SIEMENS

Data sheet 3RT1024-1AP00

Power contactor, AC-3 12 A, 5.5 kW / 400 V 230 V AC, 50 Hz 3-pole, Size S0 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2024-1AP00<<



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	IP00
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
Reference code acc. to DIN EN 81346-2	Q
Ambient conditions	

Installation altitude at height above sea level

• maximum	2 000 m
Ambient temperature	
• during operation	-25 +60 °C
Main circuit	
Number of poles for main current circuit	3
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
 up to 690 V at ambient temperature 60 °C rated value 	35 A
• at AC-3	
— at 400 V rated value	12 A
• at AC-4 at 400 V rated value	12.5 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 24 V rated value	35 A
— at 110 V rated value	15 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 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	5.5 kW
• at AC-3	
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	0.5 W

Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
Control supply voltage frequency	
• 1 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)

Design of the fuse link

• for short-circuit protection of the main circuit

— with type of coordination 1 required

— with type of assignment 2 required

• for short-circuit protection of the auxiliary switch required

fuse gL/gG: 63 A

fuse gL/gG: 25 A

fuse gL/gG: 10 A

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

General Product Approval

EMC

Functional Safety/Safety of Machinery











Type Examination Certificate

Declaration of Conformity

Test Certificates

Marine / Shipping



Miscellaneous

Special Test Certificate

Type Test Certificates/Test Report





LRS

Railway

Marine / Shipping

other

Special Test Certificate







Confirmation

Miscellaneous

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1024-1AP00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1024-1AP00

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

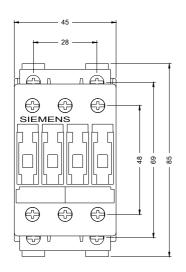
https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-1AP00

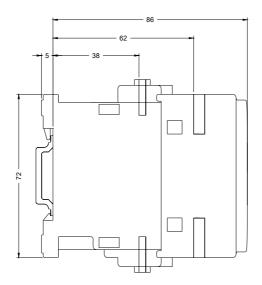
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1024-1AP00&lang=en

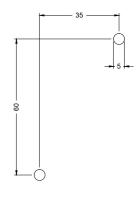
Characteristic: Tripping characteristics, I2t, Let-through current

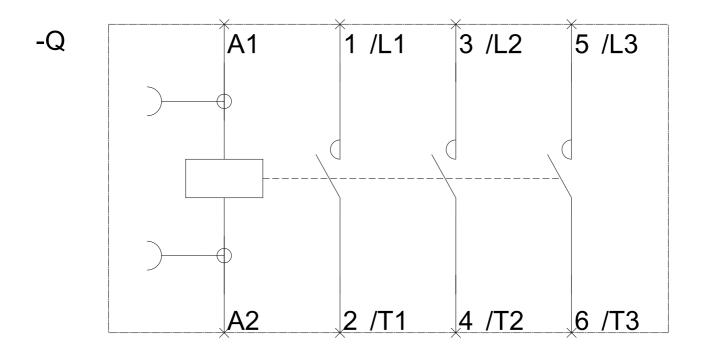
https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-1AP00/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1024-1AP00&objecttype=14&gridview=view1









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