Switching Devices – Contactors and Contactor Assemblies

Power Contactors for Switching Motors

Introduction

Overview

						2				
Size Type	S00 3RT201				S0 3RT202					
3RT20 contactors	381201				3R1202					
Type	2DT2015	3RT2016	3RT2017	3RT2018	3RT2023	3RT2024	3RT2025	3RT2026	3RT2027	3RT202
AC, DC operation		3/38, 3/42 3		3612010		40, 3/46 3		3012020	3612027	361202
AC-3	(p: 0/01)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(p. 0/00, 0/	10, 0, 10 0	5, 10, 0,007			
I _e /AC-3/400 V A	7	9	12	16	9	12	17	25	32	38
400 V k	W 3	4	5.5	7.5	4	5.5	7.5	11	15	18.5
	W 1.5 W 4	2.2 5.5	3 5.5	4 7.5	2.2 7.5	3 7.5	4 11	5.5 11	7.5 18.5	11 18.5
	W									
AC-4 (for $I_a = 6 \times I_e$)										
400 V k'	W 3	4	4	5.5	4	5.5	7.5	7.5	11	11
(200 000 operating cycles)	W 1.15	2	2	2.5	2	2.6	3.5	4.4	6	6
AC-1 (40 °C, ≤ 690 V)	40					4.0				
I _e 3RT20 A	18	22	22	22	40	40	40	40	50	50
Accessories for contactors	S									
Auxiliary switch blocks										
On front	3RH29, 3	RA28	(p. 3/70	3/75)	3RH29, 3R	A28	(p. 3/70	3/75)		
Lateral	3RH29		(p. 3/73)		3RH29		(p. 3/73)			
Function modules Direct-on-line start/star-delta (wwo delta) starting	3RA281.		(p. 3/80)		3RA281.		(p. 3/80)			
(wye-delta) startingIO-Link/AS-Interface	3RA271.	. 4400	(p. 3/82, 3	(83)	3RA271	4400	(p. 3/82, 3	(83)		
Surge suppressors	3RT2916		(p. 3/77, 3		3RT2926	~~~~	(p. 3/77, 3			
			() () () ()	,			(i	- /		
3RU2 and 3RB3 overload r	- i	0.11 10			0.DU 04.0C	1.0 40.4	(
3RU thermal overload relays 3RB solid-state overload relays	3RU2116	0.11167	A (p. 7/101)		3RU2126	1.8 40 A	(p. 7/101)			
 for standard applications 		0.1 16 A	(p. 7/121 .	7/123)	3RB3026 3RB3123	0.1 40 A	(p. 7/121 .	7/123)		
 for High-Feature applications 	3RB24 with 3RB	RB23 and 2906-2.G1 neasuring 0.3 25 A		(p. 7/145) (p. 7/153) (p. 7/156)	3RB22, 3R 3RB24 with 3RB2 current me module	906-2.G1	(p. 7/145) (p. 7/153) (p. 7/156)			
3RV20 motor starter protect	ctors									
Motor starter protectors	3RV2011	0.11 16	A (p. 7/22, 7	/24)	3RV2021	0.45 40	A	(p. 7/22, 7	/24)	
Link modules	3RA2911		(p. 7/41, 7	/43)	3RA2921			(p. 7/41, 7	/43)	
	rassemblies	\$			1					
3RA23 reversing contactor				0.0.0040	1		2040205	3BA2326	3RA2327	3RA23
	ype 3RA2315		3RA2317	3RA2318		3RA2324 (p. 3/183)	3RA2325	•••••••••		
Complete units Ty			3RA2317 5.5	3RA2318 7.5		3RA2324 (p. 3/183) 5.5	7.5	11	15	18.5
Complete units Ty 400 V k	ype 3RA2315 (p. 3/182)	4				(p. 3/183)	7.5			18.5
Complete units Ty 400 V k' Assembly kits, etc.	ype 3RA2315 (p. 3/182) W 3	4 -2AA.	5.5			(p. 3/183) 5.5	7.5 2AA.	11		18.5
Complete units Ty 400 V k' Assembly kits, etc. Function modules	ype 3RA2315 (p. 3/182) W 3 3RA2913 3RA271.	4 -2AA. •.BA00	5.5 (p. 3/85) (p. 3/82)			(p. 3/183) 5.5 3RA2923-2	7.5 2AA.	11 (p. 3/85)		18.5
Complete units Ty 400 V k ⁴ Assembly kits, etc. Function modules 3RA24 contactor assemblie	ype 3RA2315 (p. 3/182) W 3 3RA2913 3RA2913 3RA271. es for wye-o	4 -2AA. BA00 lelta startin	5.5 (p. 3/85) (p. 3/82)			(p. 3/183) 5.5 3RA2923-2	7.5 2AA. .BA00	11 (p. 3/85) (p. 3/82)		18.5
Complete units Ty 400 V k ⁴ Assembly kits, etc. Function modules 3RA24 contactor assemblie	ype 3RA2315 (p. 3/182) W 3 3RA2913 3RA2913 3RA271. es for wye-0 ype 3RA2415	4 -2AA. BA00 lelta startin 3RA2416	5.5 (p. 3/85) (p. 3/82)		 3RA2423	(p. 3/183) 5.5 3RA2923-2	7.5 2AA.	11 (p. 3/85)		18.5
400 V k Assembly kits, etc. Function modules 3RA24 contactor assemblii Complete units Ty	ype 3RA2315 (p. 3/182) W 3 3RA2913 3RA2913 3RA271. es for wye-o	4 -2AA. BA00 lelta startin 3RA2416	5.5 (p. 3/85) (p. 3/82)			(p. 3/183) 5.5 3RA2923-2	7.5 2AA. .BA00	11 (p. 3/85) (p. 3/82)		18.5

Note:

For safety characteristics for contactors see "Standards and Approvals", from page 16/10 onwards.

Switching Devices – Contactors and Contactor Assemblies

Power Contactors for Switching Motors

Introduction

			· · · ·						· · · · · · · · · · · · · · · · · · ·		
0:											
Size Type		S2 3RT203				S3 3RT104			S6 3RT105		
3RT10 contactors											
Type AC, DC operation			3RT2036 3/49, 3/51, 3		3RT2038	3RT1044 (p. 3/111,	3RT1045	3RT1046	3RT1054 (p. 3/113, 3	3RT1055	3RT1056
AC-3		(p. 5/41,	0/40, 0/01, 0	5/52)		(p. 5/111,	5/112)		(p. 0/110, t	5/114/	
I _e /AC-3/400 V	А	40	50	65	80	65	80	95	115	150	185
400 V	kW	18.5	22	30	37	30	37	45	55	75	90
230 V 500 V	kW kW	11 22	15 30	18.5 37	22 37	18.5 37	22 45	22 55	37 75	45 90	55 110
690 V	kW	22	22	37	45	45	45 55	55	110	132	160
1 000 V	kW					30	37	37	75	90	90
AC-4 (for $I_a = 6 \times I_e$)											
400 V	kW	18.5	22	30	37	30	37	45	55	75	90
400 V (200 000 operating cycles)) kW	11.6	12.6	14.7	15.8	15.1	17.9	22	29	38	45
AC-1 (40 °C, ≤ 690 V)						400	400	400	400	405	0 .1 -
Ie	Α	60	70	80	90	100	120	120	160	185	215
3RT14 AC-1 contactors		,				1					
Туре						3RT1446		(p. 4/10)	3RT1456		(p. 4/11)
<i>I</i> _e /AC-1/40 °C/≤ 690 V	Α					140			275		
Accessories for contactors	S										
Auxiliary • On front		3RH29, 3	3RA28	(p. 3			RT1926 (p. 3/1			T1926 (p. 3/12	
switch blocks • Lateral Function • Direct-on-line s	tortion	3RH29 3RA283.			(p. 3/73) (p. 3/80)			(p. 3/123)	38819		(p. 3/123)
Function • Direct-on-line s modules • IO-Link/AS-Inte		3RA263.		(p	(p. 3/80) . 3/82, 3/83)						
Surge suppressors		3RT2936	6	(p	. 3/77, 3/78)	3RT1926,	3RT1936	(p. 3/126)	3RT1956-1	C (RC elemen	t) (p. 3/126)
Terminal covers						3RT1946-4	4EA.	(p. 3/132)	3RT1956-4	EA.	(p. 3/132)
Box terminal blocks									3RT1955-4	G, 3RT1956-40	G (p. 3/131)
3RU and 3RB overload rela											
	ays										
3RU thermal overload relays	ays	3RU2136	6 1180 A	A (p. 7,	/102, 7/103)	3RU1146	18 100 A	(p. 7/112)			
3RU thermal overload relays 3RB electronic overload relays		3RU2136	5 1180 A	A (p. 7,	/102, 7/103)	3RU1146	18 100 A	(p. 7/112)			
· · · · · ·		3RB3036	6 12.5 80) A	/102, 7/103)	3RB2046	12.5 100 A	<u>, , , , , , , , , , , , , , , , , , , </u>	3RB2056	50 200 A	
3RB electronic overload relaysfor standard applications		3RB3036 3RB3133	6 12.5 80 3 (p. 7/121) A	. , . ,	3RB2046 3RB2143	12.5 100 A (p. 7/133, 7/*	135)	3RB2056 3RB2153	(p. 7/133, 7/1	
3RB electronic overload relays		3RB3036 3RB3133 3RB22, 3	6 12.5 80) A	(p. 7/145)	3RB2046 3RB2143 3RB22, 3F	12.5 100 A (p. 7/133, 7/*	(p. 7/145)	3RB2056 3RB2153 3RB22, 3R	(p. 7/133, 7/1	(p. 7/145)
3RB electronic overload relaysfor standard applications		3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1) A 7/123)	(p. 7/145) (p. 7/153)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2	12.5 100 A (p. 7/133, 7/ ⁻ 3B23 and 2906-2JG1	(p. 7/145) (p. 7/153)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2	(p. 7/133, 7/1 B23 and 956-2TH2	(p. 7/145) (p. 7/153)
3RB electronic overload relaysfor standard applications		3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE	6 12.5 80 3 (p. 7/121 3RB23 and) A 7/123) current	(p. 7/145) (p. 7/153)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2	12.5 100 A (p. 7/133, 7/ ⁻ R B23 and	(p. 7/145) (p. 7/153)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2	(p. 7/133, 7/1 B23 and	(p. 7/145) (p. 7/153)
 3RB electronic overload relays for standard applications for High-Feature applications 	3	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100) A 7/123) current	(p. 7/145) (p. 7/153)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2	12.5 100 A (p. 7/133, 7/ ⁻ R B23 and 2906-2JG1 eas. module	(p. 7/145) (p. 7/153)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2	(p. 7/133, 7/1 B23 and 956-2TH2 eas. module	(p. 7/145) (p. 7/153)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protector 	3	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri cuit brea	5 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m	12.5 100 A (p. 7/133, 7/ RB23 and 2906-2JG1 eas. module 10 100 A	(p. 7/145) (p. 7/153) (p. 7/156)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current mo	(p. 7/133, 7/1 B23 and 956-2TH2 eas. module	(p. 7/145) (p. 7/153)
 3RB electronic overload relays for standard applications for High-Feature applications 	3	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri cuit brea	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2	12.5 100 A (p. 7/133, 7/ ⁻ R B23 and 2906-2JG1 eas. module	(p. 7/145) (p. 7/153)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current mo	(p. 7/133, 7/1 B23 and 956-2TH2 eas. module	(p. 7/145) (p. 7/153) (p. 7/156)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors 	3	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri cuit brea	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 /) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m	12.5 100 A (p. 7/133, 7/ RB23 and 2906-2JG1 eas. module 10 100 A	(p. 7/145) (p. 7/153) (p. 7/156)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current mo 3RV1063	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A	(p. 7/145) (p. 7/153) (p. 7/156)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers 	ors/cir	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 /) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 	12.5 100 A (p. 7/133, 7/ RB23 and 2906-2JG1 eas. module 10 100 A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current mo 3RV1063	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A	(p. 7/145) (p. 7/153) (p. 7/156)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 	ors/cir	3RB3036 3RB3133 3RB22, 3 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931 nblies	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 /) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941	12.5 100 A (p. 7/133, 7/ RB23 and 2906-2JG1 eas. module 10 100 A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current mo 3RV1063	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A	(p. 7/145) (p. 7/153) (p. 7/156)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 	ors/ciro asser Type	3RB3036 3RB3133 3RB24, 3 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931 nblies 3RA2335 (p. 3/184	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 1 5 3RA2336 	A 7/123) current A A 3RA2337	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1344 (p. 3/186)	12.5 100 A (p. 7/133, 7/ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156)
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V 	ors/ciro	3RB3036 3RB3133 3RB24, 3 3RB24 with 3RE measuri cuit brea 3RA2931 nblies 3RA2931 (p. 3/184 18.5	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 10 100 akers 2 9.5 80 / 1 5 3RA2336 1) 22) A 7/123) current A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338 37	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 (p. 3/186) 30	12.5 100 A (p. 7/133, 7/ B23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345 37	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55	(p. 7/133, 7/1 B23 and 956-2TH2 eas. module 20 200 A 40 200 A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules 	ors/ciro asser Type	3RB3036 3RB3133 3RB24, 3 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931 3RA2931 (p. 3/184 18.5 3RA2932	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 10 100 akers 2 9.5 80 / 1 5 3RA2336 22 3-2AA.	A 7/123) current A A 3RA2337	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 3RA1344 (p. 3/186) 30 3RA1943-	12.5 100 A (p. 7/133, 7/ B23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345 37	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 	(p. 7/133, 7/1 B23 and 956-2TH2 eas. module 20 200 A 40 200 A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90
 3RB electronic overload relays for standard applications for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules 	ors/ciro asser Type	3RB3036 3RB3133 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931 3RA2931 9RA2332 (p. 3/184 18.5 3RA2933 3RA271.	6 12.5 80 3 (p. 7/121 3RB23 and 32906-2JG1 10 100 akers 2 9.5 80 / 1 5 3RA2336 22 3-2AA. BA00	A 7/123) current A A 3RA2337	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/82)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 9 3RA1344 (p. 3/186) 30 3RA1943- 	12.5 100 A (p. 7/133, 7/ ⁷ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345 37 2A	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45 (p. 3/128)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 75 24	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
 3RB electronic overload relays for standard applications for High-Feature applications arc High-Fea	asser Type kW	3RB3036 3RB3133 3RB22, 5 3RB24 with 3RE measuri cuit brea 3RA2931 3RA2931 3RA2932 3RA2934	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 3RA2336 22 3-2AA. BA00 4-2B) A 7/123) current A A 3RA2337 30	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/82)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 3RA1344 (p. 3/186) 30 3RA1943-	12.5 100 A (p. 7/133, 7/ ⁷ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345 37 2A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 75 24	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
3RB electronic overload relays • for standard applications • for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules Mechanical interlocks 3RA.4 contactor assemblie	asser Type kW	3RB3036 3RB3133 3RB24 3RB24 with 3RE measuri 3RA2931 3RA2931 (p. 3/184 18.5 3RA2335 3RA2932 3RA2934 wye-delt	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 1 3RA2336 3-2AA. BA00 4-2B ta starting) A 7/123) current A A 3RA2337 30	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/87)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 3RA1943 30 3RA1943- 3RA1924-	12.5 100 A (p. 7/133, 7/ ⁻ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 28 100 A 3RA1345 37 2A 1A/-2B	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45 (p. 3/128)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 75 24	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
 3RB electronic overload relays for standard applications for High-Feature applications arc High-Fea	asser Type kW	3RB3036 3RB3133 3RB24 with 3RE measuri cuit brea 3RV2032 3RA2931 3RA2931 3RA2932 3RA2932 3RA2934 wye-delt 3RA2434	 12.580 (p. 7/121 3RB23 and 32906-2JG1 ang module 10100 akers 2.9.580 3RA2336 22 3-2AA. BA00 4-2B ta starting 4.3RA2435) A 7/123) current A A 3RA2337 30	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/87)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 (p. 3/186) 30 3RA1943- 3RA1924- 3RA1924-	12.5 100 A (p. 7/133, 7/ ⁷ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 3RA1345 37 2A	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45 (p. 3/128)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 75 24	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
3RB electronic overload relays • for standard applications • for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules Mechanical interlocks 3RA.4 contactor assemblie Complete units	asser Type kW es for Type	3RB3036 3RB3133 3RB24 with 3RE measuri cuit bree 3RV2032 3RA2931 mblies 3RA2932 (p. 3/184 18.5 3RA2932 3RA2934 wye-delt 3RA2434 (p. 3/197	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 1 3RA2336 22 3-2AA. BA00 4-2B ta starting 4 3RA2435 () 	A Current A 3RA2337 30 3RA2436	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/82) (p. 3/87) 5 3RA2437	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 (p. 3/186) 30 3RA1943- 3RA1924- 3RA1924- 3RA1444 (p. 3/202)	12.5 100 A (p. 7/133, 7/ ⁻ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 28 100 A 3RA1345 37 2A 1A/-2B 3RA14.5	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45 (p. 3/128)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 75 24	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
3RB electronic overload relays • for standard applications • for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules Mechanical interlocks 3RA.4 contactor assemblie Complete units	asser Type kW	3RB3036 3RB3133 3RB24 with 3RE measuri cuit bree 3RV2032 3RA2931 mblies 3RA2931 (p. 3/184 18.5 3RA2932 3RA2934 wye-delt 3RA2434 (p. 3/197 22/30	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ang module 10 100 akers 2 9.5 80 / 3RA2336 22 3-2AA. BA00 4-2B ta starting 4 3RA2435 37) A 7/123) current A A 3RA2337 30	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/82) (p. 3/87) 5 3RA2437 55	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 (p. 3/186) 30 3RA1943- 3RA1924- 3RA1924- 3RA1444 (p. 3/202) 55	12.5 100 A (p. 7/133, 7/ ⁻ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 28 100 A 3RA1345 37 2A 1A/-2B 3RA14.5 75	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/156) (p. 7/77) 3RA1346 45 (p. 3/128) (p. 3/130)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 3RA1954-2 	(p. 7/133, 7/1 1823 and 956-2TH2 eas. module 20 200 A 40 200 A 75 2A 2A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128) (p. 3/130)
3RB electronic overload relays • for standard applications • for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules Mechanical interlocks 3RA.4 contactor assemblie Complete units	asser Type kW es for Type	3RB3036 3RB3133 3RB24 with 3RE measuri cuit bree 3RV2032 3RA2931 mblies 3RA2931 (p. 3/184 18.5 3RA2932 3RA2934 wye-delt 3RA2434 (p. 3/197 22/30	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 2 9.5 80 / 3RA2336 22 3-2AA. BA00 4-2B ta starting 4 3RA2435) 37 3-2BB./-2C 	A Current A 3RA2337 30 3RA2436	(p. 7/145) (p. 7/153) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/85) (p. 3/87) 5 3RA2437 55 (p. 3/86)	3RB2046 3RB2143 3RB22, 3F 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1941 3RA1941 30 3RA1943- 3RA1924- 3RA1943- 3RA1943-	12.5 100 A (p. 7/133, 7/ ⁻ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 28 100 A 3RA1345 37 2A 1A/-2B 3RA14.5 75	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/156) (p. 7/77) 3RA1346 45 (p. 3/128) (p. 3/130)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 	(p. 7/133, 7/1 1823 and 956-2TH2 eas. module 20 200 A 40 200 A 75 2A 2A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128)
3RB electronic overload relays • for standard applications • for High-Feature applications 3RV motor starter protectors molded case circuit breakers Link modules 3RA.3 reversing contactor Complete units 400 V Assembly kits/wiring modules Function modules Mechanical interlocks 3RA.4 contactor assemblie Complete units 400 V Assembly kits/wiring modules	asser Type kW es for Type	3RB3036 3RB3133 3RB24 with 3RE measuri cuit bree 3RV2032 3RA2931 0Dies 3RA2931 3RA2932 3RA2934 wye-delt 3RA2934 (p. 3/197 22/30 3RA2935	 12.5 80 (p. 7/121 3RB23 and 32906-2JG1 ng module 10 100 akers 2 9.5 80 / 2 9.5 80 / 3RA2336 22 3-2AA. BA00 4-2B ta starting 4 3RA2435) 37 3-2BB./-2C 	A Current A 3RA2337 30 3RA2436	(p. 7/145) (p. 7/153) (p. 7/153) (p. 7/156) (p. 7/23) (p. 7/41) 7 3RA2338 37 (p. 3/85) (p. 3/82) (p. 3/87) 5 3RA2437 55 (p. 3/86) (p. 3/86) (p. 3/82)	3RB2046 3RB2143 3RB24 with 3RB2 current m 3RV1041 3RA1941 3RA1944 (p. 3/186) 30 3RA1943- 3RA1924- 3RA1924- 3RA1924- 55 3RA1943- 	12.5 100 A (p. 7/133, 7/ ⁻ RB23 and 2906-2JG1 eas. module 10 100 A 28 100 A 28 100 A 3RA1345 37 2A 1A/-2B 3RA14.5 75	(p. 7/145) (p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/156) (p. 7/64) (p. 7/77) 3RA1346 45 (p. 3/128) (p. 3/128)	3RB2056 3RB2153 3RB22, 3R 3RB24 with 3RB2 current me 3RV1063 55 3RA1953-2 3RA1954-2 3RA1953-2 3RA1953-2 	(p. 7/133, 7/1 1823 and 1956-2TH2 20 200 A 40 200 A 40 200 A 75 2A 2A 2A	(p. 7/145) (p. 7/153) (p. 7/156) (p. 7/156) (p. 7/84) 90 (p. 3/128) (p. 3/130)

Siemens IC 10 · 2016

Reversing Contactor Assemblies

SIRIUS 3RA23 reversing contactor assemblies

Overview

The 3RA23 reversing contactor assemblies can be ordered as follows:

Sizes S00 to S2

- Fully wired and tested, with mechanical and electrical interlock
- For all individual parts for customer assembly, see Accessories for 3RT2 contactors, from page 3/54 onwards. Contactors, overload relays and – with momentary-contact operation of size S00 – auxiliary switches (NO contacts) for self-locking must be ordered separately (for S0 and S2, the NO contacts integrated into the basic unit can be used).

The 3RA23 reversing contactor assemblies have screw or spring-type terminals (main and control circuits) and are suitable for screw fixing and snap-on mounting onto TH 35 standard mounting rails.

Complete reversing contactor assemblies

The fully wired reversing contactor assemblies are suitable for use in any climate. They are finger-safe according to IEC 60529.

The reversing contactor assemblies of size S00 to S2 each consist of two contactors with the same power, with one NC contact (S00) or one NO contact and one NC contact (S0, S2) in the basic unit. The contactors are mechanically and electrically interlocked (NC contact interlock).

3RU2 overload relays (see from page 7/101 onwards) or 3RB3 overload relays (see from page 7/121 onwards) for contactor mounting or stand-alone installation, or 3RN1 thermistor motor protection evaluation units (see from page 10/179 onwards) must be ordered separately.

Reversing contactor assemblies with voltage tap-off

The reversing contactor assemblies with voltage tap-off (see pages 3/182 to 3/184) are required for mounting the function modules for connection to the controller via the IO-Link or AS-Interface communication systems. The 3RA27 function modules must be ordered separately, see page 3/82.

For more information on IO-Link and AS-Interface, see "Industrial Communication", from page 2/1 onwards.

Rated data AC-2 for 50 Hz 400 V		Size	Туре		
Rating kW	Operational current I _e A		Contactor (See from page 3/37 onwards)	Assembly kit (See from page 3/85 onwards)	Fully wired and tested reversing contactor assemblies
			Screw terminals)	
3	7	S00	3RT2015-12	3RA2913-2AA1 ¹⁾	3RA2315-8XB30-1
4	9		3RT2016-12		3RA2316-8XB30-1
5.5	12		3RT2017-12		3RA2317-8XB30-1
7.5	16		3RT2018-12		3RA2318-8XB30-1
5.5	12	S0	3RT2024-10	3RA2923-2AA11)	3RA2324-8XB30-1
7.5	16		3RT2025-10		3RA2325-8XB30-1
11	25		3RT2026-10		3RA2326-8XB30-1
15	32		3RT2027-10		3RA2327-8XB30-1
18.5	38		3RT2028-10		3RA2328-8XB30-1
18.5	40	S2	3RT2035-10	3RA2933-2AA1 ²⁾	3RA2335-8XB30-1
22	55		3RT2036-10		3RA2336-8XB30-1
30	65		3RT2037-10		3RA2337-8XB30-1
37	80		3RT2038-10		3RA2338-8XB30-1
			Spring-type or terminals		
3	7	S00	3RT2015-22	3RA2913-2AA21)	3RA2315-8XB30-2
4	9		3RT2016-22		3RA2316-8XB30-2
5.5	12		3RT2017-22		3RA2317-8XB30-2
7.5	16		3RT2018-22		3RA2318-8XB30-2
5.5	12	S0	3RT2024-20	3RA2923-2AA2 ³⁾	3RA2324-8XB30-2
7.5	16		3RT2025-20		3RA2325-8XB30-2
11	25		3RT2026-20		3RA2326-8XB30-2
15	32		3RT2027-20		3RA2327-8XB30-2
18.5	38		3RT2028-20		3RA2328-8XB30-2

¹⁾ The assembly kit contains: Mechanical interlock; two connecting clips for two contactors, wiring modules on the top and bottom (for main, auxiliary and control circuits); see page 3/85.

²⁾ The assembly kit contains: Two connectors for two contactors, wiring modules on the top and bottom (for main and auxiliary circuits); see page 3/85. The 3RA2934-2B mechanical interlock must be ordered separately, see page 3/87.

³⁾ The assembly kit contains: Mechanical interlock; two connecting clips for two contactors, wiring modules on the top and bottom (for main circuit only); see page 3/85.

Reversing Contactor Assemblies

SIRIUS 3RA23 reversing contactor assemblies

Operating times

The operating times of the individual 3RT20 contactors are rated in such a way that no overlapping of the contact making and the arcing time between two contactors can occur on reversing, providing they are interlocked by way of their auxiliary switches (NC contact interlock) and the mechanical interlock. For assemblies with AC operation and 50/60 Hz, a dead interval of 50 ms must be provided when used with voltages \geq 500 V; a dead interval of 30 ms is recommended for use with voltages \geq 400 V. These dead times do not apply to assemblies with DC operation.

The operating times of the individual contactors are not affected by the mechanical interlock.

Article No. scheme

Digit of the Article No.	1st - 3rd	4th	5th	6th	7th		8th	9th	10th	11th	12th		13th	14th	15th	16th
						-						-				
SIRIUS reversing contactor assembly	3 R A															
2nd generation		2														
Device type (3 = reversing contactor assembly)			3													
Contactor size (1 = S00, 2 = S0, 3 = S2)																
Power dependent on size (e.g. 7 = 15 kW for S0)																
Type of overload relay (8X = without)																
Assembly (B = ready-assembled, E = ready-assembled with commun	nication)															
Interlock (3 = mechanical and electrical)																
Free auxiliary switches (e.g. S00: 0 = none; S0, S2: 0 = 2 NO total)																
Connection type (1 = screw, 2 = spring)																
Operating range / solenoid coil circuit (e.g. A = AC standard / without coil circuit)																
Rated control supply voltage (e.g. L2 = 230 V, 50/60 Hz)																
Example	3 R A	2	3	2	7	-	8	Х	в	3	0	-	1	Α	L	2

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

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

SIRIUS 3RA23 reversing contactor assemblies

Benefits

Using wiring kits for reversing contactor assemblies has the following advantages:

- Notable reduction of wiring in the control circuit
- Integrated mechanical interlock for sizes S00 and S0
- Prevention of wiring errors in the main circuit

Connecting combs for screw terminals also result in:

- · Prevention of wiring errors in the control circuit
- Reduction of testing costs
- Ready-jumpered actuation of the auxiliary switches and the frame (A2)
- Integrated electrical interlocking

Accessories

Selecting the auxiliary switches

The following points should be noted:

Size S00

- For maintained-contact operation: Use contactors with an NC contact in the basic unit for the electrical interlock.
- For momentary-contact operation: Use contactors with an NC contact in the basic unit for the electrical interlock; in addition, an auxiliary switch block with at least one NO contact for latching is required per contactor.

Sizes S0 and S2

- For maintained-contact operation:
 - The contactors have two integrated auxiliary contacts (1 NO + 1 NC); the NC contact can be used for electrical interlocking.
- For momentary-contact operation: Electrical interlock as for maintained-contact operation; the NO contact in the basic unit can be used for the latching.

Surge suppression

Sizes S00 to S2

All reversing contactor assemblies can be fitted with RC elements or varistors for damping opening surges in the coil.

As with the individual contactors, the surge suppressors can either be plugged onto the top of the contactors (S00) or be plugged into the front of the contactors (S0 and S2).

Reversing Contactor Assemblies

SIRIUS 3RA23 reversing contactor assemblies IE3 ready

Selection and ordering data

Fully wired and tested reversing contactor assemblies ^1) \cdot Size S00 \cdot Up to 7.5 kW

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







3RA231.-8XB30-1A.0

3RA231.-8XB30-2A.0

3RA231. -8XE30-1BB4

Rated data AC-2				Rated control supply voltage	DT	Screw terminals	D	Spring-type terminals	
Operational current I _e up to	Ratings c at 50 Hz	of three-phase	e motors	$U_{\rm s}^{2)}$		Article No.	Price	Article No.	Price
400 V	230 V	400 V	690 V	0		Article NO.	per PU	Allicie No.	per PU
400 V A	kW	kW	kW	V					
AC operation.		KU	IX V	•					
7	2.2	3	4	24 AC	В	3RA2315-8XB30-1AB0	В	3RA2315-8XB30-2AB0	
				110 AC	В	3RA2315-8XB30-1AF0	В	3RA2315-8XB30-2AF0	
				230 AC	А	3RA2315-8XB30-1AP0	A	3RA2315-8XB30-2AP0	
9	3	4	5.5	24 AC	В	3RA2316-8XB30-1AB0	В	3RA2316-8XB30-2AB0	
				110 AC	В	3RA2316-8XB30-1AF0	В	3RA2316-8XB30-2AF0	
				230 AC	А	3RA2316-8XB30-1AP0	А	3RA2316-8XB30-2AP0	
12	3	5.5	5.5	24 AC	В	3RA2317-8XB30-1AB0	В	3RA2317-8XB30-2AB0	
				110 AC	В	3RA2317-8XB30-1AF0	В	3RA2317-8XB30-2AF0	
				230 AC	А	3RA2317-8XB30-1AP0	А	3RA2317-8XB30-2AP0	
16	4	7.5	7.5	24 AC	В	3RA2318-8XB30-1AB0	В	3RA2318-8XB30-2AB0	
				110 AC	В	3RA2318-8XB30-1AF0	В	3RA2318-8XB30-2AF0	
				230 AC	А	3RA2318-8XB30-1AP0	A	3RA2318-8XB30-2AP0	
DC operation									
7	2.2	3	4	24 DC	А	3RA2315-8XB30-1BB4	A	3RA2315-8XB30-2BB4	
9	3	4	5.5	24 DC	А	3RA2316-8XB30-1BB4	A	3RA2316-8XB30-2BB4	
12	3	5.5	5.5	24 DC	А	3RA2317-8XB30-1BB4	A	3RA2317-8XB30-2BB4	
16	4	7.5	7.5	24 DC	А	3RA2318-8XB30-1BB4	A	3RA2318-8XB30-2BB4	
With voltage ta	ap-off								
7	2.2	3	4	24 DC	А	3RA2315-8XE30-1BB4	В	3RA2315-8XE30-2BB4	
9	3	4	5.5	24 DC	А	3RA2316-8XE30-1BB4	В	3RA2316-8XE30-2BB4	
12	3	5.5	5.5	24 DC	А	3RA2317-8XE30-1BB4	A	3RA2317-8XE30-2BB4	
16	4	7.5	7.5	24 DC	А	3RA2318-8XE30-1BB4	A	3RA2318-8XE30-2BB4	
) -									

¹⁾ The contactors integrated in the reversing contactor assemblies have no unassigned auxiliary contacts. When used with a voltage tap-off and function module, the auxiliary contacts are unassigned.

²⁾ Coil operating range

- at 50 Hz: 0.8 to $1.1 \times U_{\rm s}$ - at 60 Hz: 0.85 to $1.1 \times U_{\rm s}$.

Representation of the complete reversing contactor assemblies with optionally mountable accessories, see page 3/178.