-1PA								

Main conducting path surge suppression modules for 3RT12 vacuum contactors


Size S10 and S12

3RT12	Rated operating voltage $U_e = 690$ V AC	C	3RT19 66-1PV3		1	1 unit	101	0.380
	Rated operating 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	0.775

Additional load modules


Size S00 (also for Cage Clamp terminal)

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 a surge damping circuit. Rated voltage: AC 50/60 Hz, 180 V to 255 V. Operating range: 0.8 to 1.1 x U_s	▶	3RT19 16-1GA00		1	1 unit	101	0.008
	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 3/108.

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 200 S 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								
<i>Sizes S0 ... S3</i>								
For mounting onto the coil terminals of the contactors								
	3RT1. 2, 3RT1. 3, 3RT1. 4		3RH19 24-1GP11		1	1 unit	101	0.056
3RH19 24-1GP11	Operating range DC 17 V to 30 V Power consumption: 0.5 W at 24 V DC Permissible residual current of the electronics (with 0 signal): 2.5 mA Rated operating current I_e : AC-15/AC-14 at 230 V: 3 A, DC-13 at 230 V: 0.1 A With LED for indicating circuit state. With integrated varistor for damping opening surges.							
LED modules for indicating contactor operation (also for Cage Clamp terminals)								
<i>Sizes S0 ... S12¹⁾</i>								
	3RT1. 2, 3RT1. 3, 3RT1. 4	B	3RT19 26-1QT00		1	5 units	101	0.007
3RT19 26-1QT00 mounted to contactor	For snapping into the location hole of an identification 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)							
Auxiliary terminals, 3-pole								
<i>Size S3</i>								
	3RT10 4.	B	3RT19 46-4F		1	1 unit	101	0.033
3RT19 46-4F	For connection of auxiliary and control cables to the main conductor connections (for one side)							
Solder pin adapters for contactors								
<i>Size S00</i>								
	3RT1. 1, 3RH11	A	3RT19 16-4KA1		1	4 sets	101	0.030
	Installation kit for soldering contactors onto a printed circuit board. For 1 contactor, 1 set is required.							





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								
<i>Size S00</i>								
	3RT1. 1, 3RH11		B 3RT19 16-4KA2		1	4 sets	101	0.070
Installation kit for soldering contactors with an auxiliary switch block onto a printed circuit board. For 1 contactor, 1 set is required.								

Screw adapters with screw or Cage Clamp terminal								
<i>Size S0</i>								
	3RT1.2.	C	3RT19 26-4P		1	10 sets	101	0.002
Screw adapter for easy screw fixing. 2 units required per contactor (1 pack contains 10 sets for 10 contactors)								

									
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		mm ²							




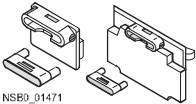
Links for paralleling									
3-pole, with connection terminal¹⁾²⁾									
S00	3RT10 1	25	▶	3RT19 16-4BB31		1	1 unit	101	0.015
S0	3RT10 2.	35, stranded	▶	3RT19 26-4BB31		1	1 unit	101	0.018
S2	3RT10 3.	95	▶	3RT19 36-4BB31		1	1 unit	101	0.107
3-pole, with through hole (star jumpers)¹⁾²⁾									
S3	3RT10 4. 3RT14 4.	185	▶	3RT19 46-4BB31		1	1 unit	101	0.197
S6	3RT1. 5	--	▶	3RT19 56-4BA31		1	1 unit	101	0.161
S10/S12	3RT1. 6, 3RT1. 7	--	▶	3RT19 66-4BA31		1	1 unit	101	0.533
4-pole, with connection terminal¹⁾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 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.

* 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



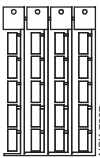
For contactors		Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
Size	Type										
Box terminal blocks											
	S6	3RT1. 5 (3RB10 5)	For round and ribbon cables¹⁾								
			Up to 70 mm ²	▶	3RT19 55-4G	1	1 unit	101	0.237		
			Up to 120 mm ²	▶	3RT19 56-4G	1	1 unit	101	0.270		
			Auxiliary conductor connection for box terminal	B	3TX7 500-0A	1	1 unit	101	0.008		
	S10/S12	3RT1. 6, 3RT1. 7 (3RB10 6)	Up to 240 mm ² With auxiliary conductor connection	▶	3RT19 66-4G	1	1 unit	101	0.676		
3RT19 5.-4G											
Covers											
	S2	3RT10 3	Terminal covers for box terminals								
			Additional touch protection for fitting to box terminals (2 units per contactor required)		▶	3RT19 36-4EA2	1	1 unit	101	0.016	
			S3	3RT10 4, 3RT14 4		▶	3RT19 46-4EA2	1	1 unit	101	0.023
			S6	3RT1. 5	Length: 25 mm	▶	3RT19 56-4EA2	1	1 unit	101	0.028
	S10/S12	3RT1. 6, 3RT1. 7	Length: 30 mm	▶	3RT19 66-4EA2	1	1 unit	101	0.038		
3RT19 36-4EA2											
	S3	3RT10 4, 3RT14 4	Terminal covers for cable lug and busbar connection³⁾								
			For maintaining the voltage clearances and as touch protection if box terminal is removed ⁴⁾ (2 units per contactor required)		▶	3RT19 46-4EA1	1	1 unit	101	0.037	
			S6	3RT1. 5	Length: 100 mm	▶	3RT19 56-4EA1	1	1 unit	101	0.067
			S10/S12	3RT1. 6, 3RT1. 7	Length: 120 mm	▶	3RT19 66-4EA1	1	1 unit	101	0.124
3RT19 46-4EA1											
S6	3RT1. 5	For rail cover between contactor and 3RB10 overload relay or wiring connector for contactor assemblies		▶	3RT19 56-4EA3	1	1 unit	101	0.021		
		S10/S12⁵⁾	3RT1. 6, 3RT1. 7	Length: 42 mm	▶	3RT19 66-4EA3	1	1 unit	101	0.062	
Sealable covers											
	S00	3RT1. 1, 3RH1.6 ⁶⁾	Sealable cover for preventing manual operation	A	3RT19 16-4MA10	1	5 units	101	0.005		
	S0 ... S12	3RT1. 2... 3RT1. 7 ⁶⁾	1 unit required per contactor	B	3RT19 26-4MA10	1	5 units	101	0.006		
NSB0_01471											

- For connectable cross-sections, see Technical specifications of contactors in Catalog LV 1 T.
- As standard for 3RT10 54-1 contactor (55 kW).
- Also fits on contactors S6 ... S12 with box terminals.

- Observe the note in Catalog LV 1 T, Technical specifications, conductor cross-sections.
- The 3RT19 66-4EA3 cover is required in addition for use in contactor assemblies (reversing/wye delta).
- 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	B	3RT19 16-4JA02		100	20 units	101	0.100
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 cable cross-section up to 2.5 mm ² .							
Tools for opening Cage Clamp connection							
 8WA2 880	A	8WA2 880		1	1 unit	041	0.012
For all SIRIUS devices with Cage Clamp terminals, up to max. 2.5 mm ² conductor cross-section							
	A	8WA2 803		1	1 unit	041	0.024
Length: approx. 175 mm; 3.5 x 0.5 (green; partially isolated) Length: approx. 175 mm; 3.5 x 0.5 (green)							
Blank labeling plates							
 3RT19 00-1SB10	D	3RT19 00-1SB10		100	816 units	101	0.239
Device labeling plates for "SIRIUS"							
• 10 mm x 7 mm, pastel turquoise							
• 20 mm x 7 mm, pastel turquoise							
Labels for sticking for "SIRIUS"							
	D	3RT19 00-1SB60		100	3060 units	101	0.153
• 19 mm x 6 mm, pastel turquoise							
	C	3RT19 00-1SD60		100	3060 units	101	0.120
• 19 mm x 6 mm, zinc/yellow							
<u>Computer labeling system</u>		Obtainable from:					
For individual inscription of device identification labeling plates		murrplastik Systemtechnik GmbH					

* 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

Selection and ordering data

For contactor		Rated control supply voltage U_s			DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.			
Size	Type	50 Hz V	50/60 Hz V	60 Hz V		Order No.	Price per PU				kg			
Magnetic coils · AC operation														
 3RT19 24-5A.01	S0	3RT10 2., 3RT13 2., 3RT15 2.	24	--	--	▶	3RT19 24-5AB01		1	1 unit	101	0.092		
			42	--	--	B	3RT19 24-5AD01		1	1 unit	101	0.092		
			48	--	--	A	3RT19 24-5AH01		1	1 unit	101	0.092		
			110	--	--	▶	3RT19 24-5AF01		1	1 unit	101	0.090		
			230	--	--	▶	3RT19 24-5AP01		1	1 unit	101	0.090		
			400	--	--	▶	3RT19 24-5AV01		1	1 unit	101	0.092		
			--	24	--	--	▶	3RT19 24-5AC21		1	1 unit	101	0.090	
				42	--	--	B	3RT19 24-5AD21		1	1 unit	101	0.089	
				48	--	--	B	3RT19 24-5AH21		1	1 unit	101	0.091	
				110	--	--	▶	3RT19 24-5AG21		1	1 unit	101	0.093	
				220	--	--	B	3RT19 24-5AN21		1	1 unit	101	0.095	
				230	--	--	B	3RT19 24-5AL21		1	1 unit	101	0.095	
				110	--	120	B	3RT19 24-5AK61		1	1 unit	101	0.095	
				220	--	240	B	3RT19 24-5AP61		1	1 unit	101	0.096	
				--	100	110	B	3RT19 24-5AG61		1	1 unit	101	0.069	
				--	200	220	B	3RT19 24-5AN61		1	1 unit	101	0.093	
				--	400	440	B	3RT19 24-5AR61		1	1 unit	101	0.090	
		 3RT19 34-5A.01	S2	3RT10 34	24	--	--	▶	3RT19 34-5AB01		1	1 unit	101	0.109
					42	--	--	B	3RT19 34-5AD01		1	1 unit	101	0.110
					48	--	--	B	3RT19 34-5AH01		1	1 unit	101	0.109
	110			--	--	▶	3RT19 34-5AF01		1	1 unit	101	0.114		
	230			--	--	A	3RT19 34-5AP01		1	1 unit	101	0.109		
	400			--	--	B	3RT19 34-5AV01		1	1 unit	101	0.115		
	--			24	--	--	▶	3RT19 34-5AC21		1	1 unit	101	0.112	
				42	--	--	B	3RT19 34-5AD21		1	1 unit	101	0.112	
				48	--	--	B	3RT19 34-5AH21		1	1 unit	101	0.114	
				110	--	--	B	3RT19 34-5AG21		1	1 unit	101	0.112	
				220	--	--	C	3RT19 34-5AN21		1	1 unit	101	0.111	
				230	--	--	B	3RT19 34-5AL21		1	1 unit	101	0.114	
				110	--	120	B	3RT19 34-5AK61		1	1 unit	101	0.112	
				220	--	240	B	3RT19 34-5AP61		1	1 unit	101	0.115	
				--	100	110	B	3RT19 34-5AG61		1	1 unit	101	0.088	
				--	200	220	B	3RT19 34-5AN61		1	1 unit	101	0.115	
				--	400	440	B	3RT19 34-5AR61		1	1 unit	101	0.113	
	3RT10 35, 3RT10 36, 3RT13 3., 3RT15 3.			24	--	--	▶	3RT19 35-5AB01		1	1 unit	101	0.104	
				42	--	--	B	3RT19 35-5AD01		1	1 unit	101	0.106	
				48	--	--	B	3RT19 35-5AH01		1	1 unit	101	0.108	
		110	--	--	▶	3RT19 35-5AF01		1	1 unit	101	0.110			
		230	--	--	▶	3RT19 35-5AP01		1	1 unit	101	0.108			
		400	--	--	B	3RT19 35-5AV01		1	1 unit	101	0.112			
		--	24	--	▶	3RT19 35-5AC21		1	1 unit	101	0.110			
			42	--	B	3RT19 35-5AD21		1	1 unit	101	0.110			
			48	--	B	3RT19 35-5AH21		1	1 unit	101	0.108			
			110	--	A	3RT19 35-5AG21		1	1 unit	101	0.108			
			220	--	B	3RT19 35-5AN21		1	1 unit	101	0.108			
			230	--	B	3RT19 35-5AL21		1	1 unit	101	0.111			
		110	--	120	B	3RT19 35-5AK61		1	1 unit	101	0.108			
		220	--	240	B	3RT19 35-5AP61		1	1 unit	101	0.107			
		--	100	110	B	3RT19 35-5AG61		1	1 unit	101	0.111			
		--	200	220	B	3RT19 35-5AN61		1	1 unit	101	0.088			
		--	400	440	C	3RT19 35-5AR61		1	1 unit	101	0.111			

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT,
3RH contactors and contactor relays

For contactor		Rated control supply voltage U_s			DT	Cage Clamp terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.			
Size	Type	50 Hz V	50/60 Hz V	60 Hz V		Order No.	Price per PU				kg			
Magnetic coils - AC operation														
	S0	3RT10 2.,	24	--	--	B	3RT19 24-5AB02		1	1 unit	101	0.093		
		3RT13 2.,	42	--	--	C	3RT19 24-5AD02		1	1 unit	101	0.089		
		3RT15 2.,	48	--	--	B	3RT19 24-5AH02		1	1 unit	101	0.095		
			110	--	--	B	3RT19 24-5AF02		1	1 unit	101	0.090		
			230	--	--	B	3RT19 24-5AP02		1	1 unit	101	0.091		
			400	--	--	C	3RT19 24-5AV02		1	1 unit	101	0.092		
			--	24	--	--	B	3RT19 24-5AC22		1	1 unit	101	0.090	
			--	42	--	--	C	3RT19 24-5AD22		1	1 unit	101	0.069	
			--	48	--	--	C	3RT19 24-5AH22		1	1 unit	101	0.092	
			--	110	--	--	B	3RT19 24-5AG22		1	1 unit	101	0.092	
			--	220	--	--	B	3RT19 24-5AN22		1	1 unit	101	0.094	
			--	230	--	--	B	3RT19 24-5AL22		1	1 unit	101	0.093	
			110	--	120	--	B	3RT19 24-5AK62		1	1 unit	101	0.090	
			220	--	240	--	C	3RT19 24-5AP62		1	1 unit	101	0.094	
			--	100	110	--	C	3RT19 24-5AG62		1	1 unit	101	0.094	
			--	200	220	--	C	3RT19 24-5AN62		1	1 unit	101	0.094	
			--	400	440	--	C	3RT19 24-5AR62		1	1 unit	101	0.091	
			S2	3RT10 34	24	--	--	B	3RT19 34-5AB02		1	1 unit	101	0.105
				42	--	--	--	B	3RT19 34-5AD02		1	1 unit	101	0.087
				48	--	--	--	B	3RT19 34-5AH02		1	1 unit	101	0.095
				110	--	--	--	B	3RT19 34-5AF02		1	1 unit	101	0.116
				230	--	--	--	B	3RT19 34-5AP02		1	1 unit	101	0.107
				400	--	--	--	B	3RT19 34-5AV02		1	1 unit	101	0.115
				--	24	--	--	B	3RT19 34-5AC22		1	1 unit	101	0.109
				--	42	--	--	B	3RT19 34-5AD22		1	1 unit	101	0.109
				--	48	--	--	B	3RT19 34-5AH22		1	1 unit	101	0.113
				--	110	--	--	B	3RT19 34-5AG22		1	1 unit	101	0.109
				--	220	--	--	B	3RT19 34-5AN22		1	1 unit	101	0.125
	--	230		--	--	B	3RT19 34-5AL22		1	1 unit	101	0.112		
	110	--		120	--	B	3RT19 34-5AK62		1	1 unit	101	0.110		
	220	--		240	--	B	3RT19 34-5AP62		1	1 unit	101	0.117		
	--	100		110	--	B	3RT19 34-5AG62		1	1 unit	101	0.083		
	--	200		220	--	B	3RT19 34-5AN62		1	1 unit	101	0.083		
	--	400		440	--	B	3RT19 34-5AR62		1	1 unit	101	0.109		
	3RT10 35,	24		--	--	B	3RT19 35-5AB02		1	1 unit	101	0.102		
	3RT10 36,	42		--	--	B	3RT19 35-5AD02		1	1 unit	101	0.088		
	3RT13 3.,	48		--	--	B	3RT19 35-5AH02		1	1 unit	101	0.085		
	3RT15 3.	110		--	--	B	3RT19 35-5AF02		1	1 unit	101	0.104		
		230		--	--	B	3RT19 35-5AP02		1	1 unit	101	0.104		
		400		--	--	B	3RT19 35-5AV02		1	1 unit	101	0.107		
	--	24		--	--	B	3RT19 35-5AC22		1	1 unit	101	0.106		
	--	42		--	--	B	3RT19 35-5AD22		1	1 unit	101	0.106		
	--	48		--	--	B	3RT19 35-5AH22		1	1 unit	101	0.107		
	--	110		--	--	B	3RT19 35-5AG22		1	1 unit	101	0.103		
	--	220		--	--	B	3RT19 35-5AN22		1	1 unit	101	0.105		
	--	230	--	--	B	3RT19 35-5AL22		1	1 unit	101	0.107			
	110	--	120	--	B	3RT19 35-5AK62		1	1 unit	101	0.110			
	220	--	240	--	B	3RT19 35-5AP62		1	1 unit	101	0.104			
	--	100	110	--	B	3RT19 35-5AG62		1	1 unit	101	0.083			
	--	200	220	--	B	3RT19 35-5AN62		1	1 unit	101	0.083			
	--	400	440	--	B	3RT19 35-5AR62		1	1 unit	101	0.110			



* You can order this quantity or a multiple thereof.

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Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT,
3RH contactors and contactor relays

Size	Type	Rated control supply voltage U_s				DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg			
		AC		DC			Order No.	Price per PU							
		50 Hz V	50/60 Hz V	60 Hz V	V										
Magnetic coils · AC operation															
 3RT19 44-5A.01	S3	3RT10 44	24	--	--	--	B	3RT19 44-5AB01	1	1 unit	101	0.191			
			42	--	--	--	B	3RT19 44-5AD01	1	1 unit	101	0.188			
			48	--	--	--	B	3RT19 44-5AH01	1	1 unit	101	0.186			
			110	--	--	--	B	3RT19 44-5AF01	1	1 unit	101	0.189			
				230	--	--	--	B	3RT19 44-5AP01	1	1 unit	101	0.180		
				400	--	--	--	B	3RT19 44-5AV01	1	1 unit	101	0.194		
			--	24	--	--	--	B	3RT19 44-5AC21	1	1 unit	101	0.182		
			--	42	--	--	--	B	3RT19 44-5AD21	1	1 unit	101	0.199		
			--	48	--	--	--	B	3RT19 44-5AH21	1	1 unit	101	0.195		
			--	110	--	--	--	B	3RT19 44-5AG21	1	1 unit	101	0.184		
			--	220	--	--	--	B	3RT19 44-5AN21	1	1 unit	101	0.179		
			--	230	--	--	--	B	3RT19 44-5AL21	1	1 unit	101	0.184		
			110	--	120	--	--	B	3RT19 44-5AK61	1	1 unit	101	0.190		
			220	--	240	--	--	B	3RT19 44-5AP61	1	1 unit	101	0.193		
			--	100	110	--	--	B	3RT19 44-5AG61	1	1 unit	101	0.130		
			--	200	220	--	--	B	3RT19 44-5AN61	1	1 unit	101	0.185		
			--	400	440	--	--	B	3RT19 44-5AR61	1	1 unit	101	0.190		
	 3RT19 45-5A.01	S3	3RT10 45,	24	--	--	--	B	3RT19 45-5AB01	1	1 unit	101	0.169		
				42	--	--	--	B	3RT19 45-5AD01	1	1 unit	101	0.166		
				48	--	--	--	B	3RT19 45-5AH01	1	1 unit	101	0.180		
110				--	--	--	B	3RT19 45-5AF01	1	1 unit	101	0.170			
			3RT13 4.,	230	--	--	--	B	3RT19 45-5AP01	1	1 unit	101	0.169		
			3RT14 46,	400	--	--	--	C	3RT19 45-5AV01	1	1 unit	101	0.173		
			3RT15 4.	--	24	--	--	A	3RT19 45-5AC21	1	1 unit	101	0.168		
				--	42	--	--	B	3RT19 45-5AD21	1	1 unit	101	0.172		
				--	48	--	--	B	3RT19 45-5AH21	1	1 unit	101	0.181		
				--	110	--	--	B	3RT19 45-5AG21	1	1 unit	101	0.169		
				--	220	--	--	B	3RT19 45-5AN21	1	1 unit	101	0.173		
				--	230	--	--	B	3RT19 45-5AL21	1	1 unit	101	0.171		
			110	--	120	--	--	B	3RT19 45-5AK61	1	1 unit	101	0.179		
			220	--	240	--	--	B	3RT19 45-5AP61	1	1 unit	101	0.180		
			--	100	110	--	--	B	3RT19 45-5AG61	1	1 unit	101	0.130		
			--	200	220	--	--	C	3RT19 45-5AN61	1	1 unit	101	0.176		
			--	400	440	--	--	B	3RT19 45-5AR61	1	1 unit	101	0.170		
Magnetic coils · DC operation															
S2		3RT10 3.,	3RT13 3.,	3RT15 3.	--	--	--	24	B	3RT19 34-5BB41	1	1 unit	101	0.600	
					--	--	--	42	B	3RT19 34-5BD41	1	1 unit	101	0.637	
	--				--	--	48	B	3RT19 34-5BW41	1	1 unit	101	0.618		
	--				--	--	60	B	3RT19 34-5BE41	1	1 unit	101	0.630		
				--	--	--	110	B	3RT19 34-5BF41	1	1 unit	101	0.605		
				--	--	--	125	B	3RT19 34-5BG41	1	1 unit	101	0.632		
				--	--	--	220	B	3RT19 34-5BM41	1	1 unit	101	0.617		
				--	--	--	230	B	3RT19 34-5BP41	1	1 unit	101	0.720		
	S3	3RT10 4.,	3RT13 4.,	3RT14 4.,	3RT15 4.	--	--	--	24	B	3RT19 44-5BB41	1	1 unit	101	0.997
						--	--	--	42	C	3RT19 44-5BD41	1	1 unit	101	1.040
					--	--	--	48	B	3RT19 44-5BW41	1	1 unit	101	0.974	
					--	--	--	60	B	3RT19 44-5BE41	1	1 unit	101	1.035	
				--	--	--	110	B	3RT19 44-5BF41	1	1 unit	101	0.970		
				--	--	--	125	B	3RT19 44-5BG41	1	1 unit	101	0.960		
			--	--	--	220	B	3RT19 44-5BM41	1	1 unit	101	1.004			
			--	--	--	230	B	3RT19 44-5BP41	1	1 unit	101	0.956			

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays


Spare parts for 3RT,
3RH contactors and contactor relays

For contactor		Rated control supply voltage U_s				DT	Cage Clamp terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
Size	Type	AC		DC		Order No.	Price per PU				kg			
		50 Hz V	50/60 Hz V	60 Hz V	V									
Magnetic coils · AC operation														
	S3	3RT10 44	24	--	--	--	B	3RT19 44-5AB02	1	1 unit	101	0.190		
			42	--	--	--	B	3RT19 44-5AD02	1	1 unit	101	0.130		
			48	--	--	--	B	3RT19 44-5AH02	1	1 unit	101	0.171		
			110	--	--	--	B	3RT19 44-5AF02	1	1 unit	101	0.185		
			230	--	--	--	B	3RT19 44-5AP02	1	1 unit	101	0.185		
			400	--	--	--	B	3RT19 44-5AV02	1	1 unit	101	0.190		
			--	24	--	--	B	3RT19 44-5AC22	1	1 unit	101	0.183		
			--	42	--	--	B	3RT19 44-5AD22	1	1 unit	101	0.130		
			--	48	--	--	B	3RT19 44-5AH22	1	1 unit	101	0.190		
			--	110	--	--	B	3RT19 44-5AG22	1	1 unit	101	0.185		
			--	220	--	--	B	3RT19 44-5AN22	1	1 unit	101	0.130		
			--	230	--	--	B	3RT19 44-5AL22	1	1 unit	101	0.178		
			110	--	120	--	B	3RT19 44-5AK62	1	1 unit	101	0.188		
			220	--	240	--	B	3RT19 44-5AP62	1	1 unit	101	0.188		
			--	100	110	--	B	3RT19 44-5AG62	1	1 unit	101	0.123		
			--	200	220	--	B	3RT19 44-5AN62	1	1 unit	101	0.123		
			--	400	440	--	B	3RT19 44-5AR62	1	1 unit	101	0.177		
			3RT10 45,	24	--	--	--	B	3RT19 45-5AB02	1	1 unit	101	0.165	
			3RT10 46,	42	--	--	--	B	3RT19 45-5AD02	1	1 unit	101	0.130	
			3RT13 4.,	48	--	--	--	B	3RT19 45-5AH02	1	1 unit	101	0.130	
			3RT14 46,	110	--	--	--	B	3RT19 45-5AF02	1	1 unit	101	0.169	
			3RT15 4.	230	--	--	--	B	3RT19 45-5AP02	1	1 unit	101	0.170	
				400	--	--	--	B	3RT19 45-5AV02	1	1 unit	101	0.157	
			--	24	--	--	--	B	3RT19 45-5AC22	1	1 unit	101	0.166	
			--	42	--	--	--	B	3RT19 45-5AD22	1	1 unit	101	0.130	
			--	48	--	--	--	B	3RT19 45-5AH22	1	1 unit	101	0.174	
			--	110	--	--	--	B	3RT19 45-5AG22	1	1 unit	101	0.161	
			--	220	--	--	--	B	3RT19 45-5AN22	1	1 unit	101	0.170	
--	230	--	--	--	B	3RT19 45-5AL22	1	1 unit	101	0.163				
110	--	120	--	--	B	3RT19 45-5AK62	1	1 unit	101	0.171				
220	--	240	--	--	B	3RT19 45-5AP62	1	1 unit	101	0.130				
--	100	110	--	--	B	3RT19 45-5AG62	1	1 unit	101	0.123				
--	200	220	--	--	B	3RT19 45-5AN62	1	1 unit	101	0.123				
--	400	440	--	--	B	3RT19 45-5AR62	1	1 unit	101	0.169				
Magnetic coils · DC operation														
	S2	3RT10 3., 3RT13 3., 3RT15 3.	--	--	--	24	B	3RT19 34-5BB42	1	1 unit	101	0.625		
			--	--	--	42	C	3RT19 34-5BD42	1	1 unit	101	0.557		
			--	--	--	48	B	3RT19 34-5BW42	1	1 unit	101	0.652		
			--	--	--	60	B	3RT19 34-5BE42	1	1 unit	101	0.633		
			--	--	--	110	B	3RT19 34-5BF42	1	1 unit	101	0.612		
			--	--	--	125	C	3RT19 34-5BG42	1	1 unit	101	0.557		
			--	--	--	220	B	3RT19 34-5BM42	1	1 unit	101	0.637		
			--	--	--	230	B	3RT19 34-5BP42	1	1 unit	101	0.602		
			S3	3RT10 4., 3RT13 4., 3RT14 4., 3RT15 4.	--	--	--	24	B	3RT19 44-5BB42	1	1 unit	101	1.034
					--	--	--	42	B	3RT19 44-5BD42	1	1 unit	101	0.805
					--	--	--	48	B	3RT19 44-5BW42	1	1 unit	101	1.009
					--	--	--	60	B	3RT19 44-5BE42	1	1 unit	101	1.016
					--	--	--	110	B	3RT19 44-5BF42	1	1 unit	101	0.970
					--	--	--	125	B	3RT19 44-5BG42	1	1 unit	101	0.805
--	--	--			220	B	3RT19 44-5BM42	1	1 unit	101	0.959			
--	--	--			230	B	3RT19 44-5BP42	1	1 unit	101	0.958			

* 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

For contactor		Rated control supply voltage U_s min ... U_s max	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Size	Type	V AC/DC		Order No.	Price per PU				kg	
Withdrawable coils										
<i>Conventional operating mechanism</i>										
	S6	3RT10 5, 3RT14 5	23 ... 26	B	3RT19 55-5AB31	1	1 unit	101	0.620	
			42 ... 48	B	3RT19 55-5AD31	1	1 unit	101	0.576	
		110 ... 127	B	3RT19 55-5AF31	1	1 unit	101	0.591		
		200 ... 220	B	3RT19 55-5AM31	1	1 unit	101	0.568		
		220 ... 240	B	3RT19 55-5AP31	1	1 unit	101	0.580		
		240 ... 277	B	3RT19 55-5AU31	1	1 unit	101	0.579		
		380 ... 420	B	3RT19 55-5AV31	1	1 unit	101	0.569		
		440 ... 480	B	3RT19 55-5AR31	1	1 unit	101	0.613		
		500 ... 550	B	3RT19 55-5AS31	1	1 unit	101	0.610		
		575 ... 600	B	3RT19 55-5AT31	1	1 unit	101	0.605		
		S10	3RT10 6, 3RT14 6	23 ... 26	B	3RT19 65-5AB31	1	1 unit	101	0.850
				42 ... 48	B	3RT19 65-5AD31	1	1 unit	101	0.840
	110 ... 127		B	3RT19 65-5AF31	1	1 unit	101	0.809		
	200 ... 220		C	3RT19 65-5AM31	1	1 unit	101	0.805		
	220 ... 240		B	3RT19 65-5AP31	1	1 unit	101	0.784		
	240 ... 277		B	3RT19 65-5AU31	1	1 unit	101	0.840		
	380 ... 420		B	3RT19 65-5AV31	1	1 unit	101	0.817		
	440 ... 480		B	3RT19 65-5AR31	1	1 unit	101	0.825		
	500 ... 550		C	3RT19 65-5AS31	1	1 unit	101	0.829		
	575 ... 600		C	3RT19 65-5AT31	1	1 unit	101	0.792		
	S10		3RT12 6 Vacuum contactor	23 ... 26	B	3RT19 66-5AB31	1	1 unit	101	1.060
				42 ... 48	B	3RT19 66-5AD31	1	1 unit	101	0.995
		110 ... 127	A	3RT19 66-5AF31	1	1 unit	101	1.003		
		200 ... 220	C	3RT19 66-5AM31	1	1 unit	101	0.650		
		220 ... 240	A	3RT19 66-5AP31	1	1 unit	101	0.930		
		240 ... 277	C	3RT19 66-5AU31	1	1 unit	101	0.997		
		380 ... 420	B	3RT19 66-5AV31	1	1 unit	101	0.825		
		440 ... 480	C	3RT19 66-5AR31	1	1 unit	101	0.650		
500 ... 550		C	3RT19 66-5AS31	1	1 unit	101	0.650			
575 ... 600		C	3RT19 66-5AT31	1	1 unit	101	0.650			
S12		3RT10 7, 3RT14 7, 3RT12 7 Vacuum contactor	23 ... 26	B	3RT19 75-5AB31	1	1 unit	101	1.425	
			42 ... 48	B	3RT19 75-5AD31	1	1 unit	101	1.255	
	110 ... 127	B	3RT19 75-5AF31	1	1 unit	101	1.311			
	200 ... 220	C	3RT19 75-5AM31	1	1 unit	101	1.200			
	220 ... 240	B	3RT19 75-5AP31	1	1 unit	101	1.204			
	240 ... 277	B	3RT19 75-5AU31	1	1 unit	101	1.308			
	380 ... 420	B	3RT19 75-5AV31	1	1 unit	101	1.218			
	440 ... 480	B	3RT19 75-5AR31	1	1 unit	101	1.261			
	500 ... 550	C	3RT19 75-5AS31	1	1 unit	101	1.202			
	575 ... 600	C	3RT19 75-5AT31	1	1 unit	101	1.139			

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT,
3RH contactors and contactor relays

For contactor		Rated control supply voltage U_s min ... U_s max	DT	Cage Clamp terminals	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
Size	Type	V AC/DC		Order No.	Price per PU			kg		
Withdrawable coils										
<i>Conventional operating mechanism</i>										
S6	3RT10 5, 3RT14 5	23 ... 26	B	3RT19 55-5AB32		1	1 unit	101	0.649	
		42 ... 48	B	3RT19 55-5AD32		1	1 unit	101	0.576	
			110 ... 127	B	3RT19 55-5AF32		1	1 unit	101	0.591
			200 ... 220	B	3RT19 55-5AM32		1	1 unit	101	0.568
			220 ... 240	B	3RT19 55-5AP32		1	1 unit	101	0.568
			240 ... 277	B	3RT19 55-5AU32		1	1 unit	101	0.579
			380 ... 420	B	3RT19 55-5AV32		1	1 unit	101	0.569
			440 ... 480	B	3RT19 55-5AR32		1	1 unit	101	0.613
			500 ... 550	B	3RT19 55-5AS32		1	1 unit	101	0.610
			575 ... 600	B	3RT19 55-5AT32		1	1 unit	101	0.605
S10	3RT10 6, 3RT14 6	23 ... 26	B	3RT19 65-5AB32		1	1 unit	101	0.835	
		42 ... 48	B	3RT19 65-5AD32		1	1 unit	101	0.840	
			110 ... 127	B	3RT19 65-5AF32		1	1 unit	101	0.809
			200 ... 220	B	3RT19 65-5AM32		1	1 unit	101	0.805
			220 ... 240	B	3RT19 65-5AP32		1	1 unit	101	0.784
			240 ... 277	B	3RT19 65-5AU32		1	1 unit	101	0.855
			380 ... 420	B	3RT19 65-5AV32		1	1 unit	101	0.817
			440 ... 480	B	3RT19 65-5AR32		1	1 unit	101	0.825
			500 ... 550	B	3RT19 65-5AS32		1	1 unit	101	0.829
			575 ... 600	B	3RT19 65-5AT32		1	1 unit	101	0.650
S12	3RT10 7, 3RT14 7, 3RT12 7 Vacuum contactor	23 ... 26	B	3RT19 75-5AB32		1	1 unit	101	1.425	
		42 ... 48	B	3RT19 75-5AD32		1	1 unit	101	1.255	
			110 ... 127	B	3RT19 75-5AF32		1	1 unit	101	1.311
			200 ... 220	B	3RT19 75-5AM32		1	1 unit	101	1.100
			220 ... 240	B	3RT19 75-5AP32		1	1 unit	101	1.204
			240 ... 277	B	3RT19 75-5AU32		1	1 unit	101	1.308
			380 ... 420	B	3RT19 75-5AV32		1	1 unit	101	1.218
			440 ... 480	B	3RT19 75-5AR32		1	1 unit	101	1.261
			500 ... 550	B	3RT19 75-5AS32		1	1 unit	101	1.202
			575 ... 600	B	3RT19 75-5AT32		1	1 unit	101	1.139

* You can order this quantity or a multiple thereof.

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Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT,
3RH contactors and contactor relays



3RT19 55-5N...

For contactor		Rated control supply voltage U_s	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Size	Type			Order No.	Price per PU				

Withdrawable coils

Solid-state operating mechanism

For 24 V DC PLC output

S6	3RT10 5, 3RT14 5	21 ... 27,3	C	3RT19 55-5NB31	1	1 unit	101	0.636
		96 ... 127	B	3RT19 55-5NF31	1	1 unit	101	0.567
		200 ... 277	B	3RT19 55-5NP31	1	1 unit	101	0.567
S10	3RT10 6, 3RT14 6	21 ... 27,3	B	3RT19 65-5NB31	1	1 unit	101	0.808
		96 ... 127	B	3RT19 65-5NF31	1	1 unit	101	0.926
		200 ... 277	B	3RT19 65-5NP31	1	1 unit	101	0.813
3RT12 6 Vacuum contactor	21 ... 27,3	B	3RT19 66-5NB31	1	1 unit	101	0.650	
	96 ... 127	C	3RT19 66-5NF31	1	1 unit	101	0.650	
	200 ... 277	C	3RT19 66-5NP31	1	1 unit	101	1.030	
S12	3RT10 7, 3RT14 7, 3RT12 7 Vacuum contactor	21 ... 27,3	B	3RT19 75-5NB31	1	1 unit	101	1.355
		96 ... 127	B	3RT19 75-5NF31	1	1 unit	101	0.951
		200 ... 277	B	3RT19 75-5NP31	1	1 unit	101	1.061

For 24 V DC PLC output/PLC relay output, with remaining lifetime indication (RLT)

(Withdrawable coil with lateral solid-state module)

S6	3RT10 5, 3RT14 5	96 ... 127	B	3RT19 55-5PF31	1	1 unit	101	0.570
		200 ... 277	B	3RT19 55-5PP31	1	1 unit	101	0.955
S10	3RT10 6, 3RT14 6	96 ... 127	B	3RT19 65-5PF31	1	1 unit	101	1.368
		200 ... 277	B	3RT19 65-5PP31	1	1 unit	101	1.176
S12	3RT10 7, 3RT14 7	96 ... 127	B	3RT19 75-5PF31	1	1 unit	101	1.100
		200 ... 277	B	3RT19 75-5PP31	1	1 unit	101	1.424

With AS-Interface and remaining lifetime indication (RLT)

(Withdrawable coil with lateral solid-state module)

S6	3RT10 5, 3RT14 5	96 ... 127	B	3RT19 55-5QF31	1	1 unit	101	0.961
		200 ... 277	B	3RT19 55-5QP31	1	1 unit	101	0.946
S10	3RT10 6, 3RT14 6	96 ... 127	B	3RT19 65-5QF31	1	1 unit	101	0.650
		200 ... 277	B	3RT19 65-5QP31	1	1 unit	101	0.650
S12	3RT10 7, 3RT14 7	96 ... 127	B	3RT19 75-5QF31	1	1 unit	101	1.100
		200 ... 277	B	3RT19 75-5QP31	1	1 unit	101	1.460

For contactor		Rated control supply voltage U_s	DT	Cage Clamp terminals		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Size	Type			Order No.	Price per PU				

Withdrawable coils

Solid-state operating mechanism

For 24 V DC PLC output

S6	3RT10 5, 3RT14 5	21 ... 27,3	B	3RT19 55-5NB32	1	1 unit	101	0.654
		96 ... 127	B	3RT19 55-5NF32	1	1 unit	101	0.567
		200 ... 277	B	3RT19 55-5NP32	1	1 unit	101	0.567
S10	3RT10 6, 3RT14 6	21 ... 27,3	B	3RT19 65-5NB32	1	1 unit	101	0.808
		96 ... 127	B	3RT19 65-5NF32	1	1 unit	101	0.926
		200 ... 277	B	3RT19 65-5NP32	1	1 unit	101	0.813
S12	3RT10 7, 3RT14 7, 3RT12 7 Vacuum contactor	21 ... 27,3	B	3RT19 75-5NB32	1	1 unit	101	1.355
		96 ... 127	B	3RT19 75-5NF32	1	1 unit	101	0.951
		200 ... 277	B	3RT19 75-5NP32	1	1 unit	101	1.061

Accessories and Spare Parts For 3RT, 3RH Contactors and Contactor Relays

Spare parts for 3RT, 3RH contactors and contactor relays




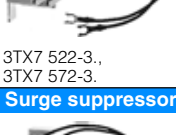



For contactor		Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Size	Type								
Arc chutes									
S2	3RT10 3 .	Arc chute, 3-pole	C	3RT19 36-7A		1	1 unit	101	0.112
S3	3RT10 4., 3RT14 46		C	3RT19 46-7A		1	1 unit	101	0.299
S6	3RT10 54 3RT10 55 3RT10 56		B	3RT19 54-7A		1	1 unit	101	0.760
			B	3RT19 55-7A		1	1 unit	101	0.760
			B	3RT19 56-7A		1	1 unit	101	0.755
S10	3RT10 64 3RT10 65 3RT10 66		B	3RT19 64-7A		1	1 unit	101	1.355
			B	3RT19 65-7A		1	1 unit	101	1.355
			B	3RT19 66-7A		1	1 unit	101	1.355
S12	3RT10 75 3RT10 76		B	3RT19 75-7A		1	1 unit	101	1.643
			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 set	101	0.041
			▶	3RT19 35-6A		1	1 set	101	0.044
			▶	3RT19 36-6A		1	1 set	101	0.046
S3	3RT10 44 3RT10 45 3RT10 46		▶	3RT19 44-6A		1	1 set	101	0.098
			▶	3RT19 45-6A		1	1 set	101	0.111
			▶	3RT19 46-6A		1	1 set	101	0.116
S6	3RT10 54 3RT10 55 3RT10 56		▶	3RT19 54-6A		1	1 set	101	0.239
			▶	3RT19 55-6A		1	1 set	101	0.281
			▶	3RT19 56-6A		1	1 set	101	0.295
S10	3RT10 64 3RT10 65 3RT10 66		▶	3RT19 64-6A		1	1 set	101	0.443
			▶	3RT19 65-6A		1	1 set	101	0.513
			▶	3RT19 66-6A		1	1 set	101	0.555
S12	3RT10 75 3RT10 76		▶	3RT19 75-6A		1	1 set	101	0.766
			A	3RT19 76-6A		1	1 set	101	0.915
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 set	101	0.113
S6	3RT14 56		B	3RT19 56-6D		1	1 set	101	0.285
S10	3RT14 66		B	3RT19 66-6D		1	1 set	101	0.543
S12	3RT14 76		A	3RT19 76-6D		1	1 set	101	0.899
<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 set	101	1.530
			B	3RT19 65-6V		1	1 set	101	1.525
			B	3RT19 66-6V		1	1 set	101	1.520
S12	3RT12 75 3RT12 76		B	3RT19 75-6V		1	1 set	101	1.775
			B	3RT19 76-6V		1	1 set	101	1.775
<i>For contactors with 4 main contacts</i>									
S2	3RT13 26	Main contacts (4 NO contacts) for utilization category AC-1 (1 set = 4 movable and 8 fixed switching elements with fixing parts)	B	3RT19 36-6E		1	1 set	101	0.058
S3	3RT13 44 3RT13 46		C	3RT19 44-6E		1	1 set	101	0.149
			C	3RT19 46-6E		1	1 set	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 contactor		Version	Rated control supply voltage U_s		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.					
Size	Type		V AC	V DC							kg					
Surge suppressors¹⁾ · Varistors																
 3TX7 402-3.	2	3TC44 ²⁾	Varistors³⁾ 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	0.024				
				400 ... 600	--	C	3TX7 402-3L		1	1 unit	101	0.024				
 3TX7 462-3.	4 and 6	3TB50 and 3TC56	Varistors³⁾ For sticking onto the contactor base or for mounting separately	24 ... 48	24 ... 70	D	3TX7 462-3G		1	1 unit	101	0.013				
				48 ... 127	70 ... 150	C	3TX7 462-3H		1	1 unit	101	0.014				
				127 ... 240	150 ... 250	B	3TX7 462-3J		1	1 unit	101	0.014				
				240 ... 400	--	A	3TX7 462-3K		1	1 unit	101	0.016				
				400 ... 600	--	D	3TX7 462-3L		1	1 unit	101	0.016				
 3TX7 462-3.	8 and 12	3TC52 and 3TC56	Varistors For sticking onto the contactor base or for mounting separately	24 ... 48	--	D	3TX7 462-3G		1	1 unit	101	0.013				
				48 ... 127	--	C	3TX7 462-3H		1	1 unit	101	0.014				
				127 ... 240	--	B	3TX7 462-3J		1	1 unit	101	0.014				
				240 ... 400	--	A	3TX7 462-3K		1	1 unit	101	0.016				
				400 ... 600	--	D	3TX7 462-3L		1	1 unit	101	0.016				
 3TX7 522-3., 3TX7 572-3.	8 ... 12	3TB52 ... 3TB56, 3TC52 and 3TC56	Varistors³⁾ For separate screw connection or snapping onto 35 mm standard mounting rail	--	24 ... 70	B	3TX7 522-3G		1	1 unit	101	0.083				
				--	70 ... 150	B	3TX7 522-3H		1	1 unit	101	0.078				
				--	150 ... 250	B	3TX7 522-3J		1	1 unit	101	0.084				
				--	24 ... 48	C	3TX7 572-3G		1	1 unit	101	0.075				
				--	48 ... 127	C	3TX7 572-3H		1	1 unit	101	0.085				
--	127 ... 240	C	3TX7 572-3J		1	1 unit	101	0.081								
Surge suppressors · RC elements																
 3TX7 462-3., 3TX7 522-3.	4	3TC48	RC elements For lateral snapping onto auxiliary switch or 35 mm standard mounting rail	24 ... 48	--	C	3TX7 462-3R		1	1 unit	101	0.084				
				--	24 ... 70	B	3TX7 522-3R		1	1 unit	101	0.080				
				48 ... 127	--	A	3TX7 462-3S		1	1 unit	101	0.082				
				--	70 ... 150	B	3TX7 522-3S		1	1 unit	101	0.088				
				127 ... 240	--	A	3TX7 462-3T		1	1 unit	101	0.081				
				--	150 ... 250	B	3TX7 522-3T		1	1 unit	101	0.085				
				240 ... 400	--	A	3TX7 462-3U		1	1 unit	101	0.084				
				400 ... 600	--	C	3TX7 462-3V		1	1 unit	101	0.086				
				 3TX7 522-3.	6 ... 12	3TB50, 3TC52 and 3TC56	RC elements For lateral snapping onto auxiliary switch or 35 mm standard mounting rail	24 ... 48	--	B	3TX7 522-3R		1	1 unit	101	0.080
								48 ... 127	--	B	3TX7 522-3S		1	1 unit	101	0.088
127 ... 240	--	B	3TX7 522-3T						1	1 unit	101	0.085				
240 ... 400	--	B	3TX7 522-3U						1	1 unit	101	0.085				
400 ... 600	--	B	3TX7 522-3V						1	1 unit	101	0.086				
Surge suppressors⁴⁾ · Diodes																
 3TX7 462-3.	6 ... 12	3TB52 ... 3TB56, 3TC48 and 3TC56	Diode assemblies (diode and Zener diode) For DC solenoid system, for sticking onto the contactor base or for mounting separately	--	24 ... 250	D	3TX7 462-3D		1	1 unit	101	0.014				

- The surge suppressor is integrated as standard in the following contactors: 3TF68 and 3TF69 (AC operation): varistor circuit.
- The connection piece for mounting the surge suppressor must be bent slightly.
- Includes the peak value of the ripple voltage on the DC side.
- Not for DC economy circuit.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

For contactor	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									
 5TY7 561-1.	14	3TF68	For mounting onto the side of contactors.	B	3TY7 561-1UA00	1	1 unit	101	0.053
	2 and 4	3TF69	For use in dusty atmosphere and solid-state circuits with rated operating currents I_N /AC-14 and DC-13 from 1 mA to 300 mA at 3 V to 60 V.						
		3TC44 ...	With 1 changeover contact.						
		3TC48	2nd auxiliary switch block, left or right (replacement for 3TY6 561-1U, 3TY6 561-1V)						
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 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 bar connections									
 3TX7	14	3TF68	For screwing onto free screw end on middle connecting bar.	B	3TX7 686-0A	1	1 set	101	0.410
		3TF69	2 units required per contactor. (1 set = 2 units)	B	3TX7 696-0A	1	1 set	101	0.402
 3TX6 526-3B	6	3TB50, 3TC48	Can be screwed on free screw end. Covers one rail connection (1 set = 6 units).	M 6 B	3TX6 506-3B	1	1 set	101	0.082
	8 and SIRIUS S6	3TB52 3RT1.5		M 8 B	3TX6 526-3B	1	1 set	101	0.140
	10 and 14 and SIRIUS S10, S12	3TB54 ... 3TB56, 3TC52, 3TC56 3RT1.6 3RT1.7		M 10 B	3TX6 546-3B	1	1 set	101	0.260
Links for paralleling (star jumper) - 3-pole, without connection terminal¹⁾									
	14	3TF68		C	3TX7 680-0D	1	1 unit	101	0.256
Cover plate for link for paralleling									
	14	3TF68	A cover plate must be used in order to protect against inadvertent contact with exposed bar 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 set	101	0.675
With auxiliary conductor connection (1 set = 3 units)									
	14	3TF68	With single covers for protection against inadvertent contact (EN 50274)	C	3TX7 570-1F	1	1 set	101	0.698
	14	3TF69	Conductor cross-sections for auxiliary conductors: Solid 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 set	101	1.986

1) The link for paralleling can be reduced by one pole.


* 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

For contactor		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		V DC							
Arc chutes										
2	3TC44 17-OL..	With cutout for mounting resistor		B	3TY2 442-0B		1	1 unit	101	0.164
Magnetic coils										
2	3TC44	With series resistor Without varistor	24 110	C C	3TY6 443-0LB4 3TY6 443-0LF4		1 1	1 unit 1 unit	101 101	0.340 0.330
4	3TC48		24 110	C C	3TY6 483-0LB4 3TY6 483-0LF4		1 1	1 unit 1 unit	101 101	1.170 1.116
6	3TB50		24 110	C C	3TY6 503-0LB4 3TY6 503-0LF4		1 1	1 unit 1 unit	101 101	1.100 1.100
8	3TB52 and 3TC52		24 110	C C	3TY6 523-0LB4 3TY6 523-0LF4		1 1	1 unit 1 unit	101 101	2.942 2.912
10	3TB54		24 110	C C	3TY6 543-0LB4 3TY6 543-0LF4		1 1	1 unit 1 unit	101 101	1.100 1.100
12	3TB56 and 3TC56		24 110	C C	3TY6 563-0LB4 3TY6 563-0LF4		1 1	1 unit 1 unit	101 101	1.100 1.100

All spare parts not mentioned above are identical to those for the standard contactors.

Auxiliary contacts	Rated operating current I_g /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 AC	Ident. No.	Version							
Number	A	A	A		 N N N N O C O C							

Snap-on auxiliary switch blocks for 3TF2 contactors with screw terminals



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	11 E	-- 1 -- --	B	3TX4 401-1A		1	1 unit	101	0.033
3	4	3	2	22 E	1 2 -- --	B	3TX4 412-1A		1	1 unit	101	0.042
4	4	3	2	23 E	1 3 -- --	B	3TX4 413-1A		1	1 unit	101	0.047
				32 E	2 2 -- --	B	3TX4 422-1A		1	1 unit	101	0.048
With 3 and 5 auxiliary contacts according to DIN 50005 for 3TF2 contactors												
2	4	3	2	20	2 -- -- --	B	3TX4 420-2A		1	1 unit	101	0.038
				11	1 1 -- --	B	3TX4 411-2A		1	1 unit	101	0.038
				02	-- 2 -- --	B	3TX4 402-2A		1	1 unit	101	0.037
				11; U	-- -- 1 1	B	3TX4 411-2G		1	1 unit	101	0.037
4	4	3	2	40	4 -- -- --	B	3TX4 440-2A		1	1 unit	101	0.047
				31	3 1 -- --	B	3TX4 431-2A		1	1 unit	101	0.047
				22	2 2 -- --	B	3TX4 422-2A		1	1 unit	101	0.047
				22; 2 U	-- -- 2 2	B	3TX4 422-2G		1	1 unit	101	0.047

For contactor	Rated control supply voltage U_s	Time range (minimum times)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Type									

OFF-delay devices (with screw terminals) for 3TF2 contactors






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	B	3TX4 490-1H		1	1 unit	101	0.083
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Accessories and Spare Parts For 3T Contactors and Contactor Relays

Accessories for 3TB, 3TC, 3TF, 3TG, 3TK contactors

For contactor	Rated control supply voltage		Power consumption of LED at U_s	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	Type	V AC									V DC
Surge suppressors for 3TF2 contactors · For plugging onto contactors with and without auxiliary switch blocks											
<i>Version without LED</i>											
 3TX4 490-3A	RC elements										
	3TF2...-0...	24 ... 48	24 ... 70	--	B	3TX4 490-3R		1	10 units	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	0.014
		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	0.016	
	400 ... 600	--	--	B	3TX4 490-3L		1	10 units	101	0.016	
Noise suppression diodes											
3TF2...-0...	--	12 ... 250	--	B	3TX4 490-3A		1	1 unit	101	0.010	
3TF2...-1...	--	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											
3TF2...-0...	--	24 ... 250	--	B	3TX4 490-3B		1	1 unit	101	0.009	
3TF2...-1...	--	24 ... 250	--	B	3TX4 490-3B		1	1 unit	101	0.009	
<i>Version with LED</i>											
 3TX4 490-4G	Varistors										
	3TF2...-0...	24 ... 48	12 ... 24	10 ... 120	B	3TX4 490-4G		1	1 unit	101	0.009
	3TF2...-1...	48 ... 127	24 ... 70	20 ... 470	B	3TX4 490-4H		1	1 unit	101	0.009
		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	0.009
	Noise suppression diodes										
	3TF2...-0...	--	24 ... 70	20 ... 470	B	3TX4 490-4A		1	1 unit	101	0.009
	3TF2...-1...	--	70 ... 150	50 ... 700	B	3TX4 490-4B		1	1 unit	101	0.009
		--	150 ... 250	160 ... 950	B	3TX4 490-4C		1	1 unit	101	0.009
	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	0.011	
3TF2...-1A...	230, 60 Hz		--	B	3TX4 490-1J		1	1 unit	101	0.011	
	230, 50/60 Hz		--	B	3TX4 490-1J		1	1 unit	101	0.011	
	Operating range 0.8 ... 1.1 x U_s										
Plug-in bases with solder pin connectors for printed circuit boards · width 45 mm for 3TF2 and 3TK2 contactors											
	For 3TF2 and 3TK2 contactors With flat connectors 6,3 mm x 0,8 mm; Rated insulation voltage U_i : 400 V (pollution degree 3); Rated impulse withstand voltage U_{imp} : 6 kV; Rated operating current I_o : 6 A; Ⓢ and Ⓜ rated data: max. 300 V, 6 A										
	3TF20...-3...				A	3TX4 491-2A		1	5 units	101	0.032
	3TF20...-7...				A	3TX4 491-2A		1	5 units	101	0.032
	3TK20...-3...				A	3TX4 491-2A		1	5 units	101	0.032
	3TK20...-7...				A	3TX4 491-2A		1	5 units	101	0.032
Release tools											
3TF2...-7...	For releasing contactors from 3TX4 491-2A plug-in bases			D	3TX4 491-2K		1	1 unit	101	0.010	
3TK20...-7...	For releasing contactors from 3TX4 491-2A plug-in bases			D	3TX4 491-2K		1	1 unit	101	0.010	

1) Dimensions as for 3TX4 490-3 surge suppressor.

* 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

Accessories

For contactor	Max. rated operating currents $I_e/AC-1$ (at 55 °C) of the contactors	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 terminal¹⁾²⁾

3TG10	16 star jumpers can be reduced by one pole	--	▶	3RT19 16-4BA31		1 1 unit		101	0.003
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3-pole, with connection terminal¹⁾³⁾

3TG10	40	25	▶	3RT19 16-4BB31		1 1 unit		101	0.015
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4-pole, with connection terminal¹⁾⁴⁾


3TG10	50	25	C	3RT19 16-4BB41		1 1 unit		101	0.015
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- 1) The links for paralleling can be reduced by one pole. The rated operating currents apply to each pole. The parallel connections 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	0.147
	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	0.024
	400 ... 600	--	C	3TX7 402-3L		1	1 unit	101	0.024	
	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	0.023
240 ... 400		--	C	3TX7 402-3U		1	1 unit	101	0.024	
400 ... 600	--	C	3TX7 402-3V		1	1 unit	101	0.024		
Covers For switch position indicator	--	--	B	3TX4 210-0P		1	1 unit	101	0.002	

Coupling links for control by PLC for 3TH4 contactor relays


 3TX4 090 mounted to contactor	Operating range: 17 ... 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	0.055
	For mounting directly to contactor coil with surge suppressor			A	3TX4 090-0D		1	1 unit	101	0.057

1) The opening delay of the NO contact and the closing 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 ripple voltage on the DC side.

For contactor	Version	Rated control supply voltage U_s AC 50/60 Hz	Time 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	0.013
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* You can order this quantity or a multiple thereof.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Accessories for 3TH contactor relays

For contactor	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	AC 50/60 Hz V	DC 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	0.169
3TH42 ..-0BM4 3TH43 ..-0BM4	220		0.6 or 1.2	A	3TX4 701-0AN1		1	1 unit	101	0.169
3TH42 ..-0BP4 3TH43 ..-0BP4	230		0.6 or 1.2	A	3TX4 701-0AN1		1	1 unit	101	0.169
3TH42 ..-0BB4 3TH43 ..-0BB4		24	0.4 or 0.8	A	3TX4 701-0BB4		1	1 unit	101	0.168

Contacts	Rated operating 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.
Number	A	A	A	A					kg

230/ 400/ 500 V 690/
220 V 380 V AC 660 V

Ident. No. Version
acc. to EN 50011



Snap-on auxiliary switch blocks for 3TH20 contactor relays with screw terminals



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	--	80 E	4	--	--	--	B	3TX4 440-0A	1	1 unit	101	0.047
					71 E	3	1	--	--	B	3TX4 431-0A	1	1 unit	101	0.047
					62 E	2	2	--	--	B	3TX4 422-0A	1	1 unit	101	0.047
					53 E	1	3	--	--	B	3TX4 413-0A	1	1 unit	101	0.048
					44 E	--	4	--	--	B	3TX4 404-0A	1	1 unit	101	0.047

With 6 and 8 contacts according to EN 50005

4	4	3	2	--	40 E	4	--	--	--	B	3TX4 440-2A	1	1 unit	101	0.047
					31 E	3	1	--	--	B	3TX4 431-2A	1	1 unit	101	0.047
					22 E	2	2	--	--	B	3TX4 422-2A	1	1 unit	101	0.047
					22; 2U	--	--	2	2	B	3TX4 422-2G	1	1 unit	101	0.047
2	4	3	2	--	20 E	2	--	--	--	B	3TX4 420-2A	1	1 unit	101	0.038
					11 E	1	1	--	--	B	3TX4 411-2A	1	1 unit	101	0.038
					02 E	--	2	--	--	B	3TX4 402-2A	1	1 unit	101	0.037
					11; U	--	--	1	1	B	3TX4 411-2G	1	1 unit	101	0.037

For contactor	Rated control supply voltage U_s	Time range (minimum times)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type									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	B	3TX4 490-1H		1	1 unit	101	0.083
3TH2. ...-0BF4 3TH2. ...-0BM4, 3TH2. ...-0BP4	110 V AC, 50/60 Hz 220 V AC, 50/60 Hz		0.1 s or 0.2 s 0.4 s or 0.8 s	B	3TX4 490-1A		1	1 unit	101	0.085

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Accessories for 3TH contactor relays





For contactor	Rated control supply voltage		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	10 units	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	0.014
		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	0.016	
	400 ... 600	--	--	B	3TX4 490-3L		1	10 units	101	0.016	
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	0.009	
<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	0.009
		48 ... 27	24 ... 70	20 ... 470	B	3TX4 490-4H		1	1 unit	101	0.009
		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	0.009
	Noise suppression diodes										
	3TH2. ...-0...	--	24 ... 70	20 ... 470	B	3TX4 490-4A		1	1 unit	101	0.009
		--	70 ... 150	50 ... 700	B	3TX4 490-4B		1	1 unit	101	0.009
		--	150 ... 250	160 ... 950	B	3TX4 490-4C		1	1 unit	101	0.009
	Additional load modules (residual current) For plugging onto contactors with and without 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	0.011
		230, 60 Hz	--	--							
		230, 50/60 Hz	--	--							
		Operating range 0.8 ... 1.1 x U_s									
Plug-in bases with solder pin connectors 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 (pollution degree 3); Rated impulse withstand voltage U_{imp} : 6 kV; Rated operating current I_a : 6 A; Ⓢ and Ⓜ rated data: max. 300 V, 6 A										
	3TH20 ...-3, 3TH20 ...-7				A	3TX4 491-2A		1	5 units	101	0.032

1) The opening delay of the NO contact and the closing 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 contactor	Contacts Version	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)	B	3TY6 501-1AA00	1	1 unit	101	0.053		
			1 -- 1	Auxiliary switch block, right	C	3TY6 501-1E	1	1 unit	101	0.054		
	8 ... 12	3TB52 ... 3TB56	1 1 --	Auxiliary switch block, left	B	3TY6 561-1A	1	1 unit	101	0.074		
			1 1 --	Auxiliary switch block, right	B	3TY6 561-1B	1	1 unit	101	0.075		
3TY6 561-1A			1 -- 1	Auxiliary switch block, right	C	3TY6 561-1E	1	1 unit	101	0.076		
Magnetic coils												
	DC operation											
	6	3TB50			C	3TY6 503-0B..	1	1 unit	101	0.230		
	8	3TB52			C	3TY6 523-0B..	1	1 unit	101	0.400		
	10	3TB54			C	3TY6 543-0B..	1	1 unit	101	0.400		
3TY6 5..			12	3TB56			C	3TY6 563-0B..	1	1 unit	101	0.560
Arc chutes												
	6	3TB50		1 arc chute, 3-pole	B	3TY6 502-0A	1	1 unit	101	0.751		
	8	3TB52			C	3TY6 522-0A	1	1 unit	101	1.177		
	10	3TB54			C	3TY6 542-0A	1	1 unit	101	1.456		
	12	3TB56			C	3TY6 562-0A	1	1 unit	101	1.580		
3TY6 502-0A												
Contacts with fixing parts												
	In order to ensure reliable operation of the contactors, only original replacement contacts from Siemens should be used.											
	6	3TB50		(1 set = 3 moving and 6 fixed contacts)	B	3TY6 500-0A	1	1 set	101	0.283		
	8	3TB52			B	3TY6 520-0A	1	1 unit	101	0.359		
	10	3TB54			B	3TY6 540-0A	1	1 set	101	0.529		
3TY6 520-0A												
	12	3TB56			B	3TY6 560-0A	1	1 set	101	0.756		

For rated control supply voltages for coils, see page 3/146.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

For contactor	Auxiliary contacts Version	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	3TB44, 3TC48	1	1	Auxiliary switch block, left or right (replacement for 3TY6 501-1A/-1B)	B	3TY6 501-1AA00	1	1 unit	101	0.053
	4	3TC48	1	1	2nd auxiliary switch block, left ¹⁾	C	3TY6 501-1K	1	1 unit	101	0.055
					2nd auxiliary switch block, right ¹⁾	C	3TY6 501-1L	1	1 unit	101	0.047
	8 and 12	3TC52, 3TC56	1	1	Auxiliary switch block, left	B	3TY6 561-1A	1	1 unit	101	0.074
					Auxiliary switch block, right	B	3TY6 561-1B	1	1 unit	101	0.075
				2nd auxiliary switch block, left ¹⁾	C	3TY6 561-1K	1	1 unit	101	0.077	
				2nd auxiliary switch block, right ¹⁾	C	3TY6 561-1L	1	1 unit	101	0.078	
Contacts with fixing parts											
	In order to ensure reliable operation of the contactors, only original replacement contacts from Siemens should be used.										
	2	3TC44	(1 set = 2 moving and 2 fixed switching elements)		B	3TY2 440-0A	1	1 set	101	0.065	
	4	3TC48			B	3TY2 480-0A	1	1 set	101	0.100	
	8	3TC52			B	3TY2 520-0A	1	1 set	101	0.237	
	12	3TC56			B	3TY2 560-0A	1	1 set	101	0.424	
<i>Rated control supply voltages for coils, see page 3/146.</i>											
Arc chutes											
	2	3TC44	1 arc chute,		C	3TY2 442-0A	1	1 unit	101	0.166	
	4	3TC48	2-pole		C	3TY2 482-0A	1	1 unit	101	0.503	
	8	3TC52			C	3TY2 522-0A	1	1 unit	101	1.205	
	12	3TC56			C	3TY2 562-0A	1	1 unit	101	2.129	
Magnetic coils											
DC operation											
	2	3TC44			C	3TY6 443-0B..	1	1 unit	101	0.300	
	4	3TC48			C	3TY6 483-0B..	1	1 unit	101	1.000	
	8	3TC52			C	3TY6 523-0B..	1	1 unit	101	2.300	
	12	3TC56			C	3TY6 563-0B..	1	1 unit	101	4.800	
AC operation											
	2	3TC44			C	3TY7 403-0A..	1	1 unit	101	0.100	
	4	3TC48			C	3TY6 483-0A..	1	1 unit	101	0.200	
	8	3TC52			C	3TY6 523-0A..	1	1 unit	101	0.350	
	12	3TC56			C	3TY6 566-0A..	1	1 unit	101	0.650	


1) Can only be mounted on AC-operated contactors.


* You can order this quantity or a multiple thereof.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

For contactor	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	0.011 0.011
Contacts with fixing parts									
3TC7	Main contacts (1 set) For 3TC78: 2 units required per contactor		B	3TY2 740-0E		1	1 set	101	0.356
Auxiliary switch blocks									
3TC74	4 NO +4 NC		B	3TY2 741-2J		1	1 unit	101	0.265
3TC78	Auxiliary contact, left, with 2 NO +2 NC		C	3TY2 781-2C		1	1 unit	101	0.186
	Auxiliary contact, right, with 2 NO +2 NC		C	3TY2 781-2D		1	1 unit	101	0.184
Arc chutes									
3TC7	For 3TC78: 2 units required per contactor		C	3TY2 742-0C		1	1 unit	101	3.916

For contactor	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										
With screw terminals										
	14	3TF68 and 3TF69	1 1 --	1st auxiliary switch block, left or right Replacement for: 3TY7 561-1A/-1B.	B	3TY7 561-1AA00	1	1 unit	101	0.048
			1 -- 1	Auxiliary switch block, left or right	B	3TY7 561-1EA00	1	1 unit	101	0.048
			1 1 --	2nd auxiliary switch block, left or right Replacement for: 3TY7 561-1K/-1L.	B	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 contact block	C	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	
Magnetic coils									
AC operation									
	14	3TF68 3TF69	The coils are fitted as standard with varistors against overvoltage. The coil is supplied with switch-on electronics.	C C	3TY7 683-0C.. 3TY7 693-0C..	1 1	1 unit 1 unit	101 101	0.650 0.650
	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 coils are supplied without reversing contactor.	C C	3TY7 683-0D.. 3TY7 693-0D..	1 1	1 unit 1 unit	101 101	0.560 0.560

Vacuum interrupters									
In order to ensure reliable operation of the contactors, only original replacement interrupters from Siemens should be used.									
14	3TF68 3TF69	3 vacuum interrupters with mounting parts	B B	3TY7 680-0B 3TY7 690-0B		1 1	1 set 1 set	101 101	3.490 3.638

For rated control supply voltages for coils, see page 3/146.

For solid-state compatible auxiliary switch blocks, see page 3/135.

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
Reversing contactors (3TC44)								
Complete with resistor and 1 m connecting lead and connector for 3TF68 ...-Q, 3TF69 ...-Q	110 ... 120 220 ... 240 380 ... 420	C C C	3TY7 684-0QG7 3TY7 684-0QL7 3TY7 684-0QV7		1 1 1	1 unit 1 unit 1 unit	101 101 101	1.000 1.000 1.000
Magnetic coils for main contactor, with rectifier bridge								
For 3TF68 ...-Q	110 ... 120	C	3TY7 683-0QG7		1	1 unit	101	2.700
	220 ... 240	C	3TY7 683-0QL7		1	1 unit	101	1.509
	380 ... 420	C	3TY7 683-0QV7		1	1 unit	101	1.460
For 3TF69 ...-Q	110 ... 120	C	3TY7 693-0QG7		1	1 unit	101	0.650
	220 ... 240	C	3TY7 693-0QL7		1	1 unit	101	1.455
	380 ... 420	C	3TY7 693-0QV7		1	1 unit	101	1.431

For rated control supply voltages for coils, see page 3/146.

For solid-state compatible auxiliary switch blocks, see page 3/135.

For contactor	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								kg
Surge suppressors · RC elements									
3TK10 to 3TK13		24 ... 48	D	3TK19 30-0A		1	1 unit	101	0.033
		110 ... 415	B	3TK19 30-0B		1	1 unit	101	0.039
3TK14 to 3TK17		48 ... 110	C	3TK19 34-0C		1	1 unit	101	0.042
		220 ... 600	B	3TK19 34-0D		1	1 unit	101	0.044
Terminal covers									
3TK10, 3TK11	For mounting onto contactors		B	3TK19 40-0A		1	2 units	101	0.141
3TK12, 3TK13			B	3TK19 42-0A		1	2 units	101	0.113
3TK14, 3TK15			B	3TK19 44-0A		1	2 units	101	0.190
3TK17			B	3TK19 46-0A		1	2 units	101	0.203
Auxiliary switch blocks									
3TK1	1st auxiliary switch block, left or right	1 NO + 1 NC	B	3TK19 10-3A		1	1 unit	101	0.055
	2nd auxiliary switch block, left or right	1 NO + 1 NC	B	3TK19 10-3B		1	1 unit	101	0.055
Locking devices									
3TK10, 3TK11	For mechanical interlocking of 2 identical contactors, auxiliary contacts 2 NC		B	3TK19 20-0A		1	1 unit	101	0.144
			B	3TK19 22-0A		1	1 unit	101	0.143
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	0.055
3TK11			D	3TK19 51-0A		1	1 unit	101	0.065
3TK12			D	3TK19 52-0A		1	1 unit	101	1.250
3TK13			D	3TK19 53-0A		1	1 unit	101	1.384
3TK14			D	3TK19 54-0A		1	1 unit	101	0.001
3TK15			D	3TK19 55-0A		1	1 unit	101	3.681
3TK17			D	3TK19 57-0A		1	1 unit	101	3.785
Magnetic coils									
3TK10, 3TK11			D	3TK19 70-0A..		1	1 unit	101	0.350
3TK12, 3TK13			D	3TK19 72-0A..		1	1 unit	101	0.450
3TK14, 3TK15, 3TK17			D	3TK19 74-0A..		1	1 unit	101	0.950
Contacts with fixing parts									
3TK10	4 moving and 8 fixed contacts		D	3TK19 60-0A		1	1 unit	101	0.254
3TK11			D	3TK19 61-0A		1	1 unit	101	0.275
3TK12			D	3TK19 62-0A		1	1 unit	101	0.573
3TK13			D	3TK19 63-0A		1	1 unit	101	0.582
3TK14			D	3TK19 64-0A		1	1 unit	101	2.354
3TK15			D	3TK19 65-0A		1	1 unit	101	2.356
3TK17			D	3TK19 67-0A		1	1 unit	101	2.311

For rated control supply voltages for coils, see page 3/146.

* You can order this quantity or a multiple thereof.

Accessories and Spare Parts For 3T Contactors and Contactor Relays

Spare parts for 3TB, 3TC, 3TF, 3TK contactors

For contactor type	3TC44	3TC48	3TC5	3TF68/69	3TK10/11/12/13	3TK14/15/17
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 voltages (the 10th and 11th position of the order number must be changed)

AC operation · Coils for 50 Hz

24 V AC	B0	B0	--	--	B0³⁾	--
110 V AC	F0	F0	F0	--	F0³⁾	F0³⁾
230/220 V AC	P0¹⁾	P0¹⁾	P0¹⁾	--	P0³⁾	P0³⁾
240 V AC	U0	U0	--	--	U0³⁾	U0³⁾

AC operation · 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	--	--	--	P7²⁾	--	--
380 V ... 460 V AC	--	--	--	Q7	--	--
500 V ... 600 V AC	--	--	--	S7	--	--

For contactor type	3TC4	3TB5, 3TC5	3TF68/69
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 voltages (the 10th and 11th position of the order number must be changed)

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

- Operating range at 220 V or 380 V:
0.85 to 1.15 x U_s ;
lower operating range limit according to IEC 60947.
- Lower operating range limit at 220 V:
0.85 x U_s according to IEC 60947.
- 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 3TK19 74)
U0: 230 V to 240 V --