



Power Contactors for Switching Motors

Accessories and Spare Parts for SIRIUS 3RT2 Contactors and SIRIUS 3RH2 Contactor Relays

Accessories

3RA28 function modules for mounting on 3RT2 contactors and 3RH2 contactor relays

Type	3RA2811	3RA2831	3RA2812	3RA2832	3RA2816
Mounting on contactors of size	S00, S0	S2	S00, S0	S2	S00, S0, S2
Function	For direct-on-line starting				For star-delta (wye-delta) starting
	ON-delay		OFF-delay with control signal		
General data					
Dimensions (basic unit with mounted function module)		See 3RT20 contactors (pages 3/20, 3/26, 3/31) and 3RH2 contactor relays (page 5/7)			
Rated insulation voltage U_i Pollution degree 3 Overvoltage category III	V AC	300			
Rated impulse withstand voltage U_{imp}	kV AC	4			
Overvoltage protection	Varistor integrated				
Recovery time	ms	50			150
Minimum ON period	ms	--	35	--	--
Setting accuracy Typ. With reference to upper limit of scale	± 15 %				
Repeat accuracy Max.	± 1 %				
Degree of protection acc. to IEC 60529	IP20				
Permissible ambient temperature					
• During operation	°C	-25 ... +60			
• During storage	°C	-40 ... +80			
Shock resistance Half-sine acc. to IEC 60068-2-27	g/ms	15/11			
Vibration resistance acc. to IEC 60068-2-6	Hz/mm	10 ... 55/0.35			
Electromagnetic compatibility (EMC)	IEC 61000-6-2, IEC 61000-6-4, IEC 61812-1, IEC 60947-4-1				
Permissible mounting position	Any (for the mounting position of the 3RT20 contactors, see pages 3/20, 3/26, 3/31; for the mounting position of the 3RH2 contactor relays, see page 5/6)				
Control side					
Operating range of excitation		0.85 ... 1.1 x U_n , 0.95 ... 1.05 times the rated frequency			
Rated power	W	1			
• Power consumption at 230 V AC, 50 Hz	VA	1			2
Load side					
Mechanical endurance	Operating cycles	100 x 10 ⁶			10 x 10 ⁶
Electrical endurance					
• With 3RT2028 contactor	Operating cycles	100 000			--
• At AC-15, 250 V, 3 A	Operating cycles	--			100 000
Switching frequency for load					
• With I_e at 230 V AC	h ⁻¹	2 500			--
• With 3RT2 contactor at 230 V AC	h ⁻¹	2 500			--
Residual current Max.	mA	5	--	--	--
Voltage drop Max. With conducting output	VA	3.5	--	--	--
DIAZED fuse protection	Operational class gG	A	--	--	4
Conductor cross-sections					
Connection type (1 or 2 conductors can be connected)		 Screw terminals			
• Solid	mm ²	1 x (0.5 ... 4), 2 x (0.5 ... 2.5)			--
• Finely stranded with end sleeve (DIN 46228-1)	mm ²	1 x (0.5 ... 2.5), 2 x (0.5 ... 1.5)			--
• AWG cables, solid or stranded	AWG	2 x (20 ... 14)			--
• Terminal screws		M3 (for standard screwdriver size 2 or Pozidriv 2)			--
• Tightening torque	Nm	0.8 ... 1.2			--
Connection type (1 or 2 conductors can be connected)		 Spring-type terminals			
• Operating devices	mm	3.0 x 0.5			--
• Solid	mm ²	2 x (0.25 ... 1.5)			--
• Finely stranded with end sleeve (DIN 46228-1)	mm ²	2 x (0.25 ... 1.5)			--
• Finely stranded without end sleeve	mm ²	2 x (0.25 ... 1.5)			--
• AWG cables, solid or stranded	AWG	2 x (24 ... 16)			--

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Accessories and Spare Parts for SIRIUS 3RT2 Contactors and SIRIUS 3RH2 Contactor Relays Accessories

Modules for contactor control

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





3RA2811-2CW10



3RA2812-1DW10



3RA2816-0EW20

For contactors	Size	Version	Rated control supply voltage U_s ¹⁾	Time setting range t	DT	Screw terminals 	DT	Spring-type terminals 	
Type			V AC/DC	s		Article No.	Price per PU	Article No.	Price per PU

3RA28 function modules for mounting on 3RT2 contactors and 3RH2 contactor relays

For direct-on-line starting

3RT2.1 ²⁾ , 3RT2.2 ²⁾ , 3RH21 ²⁾ , 3RH24	S00, S0	ON-delay Two-wire design, varistor integrated	24 ... 240	0.05 ... 100 (1, 10, 100; selectable)	A	3RA2811-1CW10	A	3RA2811-2CW10
3RT2.3 ²⁾	S2	The electrical connection between the function module and the contactor underneath is established automatically when it is snapped on and locked.	24 ... 90 90 ... 240	0.05 ... 100 (1, 10, 100; selectable)	A A	3RA2831-1DG10 3RA2831-1DH10	A A	3RA2831-2DG10 3RA2831-2DH10
3RT2.1 ²⁾ , 3RT2.2 ²⁾ , 3RH21 ²⁾ , 3RH24	S00, S0	OFF-delay with control signal Varistor integrated	24 ... 240	0.05 ... 100 (1, 10, 100; selectable)	A	3RA2812-1DW10	A	3RA2812-2DW10
3RT2.3 ²⁾	S2	The electrical connection between the function module and the contactor underneath is established automatically when it is snapped on and locked.	24 ... 90 90 ... 240	0.05 ... 100 (1, 10, 100; selectable)	A A	3RA2832-1DG10 3RA2832-1DH10	A A	3RA2832-2DG10 3RA2832-2DH10

For star-delta (wye-delta) starting

3RT201., 3RT202., 3RT203. ²⁾	S00 ... S2	Varistor integrated The electrical connection between the function module and the contactor assembly is established automatically by snapping on and plugging in the connecting cables. <u>Note:</u> When using the function modules for contactor assemblies for star-delta (wye-delta) starting, no other auxiliary switches are allowed to be connected to the basic units.	24 ... 240	0.5 ... 60 (10, 30, 60; selectable)	A	3RA2816-0EW20	A	3RA2816-0EW20
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Accessories

3RA28	S00 ... S2	Sealable covers			A	3RA2910-0	A	3RA2910-0
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¹⁾ AC voltage values apply for 50 Hz and 60 Hz.

²⁾ Cannot be fitted onto coupling relays.

For technical specifications, see page 3/62.

Manual

For the manual "SIRIUS 3RA28 Function Modules for Mounting on 3RT2 Contactors", see <https://support.industry.siemens.com/cs/ww/en/view/60279150>.

Operating travel diagrams

Function	Function charts
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>▨ Timing relay energized</p> <p>■ Contact closed</p> <p>□ Contact open</p> </div> <div style="width: 45%;"></div> </div>
1 NO contact (semiconductor output)	
ON-delay	<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>3RA2811-.CW10</p> <p style="font-size: small;">A3/A2 { 3RA28 NSBC_02098a Q t</p> </div> <div style="width: 45%;"> <p>3RA2831-.D.10</p> <p style="font-size: small;">A3/A4 { 3RA28 IC01_00339a Q t</p> </div> </div>
OFF-delay with control signal	<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>3RA2812-.DW10</p> <p style="font-size: small;">A3/A4 NSBC_02098a B1/A4 ≥ 35 ms Q t</p> </div> <div style="width: 45%;"> <p>3RA2832-.D.10</p> <p style="font-size: small;">A3/A4 NSBC_02098a B1/A4 ≥ 35 ms Q t</p> </div> </div>
2 NO contacts (interconnected internally)	
Star-delta (wye-delta) starting	<p>3RA2816-0EW20</p> <p style="font-size: small;">A1/A2 Q1 NSB0_02072a Y Q2 Δ Q3 t 50 ms</p>

