

3RT14 Contactors with 3 Main Contacts for Switching Resistive Loads

SIRIUS 3R



AC and DC operation (size S3)

IEC 60 947, EN 60 947
(VDE 0660)

The contactors are suitable for use in any climate. They are safe from touch to DIN VDE 0106 Part 100.

3RT14 contactors are used for switching resistive loads (AC-1) or as contactors, e.g. in variable-speed drives which normally only have to carry the current.

The accessories for the size S3 3RT10 4. SIRIUS contactors can also be used for the 3RT14 contactors.

Description

Selection and ordering data

Ratings					Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
AC-1 utilization category								
T _c : 40 °C								
Operational current I _e	Ratings of three-phase loads at 50 Hz and							
	at 400 V	230 V	400 V	500 V	690 V			
A	kW	kW	kW	kW			1 unit	kg

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

3RT14 46-1A...0



Size S3 · (without auxiliary contacts)

• AC operation

140	56	97	121	167	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	3RT14 46-1AB00 3RT14 46-1AF00 3RT14 46-1AP00
-----	----	-----------	-----	-----	---------------------------------------------	-------------------------------------------------------------------------

• DC operation · DC solenoid system

140	56	97	121	167	DC 24 V DC 220 V	3RT14 46-1BB40 3RT14 46-1BM40
-----	----	-----------	-----	-----	---------------------	------------------------------------------------

For accessories, see page 3/28.
For spare parts, see page 3/39.
For technical data, see page 3/74.
For internal circuit diagrams, see page 3/84.
For dimensions, see page 3/177.

1) For further voltages, see page 3/27.



Description

AC and DC operation

IEC 60 947-4-1/EN 60 947-4-1
(VDE 0660, Part 102)

Design

The contactors are suitable for use in any climate. They are safe from touch to DIN VDE 0106, Part 100. The contactors with 4 main contacts are available in two designs: 3RT13 with 4 NO contacts and 3RT15 with 2 NO contacts and 2 NC contacts. The accessories for the 3-pole SIRIUS contactors can also be used for the 4-pole designs.

Mountable auxiliary contacts

Size S00:
4 auxiliary contacts.

Size S0:
Up to 2 auxiliary contacts (either laterally mounted or snapped onto the top).

Sizes S2 and S3:
Up to 4 auxiliary contacts (either laterally mounted or snapped onto the top).

Contactor assemblies with mechanical interlock

The 4-pole 3RT13 contactors with 4 NO contacts as the main contacts are suitable for making contactor assemblies with a mechanical interlock, e.g. for system transfers.

Size S00

Contactor assemblies can be made using two 3RT13 1. contactors in conjunction with the mechanical interlock and two connecting clips (Order No.: 3RA19 12-2H, pack comprising 10 interlocking elements and 20 clips for 10 contactor assemblies, see accessories on page 3/52).

Size S0

In order to make 4-pole contactor assemblies using two 3RT13 2. contactors, the fourth pole of the left-hand contactor must be moved to the left-hand side (see Instructions). The contactor assembly can then be made easily with the aid of the 3RA19 24-1A mechanical interlock fitted onto the front and the 3RA19 22-2C mechanical connectors. The laterally mountable 3RA19 24-2B mechanical interlock can be used if the contactor assembly is mounted on a baseplate.

Sizes S2 and S3

Contactor assemblies can be made using two 3RT13 3. or 3RT13 4. contactors in conjunction with the laterally mountable 3RA19 24-2B mechanical interlock and the 3RA19 .2-2G mechanical connectors. The mechanical interlock for fitting onto the front cannot be used for size S2 and S3 contactors.

Application

Contactors with 4 NO contacts – 3RT13

- Switching resistive loads
- Isolating systems with un-earthed or poorly earthed neutral conductors
- System transfers when alternative AC power supplies are used
- As contactors, e.g. for variable-speed drives which only have to carry current and not switch

Contactors with 2 NO and 2 NC contacts – 3RT15

- Changing the polarity of hoisting gear motors
- Switching two separate loads



4 NO contacts

Ratings AC-1 utilization category T_U : 40/60 °C Operational current I_e	Ratings of three-phase loads (p.f. = 0.95) at 50 Hz and	Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
230 V	400 V 500 V 690 V				
A	kW kW kW kW		▶ Preferred type	1 unit	kg

With screw connections · for screwing and snapping onto 35 mm standard mounting rail

AC operation

• Size S00

18/16	7/6.5	12/11	15/14	20.5/19	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT13 16-1AB00 ▶ 3RT13 16-1AF00 ▶ 3RT13 16-1AP00	0.19
22/20	8.5/7.5	14.5/13	18/17	25/22	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT13 17-1AB00 ▶ 3RT13 17-1AF00 ▶ 3RT13 17-1AP00	0.19

• Size S0

33/30	12.5/11.5	22/20	27/24.5	37.5/34	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	▶ 3RT13 25-1AB00 ▶ 3RT13 25-1AF00 ▶ 3RT13 25-1AP00	0.36
40/35	15/13	26/23	32/28	45/39	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	▶ 3RT13 26-1AB00 ▶ 3RT13 26-1AF00 ▶ 3RT13 26-1AP00	0.36

• Size S2

60/55	22/20	39/36	49/45	68/62	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	3RT13 36-1AB00 3RT13 36-1AF00 3RT13 36-1AP00	0.93
-------	-------	--------------	-------	-------	---------------------------------------------	-------------------------------------------------------------------------	------

• Size S3

110/100	37/34	65/59	82/74	113/102	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	3RT13 44-1AB00 3RT13 44-1AF00 3RT13 44-1AP00	2.0
140/120	53/45	92/79	115/99	158/136	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	3RT13 46-1AB00 3RT13 46-1AF00 3RT13 46-1AP00	2.11

DC operation · DC solenoid system

• Size S00

18/16	7/6.5	12/11	15/14	20.5/19	DC 24 V DC 220 V	▶ 3RT13 16-1BB40 ▶ 3RT13 16-1BM40	0.25
22/20	8.5/7.5	14.5/13	18/17	25/22	DC 24 V DC 220 V	▶ 3RT13 17-1BB40 ▶ 3RT13 17-1BM40	0.25

• Size S0

33/30	12.5/11.5	22/20	27/24.5	37.5/34	DC 24 V	▶ 3RT13 25-1BB40	0.59
40/35	15/13	26/23	32/28	45/39	DC 24 V	▶ 3RT13 26-1BB40	0.59

• Size S2

60/55	22/20	39/36	49/45	68/62	DC 24 V	3RT13 36-1BB40	1.56
-------	-------	--------------	-------	-------	---------	-----------------------	------

• Size S3

110/100	37/34	65/59	82/74	113/102	DC 24 V	3RT13 44-1BB40	3.1
140/120	53/45	92/79	115/99	158/136	DC 24 V	3RT13 46-1BB40	3.1

Size S00: Auxiliary switch blocks can be snapped on according to EN 50 005.
 Sizes S0 to S3: Auxiliary switch blocks can be snapped on according to EN 50 012 and EN 50 005.

3RT13 16



3RT13 36



For accessories, see page 3/28.
 For spare parts, see page 3/38.
 For technical data, see page 3/76.
 For internal circuit diagrams, see page 3/84.
 For dimensions, see page 3/178.

1) For further voltages, see page 3/27.
 For size S00:
 Coil voltage tolerance at 50 Hz: 0.8 to 1.1 x U_s
 at 60 Hz: 0.85 to 1.1 x U_s

3RT15 Contactors with 4 Main Contacts for Switching Motors

SIRIUS 3R



Selection and ordering data

2 NO contacts + 2 NC contacts*)

Ratings AC-2 and AC-3 utilization categories T_u : up to 60 °C	Operational current I_e at 400 V	Ratings of three-phase motors at 50 Hz and	AC-1 T_u : 40/60 °C Operational current I_e	Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
	A	230 V 400 V kW kW	A		▶ Preferred type	1 unit	kg

With screw connections · for screwing and snapping onto 35 mm standard mounting rail

3RT15 17



AC operation

• Size S00

9	3	4	18/16	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT15 16-1AB00 ▶ 3RT15 16-1AF00 ▶ 3RT15 16-1AP00	0.19
12	3	5.5	22/20	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT15 17-1AB00 ▶ 3RT15 17-1AF00 ▶ 3RT15 17-1AP00	0.19

• Size S0

25	5.5	11	40/35	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	▶ 3RT15 26-1AB00 ▶ 3RT15 26-1AF00 ▶ 3RT15 26-1AP00	0.36
----	-----	-----------	-------	---------------------------------------------	-------------------------------------------------------------------------------	------

• Size S2

40	9.5	18.5	55/50	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz	▶ 3RT15 35-1AB00 ▶ 3RT15 35-1AF00 ▶ 3RT15 35-1AP00	0.93
----	-----	-------------	-------	---------------------------------------------	-------------------------------------------------------------------------------	------

DC operation · DC solenoid system

• Size S00

9	3	4	18/16	DC 24 V DC 220 V	▶ 3RT15 16-1BB40 ▶ 3RT15 16-1BM40	0.25
12	3	5.5	22/20	DC 24 V DC 220 V	▶ 3RT15 17-1BB40 ▶ 3RT15 17-1BM40	0.25

• Size S0

25	5.5	11	40/35	DC 24 V	▶ 3RT15 26-1BB40	0.59
----	-----	-----------	-------	---------	-------------------------	------

• Size S2

40	9.5	18.5	55/50	DC 24 V	▶ 3RT15 35-1BB40	1.56
----	-----	-------------	-------	---------	-------------------------	------

Size S00:

Auxiliary switch blocks can be snapped on according to EN 50 005.

Sizes S0 to S3:

Auxiliary switch blocks can be snapped on according to EN 50 012 and EN 50 005.

For accessories, see page 3/28.

For spare parts, see page 3/38.

For technical data, see pages 3/56, 3/78.

For description, see page 3/18.

For internal circuit diagrams, see page 3/84.

For dimensions, see page 3/178.

*) For changing polarity; not suitable for plugging.

1) For further voltages, see page 3/27.

For size S00:

Coil voltage tolerance at 50 Hz: 0.8 to 1.1 x U_s
 at 60 Hz: 0.85 to 1.1 x U_s



3RT13 Contactors with 4 Main Contacts for Switching Resistive Loads

CAGE CLAMP

Selection and ordering data

4 NO contacts

Ratings AC-1 utilization category T_U : 40/60 °C	Operational current I_e	Ratings of three-phase loads (p.f. = 0.95) at 50 Hz and				Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
	A	230 V	400 V	500 V	690 V				
	A	kW	kW	kW	kW		Preferred type	1 unit	kg

With Cage Clamp connections · for screwing and snapping onto 35 mm standard mounting rail

Size S00

Cage Clamp connections for all terminals

• AC operation

18/16	7/6.5	12/11	15/14	20.5/19	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT13 16-2AB00 ▶ 3RT13 16-2AF00 ▶ 3RT13 16-2AP00	0.19
22/20	8.5/7.5	14.5/13	18/17	25/22	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT13 17-2AB00 ▶ 3RT13 17-2AF00 ▶ 3RT13 17-2AP00	0.19

• DC operation · DC solenoid system

18/16	7/6.5	12/11	15/14	20.5/19	DC 24 V DC 220 V	▶ 3RT13 16-2BB40 ▶ 3RT13 16-2BM40	0.25
22/20	8.5/7.5	14.5/13	18/17	25/22	DC 24 V DC 220 V	▶ 3RT13 17-2BB40 ▶ 3RT13 17-2BM40	0.25

3RT13 17-2AF00



3RT15 Contactors with 4 Main Contacts for Switching Motors

CAGE CLAMP

Selection and ordering data

2 NO contacts + 2 NC contacts*)

Ratings AC-2 and AC-3 utilization categories T_U : up to 60 °C	Operational current I_e	Ratings of three-phase motors at 50 Hz and		AC-1 T_U : 40/60 °C Operational current I_e	Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
	A	230 V	400 V	A				
	A	kW	kW			Preferred type	1 unit	kg

With Cage Clamp connections · for screwing and snapping onto 35 mm standard mounting rail

Size S00

Cage Clamp connections for all terminals

• AC operation

9	3	4	18/16	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT15 16-2AB00 ▶ 3RT15 16-2AF00 ▶ 3RT15 16-2AP00	0.19
12	3	5.5	22/20	24 V, 50/60 Hz 110 V, 50/60 Hz 230 V, 50/60 Hz	▶ 3RT15 17-2AB00 ▶ 3RT15 17-2AF00 ▶ 3RT15 17-2AP00	0.19

• DC operation · DC solenoid system

9	3	4	18/16	DC 24 V DC 220 V	▶ 3RT15 16-2BB40 ▶ 3RT15 16-2BM40	0.25
12	3	5.5	22/20	DC 24 V DC 220 V	▶ 3RT15 17-2BB40 ▶ 3RT15 17-2BM40	0.25

Auxiliary switch blocks can be snapped on according to EN 50 005.

3RT13 17-2AF00



For accessories, see pages 3/28, 3/36.
For technical data, see pages 3/56, 3/76, 3/78.
For description, see page 3/18.
For internal circuit diagrams, see page 3/84.
For dimensions, see page 3/178.

*) For changing polarity; not suitable for plugging.

1) For further voltages, see page 3/27.

For size S00:

Coil voltage tolerance at 50 Hz: 0.8 to $1.1 \times U_s$
at 60 Hz: 0.85 to $1.1 \times U_s$.

3RT16 Capacitor Contactors

SIRIUS 3R



Description

AC operation

IEC 60 947, EN 60 947 (VDE 0660)

The contactors are suitable for use in any climate. They are safe from touch to DIN VDE 0106 Part 100.

The 3RT16 capacitor contactors are special variants of the size S0 to S3 SIRIUS contactors. The capacitors are pre-charged 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.

The auxiliary switch block which is snapped onto the capacitor contactor contains the three leading NO contacts and one standard NO contact, which is unassigned.

A 2-pole auxiliary switch block (2 NO, 2 NC or 1 NO + 1 NC) can be mounted laterally onto each capacitor contactor; Type 3RH19 21-1EA . . . (see accessories on page 3/29).

For the capacitor making and breaking capacity of the basic 3RT10 contactor variant, see the technical data on page 3/80 onwards.

Selection and ordering data

AC-6b utilization category ²⁾ For switching three-phase capacitors at an ambient temperature of 55 °C ³⁾ Capacitor rating at operational voltage 50/60 Hz	Auxiliary contacts	Rated control supply voltage ¹⁾	Order No.	Price	Weight approx.
230 V 400 V 525 V 690 V kvar kvar kvar kvar				1 unit	kg

With screw connections - for screwing and snapping onto 35 mm standard mounting rail

AC operation

3RT16 26-1A . 01



• Size S0

3 - 8.5	5 - 15	7.5 - 20	10 - 25	1 NO unassigned	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz
---------	--------	----------	---------	-----------------	---------------------------------------------

3RT16 26-1AB01
3RT16 26-1AF01
3RT16 26-1AP01

• Size S2

3.5 - 14	6 - 25	8 - 32	10 - 32	1 NO unassigned	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz
----------	--------	--------	---------	-----------------	---------------------------------------------

3RT16 36-1AB01
3RT16 36-1AF01
3RT16 36-1AP01

3RT16 46-1A . 01



• Size S3

3.5 - 29	5 - 50	7.5 - 65	10 - 65	1 NO unassigned	24 V, 50 Hz 110 V, 50 Hz 230 V, 50 Hz
----------	--------	----------	---------	-----------------	---------------------------------------------

3RT16 46-1AB01
3RT16 46-1AF01
3RT16 46-1AP01

For accessories, see page 3/29.
For technical data, see page 3/80.
For circuit diagram, see page 3/87.
For dimensions, see page 3/179.

- 1) For further voltages, see page 3/27.
- 2) Compared to the standard contactor variants, the voltage tolerance of the capacitor contactors is limited: 0.85 to $1.1 \times U_s$.

3) For size S0: 60 °C.

Contactors with Extended Tolerance

0.7 to 1.25 × U_s

Description

SIRIUS 3R



DC operation

IEC 60 947-4-1, EN 60 947-4-1 (VDE 0660, Part 102), for specifications according to IEC 60 077

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.

Design

The contactors are suitable for use in any climate and safe from touch to DIN VDE 0106 Part 100. Exception: S0 to S3 series resistors. The size S00 contactors have Cage Clamp connections for all terminals. The auxiliary conductor and coil terminals of sizes S0 to S3 are all Cage Clamp connections.

Control and auxiliary circuits

The coils of the contactors have an extended voltage tolerance from 0.7 to 1.25 × 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.

3RH11...-0LA0, 3RT10...-0LA0

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

The size S00 contactors and contactor relays are supplied prewired with a plug-on module containing the series resistor. The varistor is integrated. A 4-pole auxiliary switch block (to EN 50 005) 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 (for circuit diagram, see page 3/87).

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 °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 right of the contactor owing to the prefabricated connecting leads.

3RH11 22-2K.40, 3RT10 17-2K.4., 3RT10 2.-3K.40

These contactors have an extended voltage tolerance from 0.7 to 1.25 × U_s ; the coils are fitted with a varistor. 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.

Mounting

At ambient temperatures > 60 °C ≤ 70 °C, a clearance of 10 mm must be observed in case of side-by-side mounting.

Ambient temperature

The permissible ambient temperature for operation of the contactors (across the full voltage tolerance range of the coils is -35 °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.

Dimensions

Attaching resistors increases the width of contactor sizes S0 to S3 (for dimensions, see page 3/180).

Technical data

Contactors type	3RT10 17/3RH11	3RT10 2.	3RT10 3.	3RT10 4.
Coil voltage tolerance	0.7 to 1.25 × U_s			
Power consumption of the coils	with coil in cold state and 1.0 × U_s			
Closing	W 11	23	46	78
Closed	W 4	7	14	23

All specifications and technical data not mentioned here are identical to those of the standard 3RH and 3RT contactors.

Contactors with Extended Tolerance

0.7 to 1.25 × U_s



SIRIUS 3R



Selection and ordering data

CAGE CLAMP

- DC operation · DC solenoid system
- With Cage Clamp connections
- For screwing and snapping onto standard mounting rail
- Coil fitted with varistor

Rated operational current I _e /AC-15/AC-14 T _v : 70 °C at				Contacts ¹⁾ Design		Rated control supply voltage U _s	Order No.	Price	Weight approx.
230 V	400 V	500 V	690 V	NO	NC			1 unit	kg
A	A	A	A						

3RH11 contactor relays

3RH11 22-2KB40



- **Size S00** · Cage Clamp connections for all terminals

6	3	2	1	2	2 ³⁾	DC 24 V DC 110 V	3RH11 22-2KB40 3RH11 22-2KF40		
6	3	2	1	2	1 ¹⁾	DC 24 V DC 110 V	3RH11 22-2KB40-0LA0 3RH11 22-2KF40-0LA0		

Ratings AC-2 and AC-3 utilization categories T _v : 70 °C Operational current I _e at					Auxiliary contacts Design		Rated control supply voltage U _s	Order No.	Price	Weight approx.
400 V	230 V	400 V	500 V	690 V	NO	NC			1 unit	kg
A	kW	kW	kW	kW						

3RT10 contactors for switching motors

3RT10 17-2KB42-0LA0



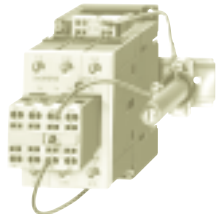
- **Size S00** · Cage Clamp connections for all terminals

12	3	5.5	5.5	5.5	1 ³⁾	–	DC 24 V DC 110 V	3RT10 17-2KB41 3RT10 17-2KF41		
12	3	5.5	5.5	5.5	–	1 ³⁾	DC 24 V DC 110 V	3RT10 17-2KB42 3RT10 17-2KF42		
12	3	5.5	5.5	5.5	–	– ¹⁾	DC 24 V DC 110 V	3RT10 17-2KB42-0LA0 3RT10 17-2KF42-0LA0		

- **Size S0** · Cage Clamp connections for coil terminals and auxiliary contacts

17	4	7.5	10	11	–	– ⁴⁾	DC 24 V DC 110 V	3RT10 25-3KB40 3RT10 25-3KF40		
25	5.5	11	11	11	–	– ⁴⁾	DC 24 V DC 110 V	3RT10 26-3KB40 3RT10 26-3KF40		
17	4	7.5	10	11	2	1 ²⁾	DC 24 V DC 110 V	3RT10 25-3KB44-0LA0 3RT10 25-3KF44-0LA0		
25	5.5	11	11	11	2	1 ²⁾	DC 24 V DC 110 V	3RT10 26-3KB44-0LA0 3RT10 26-3KF44-0LA0		

3RT10 3.



- **Size S2** · Cage Clamp connections for coil terminals and auxiliary contacts

32	7.5	15	18.5	18.5	2	1 ²⁾	DC 24 V DC 110 V	3RT10 34-3KB44-0LA0 3RT10 34-3KF44-0LA0		
40	11	18.5	22	22	2	1 ²⁾	DC 24 V DC 110 V	3RT10 35-3KB44-0LA0 3RT10 35-3KF44-0LA0		
50	15	22	30	22	2	1 ²⁾	DC 24 V DC 110 V	3RT10 36-3KB44-0LA0 3RT10 36-3KF44-0LA0		

- **Size S3** · Cage Clamp connections for coil terminals and auxiliary contacts

65	18.5	30	37	43	2	1 ²⁾	DC 24 V DC 110 V	3RT10 44-3KB44-0LA0 3RT10 44-3KF44-0LA0		
80	22	37	45	55	2	1 ²⁾	DC 24 V DC 110 V	3RT10 45-3KB44-0LA0 3RT10 45-3KF44-0LA0		
95	22	45	55	55	2	1 ²⁾	DC 24 V DC 110 V	3RT10 46-3KB44-0LA0 3RT10 46-3KF44-0LA0		

1) One 4-pole auxiliary switch block to EN 50 005 can be mounted; no clearance required up to 70 °C.

2) The number of auxiliary contacts cannot be increased; no clearance required up to 70 °C.

3) 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.

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.

For spare parts, see page 3/39.
For technical data, see page 3/23.
For description, see page 3/23.
For internal circuit diagrams, see page 3/87.
For dimensions, see page 3/180.

SIRIUS 3R



3RT10 Coupling Relays (Interface) for Switching Motors

Description

DC operation

IEC 60 947, EN 60 947
(VDE 0660)

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

Coupling relays have a low power consumption, an extended coil voltage tolerance (0.7 to $1.25 \times U_s$) and an integrated surge suppressor for damping opening surges (exceptions: 3RT10 1.-1HB4.).

No auxiliary switch blocks can be mounted onto size S00
3RT10 1. coupling relays; two single-pole auxiliary switch blocks can be mounted onto size S0 3RT10 2. coupling relays.

Selection and ordering data

Surge suppressor	Ratings AC-2 and AC-3 utilization categories T_a : up to 60 °C					Auxiliary contacts		3RT10 coupling relays		Weight approx. kg
	Operat. current I_e at 400 V	Ratings of three-phase motors at 50 Hz and				Ident. no.	Design no.	Order No.	Price	
	A	kW	kW	kW	kW		NO NC▶	Preferred type	1 unit	

With screw connections · for screwing and snapping onto 35 mm standard mounting rail

DC operation

• Size S00

Rated control supply voltage $U_s = DC 24 V$, coil voltage tolerance 17 to 32 V
Power consumption of the coils 2.3 W at 24 V (no auxiliary switch blocks can be mounted)

3RT10 1.-1.B4.



Diode, varistor or RC element can be mounted	7	2.2	3	3.5	4	10 01	1	–	▶	3RT10 15-1HB41 3RT10 15-1HB42	0.26
Diode integrated	7	2.2	3	3.5	4	10 01	1	–	▶	3RT10 15-1JB41 3RT10 15-1JB42	0.26
Varistor integrated	7	2.2	3	3.5	4	10 01	1	–	▶	3RT10 15-1KB41 3RT10 15-1KB42	0.26
Diode, varistor or RC element can be mounted	9	3	4	4.5	5.5	10 01	1	–	▶	3RT10 16-1HB41 3RT10 16-1HB42	0.26
Diode integrated	9	3	4	4.5	5.5	10 01	1	–	▶	3RT10 16-1JB41 3RT10 16-1JB42	0.26
Varistor integrated	9	3	4	4.5	5.5	10 01	1	–	▶	3RT10 16-1KB41 3RT10 16-1KB42	0.26
Diode, varistor or RC element can be mounted	12	3	5.5	5.5	5.5	10 01	1	–	▶	3RT10 17-1HB41 3RT10 17-1HB42	0.26
Diode integrated	12	3	5.5	5.5	5.5	10 01	1	–	▶	3RT10 17-1JB41 3RT10 17-1JB42	0.26
Varistor integrated	12	3	5.5	5.5	5.5	10 01	1	–	▶	3RT10 17-1KB41 3RT10 17-1KB42	0.26

3RT10 2.-1KB40



• Size S0

Rated control supply voltage $U_s = DC 24 V$, coil voltage tolerance 17 to 32 V
Power consumption of the coils 4.2 W at 24 V (two single-pole auxiliary switch blocks can be mounted)

Varistor mounted	12	3	5.5	7.5	7.5	–	–	–	▶	3RT10 24-1KB40	0.6
	17	4	7.5	10	10	–	–	–	▶	3RT10 25-1KB40	0.6
	25	5.5	11	11	11	–	–	–	▶	3RT10 26-1KB40	0.6

For accessories, see page 3/28.
For spare parts, see page 3/39.
For technical data, see page 3/80.
For internal circuit diagrams, see page 3/84.
For dimensions, see page 3/176.

3RT10 Coupling Relays (Interface) for Switching Motors

SIRIUS 3R



Selection and ordering data

CAGE CLAMP

Surge suppressor	Ratings AC-2 and AC-3 utilization categories T_U : up to 60 °C					Auxiliary contacts		3RT10 coupling relays		Weight approx. kg
	Operat. current I_e at 400 V	Ratings of three-phase motors at 50 Hz and 230 V	400 V	500 V	690 V	Ident. no.	Design	Order No.	Price	
A	kW	kW	kW	kW		NO	NC	Preferred type	1 unit	kg

With Cage Clamp connections - for screwing and snapping onto 35 mm standard mounting rail

DC operation

• Size S00

Cage Clamp connections for all terminals

Rated control supply voltage $U_s = 24$ V DC, coil voltage tolerance 17 to 32 V

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

3RT10 15-2JB41



Diode, varistor or RC element can be mounted	7	2.2	3	3.5	4	10 01	1	-	▶	3RT10 15-2HB41 3RT10 15-2HB42	0.26
Diode integrated	7	2.2	3	3.5	4	10 01	1	-	▶	3RT10 15-2JB41 3RT10 15-2JB42	0.26
Varistor integrated	7	2.2	3	3.5	4	10 01	1	-	▶	3RT10 15-2KB41 3RT10 15-2KB42	0.26
Diode, varistor or RC element can be mounted	9	3	4	4.5	5.5	10 01	1	-	▶	3RT10 16-2HB41 3RT10 16-2HB42	0.26
Diode integrated	9	3	4	4.5	5.5	10 01	1	-	▶	3RT10 16-2JB41 3RT10 16-2JB42	0.26
Varistor integrated	9	3	4	4.5	5.5	10 01	1	-	▶	3RT10 16-2KB41 3RT10 16-2KB42	0.26
Diode, varistor or RC element can be mounted	12	3	5.5	5.5	5.5	10 01	1	-	▶	3RT10 17-2HB41 3RT10 17-2HB42	0.26
Diode integrated	12	3	5.5	5.5	5.5	10 01	1	-	▶	3RT10 17-2JB41 3RT10 17-2JB42	0.26
Varistor integrated	12	3	5.5	5.5	5.5	10 01	1	-	▶	3RT10 17-2KB41 3RT10 17-2KB42	0.26

3RT10 26-3KB40



• Size S0

Cage Clamp connections for coil terminals

Rated control supply voltage $U_s = 24$ V DC, coil voltage tolerance 17 to 32 V

Power consumption of the coils 4.2 W at 24 V (two single-pole auxiliary switch blocks can be mounted)

Varistor mounted	12	3	5.5	7.5	7.5	-	-	-	▶	3RT10 24-3KB40	0.56
	17	4	7.5	10	11	-	-	-	▶	3RT10 25-3KB40	0.56
	25	5.5	11	11	11	-	-	-	▶	3RT10 26-3KB40	0.56

For accessories, see pages 3/28, 3/36.

For spare parts, see page 3/39.

For description, see page 3/25.

For technical data, see page 3/80.

For internal circuit diagrams, see page 3/84.

For dimensions, see page 3/176.



Contactor type	3RT10 1	3RT10 2 to 3RT10 4, 3RT14	3RT13 1, 3RT15 1	3RT13 2 to 3RT13 4, 3RT15 2 and 3RT15 3	3RT16 26 to 3RT16 46
Rated control supply voltage U_s					
Operating voltage at					

Rated control supply voltages (changes to 10th and 11th positions of the Order No.)

AC operation

• Sizes S00 to S3

Coils for 50 Hz (exception: size S00: 50 and 60 Hz¹⁾)

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

Coils for 50 and 60 Hz¹⁾

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

For USA and Canada²⁾

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

DC operation

• Sizes S00 to S3

DC 12 V	A4	–	A4	–	–
DC 24 V	B4	B4	B4	B4	–
DC 48 V	W4	W4	W4	–	–
DC 60 V	E4	E4	–	–	–
DC 110 V	F4	F4	F4	F4	–
DC 220 V	M4	M4	M4	M4	–
DC 230 V	P4	P4	–	–	–

No additional charge is made for all voltages indicated above.
Further voltages on request.

- 1) Coil voltage tolerance at 50 Hz: 0.8 to $1.1 \times U_s$
at 60 Hz: 0.85 to $1.1 \times U_s$
- 2) Size S00:
Coil voltage tolerance at 50 Hz: 0.85 to $1.1 \times U_s$
at 60 Hz: 0.8 to $1.1 \times U_s$
- Sizes S0 to S3:
Coil voltage tolerance at 50 Hz and 60 Hz: 0.8 to $1.1 \times U_s$