SIEMENS

Data sheet 3RT1446-6BB46



CONTACTOR AC-1, 140 A/400 V, 24 V DC, 3-POLE, SIZE S3, SCREW TERMINAL, WITHOUT BOX TERMINALS LATERAL AUX. SWITCH BLOCK L+ R 2 NO + 2 NC.

Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
S3	
1 000 V	
6 kV	
IP00	
IP00	
3	
10 000 000	
5 000 000	
10 000 000	

Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
 during operation 	-25 +60 °C
during storage	-55 +80 °C

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 	140 A
● at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	140 A
— at ambient temperature 60 °C Rated value	130 A
• at AC-3	
— at 400 V Rated value	44 A
— at 690 V Rated value	44 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	35 mm²
• at 40 °C minimum permissible	50 mm ²
Operating current	
with 1 current path at DC-1	
— at 24 V Rated value	130 A
— at 110 V Rated value	12 A
 with 2 current paths in series at DC-1 	
— at 24 V Rated value	130 A
— at 110 V Rated value	130 A
 with 3 current paths in series at DC-1 	
— at 24 V Rated value	130 A
— at 110 V Rated value	130 A
Operating current	
with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	6 A
— at 110 V Rated value	1.25 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	130 A
— at 24 V Rated value	130 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	130 A
— at 24 V Rated value	130 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	50 kW
— at 400 V Rated value	86 kW
— at 690 V Rated value	148 kW
— at 690 V at 60 °C Rated value	148 kW
• at AC-2 at 400 V Rated value	22 kW
• at AC-3	

— at 230 V Rated value	12.7 kW
— at 400 V Rated value	22 kW
— at 500 V Rated value	29.9 kW
— at 690 V Rated value	38.2 kW
Thermal short-time current restricted to 10 s	600 A
Active power loss at AC-3 at 400 V for rated value of	12.5 W
the operating current per conductor	
No-load switching frequency	
• for DC	1 000 1/h
Operating frequency	
• at AC-1 maximum	650 1/h

Control circuit/ Control:	
Type of voltage of the control supply voltage	DC
Control supply voltage for DC	
Rated value	24 V
Operating range factor control supply voltage rated	0.8 1.1
value of the magnet coil for DC	
Closing power of the magnet coil for DC	15 W
Holding power of the magnet coil for DC	15 W
Closing delay	
• for DC	90 230 ms
Arcing time	10 15 ms

Auxiliary circuit:	
Number of NC contacts	
• for auxiliary contacts	
 instantaneous contact 	2
Number of NO contacts	
• for auxiliary contacts	
 instantaneous contact 	2
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 the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
UL/CSA ratings:	
Contact rating of the auxiliary contacts acc. to UL	A600 / Q600
Short-circuit:	
Design of the fuse link	
• for short-circuit protection of the main circuit	
 — with type of assignment 1 required 	fuse gL/gG: 250 A
 — with type of assignment 2 required 	fuse gL/gG: 250 A
• for short-circuit protection of the auxiliary switch	fuse gL/gG: 10 A
required	
Installation/ mounting/ dimensions:	
Mounting type	screw and snap-on mounting onto 35 mm and 75 mm standard
	mounting rail
 Side-by-side mounting 	Yes
Height	146 mm
Width	90 mm
Depth	152 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-section	
 for AWG conductors for main contacts 	7 1/0
Type of connectable conductor cross-section	
 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)
 for AWG conductors for auxiliary contacts 	2x (20 16), 2x (18 14), 1x 12

General Product Approval

Functional Safety/Safety of Machinery Declaration of Conformity









Type Examination



Test	Shipping Approval	other
Certificates		

Special Test Certificate





 GL





Confirmation

other

Environmental Confirmations

other

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

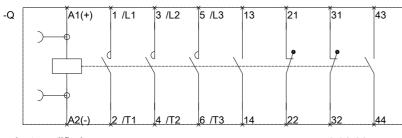
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT14466BB46

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT14466BB46&lang=en



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