SIEMENS

Data sheet

3RT2015-2KA42



COUPLING RELAY, AC-3, 3KW/400V, 1NC, DC 12V, 0.7...1.25*US, W. PLUGGED-ON VARISTOR 3-POLE SZ S00, SPRING-LOADED TERMINAL

product brand name	_	SIRIUS	
Product designation	_	Coupling relay	
General technical data:			
Insulation voltage			
Rated value	V	690	
Degree of pollution		3	
Surge voltage resistance Rated value	kV	6	
Mechanical service life (switching cycles)			
 of the contactor typical 		30 000 000	
 of the contactor with added electronics- 		5 000 000	
compatible auxiliary switch block typical			
 of the contactor with added auxiliary switch 		10 000 000	
block typical			
Thermal short-time current restricted to 10 s	А	56	
Protection class IP			
• on the front		IP20	
• of the terminal		IP20	
Equipment marking			
• acc. to DIN EN 61346-2		Q	
• acc. to DIN EN 81346-2		Q	
Aain circuit:			
Number of poles for main current circuit		3	
Number of NC contacts for main contacts		0	
Number of NO contacts for main contacts		3	
Operating voltage			

 at AC-3 Rated value maximum 	V	690
Operating current		
● at AC-1		
— at 400 V at ambient temperature 40 $^\circ C$	А	18
Rated value		
— up to 690 V at ambient temperature 40 °C Rated value	A	18
— up to 690 V at ambient temperature 60 °C Rated value	A	16
• at AC-2 at 400 V Rated value	А	7
• at AC-3		
— at 400 V Rated value	А	7
— at 500 V Rated value	А	6
— at 690 V Rated value	А	4.9
• at AC-4 at 400 V Rated value	А	6.5
Operating current with 1 current path		
• at DC-1		
— at 24 V Rated value	А	15
— at 110 V Rated value	А	1.5
— at 220 V Rated value	А	0.6
— at 440 V Rated value	А	0.42
— at 600 V Rated value	А	0.42
• at DC-3 at DC-5		
— at 24 V Rated value	А	15
— at 110 V Rated value	А	0.1
Operating current with 2 current paths in series		
• at DC-1		
— at 24 V Rated value	А	15
— at 110 V Rated value	А	8.4
— at 220 V Rated value	А	1.2
— at 440 V Rated value	А	0.6
— at 600 V Rated value	А	0.5
• at DC-3 at DC-5		
— at 110 V Rated value	А	0.25
— at 24 V Rated value	А	15
Operating current with 3 current paths in series		
• at DC-1		
— at 24 V Rated value	А	15
— at 110 V Rated value	А	15
— at 220 V Rated value	А	15
— at 440 V Rated value	А	0.9
— at 600 V Rated value	А	0.7

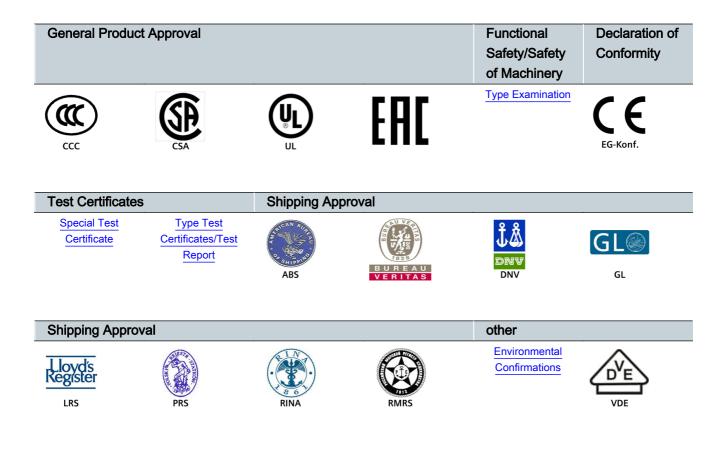
• at DC-3 at DC-5		
— at 110 V Rated value	А	15
— at 220 V Rated value	А	1.2
— at 24 V Rated value	А	15
— at 440 V Rated value	А	0.14
— at 600 V Rated value	А	0.14
Operating power	-	
• at AC-1 at 400 V Rated value	kW	11
• at AC-2 at 400 V Rated value	kW	3
• at AC-4 at 400 V Rated value	kW	3
Operating power	-	
• at AC-1		
— at 230 V at 60 °C Rated value	kW	6
— at 230 V Rated value	kW	6.3
— at 400 V at 60 °C Rated value	kW	10.5
— at 690 V at 60 °C Rated value	kW	18
— at 690 V Rated value	kW	19
• at AC-3		
— at 230 V Rated value	kW	1.5
— at 400 V Rated value	kW	3
— at 690 V Rated value	kW	4
Operating power for ≥ 200000 operating cycles at AC-4		
• at 400 V Rated value	kW	1.15
• at 690 V Rated value	kW	1.15
Operating frequency	-	
● at AC-3 maximum	1/h	750
Control circuit/ Control:		
Type of voltage of the control supply voltage		DC
Control supply voltage for DC		
Rated value	V	12
Operating range factor control supply voltage rated value of the magnet coil for DC		0.7 1.25
Design of the surge suppressor		with suppressor diode
Closing power of the magnet coil for DC	W	2.8
Holding power of the magnet coil for DC	W	2.8
Auxiliary circuit:		
Number of NC contacts		
 for auxiliary contacts 		
— instantaneous contact		1
Number of NO contacts		

 for auxiliary contacts 		
— instantaneous contact		0
Product expansion Auxiliary switch	-	No
Operating current at AC-15	-	
at 230 V Rated value	А	10
• at 400 V Rated value	А	3
● at 690 V Rated value	А	1
Operating current	-	
 at DC-12 at 125 V Rated value 	А	2
 at DC-12 at 220 V Rated value 	А	1
• at DC-12 at 600 V Rated value	А	0.15
 at DC-13 at 125 V Rated value 	А	0.9
 at DC-13 at 220 V Rated value 	А	0.3
• at DC-13 at 600 V Rated value	А	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	А	6
— at 110 V Rated value	А	3
• at DC-13		
— at 24 V Rated value	А	10
— at 60 V Rated value	А	2
— at 110 V Rated value	А	1
Contact reliability of the auxiliary contacts	-	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	А	4.8
● at 600 V Rated value	А	6.1
yielded mechanical performance [hp]		
 for single-phase AC motor at 110/120 V Rated value 	metric hp	0.25
 for single-phase AC motor at 230 V Rated value 	metric hp	0.75
 for three-phase AC motor at 200/208 V Rated value 	metric hp	1.5
 for three-phase AC motor at 220/230 V Rated value 	metric hp	2
 for three-phase AC motor at 460/480 V Rated value 	metric hp	3
 for three-phase AC motor at 575/600 V Rated value 	metric hp	5
Contact rating of the auxiliary contacts acc. to UL		A600 / Q600
Short-circuit:		

Short-circuit:

Design of the fuse link		
• for short-circuit protection of the main circuit		
— with type of assignment 1 required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
— with type of assignment 2 required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
 for short-circuit protection of the auxiliary switch required 		fuse gL/gG: 10 A
nstallation/ mounting/ dimensions:		
mounting position		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
Mounting type	_	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
 Side-by-side mounting 		Yes
Height	mm	69.5
Width	mm	45
Depth	mm	73
Required spacing		
 with side-by-side mounting 		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
 for grounded parts 		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— at the side	mm	6
— downwards	mm	0
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	6
Connections/ Terminals: Type of electrical connection		
for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit Type of connectable conductor cross-section		spring-loaded terminals

 for main contacts 		
 — single or multi-stranded 		2x (0,5 4 mm²)
 finely stranded with core end processing 		2x (0.5 2.5 mm²)
 finely stranded without core end 		2x (0.5 2.5 mm²)
processing		
 for AWG conductors for main contacts 		2x (20 12)
 for auxiliary contacts 		
 — single or multi-stranded 		2x (0,5 4 mm²)
 finely stranded with core end processing 		2x (0.5 2.5 mm²)
 finely stranded without core end 		2x (0.5 2.5 mm²)
processing		
 for AWG conductors for auxiliary contacts 		2x (20 12)
Safety related data:		
B10 value with high demand rate acc. to SN 31920	_	1 000 000
Proportion of dangerous failures		
 with low demand rate acc. to SN 31920 	%	40
 with high demand rate acc. to SN 31920 	%	73
Failure rate [FIT] with low demand rate acc. to SN	FIT	100
31920		
Product function Mirror contact acc. to IEC 60947-4-1	-	Yes
T1 value for proof test interval or service life acc. to	У	20
IEC 61508		
Protection against electrical shock		finger-safe
Mechanical data:		
Size of contactor		S00
Ambient conditions:		
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
 during operation 	°C	-25 +60
 during operation Note 		Railway application: -40 70 °C with 10 mm clearance. See catalog for other rated conditions
• during storage	°C	-55 +80
Certificates/ approvals:		



Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

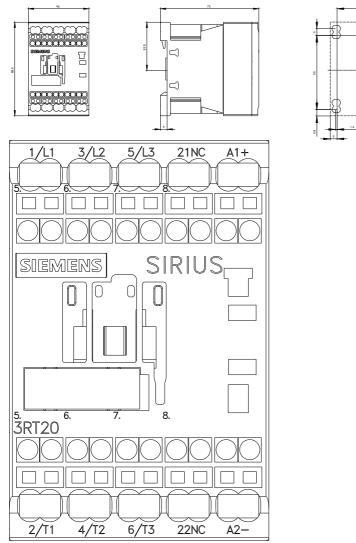
Industry Mall (Online ordering system) http://www.siemens.com/industrymall

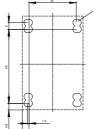
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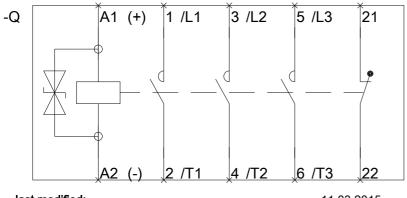
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Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT20152KA42&lang=en_____







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