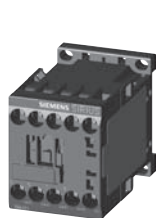


Contactors and Contactor Assemblies

Overview



Type		S00 3RT20 1				S0 3RT20 2						S2 3RT20 3			
3RT20 contactors															
Type AC/DC operation		3RT2015 (p. 2/8)	3RT2016	3RT2017	3RT2018	3RT2023 (p. 2/8)	3RT2024	3RT2025	3RT2026	3RT2027	3RT2028	3RT2035 (p. 2/8)	3RT2036	3RT2037	3RT2038
Type AC/DC operation															
Maximum 3-phase horsepower ratings at 460V (UL and CSA listed values)															
200 V	HP	1.5	2	3	3	2	3	5	7.5	10	10	10	15	20	20
230 V	HP	2	3	3	5	3	3	5	7.5	10	10	15	15	20	25
460 V	HP	3	5	7.5	10	5	7.5	10	15	20	25	30	40	50	50
575 V	HP	5	7.5	10	10	7.5	10	15	20	25	25	40	50	50	60
AC-3															
<i>I_e</i> /AC-3/400V	A	6	9	12	16	9	12	17	25	32	38	40	50	65	80
230 V	kW	1.5	2.2	3	4	2.2	3	4	5.5	7.5	11	11	15	18.5	22
400 V	kW	3	4	5.5	7.5	4	5.5	7.5	11	15	18.5	18.5	22	30	37
500 V	kW	3.5	4.5	5.5	7.5	4.5	7.5	10	11	18.5	18.5	22	30	37	37
690 V	kW	4	5.5	5.5	7.5	7.5	7.5	11	11	18.5	18.5	22	22	37	45
1000 V	kW	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AC-4 (at <i>I_a</i> = 6 x <i>I_e</i>)															
400 V	kW	3	4	4	5.5	4	5.5	7.5	7.5	11	11	18.5	22	30	37
400 V (200,000 operating cycles)	kW	1.15	2	2	2.5	2	2.6	3.5	4.4	6	6	11.6	12.6	14.7	15.8
AC-1 (40°C, ≤ 690V)															
<i>I_e</i>	A	18	22	22	22	40	40	40	40	50	50	60	70	80	90

Accessories for contactors

Auxiliary switch blocks	front	3RH29 11	(p. 2/66)	3RH29 11	(p. 2/66)		
	lateral	3RH29 11	(p. 2/68)	3RH29 21	(p. 2/68)		
Terminal covers		—		—		3RT29 36	(p. 2/77)
Box terminals		—		—		—	
Surge suppressor		3RT29 16	(p. 2/73)	3RT29 26	(p. 2/73)	3RT29 36	(p. 2/73)

3RU21 and 3RB3 overload relays (Section 3)

3RU21, thermal, CLASS 10	3RU21 16	0.1-16A	(p. 3/10)	3RU21 26	0.18-40A	(p. 3/10)	3RU21 36	11-80A	(p. 3/10)
3RB30/31, solid-state, CLASS 5, 10, 20 and 30	3RB30 16	0.1-16A	(p. 3/22)	3RB30 26	0.1-40A	(p. 3/22)	3RB30 36	12-80A	(p. 3/22)
	3RB31 13		(p. 3/23)	3RB31 23		(p. 3/23)	3RB31 33		(p. 3/23)
3RB22/23, solid-state, CLASS 5, 10, 20 and 30	3RB2.83+ 3RB29 06	0.3-25A	(p. 3/34)				3RB22, 10-100A	(p. 3/34)	
							3RB22, 3RB23 and 3RB24 with current measuring module		

3RV20 circuit-breakers (Section 1)

Type	3RV20 11	0.18-16A	(p. 1/4)	3RV20 21	11-40A	(p. 1/4)	3RV20 31	9.5-80A	(p. 1/5)
Link modules	3RA29 11		(p. 1/10)	3RA29 21		(p. 1/10)	3RA29 31		(p. 1/10)

3RA23 Reversing contractor assemblies

Complete units	Type	3RA2315	3RA2316	3RA2317	3RA2318	3RA2324	3RA2325	3RA2326	3RA2327	3RA2328	3RA2335	3RA2336	3RA2337	3RA2338
460 V	HP	3	5	7.5	10	7.5	10	15	20	25	30	40	50	50
Installation kits / wiring connectors		3RA2913-2AA1 (p. 2/81)				3RA2923-2AA1 (p. 2/81)					3RA2933-2AA1 (p. 2/81)			
Mechanical interlocks		3RA2912-2H (p. 2/82)				3RA2922-2H (p. 2/82)					3RA2934-2B (p. 2/80)			

Contactor and Contactor Assemblies

Overview



Type	S3 3RT2. 4			S6 3RT1. 5			S10 3RT1. 6			S12 3RT1. 7		S14 3TF6		
3RT20 contactors														
Type AC/DC operation	3RT2045 (p. 2/8)	3RT2046	3RT2047	3RT1054 (p. 2/9)	3RT1055	3RT1056	3RT1064 (p. 2/9)	3RT1065	3RT1066	3RT1075 (p. 2/9)	3RT1076	—	—	
Type AC/DC operation							3RT1264 (p. 2/10)	3RT1265	3RT1266	3RT1275 (p. 2/10)	3RT1276	3TF68 (p. 2/53)	3TF69	
Maximum 3-phase horsepower ratings at 460V (UL and CSA listed values)														
200 V	HP	25	30	30	40	50	60	60	75	100	125	150	200	290
230 V	HP	30	30	40	50	60	75	75	100	125	150	200	250	350
460 V	HP	60	75	75	100	125	150	150	200	250	300	400	500	700
575 V	HP	60	75	100	125	150	200	200	250	300	400	500	650	860
AC-3														
I _e /AC-3/400V	A	80	95	110	115	150	185	225	265	300	400	500	630	820
230 V	kW	22	22	30	37	45	55	55	75	90	132	160	200	260
400 V	kW	37	45	55	55	75	90	110	132	160	200	250	335	450
500 V	kW	45	55	75	75	90	110	160	160	200	250	355	434	600
690 V	kW	55	75	90	110	132	160	200	250	250	400	400/500	600	800
1000 V	kW	37	—	—	75	90	90	90/315	132/355	132/400	250/560	250/710	600	800
AC-4 (at I _a = 6 x I _e)														
400 V	kW	37	45	55	55	75	90	110	132	160	200	250	355	400
400 V (200,000 operating cycles)	kW	17.9	22	24.3	29	38	45	54/78	66/93	71/112	84/140	98/161	168	191
AC-1 (40°C, ≤ 690V)														
I _e	A	125	130	130	160	185	215	275/330	330	330	430/610	610	700	910

Accessories for contactors

Auxiliary switch blocks	front	3RH29 11	(p. 2/66)	3RH19 21	(p. 2/66)	—	—	—	—
	lateral	3RH29 21	(p. 2/68)	3RH19 21	(p. 2/68)	—	—	—	3TY7 561 (p. 2/53)
Terminal covers		3RT2946-4EA2	(p. 2/79)	3RT19 56-4EA1/2/3	(p. 2/79)	3RT19 66-4EA1/2/3	(p. 2/79)	3TX7 686/696	(p. 2/54)
Box terminals		—		3RT19 55/56-4G	(p. 2/79)	3RT19 66-4G	(p. 2/79)	—	
Surge suppressor		3RT29 36	(p. 2/73)	3RT19 56-1C (RC element)	(p. 2/73)	—		3TX7 572	(p. 2/54)

3RU21 and 3RB3 overload relays (Section 3)

3RU21, thermal, CLASS 10	3RU21 46	18-100A	(p. 3/10)	—	—	—	—	—	—
3RB30/31, solid-state, CLASS 5, 10, 20 and 30	3RB30 46	12.5-100A	(p. 3/22)	3RB20 56	50-200A	(p. 3/22)	3RB20 66	50-630A	(p. 3/22)
	3RB31 43	(p. 3/23)		3RB21 56	(p. 3/23)		3RB21 66	(p. 3/23)	3RB20 66 160-630A
3RB22/23, solid-state, CLASS 5, 10, 20 and 30	—			3RB2.83 + 20-200A	(p. 3/34)	3RB2.83 + 63-640A	(p. 3/34)	3RB21 66	(p. 3/22)
	—			3RB29 56		3RB29 56		—	

3RV20 circuit-breakers (Section 1)

Type	3RV20 41	45-100A	(p. 1/5)	—	—	—	—
Link modules	3RA19 41	(p. 1/10)	—	—	—	—	—

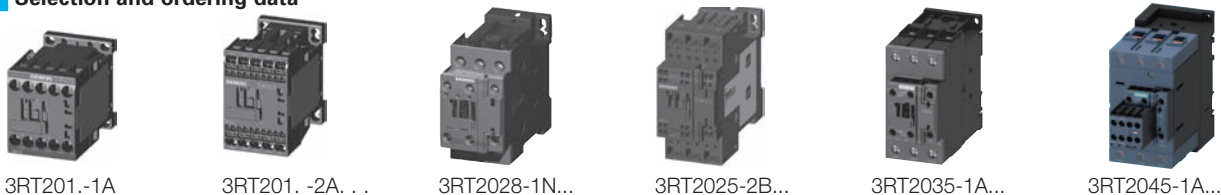
3RA23 Reversing contractor assemblies

DRA23 Powering Contractor assemblies														
Complete units	Type	3RA23 45 (p. 2/44)	3RA23 46	3RA23 47	—			—			—			
460 V	HP	60	75	75	100	125	150	150	200	250	300	400	500	700
Installation kits / wiring connectors		3RA2943-2AA1		(p. 2/81)	3RA1953-2A			(p. 2/81)			3RA1973-2A		(p. 2/81)	3TX7680-1A
Mechanical interlocks		3RA2934-2B			3RA1954-2A			(p. 2/80)					3TX7686-1A	

Contactor for Switching Motors

3RT contactors, 3-pole – Size S00 to S3

Selection and ordering data



Frame Size	Amp Ratings		Single-phase HP ratings			Three-phase HP ratings				Auxiliary contacts		Screw Terminals	Spring-Loaded Terminals ¹⁾	Weight approx. kg
	AC3	AC1	115V	208V	230V	208V	230V	460V	575V	NO	NC	Order No.	Order No.	
3RT 3-pole contactors														
S00	6	18	0.25	0.5	0.75	1.5	2	3	5	1	0	3RT2015-1□●●1	3RT2015-2□●●1	0.24/0.29
										0	1	3RT2015-1□●●2	3RT2015-2□●●2	
	9	22	0.33	1	1	2	3	5	7.5	1	0	3RT2016-1□●●1	3RT2016-2□●●1	
										0	1	3RT2016-1□●●2	3RT2016-2□●●2	
	12	22	0.5	1.5	2	3	3	7.5	10	1	0	3RT2017-1□●●1	3RT2017-2□●●1	
										0	1	3RT2017-1□●●2	3RT2017-2□●●2	
	16	22	1	2	2	3	5	10	10	1	0	3RT2018-1□●●1	3RT2018-2□●●1	
										0	1	3RT2018-1□●●2	3RT2018-2□●●2	
S0	9	40	1	1	1	2	3	5	7.5	1	1	3RT2023-1□●●0	3RT2023-2□●●0	0.42/0.60
	12	40	1	2	2	3	3	7.5	10	1	1	3RT2024-1□●●0	3RT2024-2□●●0	
	17	40	1	2	3	5	5	10	15	1	1	3RT2025-1□●●0	3RT2025-2□●●0	
	25	40	2	3	3	7.5	7.5	15	20	1	1	3RT2026-1□●●0	3RT2026-2□●●0	
	32	50	2	5	5	10	10	20	25	1	1	3RT2027-1□●●0	3RT2027-2□●●0	
	38	50	3	5	5	10	10	25	25	1	1	3RT2028-1□●●0	3RT2028-2□●●0	
S2	40	60	3	5	7.5	10	15	30	40	1	1	3RT2035-1□●●0	3RT2035-3□●●0	0.99/1.121
	50	70	3	7.5	10	15	15	40	50	1	1	3RT2036-1□●●0	3RT2036-3□●●0	
	65	80	5	10	10	20	20	50	50	1	1	3RT2037-1□●●0	3RT2037-3□●●0	
	80 ²⁾	90	5	10	15	20	25	50	60	1	1	3RT2038-1□●●0	3RT2038-3□●●0	
S3	80	125	7.5	10	15	25	30	60	60	1	1	3RT2045-1□●●0	3RT2045-3□●●0	1.8/2.8
	95	130	10	10	20	30	30	75	75	1	1	3RT2046-1□●●0	3RT2046-3□●●0	
	110	130	10	10	20	30	40	75	100	1	1	3RT2047-1□●●0	3RT2047-3□●●0	
Size S2 only: Replace “B” with “K” for 24VDC coil only Size S0 and S2 only: UC Electronic with integrated varistor												□ AC Coil = A DC Coil = B UC Coil = N	□ A B N	

NEMA Size	Amp Ratings	Single-phase HP ratings		Three-phase HP ratings				Auxiliary contacts		Screw Terminals with AC coil	Screw Terminals with 24 VDC coil	Weight approx. kg
		115V	230V	208V	230V	460V	575V	NO	NC			
NEMA Labeled Contactors										Order No.	Order No.	
0	18	1	2	3	3	5	5	1	0	3RT2018-1A●●1-0UA0	3RT2018-1BB41-0UA0	0.28
1	27	2	3	7.5	7.5	10	10	1	1	3RT2027-1A●●0-0UA0	3RT2027-1BB40-0UA0	0.42
2	45	3	7.5	10	15	25	25	1	1	3RT2036-1A●●0-0UA0	3RT2036-1NB30-0UA0	0.986/1.121
3	90	7.5	15	25	30	50	50	1	1	3RT2046-1A●●0-0UA0	3RT2046-1NB40-0UA0	1.8 / 2.8

1) All terminals are spring loaded on frame sizes S00 & S0.
Only the coil terminals are spring loaded on frame sizes S2 & S3.

2) Max UL FLA = 65A at 460V

Note: Ring lug terminals are also available in size S00 & S0 contactors, except contactors with communication interface or UC coil. Change the 8th digit of the order number to a "4", e. g. 3RT2015-4AK61.

For further coil voltages, see page 2/49.
For auxiliaries and accessories, see page 2/66-2/83.
For spare parts, see page 2/94-2/99.
For technical data, see page 2/121-2/142.
For description, see page 2/104-2/105.
For int. circuit diagrams, see page 2/190-2/197.
For dimension drawings, see page 2/209-2/212.

AC Coil Selection for 3RT201 through 3RT204

●●Coil Code	C2 ²⁾	H2 ³⁾	K6	P6	U6	V6	T6
60 Hz	24 V	48 V	120 V	240 V	277 V	480 V	600 V
50 Hz	24 V	48 V	110 V	220 V	—	—	—

²⁾ Use Code B0 for 3RT201, S00

³⁾ Use Code H0 for 3RT201, S00

DC Coil Selection for 3RT201 & 3RT202 (for 3RT203 & 3RT204 see UC)

●●Coil Code	A4 ⁴⁾	B4	W4	E4	F4	G4	M4
DC	12 V	24 V	48 V	60 V	110 V	125 V	220 V

⁴⁾ 3RT201 and 3RT202 only

UC Coil Selection for 3RT202

●●Coil Code	B3	F3	P3 ⁴⁾
UC	21-28V	95-130V	200-280V

UC Coil Selection for 3RT203 & 3RT204

●●	B3	F3	P3 ⁵⁾
UC	20-33V	83-155V	175-280V

⁵⁾ at upper limit = 1.1 x U_S

Contactor for Switching Motors

3RT contactors, 3-pole – Size S6-S12 and NEMA size 4-6

Selection and ordering data

- * AC/DC Coils with built in surge suppressor
- * Coil Types (40Hz to 60Hz, DC):
- * Conventional Coil
- * Solid-state operated coil with wider range and 24 V DC PLC input
- * Solid-state operated coil with Remaining Lifetime Indication (RLT)
- * Box terminals ordered separately



3RT1054-6A . . 6

3RT1065-6P . . 5

Frame Size	Amp Ratings		Single-phase HP ratings		Three-phase HP ratings				Auxiliary contacts		Screw Terminals on coil and aux.	Spring-type terminals on coil and aux. contacts	Weight approx. kg
	AC3	AC1	115V	230V	200V	230V	460V	575V	NO	NC			
3RT 3-pole Contactors													
S6	115	160	—	25	40	50	100	125	2	2	3RT1054-6□●●6	3RT1054-2□●●6	3.5
	150	185	—	30	50	60	125	150	2	2	3RT1055-6□●●6	3RT1055-2□●●6	
	185	215	—	30	60	75	150	200	2	2	3RT1056-6□●●6	3RT1056-2□●●6	
S10	225	275	—	—	60	75	150	200	2	2	3RT1064-6□●●6	3RT1064-2□●●6	6.7
	265	330	—	—	75	100	200	250	2	2	3RT1065-6□●●6	3RT1065-2□●●6	
	300	330	—	—	100	125	250	300	2	2	3RT1066-6□●●6	3RT1066-2□●●6	
S12	400	430	—	—	125	150	300	400	2	2	3RT1075-6□●●6	3RT1075-2□●●6	10.5
	500	610	—	—	150	200	400	500	2	2	3RT1076-6□●●6	3RT1076-2□●●6	
	UC Conventional Coil Solid State Operated Coil = Solid State Operated Coil with RLT =										□ A N P●●5	□ A N —	

NEMA Size	Amp Ratings	Single-phase HP ratings		Three-phase HP ratings				Auxiliary contacts		Screw Terminals on coil and aux.	Spring-type terminals on coil and aux. contacts	Weight approx. kg
		115V	230V	208V	230V	460V	575V	NO	NC			
NEMA Labeled Contactors												
4	135	—	30	40	50	100	100	2	2	3RT1056-6A●●6-0UA0	—	3.5
5	300	—	—	100	125	250	300	2	2	3RT1066-6A●●6-0UA0	—	6.7
6	400	—	—	150	200	400	500	2	2	3RT1076-6A●●6-0UA0	—	10.5

All coil voltages are in the adjacent table.
 For auxiliaries and accessories, see page 2/66-2/83.
 For spare parts, see page 2/94-2/99.
 For technical data, see page 2/143-2/151.
 For description, see page 2/106-2/107.
 For int. circuit diagrams, see page 2/196-2/198.
 For dimension drawings, see page 2/213-2/214.

Sizes S6 to S12 Coil Codes - UC operation (AC 50 to 60 Hz and DC)

UC Conventional Coil		Solid-State Coil		
Rated control supply voltage Us Us min ... Us max ¹⁾	3RT1. 5.-A	Rated control supply voltage Us Us min ... Us max ¹⁾	3RT1. 5.-N	3RT1. 5.-P
	3RT1. 6.-A		3RT1. 6.-N	3RT1. 6.-P
	3RT1. 7.-A		3RT1. 7.-N	3RT1. 7.-P
Coil Codes	●●	Coil Codes	●●	●●
23 ... 26 V AC/DC	B3	21 ... 27.3 V AC/DC	B3	—
42 ... 48 V AC/DC	D3	96 ... 127 V AC/DC	F3	F3
110 ... 127 V AC/DC	F3	200 ... 277 V AC/DC	P3	P3
200 ... 220 V AC/DC	M3			
220 ... 240 V AC/DC	P3			
240 ... 277 V AC/DC	U3			
380 ... 420 V AC/DC	V3			
440 ... 480 V AC/DC	R3			
500 ... 550 V AC/DC	S3			
575 ... 600 V AC/DC	T3			

1) Operating range:
0.8 x Us min to 1.1 x Us max.