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Data sheet 3RT1025-1AF00

CONTACTOR, AC-3 7.5 KW/400 V, AC 110 V, 50 HZ, 3-POLE, SIZE S0, SCREW CONNECTION

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
Size of contactor	S0
Degree of pollution	3
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Mechanical service life (switching cycles)	
• of contactor typical	10 000 000
• of the contactor with added electronics-compatible auxiliary switch block typical	5 000 000
• of the contactor with added auxiliary switch block typical	10 000 000

Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C

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Main circuit:	
Number of NO contacts for main contacts	3
Number of NC contacts for main contacts	0
Operating current	
• at AC-1 at 400 V	
— at ambient temperature 40 °C rated value	40 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	40 A
— at ambient temperature 60 °C rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	4.5 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	20 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	15 A
— at 24 V rated value	35 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	35 A
— at 24 V rated value	35 A
Operating power	
• at AC-1	
— at 400 V rated value	23 kW
• at AC-2 at 400 V rated value	7.5 kW
• at AC-3	
— at 400 V rated value	7.5 kW
— at 500 V rated value	10 kW
— at 690 V rated value	11 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.9 W

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Control circuit/ Control:	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	110 V
• rated value	50 Hz
Operating range factor control supply voltage rated value of magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
Apparent pick-up power of magnet coil at AC	61 V·A
Inductive power factor with closing power of the coil	0.82
Apparent holding power of magnet coil at AC	7.8 V·A
Inductive power factor with the holding power of the coil	0.24

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	6 A
• at 400 V rated value	3 A
Operating current at DC-12	
• at 60 V rated value	6 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
Operating current at DC-13	
• at 24 V rated value	10 A
• at 60 V rated value	2 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
Contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)

Short-circuit protection	
Design of the fuse link	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 63 A
— with type of assignment 2 required	fuse gL/gG: 25 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

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Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting	Yes
Height	85 mm
Width	45 mm
Depth	91 mm
Required spacing	
• for grounded parts	
— 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 (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), max. 2x 10 mm²
— single or multi-stranded	2x (1 ... 2,5 mm²), 2x (2,5 ... 6 mm²), max. 2x 10 mm²
— finely stranded with core end processing	2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²)
• at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 10), 1x 8
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 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), 1x 12

Certificates/approvals

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General Product Approval				Declaration of Conformity	Test Certificates
CCC	CSA	UL	EAC	EG-Konf.	Typprüfbescheinigung/Werkszeugnis

Test Certificates	Shipping Approval				
spezielle Prüfbescheinigungen	ABS	DNV	GL	LRS	RINA

Shipping Approval	other			
RMRS	Bestätigungen	sonstig	Umweltbestätigung	

Further 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=3RT10251AF00

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10251AF00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT10251AF00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10251AF00&lang=en

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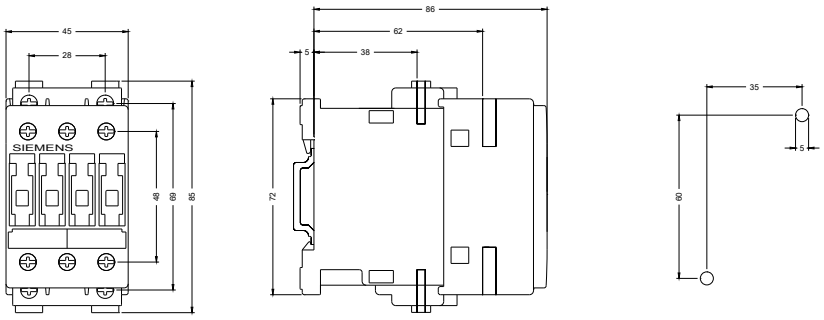

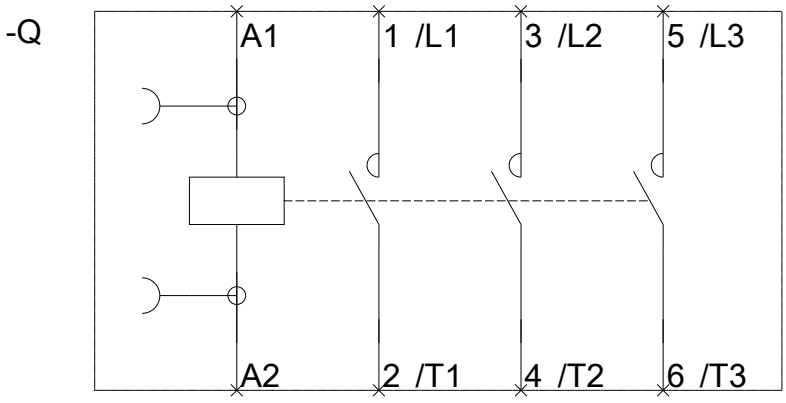

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