SIEMENS

Data sheet

3RT2516-1AD00

Power contactor, AC-3 9 A, 4 kW / 400 V 2 NO + 2 NC 42 V AC, 50 Hz 4-pole Size S00 screw terminals



Product brand name	SIRIUS
Product designation	contactor
Product type designation	3RT25
General technical data	
Size of contactor	S00

Size of contactor	500
Product extension	
 function module for communication 	No
Auxiliary switch	Yes
Surge voltage resistance	
 of main circuit rated value 	6 kV
 of auxiliary circuit rated value 	6 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 	400 V
60947-1	
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance at rectangular impulse	
• at AC	6,7g / 5 ms, 4,2g / 10 ms

Installation altitude at height above sea level 2000 m Ambient temperature 2000 m • during operation -25 +60 °C • during storage -55 +80 °C Main circuit 4 Number of poles for main current circuit 4 Number of NO contacts for main contacts 2 Operating current 4 • at AC-1 2 - up to 690 V at ambient temperature 40 °C 18 A - at AC-3 16 A - up to 690 V at ambient temperature 60 °C 16 A - up to 690 V at ambient temperature 60 °C 16 A - per NC contact rated value 9 A - at 40 °C minimum permissible 2.5 mm² Operating current 2.5 mm² • at 0 °C minimum permissible 2.5 mm² • at 20 V rated value 20 A - at 22 V rated value 0.8 A - at 440 V rated value 0.8 A - at 440 V rated value 0.6 A	Shock resistance with sine pulse	
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Number of poles for main current circuit4Number of NC contacts for main contacts2Number of NC contacts for main contacts2Operating current • at AC-1 — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 60 °C rated value18 A• at AC-2 at AC-3 at 400 V — per NC contact rated value9 A• at AC-1 — up to 600 Contact rated value9 A• at AC-2 at AC-3 at 400 V — per NC contact rated value9 A• at AC-1 • at 60 °C minimum permissible2.5 mm²• at 40 °C minimum permissible2.5 mm²• at 1 current path at DC-1 — at 24 V rated value20 A• at 110 V rated value0.8 A• at 400 V rated value0.6 A	Main circuit	
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	• at AC-2 at AC-3 at 400 V	
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- at 220 V rated value 0.8 A - at 440 V rated value 0.6 A • with 2 current paths in series at DC-1	— at 24 V rated value	20 A
 at 440 V rated value with 2 current paths in series at DC-1 	— at 110 V rated value	2.1 A
• with 2 current paths in series at DC-1	— at 220 V rated value	0.8 A
	— at 440 V rated value	0.6 A
	 with 2 current paths in series at DC-1 	
- at 24 V rated value 20 A	— at 24 V rated value	20 A
— at 110 V rated value 12 A	— at 110 V rated value	12 A
— at 220 V rated value 1.6 A	— at 220 V rated value	1.6 A

— at 440 V rated value	0.8 A
Operating current	-
• at 1 current path at DC-3 at DC-5	
- at 24 V per NC contact rated value	16 A
— at 24 V per NO contact rated value	16 A
— at 110 V per NC contact rated value	0.075 A
— at 110 V per NO contact rated value	0.15 A
·	0.375 A
— at 220 V per NC contact rated value	0.75 A
— at 220 V per NO contact rated value	0.73 A
• with 2 current paths in series at DC-3 at DC-5	16 A
— at 24 V per NC contact rated value	
— at 24 V per NO contact rated value	16 A
— at 110 V per NC contact rated value	0.175 A
— at 110 V per NO contact rated value	0.35 A
Operating power	
• at AC-1	C E INN
— at 230 V rated value	6.5 kW
— at 400 V rated value	11 kW
• at AC-2 at AC-3	2.2.11/1/
— at 230 V per NC contact rated value	2.2 kW
— at 230 V per NO contact rated value	2.2 kW
— at 400 V per NC contact rated value	4 kW
— at 400 V per NO contact rated value	4 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.7 W
No-load switching frequency	
• at AC	10 000 1/h
● at DC	10 000 1/h
Operating frequency	
• at AC-1 maximum	1 000 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	42 V
• at 60 Hz rated value	42 V
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 1.1
• at 60 Hz	0.85 1.1
Apparent pick-up power of magnet coil at AC	27 V·A
● at 50 Hz	27 V·A
● at 60 Hz	24.3 V·A

Inductive power factor with closing power of the coil	0.8
• at 50 Hz	0.8
• at 60 Hz	0.75
Apparent holding power of magnet coil at AC	4.2 V·A
● at 50 Hz	4.2 V·A
• at 60 Hz	3.3 V·A
Inductive power factor with the holding power of the coil	0.25
• at 50 Hz	0.25
• at 60 Hz	0.25
Closing delay	
• at AC	9 35 ms
Opening delay	
• at AC	3.5 14 ms
Arcing time	10 15 ms
Residual current of the electronics for control with signal <0>	
• at AC at 230 V maximum permissible	0.003 A
Auxiliary circuit	
Number of NC contacts for auxiliary contacts	
 instantaneous contact 	0
Number of NO contacts for auxiliary contacts	
 instantaneous contact 	0
Operating current at AC-12 maximum	10 A
Operating current at AC-15	
• at 230 V rated value	10 A
• at 400 V rated value	3 A
Operating current at DC-12	
• at 48 V rated value	6 A
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 125 V rated value	2 A
• at 220 V rated value	1 A
• at 600 V rated value	0.15 A
Operating current at DC-13	
• at 24 V rated value	10 A
• at 48 V rated value	2 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
• at 600 V rated value	0.1 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings				
Yielded mechanical performance [hp]				
 for single-phase AC motor 				
— at 110/120 V rated value	0.33 hp			
— at 230 V rated value	1 hp			
Contact rating of auxiliary contacts according to UL	A600 / Q600			
Short-circuit protection				
Design of the fuse link				
 for short-circuit protection of the main circuit 				
— with type of coordination 1 required	gG: 35 A (690 V, 100 kA)			
— with type of assignment 2 required	gG: 20A (690V, 100kA)			
 for short-circuit protection of the auxiliary switch 	fuse gG: 10 A			
required				
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	57.5 mm			
Width	45 mm			
Depth	73 mm			
Required spacing				
 with side-by-side mounting 				
— forwards	0 mm			
— Backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
— at the side	0 mm			
 for grounded parts 				
— forwards	0 mm			
— Backwards	0 mm			
— upwards	0 mm			
— at the side	6 mm			
— downwards	0 mm			
• for live parts				
— forwards	0 mm			
— Backwards	0 mm			
— upwards	0 mm			
— downwards	0 mm			
dominaldo				

— at the side	6 mm		
Connections/Terminals			
Type of electrical connection			
 for main current circuit 	screw-type terminals		
 for auxiliary and control current circuit 	screw-type terminals		
Type of connectable conductor cross-sections			
 for main contacts 			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²		
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²		
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 at AWG conductors for main contacts 	2x (20 16), 2x (18 14), 2x 12		
Type of connectable conductor cross-sections			
 for auxiliary contacts 			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²		
— single or multi-stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²		
- finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 at AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14), 2x 12		
AWG number as coded connectable conductor cross	20 12		
section for main contacts			
Safety related data			
Product function			
 Mirror contact acc. to IEC 60947-4-1 	Yes; with 3RH29		
 positively driven operation acc. to IEC 60947-5- 1 	No		
T1 value for proof test interval or service life acc. to IEC 61508	20 у		
Protection against electrical shock	finger-safe		
Certificates/approvals			

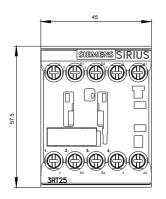
General Produc	t Approval			Functional Safety/Safety of Machinery	Declaration of Conformity
	CSA		EHC	Type Examination	EG-Konf.
Test Certific- ates	Marine / Ship	oping			
Type Test Certific- ates/Test Report	ABS	B U R E A U VERITAS	GL	Lloyd's Register LRS	PRS
Marine / Shipping other					
RINA	RMRS	DNV-GL	Confirmation	VDE	
⁻ urther information					
Information- and Downloadcenter (Catalogs, Brochures,) http://www.siemens.com/industrial-controls/catalogs					
Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT2516-1AD00					
Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2516-1AD00					

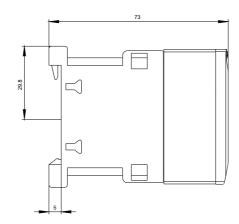
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT2516-1AD00

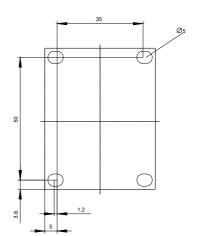
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2516-1AD00&lang=en

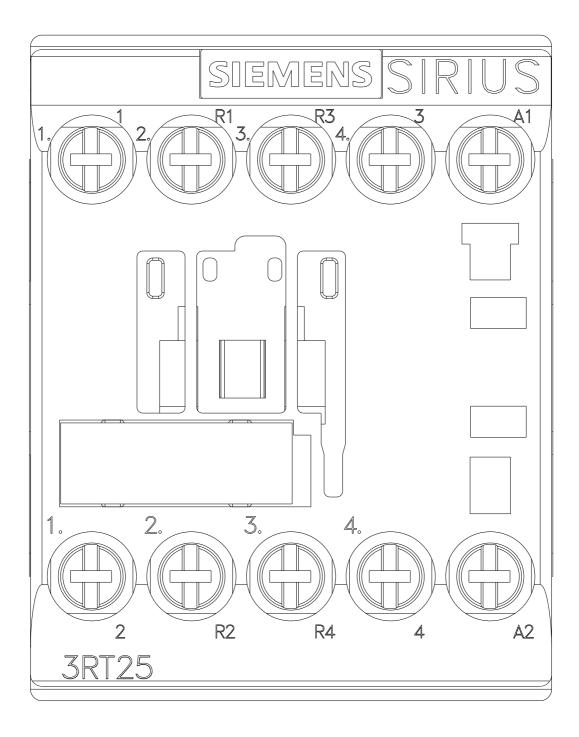
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT2516-1AD00/char

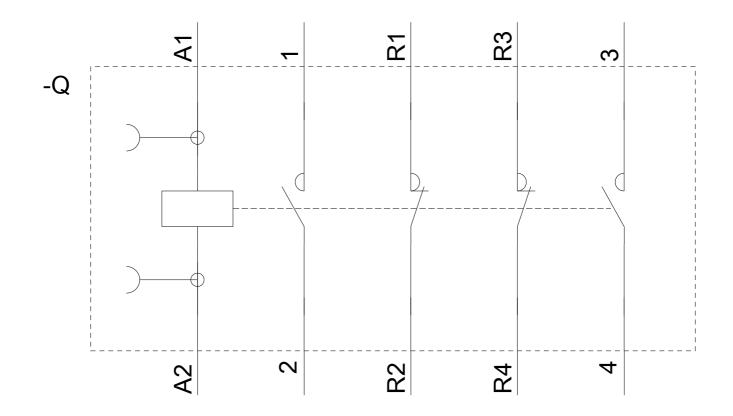
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2516-1AD00&objecttype=14&gridview=view1











last modified:

09/21/2018