

Switching Devices – Contactors and Contactor Assemblies

Power Contactors for Switching Motors

Introduction



Size		S00				S0						
Type		3RT201				3RT202						
3RT20 contactors												
Type		3RT2015	3RT2016	3RT2017	3RT2018	3RT2023	3RT2024	3RT2025	3RT2026	3RT2027	3RT2028	
AC, DC operation		(p. 3/55, 3/60 ... 3/63)				(p. 3/56, 3/57, 3/64 ... 3/66, 3/68)						
AC-3												
$I_{th}/AC-3/400\text{ V}$	A	7	9	12	16	9	12	17	25	32	38	
400 V	kW	3	4	5.5	7.5	4	5.5	7.5	11	15	18.5	
230 V	kW	1.5	2.2	3	4	2.2	3	4	5.5	7.5	11	
690 V	kW	4	5.5	5.5	7.5	7.5	7.5	11	11	18.5	18.5	
1 000 V	kW	--	--	--	--	--	--	--	--	--	--	
AC-4 (at $I_{th} = 6 \times I_e$)												
400 V	kW	3	4	4	5.5	4	5.5	7.5	7.5	11	11	
400 V (200 000 operating cycles)	kW	1.15	2	2	2.5	2	2.6	3.5	4.4	6	6	
AC-1 (40 °C, ≤ 690 V)												
I_e	A	18	22	22	22	40	40	40	40	50	50	
Accessories for contactors												
Auxiliary switch blocks	<ul style="list-style-type: none"> On front Lateral 	3RH29, 3RA28	(p. 3/94 ... 3/101)				3RH29, 3RA28	(p. 3/94 ... 3/101)				
		3RH29	(p. 3/98)				3RH29	(p. 3/98)				
Function modules	<ul style="list-style-type: none"> Direct-on-line starting, star-delta (wye-delta) starting IO-Link, AS-Interface 	3RA281.	(p. 3/106)				3RA281.	(p. 3/106)				
		3RA271.-.AA00	(p. 3/107, 3/108)				3RA271.-.AA00	(p. 3/107, 3/108)				
Surge suppressors		3RT2916	(p. 3/103, 3/104)				3RT2926	(p. 3/103, 3/104)				
3RU2 and 3RB3 overload relays												
3RU thermal overload relays		3RU2116	0.11 ... 16 A			(p. 7/92)	3RU2126	1.8 ... 40 A				
3RB electronic overload relays		3RB3016, 3RB3113	0.1 ... 16 A			(p. 7/105 ... 7/107)	3RB3026, 3RB3123	0.1 ... 40 A				
• For standard applications												
• For High-Feature applications		3RB22, 3RB23 and 3RB24 with current measuring module 3RB2906-2.G1	0.3 ... 25 A			(p. 7/140)	3RB22, 3RB23 and 3RB24 with current measuring module 3RB2906-2.G1	0.3 ... 25 A				
3RV20 motor starter protectors												
Motor starter protectors		3RV2011	0.11 ... 16 A			(p. 7/28)	3RV2021	0.45 ... 40 A				
Link modules		3RA1921, 3RA2911	(p. 7/56)				3RA2921	(p. 7/56)				
3RA23 reversing contactor assemblies												
Complete units	Type	3RA2315	3RA2316	3RA2317	3RA2318	--	3RA2324	3RA2325	3RA2326	3RA2327	3RA2328	
		(p. 3/163)					(p. 3/164)					
400 V	kW	3	4	5.5	7.5		5.5	7.5	11	15	18.5	
Assembly kits, etc.		3RA2913-2AA.				(p. 3/110)	3RA2923-2AA.					
Function modules		3RA271.-.BA00				(p. 3/107)	3RA271.-.BA00					
3RA24 contactor assemblies for star-delta (wye-delta) starting												
Complete units	Type	3RA2415	3RA2416	3RA2417		3RA2423	3RA2425	3RA2426				
		(p. 3/180)					(p. 3/181)					
400 V	kW	5.5	7.5	11		11	15/18.5	22				
Assembly kits/wiring modules		3RA2913-2BB.				(p. 3/111)	3RA2923-2BB.					
Function modules		3RA271.-.CA00				(p. 3/107)	3RA271.-.CA00					

Note:

Safety characteristics for contactors, see "Standards and approvals", page 16/6.

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW



Contactors with screw terminals: 3RT2 (sizes S00 to S3) and 3RT1 (sizes S6 to S12)

3RT contactors, sizes S00 to S12

Our power range:

- Contactors for switching motors:
 - Size S00: 3RT201 up to 7.5 kW
 - Size S0: 3RT202 up to 18.5 kW
 - Size S2: 3RT203 up to 37 kW
 - Size S3: 3RT204 up to 55 kW
 - Sizes S6 to S12: 3RT10 up to 250 kW
- For vacuum contactors for switching motors, [see page 3/126 onwards](#):
 - Sizes S10 and S12: 3RT12 up to 250 kW
 - Size 14: 3TF6 up to 450 kW

Standards

IEC/EN 60947-1,
IEC/EN 60947-4-1,
IEC/EN 60947-5-1 (auxiliary switches)

Ambient conditions

If the devices are used in ambient conditions which deviate from common industrial conditions (IEC 60721-3-3 "Stationary Use, Weather-Protected"), information must be obtained about possible restrictions with regard to the reliability and endurance of the device and possible protective measures. In this case contact our Technical Support:
<https://support.industry.siemens.com/My/ww/en/requests>

Auxiliary contact complement

- Size S00: an auxiliary contact is integrated in the basic device.
- Sizes S0 to S3: the basic units contain two integrated auxiliary contacts (1 NO + 1 NC).
All basic units, with the exception of coupling relays in sizes S00 and S0, can be expanded using auxiliary switch blocks, [see page 3/88 for the permitted selection of auxiliary switches](#).
- Sizes S6 to S12: These contactors are supplied with two laterally mounted auxiliary switch blocks. The fitting of auxiliary switches is possible on the front and on the side (the 3RT12 vacuum contactor is an exception: only lateral fitting of auxiliary switches is possible here).

For detailed information about the fitting of auxiliary switches, [see pages 3/88 to 3/93](#).

Contact reliability

If voltages ≤ 110 V and currents ≤ 100 mA are to be switched, the auxiliary contacts of the 3RT contactors or 3RH contactor relays should be used as they guarantee a high level of contact reliability.

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

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Contactors for special applications

- SIRIUS 3RT.4 contactors for resistive loads (AC-1), 3-pole, [see from page 4/6 onwards](#)
- SIRIUS 3RT20 and 3RT10 contactors with an extended application range, 3-pole (for rail applications), [see from page 4/52 onwards](#)

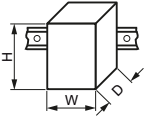
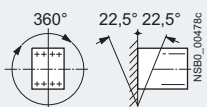

Article No. scheme

Product versions	Article number
SIRIUS power contactors	3RT2 □ □ □ - □ □ □ □ □ - □ □ □ □
Device type	e.g. 0 = 3-pole motor contactor
Size of the contactor	e.g. 4 = S3
Power dependent on size	e.g. 5 = 37 kW in the case of S3
Type of electrical connection	e.g. 1 = screw terminals (main and auxiliary circuits)
Operating range/solenoid coil circuit	e.g. A = AC standard/without coil circuit
Rated control supply voltage	e.g. P0 = 230 V AC, 50 Hz
Auxiliary switches	e.g. 0 = in the case of S3: 1 NO + 1 NC integrated
Special version	□ □ □ □
Example	3RT2 0 4 5 - 1 A P 0 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

		Contactors	
		3RT2015, 3RT2016	3RT2017, 3RT2018
		S00	
Type			
Size			
General data			
Dimensions (W x H x D)			
<ul style="list-style-type: none"> Basic unit <ul style="list-style-type: none"> Screw terminals Spring-type terminals Basic unit with mounted auxiliary switch block <ul style="list-style-type: none"> Screw terminals Spring-type terminals Basic unit with mounted function module or solid-state time-delayed auxiliary switch block <ul style="list-style-type: none"> Screw terminals Spring-type terminals 		mm	45 x 58 x 73
		mm	45 x 70 x 73
		mm	45 x 58 x 117
		mm	45 x 70 x 121
		mm	45 x 58 x 147
		mm	45 x 70 x 147
Permissible mounting position			
The contactors are designed for operation on a vertical mounting surface.			
Upright mounting position		 Special version required	
Mechanical endurance			
• Basic unit	Operating cycles	30 million	
- With mounted auxiliary switch block	Operating cycles	10 million	
- with solid-state compatible auxiliary switch block	Operating cycles	5 million	
Electrical endurance		For contact endurance of the main contacts, see page 3/25 .	
Rated insulation voltage U_i (pollution degree 3)	V	690	
Rated impulse withstand voltage U_{imp}			
• Auxiliary circuit	kV	6	
• Main circuit	kV	6	
Protective separation between the coil and the main contacts acc. to IEC 60947-1, Appendix N	V	400	
Mirror contacts			
A mirror contact is an auxiliary NC contact that cannot be closed simultaneously with an NO main contact.			
• 3RT2.1. (removable auxiliary switch block)		Yes, this applies to both the basic unit as well as to between the basic unit and the mounted auxiliary switch block according to IEC 60947-4-1, Appendix F	
• 3RH2919-.NF.. solid-state compatible auxiliary switch blocks		No mirror contact for size S00	
Ambient temperature			
• During operation	°C	-25 ... +60	
• During storage	°C	-55 ... +80	
Degree of protection acc. to IEC 60529			
• On front		IP20 (screw terminals and spring-type terminals)	
• Connecting terminal		IP20 (screw terminals and spring-type terminals)	
Touch protection acc. to IEC 60529		Finger-safe (screw terminals and spring-type terminals)	
Shock resistance			
• Rectangular pulse	g/ms	6.7/5 and 4.2/10	7.3/5 and 4.7/10
		6.7/5 and 4.2/10	7.3/5 and 4.7/10
• Sine pulse	g/ms	10.5/5 and 6.6/10	11.4/5 and 7.3/10
		10.5/5 and 6.6/10	11.4/5 and 7.3/10




Power Contactors for Switching Motors




SIRIUS 3RT contactors, 3-pole up to 250 kW

Type Size	Contactors		
	3RT2015, 3RT2016 S00	3RT2017, 3RT2018	
Short-circuit protection			
Main circuit			
<ul style="list-style-type: none"> Fuse links, operational class gG: LV HRC, type 3NA; DIAZED, type 5SB; NEOZED, type 5SE acc. to IEC/EN 60947-4-1 			
- Type of coordination "1"	A	35	50
- Type of coordination "2"	A	20	25
- Weld-free (test conditions acc. to IEC 60947-4-1)	A	10	
<ul style="list-style-type: none"> Miniature circuit breaker (up to 230 V) with C characteristic Short-circuit current 1 kA, type of coordination "1" 	A	10	
Auxiliary circuit			
Short-circuit test according to IEC/EN 60947-5-1			
<ul style="list-style-type: none"> With fuse links, operational class gG: DIAZED, type 5SB; NEOZED, type 5SE with short-circuit current $I_k = 1$ kA 	A	10	
<ul style="list-style-type: none"> With 230 V miniature circuit breaker, C characteristic with short-circuit current $I_k = 400$ A 	A	6	
Short-circuit protection for contactors with overload relays		See Configuration Manual for load feeders	
Short-circuit protection for fuseless load feeders		See 3RA2 load feeders on page 8/4 onwards	
Control			
Solenoid coil operating range			
<ul style="list-style-type: none"> AC operation 	50 Hz 60 Hz	0.8 ... 1.1 x U_s 0.85 ... 1.1 x U_s	
<ul style="list-style-type: none"> DC operation 	Up to 50 °C Up to 60 °C	0.8 ... 1.1 x U_s 0.85 ... 1.1 x U_s	
Power consumption of the solenoid coils (for cold coil and 1.0 x U_s)			
<ul style="list-style-type: none"> AC operation, 50/60 Hz, standard version 			
- Closing	VA	27/24.3	37/33
- P.f.		0.8/0.75	
- Closed	VA	4.2/3.3	5.7/4.4
- P.f.		0.25/0.25	
<ul style="list-style-type: none"> AC operation, 50 Hz, for USA/Canada 			
- Closing	VA	26.4	36
- P.f. for closing		0.81	0.8
- Closed	VA	4.4	5.9
- P.f. for closed		0.24	
<ul style="list-style-type: none"> AC operation, 60 Hz, for USA/Canada 			
- Closing	VA	31.7	43
- P.f. for closing		0.81	0.8
- Closed	VA	4.8	6.5
- P.f. for closed		0.25	
<ul style="list-style-type: none"> DC operation (closing = closed) 	W	4	
Permissible residual current of the electronics (with 0 signal)			
<ul style="list-style-type: none"> AC operation 		< 3 mA x (230 V/ U_s) ¹⁾	< 4 mA x (230 V/ U_s) ¹⁾
<ul style="list-style-type: none"> DC operation 		< 10 mA x (24 V/ U_s) ¹⁾	
Operating times for 1.0 x U_s²⁾			
Total break time = Opening delay + Arcing time			
<ul style="list-style-type: none"> AC operation 			
- Closing delay	ms	9.5 ... 24	9 ... 22
- Opening delay	ms	4 ... 14	4.5 ... 15
<ul style="list-style-type: none"> DC operation 			
- Closing delay	ms	35 ... 50	
- Opening delay	ms	7 ... 12	
<ul style="list-style-type: none"> Arcing time 	ms	10 ... 15	

¹⁾ The 3RT2916-1GA00 additional load module is recommended for higher residual currents, see page 3/120.

²⁾ The OFF-delay times of the NO contacts and the ON-delay times of the NC contacts increase if the contactor coils are attenuated against voltage peaks (suppression diode 6x to 10x; diode assembly 2x to 6x; suppression diode +1 to 5 ms; varistor +2 to 5 ms).

Type	Coupling contactors		
Size	3RT201.-.HB4.	3RT201.-.JB4.	3RT201.-.KB4.
Control			
Solenoid coil operating range	0.7 ... 1.25 x U_s		
Power consumption of the solenoid coils (for cold coil) Closing = Closed	At U_s 24 V DC W	2.8	
Permissible residual current of the electronics (with 0 signal)	< 6 mA x (24 V/ U_s)		
Upright mounting position	On request		
Overvoltage configuration of the solenoid coil	No overvoltage damping 	Built-in diode 	Built-in suppressor diode 
Operating times			
• Closing delay			
- ON-delay NO	ms	35 ... 60	
- OFF-delay NC	ms	25 ... 40	
• Opening delay			
- ON-delay NO	ms	7 ... 20	38 ... 65
- OFF-delay NC	ms	20 ... 30	55 ... 75
			7 ... 20
			20 ... 30

Type	Coupling contactors		
Size	3RT201.-1MB4.-0KT0	3RT201.-1VB4.	3RT201.-1SB4.
Control			
Solenoid coil operating range	0.85 ... 1.85 x U_s		
Power consumption of the solenoid coils (for cold coil) Closing = Closed	At U_s 24 V DC W	1.6	
Permissible residual current, upright mounting position	On request		
Overvoltage configuration of the solenoid coil	No overvoltage damping 	Built-in diode 	Built-in suppressor diode 
Operating times			
• Closing delay			
- ON-delay NO	ms	25 ... 90	
- OFF-delay NC	ms	15 ... 80	
• Opening delay			
- ON-delay NO	ms	5 ... 20	20 ... 80
- OFF-delay NC	ms	10 ... 30	30 ... 90
			5 ... 20
			10 ... 30

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Type Size	Contactors					
	3RT2015 S00	3RT2016	3RT2017	3RT2018		
Rated data of the main contacts						
Load rating with AC						
Utilization category AC-1, switching resistive loads						
• Rated operational currents I_e	At 40 °C up to 690 V At 60 °C up to 690 V	A A	18 16	22 20		
• Rated power for AC loads ¹⁾ P.f. = 0.95 (at 60 °C)	230 V 400 V 690 V	kW kW kW	6 10.5 18	7.5 13 22		
• Minimum conductor cross-section for loads with I_e	At 40 °C At 60 °C	mm ² mm ²	2.5 2.5	4		
Utilization categories AC-2 and AC-3						
• Rated operational currents I_e	Up to 400 V 440 V 500 V 690 V	A A A A	7 7 6 4.9	9 9 7.7 6.7	12 11 9.2 8.9	16 14 12.4 8.9
• Rated power for slipring or squirrel-cage motors at 50 Hz and 60 Hz	At 230 V 400 V 690 V	kW kW kW	1.5 3 4	2.2 4 5.5	3 5.5	4 7.5 7.5
Thermal load capacity	10 s current	A	56	72	96	128
Power loss per conducting path	At $I_e/AC-3$	W	0.42	0.7	1.24	2.2
Utilization category AC-4 (at $I_a = 6 \times I_e$)²⁾						
• Maximum values						
- Rated operational current I_e	Up to 400 V	A	6.5	8.5		11.5
- Rated power for squirrel-cage motors with 50 Hz and 60 Hz	Up to 400 V	kW	3	4		5.5
• The following applies to a contact endurance of about 200 000 operating cycles:						
- Rated operational currents I_e	Up to 400 V 690 V	A A	2.6 1.8	4.1 3.3		5.5 4.4
- Rated power for squirrel-cage motors with 50 Hz and 60 Hz	At 230 V 400 V 690 V	kW kW kW	0.67 1.15 1.15	1.1 2 2.5		1.5 2.5 3.5

¹⁾ Industrial furnaces and electric heaters with resistance heating, etc. (increased power consumption on heating up has been taken into account).

²⁾ The data applies to 3RT2516 and 3RT2517 contactors (2 NO + 2 NC) up to a rated operational voltage of 400 V only.

Type			Contactors	
Size			3RT2015	3RT2016 to 3RT2018
Rated data of the main contacts (continued)			S00	
Load rating with DC				
Utilization category DC-1, switching resistive loads ($L/R \leq 1$ ms)				
• Rated operational currents I_e (at 60 °C)				
- 1 conducting path	Up to 24 V	A	15	20
	60 V	A	15	20
	110 V	A	1.5	2.1
	220 V	A	0.6	0.8
	440 V	A	0.42	0.6
	600 V	A	0.42	0.6
- 2 conducting paths in series	Up to 24 V	A	15	20
	60 V	A	15	20
	110 V	A	8.4	12
	220 V	A	1.2	1.6
	440 V	A	0.6	0.8
	600 V	A	0.5	0.7
- 3 conducting paths in series	Up to 24 V	A	15	20
	60 V	A	15	20
	110 V	A	15	20
	220 V	A	15	20
	440 V	A	0.9	1.3
	600 V	A	0.7	1
Utilization category DC-3/DC-5, shunt-wound and series-wound motors ($L/R \leq 15$ ms)				
• Rated operational currents I_e (at 60 °C)				
- 1 conducting path	Up to 24 V	A	15	20
	60 V	A	0.35	0.5
	110 V	A	0.1	0.15
	220 V	A	--	
	440 V	A	--	
	600 V	A	--	
- 2 conducting paths in series	Up to 24 V	A	15	20
	60 V	A	3.5	5
	110 V	A	0.25	0.35
	220 V	A	--	
	440 V	A	--	
	600 V	A	--	
- 3 conducting paths in series	Up to 24 V	A	15	20
	60 V	A	15	20
	110 V	A	15	20
	220 V	A	1.2	1.5
	440 V	A	0.14	0.2
	600 V	A	0.14	0.2
Switching frequency				
Switching frequency z in operating cycles/hour				
Contactors without overload relays				
• No-load switching frequency	AC/DC	1/h	10 000	
• Switching frequency z during rated operation ¹⁾				
- $I_e/AC-1$	At 400 V	1/h	1 000	
- $I_e/AC-2$	At 400 V	1/h	750	
- $I_e/AC-3$	At 400 V	1/h	750	
- $I_e/AC-4$	At 400 V	1/h	250	
Contactors with overload relays				
• Mean value		1/h	15	

¹⁾ Dependence of the switching frequency z' on the operational current I' and operational voltage U:
 $z' = z \cdot (I_e/I') \cdot (U_e/U)^{1.5} \cdot 1/h.$

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Type	Contactors	
Size	3RT2015 to 3RT2018	
S00		
Conductor cross-sections		
Main conductors, auxiliary conductors and coil terminals (1 or 2 conductors can be connected)		
<ul style="list-style-type: none"> • Solid or stranded 	mm ²	2 x (0.5 ... 1.5) ¹⁾ ; 2 x (0.75 ... 2.5) ¹⁾ ; max. 2 x 4
<ul style="list-style-type: none"> • Finely stranded with end sleeve (DIN 46228-1) 	mm ²	2 x (0.5 ... 1.5) ¹⁾ ; 2 x (0.75 ... 2.5) ¹⁾
<ul style="list-style-type: none"> • AWG cables, solid or stranded 	AWG	2 x (20 ... 16) ¹⁾ ; 2 x (18 ... 14) ¹⁾ ; 2 x 12
<ul style="list-style-type: none"> • Terminal screw 		M3 (for Pozidriv size 2; Ø 5 ... 6)
<ul style="list-style-type: none"> • Tightening torque 	Nm	0.8 ... 1.2 (7 ... 10.3 lb.in)
Main conductors, auxiliary conductors and coil terminals²⁾ (1 or 2 conductors can be connected)		
<ul style="list-style-type: none"> • Operating devices 	mm	3.0 x 0.5
<ul style="list-style-type: none"> • Solid or stranded 	mm ²	2 x (0.5 ... 4)
<ul style="list-style-type: none"> • Finely stranded with end sleeve (DIN 46228-1) 	mm ²	2 x (0.5 ... 2.5)
<ul style="list-style-type: none"> • Finely stranded without end sleeve 	mm ²	2 x (0.5 ... 2.5)
<ul style="list-style-type: none"> • AWG cables, solid or stranded 	AWG	2 x (20 ... 12)
Auxiliary conductors for front and laterally mounted auxiliary switches²⁾ (1 or 2 conductors can be connected)		
<ul style="list-style-type: none"> • Operating devices 	mm	3.0 x 0.5
<ul style="list-style-type: none"> • Solid or stranded 	mm ²	2 x (0.5 ... 2.5)
<ul style="list-style-type: none"> • Finely stranded with end sleeve (DIN 46228-1) 	mm ²	2 x (0.5 ... 1.5)
<ul style="list-style-type: none"> • Finely stranded without end sleeve 	mm ²	2 x (0.5 ... 2.5)
<ul style="list-style-type: none"> • AWG cables, solid or stranded 	AWG	2 x (20 ... 14)

¹⁾ If two different conductor cross-sections are connected to one clamping point, both cross-sections must lie in one of the ranges specified.

²⁾ Max. external diameter of the conductor insulation: 3.6 mm.
On spring-type terminals with conductor cross-sections $\leq 1 \text{ mm}^2$ an insulation stop must be used, [see page 3/121](#).

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW **IE3/IE4 ready**
DC operation

 PU (UNIT, SET, M) = 1
 PS* = 1 unit
 PG = 41B


3RT201.-1B...



3RT201.-2B...

Rated data		Auxiliary contacts		Rated control supply voltage	SD	Screw terminals		SD	Spring-type terminals	
AC-2 and AC-3, t_U : 60 °C	AC-1, t_U : 40 °C	Ident. No.	Version	U_s		Article No.	Price per PU		Article No.	Price per PU
Operational current I_e up to 400 V	Operational current I_e up to 690 V			DC						
Ratings of three-phase motors at 50 Hz and up to 400 V										
400 V										
A	kW	A		V	d					

For screw fixing and snap-on mounting onto TH 35 standard mounting rail
Size S00

7	3	18	10	1	--	24	▶	3RT2015-1BB41	▶	3RT2015-2BB41
			01	--	1	24	▶	3RT2015-1BM41	▶	3RT2015-2BM41
9	4	22	10	1	--	24	▶	3RT2016-1BB41	▶	3RT2016-2BB41
			01	--	1	24	▶	3RT2016-1BM41	▶	3RT2016-2BM41
12	5.5	22	10	1	--	24	▶	3RT2017-1BB41	▶	3RT2017-2BB41
			01	--	1	24	▶	3RT2017-1BM41	▶	3RT2017-2BM41
16	7.5	22	10	1	--	24	▶	3RT2018-1BB41	▶	3RT2018-2BB41
			01	--	1	24	▶	3RT2018-1BM41	▶	3RT2018-2BM41
With integrated coil circuit (varistor) NEW										
7	3	18	10	1	--	24	▶	3RT2015-1UB41	▶	3RT2015-2UB41
			01	--	1	24	▶	3RT2015-1UB42	▶	3RT2015-2UB42
9	4	22	10	1	--	24	▶	3RT2016-1UB41	▶	3RT2016-2UB41
			01	--	1	24	▶	3RT2016-1UB42	▶	3RT2016-2UB42
12	5.5	22	10	1	--	24	▶	3RT2017-1UB41	▶	3RT2017-2UB41
			01	--	1	24	▶	3RT2017-1UB42	▶	3RT2017-2UB42
16	7.5	22	10	1	--	24	▶	3RT2018-1UB41	▶	3RT2018-2UB41
			01	--	1	24	▶	3RT2018-1UB42	▶	3RT2018-2UB42
With integrated coil circuit (diode)¹⁾										
7	3	18	10	1	--	24	▶	3RT2015-1FB41	▶	3RT2015-2FB41
			01	--	1	24	▶	3RT2015-1FB42	▶	3RT2015-2FB42
9	4	22	10	1	--	24	▶	3RT2016-1FB41	▶	3RT2016-2FB41
			01	--	1	24	▶	3RT2016-1FB42	▶	3RT2016-2FB42
12	5.5	22	10	1	--	24	▶	3RT2017-1FB41	▶	3RT2017-2FB41
			01	--	1	24	▶	3RT2017-1FB42	▶	3RT2017-2FB42
16	7.5	22	10	1	--	24	▶	3RT2018-1FB41	▶	3RT2018-2FB41
			01	--	1	24	▶	3RT2018-1FB42	▶	3RT2018-2FB42

¹⁾ When using contactors with IE3/IE4 motors, use contactors fitted with varistors instead of diodes.
For more information about dimensioning and configuring, see page 3/7.

Other voltages according to page 3/74 on request.

Accessories and spare parts, see pages 3/76 to 3/125.

Power Contactors for Switching Motors

SIRIUS 3RT contactors, 3-pole up to 250 kW

Options

Rated control supply voltages for 3RT20 contactors, possible on request (change of the 10th and 11th digits of the Article No.)

Delivery time on request

Rated control supply voltage U_s	Contactor type	3RT201, 3RH2	3RT202	3RT203	3RT204
	Size	S00	S0	S2	S3
Sizes S00 to S3					
AC operation¹⁾					
Solenoid coils for 50 Hz (exception: Size S00: 50 Hz and 60 Hz ²⁾)					
24 V AC		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
230 V AC		P0	P0	P0	P0
240 V AC		U0	U0	U0	U0
400 V AC		V0	V0	V0	V0
Solenoid coils for 50 Hz and 60 Hz²⁾					
24 V AC		B0	C2	C2	C2
42 V AC		D0	D2	D2	D2
48 V AC		H0	H2	H2	H2
110 V AC		F0	G2	G2	G2
220 V AC		N2	N2	N2	N2
230 V AC		P0	L2	L2	L2
Solenoid coils (for USA and Canada³⁾)					
50 Hz	60 Hz				
110 V AC	120 V AC	K6	K6	K6	K6
220 V AC	240 V AC	P6	P6	P6	P6
Solenoid coils (for Japan)					
50/60 Hz⁴⁾	60 Hz⁵⁾				
100 V AC	110 V AC	G6	G6	G6	G6
200 V AC	220 V AC	N6	N6	N6	N6
400 V AC	440 V AC	R6	R6	R6	R6
DC operation¹⁾					
12 V DC		A4	A4	--	--
24 V DC		B4	B4	--	--
42 V DC		D4	D4	--	--
48 V DC		W4	W4	--	--
60 V DC		E4	E4	--	--
110 V DC		F4	F4	--	--
125 V DC		G4	G4	--	--
220 V DC		M4	M4	--	--
230 V DC		P4	P4	--	--

Examples

AC operation	3RT203-1A P00	Contactor with screw terminals; with solenoid coil for 50 Hz for rated control supply voltage 230 V AC.
	3RT203-1A G20	Contactor with screw terminals; with solenoid coil for 50/60 Hz for rated control supply voltage 110 V AC.
DC operation	3RT205-2B B40	Contactor with spring-type terminals; for rated control supply voltage 24 V DC.
	3RT205-2B G40	Contactor with spring-type terminals; for rated control supply voltage 125 V DC.

¹⁾ For deviating coil voltages and operating ranges of sizes S00 and S0, a SITOP 24 V DC power supply with wide-range input can be used for the coil control, see page 15/1 onwards.

²⁾ Coil operating range
- At 50 Hz: 0.8 to $1.1 \times U_s$,
- At 60 Hz: 0.85 to $1.1 \times U_s$.

³⁾ Coil operating range
- Size S00:
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: at 50 Hz and 60 Hz: 0.8 to $1.1 \times U_s$.

⁴⁾ Coil operating range

- Size S00:
At 50/60 Hz: 0.85 to $1.1 \times U_s$
- Size S0:
at 50 Hz: 0.8 to $1.1 \times U_s$;
at 60 Hz: 0.85 to $1.1 \times U_s$.

⁵⁾ Coil operating range at 60 Hz: 0.8 to $1.1 \times U_s$.

Rated control supply voltage	Contactor type	3RT202.-N	Rated control supply voltage	Contactor type	3RT203.-N	3RT204.-N
$U_{s \min} \dots U_{s \max}^1)$	Size	S0	$U_{s \min} \dots U_{s \max}^1)$	Size	S2	S3
Sizes S00 to S3						
AC/DC operation (50/60 Hz AC or DC)						
21 ... 28 V AC/DC		B3	20 ... 33 V AC/DC		B3	B3
95 ... 130 V AC/DC		F3	48 ... 80 V AC/DC		E3	E3
200 ... 280 V AC/DC ²⁾		P3	83 ... 155 V AC/DC		F3	F3
			175 ... 280 V AC/DC		P3	P3

¹⁾ Coil operating range
- Size S0: $0.7 \times U_{s \min}$ to $1.3 \times U_{s \max}$
- Sizes S2 and S3: $0.8 \times U_{s \min}$ to $1.1 \times U_{s \max}$.

²⁾ The following applies to S0 and $U_{s \max} = 280$ V: Upper limit = $1.1 \times U_{s \max}$.