

Overview

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

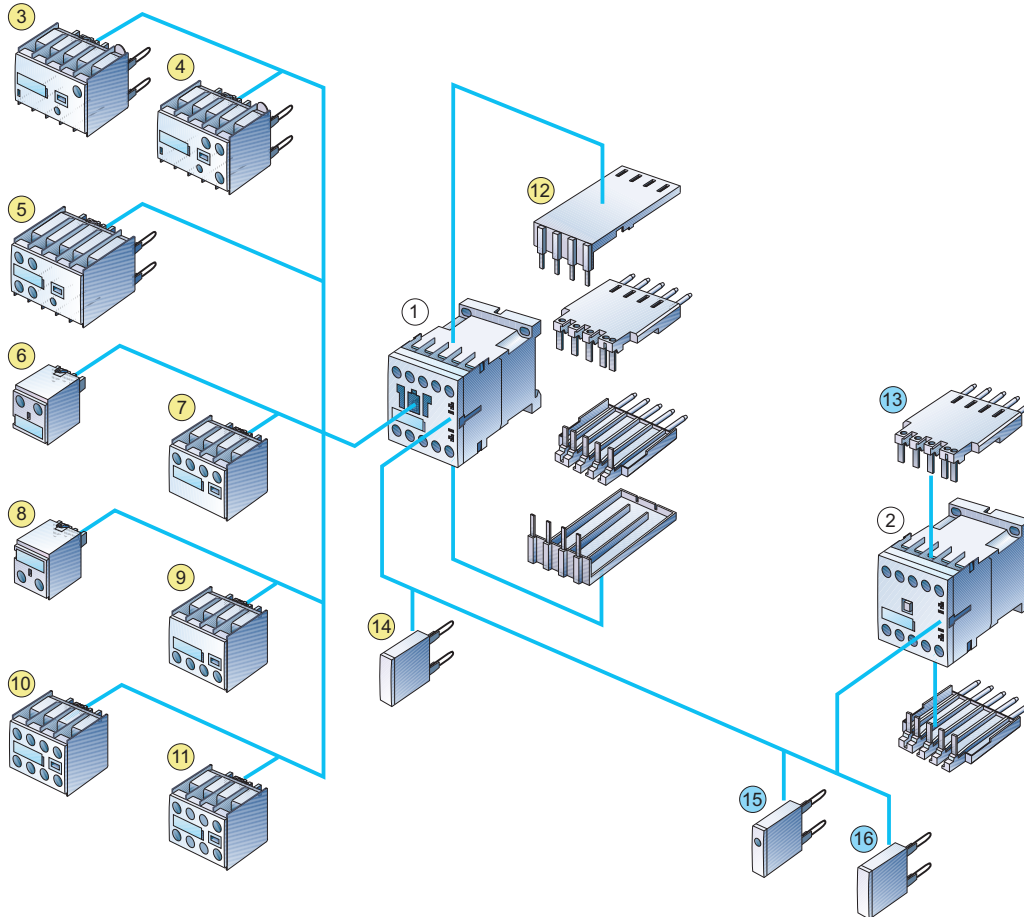
Contactor relays and coupling relays
Size S00 with accessories

AC and DC operation

IEC 60947, EN 60947 (VDE 0660)

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

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



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

3RH, 3TH Contactor Relays

3RH1 contactor relays, 4- and 8-pole

Selection and ordering data

AC and DC operation

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

Size S00



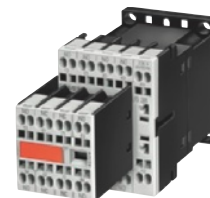
3RH11 ...-1...



3RH11 ...-2...



3RH12 ...-1...



3RH12 ...-2...

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

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

Terminal designations according to EN 50011

AC operation

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

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

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

DC operation · DC solenoid system

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

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

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

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

For accessories, see page 3/100 and 3/102.
 For multi-unit packing and reusable packaging, see "Appendix -> Order information".

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

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

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

AC operation**Solenoid coils for AC 50/60 and 60 Hz**

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

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

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

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

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

DC operation

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

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

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

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

3RH, 3TH Contactor Relays

3RH14 latched contactor relays, 4-pole

Overview

AC and DC operation

IEC 60947, EN 60947 (VDE 0660).

The terminal designations comply with EN 50011.

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

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

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

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

Selection and ordering data



3RH14 ..-1...

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

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

AC operation

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

DC operation · DC solenoid system

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

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

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

Overview

AC and DC operation

IEC 60947 and EN 60947 (VDE 0660).

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

Terminal designations according to EN 50011

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

Selection and ordering data



3TH42 ...-0...

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

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

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

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

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

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

For accessories, see page 3/124.

Spare parts

Solenoid coils:

AC operation: 3TY7 403-0A.

DC operation: 3TY4 803-0B.

(voltages on request)

Contacts:

The contacts cannot be replaced on 3TH42 contactor relays.

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

3RH, 3TH Contactor Relays

3TH4 contactor relays, 8- and 10-pole



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

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

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

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

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

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

For accessories, see page 3/124.

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

Spare parts

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

Contacts:

The contacts cannot be replaced on 3TH43 contactor relays.

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

Rated control supply voltage U_s	Contactor type	3TH42/3TH43
Control supply voltage at		

AC operation

Solenoid coils for AC 50 Hz

50 Hz	60 Hz	
24 V AC	29 V AC	B0
36 V AC	42 V AC	G0
42 V AC	50 V AC	D0
48 V AC	58 V AC	H0
60 V AC	72 V AC	E0
110 V AC	132 V AC	F0
125/127 V AC	150/152 V AC	L0
230/220 V AC	276 V AC	P0 ¹⁾
240 V AC	288 V AC	U0
400/380 V AC	480/460 V AC	V0 ¹⁾
415 V AC	500 V AC	R0
500 V AC	600 V AC	S0

For Japan

100 V AC	100-110 V AC	G6 ²⁾
200 V AC	200-220 V AC	N6 ²⁾

For USA and Canada

110 V AC	120 V AC	K6 ²⁾
220 V AC	240 V AC	P6 ²⁾

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

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

Rated control supply voltage U_s	Contactor type	3TH42/3TH43

Solenoid coils for AC 50 and 60 Hz

50/60 Hz	
24 V AC	C2
42 V AC	D2
110 V AC	G2
115 V AC	J2
120 V AC	K2
220 V AC	N2
230 V AC	L2
240 V AC	P2
440 V AC	R2

DC operation

12 V DC	A4
24 V DC	B4
30 V DC	C4
36 V DC	V4
42 V DC	D4
48 V DC	W4
60 V DC	E4
110 V DC	F4
125 V DC	G4
220 V DC	M4
230 V DC	P4
240 V DC	Q4

* You can order this quantity or a multiple thereof.

Overview

AC and DC operation

IEC 60947 (VDE 0660).

The terminal designations comply with EN 50011.

3TH2 contactor relays

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

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

3TH27 latched contactor relays

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

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

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

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

Selection and ordering data

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

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



3TH20 ...-0A...

AC operation

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

Screw terminals

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

DC operation · DC solenoid system

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

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

Contactor relays with 6.3 mm x 0.8 mm flat connectors



3TH20 ...-3...

AC operation

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

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

Flat connectors

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

For screw fixing (diagonal)

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

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

DC operation · DC solenoid system

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

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

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

For screw fixing (diagonal)

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

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

Contactor relays with solder pin connections for printed circuit boards



3TH20 ...-6...

AC operation

For screw fixing (diagonal)

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

Solder pin connections

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

DC operation · DC solenoid system

For screw fixing (diagonal)

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

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

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



3TH22 ...-0A...

AC operation

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

Screw terminals

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

DC operation · DC solenoid system

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


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

For accessories, see page 3/125.

* You can order this quantity or a multiple thereof.

3RH, 3TH Contactor Relays

3TH2 contactor relays, 4- and 8-pole

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

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

3TH27 ..	AC operation				40E 31E 22E	4 3 2	-- 1 2	C C C	3TH27 40-0AP0 3TH27 31-0AP0 3TH27 22-0AP0	1 1 1	1 unit 1 unit 1 unit	101 101 101	0.350 0.350 0.350	
	4	4	3	2										1
	DC operation · DC solenoid system													
	4	4	3	2	1	40E 31E 22E	4 3 2	-- 1 2	C C C	3TH27 40-0BB4 3TH27 31-0BB4 3TH27 22-0BB4	1 1 1	1 unit 1 unit 1 unit	101 101 101	0.400 0.400 0.400

For accessories, see page 3/125.

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

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

AC operation

Solenoid coils for AC 50 and 60 Hz

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

DC operation

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

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

Please inquire about further voltages.

3RH, 3TH Contactor Relays

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

Application

DC operation

IEC 60947 and EN 60947 (VDE 0660).

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

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

Selection and ordering data

DC operation

Low power consumption

Extended operating range of the solenoid coils

Integrated coil circuit

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



3RH11 ...-1.B40

3RH11 ...-2.B40

Surge suppressors	Rated operational current I_g /AC-15/AC-14 at 230 V	Auxiliary contacts	DT	Screw terminals	⊕	Weight per PU approx.	DT	Cage Clamp terminals	⊞	Weight per PU approx.
		Ident. No. acc. to EN 50011	Version	Order No.	Price per PU			Order No.	Price per PU	
						kg				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, operating range **0.7 to 1.25 x U_s**

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

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

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

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

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

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

* You can order this quantity or a multiple thereof.

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

Application

DC operation

IEC 60947, EN 60947 (VDE 0660).

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

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

Two single-pole auxiliary switch blocks can be fitted to the 3RT10 2 coupling relays.

Selection and ordering data

DC operation

Low power consumption

Extended operating range of the solenoid coils

Integrated coil circuit

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



3RT10 1.-1.B4.



3RT10 1.-2.B4.

Surge suppressors	Rated data AC-2 and AC-3, T_U : Up to 60 °C	Auxiliary contacts	DT	Screw terminals		Weight per PU approx.	DT	Cage Clamp terminals		Weight per PU approx.
				Order No.	Price per PU			Order No.	Price per PU	
A	Operational current I_e up to 400 V 400 V	Ident. No. Version NO NC				kg			kg	

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

Size S00

Terminal designations according to EN 50012

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

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

Diode, varistor or RC element, attachable	7	3	10	1	--	▶	3RT10 15-1HB41	0.260	B	3RT10 15-2HB41	0.260
			01	--	1	▶	3RT10 15-1HB42	0.260	B	3RT10 15-2HB42	0.260
Built-in diode	7	3	10	1	--	▶	3RT10 15-1JB41	0.260	▶	3RT10 15-2JB41	0.260
			01	--	1	▶	3RT10 15-1JB42	0.260	▶	3RT10 15-2JB42	0.260
Built-in varistor	7	3	10	1	--	▶	3RT10 15-1KB41	0.260	▶	3RT10 15-2KB41	0.260
			01	--	1	▶	3RT10 15-1KB42	0.260	▶	3RT10 15-2KB42	0.260
Diode, varistor or RC element, attachable	9	4	10	1	--	▶	3RT10 16-1HB41	0.260	B	3RT10 16-2HB41	0.260
			01	--	1	▶	3RT10 16-1HB42	0.260	B	3RT10 16-2HB42	0.260
Built-in diode	9	4	10	1	--	▶	3RT10 16-1JB41	0.260	▶	3RT10 16-2JB41	0.260
			01	--	1	▶	3RT10 16-1JB42	0.260	▶	3RT10 16-2JB42	0.260
Built-in varistor	9	4	10	1	--	▶	3RT10 16-1KB41	0.260	▶	3RT10 16-2KB41	0.260
			01	--	1	▶	3RT10 16-1KB42	0.260	▶	3RT10 16-2KB42	0.260
Diode, varistor or RC element, attachable	12	5.5	10	1	--	A	3RT10 17-1HB41	0.260	B	3RT10 17-2HB41	0.260
			01	--	1	B	3RT10 17-1HB42	0.260	B	3RT10 17-2HB42	0.260
Built-in diode	12	5.5	10	1	--	▶	3RT10 17-1JB41	0.260	▶	3RT10 17-2JB41	0.260
			01	--	1	▶	3RT10 17-1JB42	0.260	A	3RT10 17-2JB42	0.260
Built-in varistor	12	5.5	10	1	--	▶	3RT10 17-1KB41	0.260	▶	3RT10 17-2KB41	0.260
			01	--	1	▶	3RT10 17-1KB42	0.260	▶	3RT10 17-2KB42	0.260

For accessories, see page 3/107.