SIEMENS

Data sheet 3RT1456-6AP36

Figure similar

CONTACTOR, 275A/AC-1, AC(40...60HZ)/DC OPERATION UC 220...240V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6 BAR CONNECTIONS CONVENT. OPERATING MECHANISM

product brand name	SIRIUS
Product designation	power contactor

General technical data:

Size of contactor	S6
Insulation voltage	
• Rated value	1 000 V
Surge voltage resistance Rated value	8 kV
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Degree of pollution	3
Mechanical service life (switching cycles)	
• of the 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
• 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	275 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	275 A
— at ambient temperature 60 °C Rated value	250 A
• at AC-3	
— at 400 V Rated value	97 A
— at 690 V Rated value	97 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	95 mm²
• at 40 °C minimum permissible	95 mm²
Operating current	
• with 1 current path at DC-1	
— at 24 V Rated value	250 A
— at 110 V Rated value	18 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	250 A
— at 110 V Rated value	250 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	250 A
— at 110 V Rated value	250 A
Operating current	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	250 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	250 A
— at 24 V Rated value	250 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	250 A
— at 24 V Rated value	250 A
Operating power	
• at AC-1	
— at 230 V at 60 °C Rated value	95 kW
— at 400 V Rated value	165 kW
— at 690 V Rated value	285 kW
— at 690 V at 60 °C Rated value	285 kW
• at AC-2 at 400 V Rated value	55 kW
• at AC-3	

— at 230 V Rated value	30 kW
— at 400 V Rated value	55 kW
— at 500 V Rated value	55 kW
— at 690 V Rated value	90 kW
Thermal short-time current restricted to 10 s	1 480 A
Active power loss at AC-3 at 400 V for rated value of the operating current per conductor	20 W
No-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
Operating frequency	
• at AC-1 maximum	800 1/h

Control circuit/ Control:	
Type of voltage of the control supply voltage	AC/DC
Control supply voltage at AC	
• at 50 Hz Rated value	220 ... 240 V
• at 60 Hz Rated value	220 ... 240 V
Control supply voltage at DC	
• Rated value	220 ... 240 V
• Rated value	40 Hz
Control supply voltage frequency 2 Rated value	60 Hz
Operating range factor control supply voltage rated value of the magnet coil at AC	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.8 ... 1.1
Operating range factor control supply voltage rated value of the magnet coil at DC	0.8 ... 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of the magnet coil at AC	300 V·A
Inductive power factor with closing power of the coil	0.9
Apparent holding power of the magnet coil at AC	5.8 V·A
Inductive power factor with the holding power of the coil	0.8
Closing power of the magnet coil at DC	360 W
Holding power of the magnet coil for DC	5.2 W
Closing delay	
• at AC	20 ... 95 ms
• at DC	20 ... 95 ms
Opening delay	
• at AC	40 ... 60 ms
• at DC	40 ... 60 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

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: 355 A
— with type of assignment 2 required	fuse gL/gG: 350 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

Installation/ mounting/ dimensions:	
Mounting type	screw fixing
• Side-by-side mounting	Yes
Height	172 mm
Width	120 mm
Depth	170 mm
Required spacing	
• for grounded parts	
— at the side	10 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	4 ... 250 kcmil
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

Certificates/ approvals:

General Product Approval				Functional Safety/Safety of Machinery	Declaration of Conformity
CCC	CSA	EAC	UL	Baumusterbescheinigung	EG-Konf.

Test Certificates	Shipping Approval				other
spezielle Prüfbescheinigungen	ABS	DNV	GL	RMRS	Umweltbestätigung

other	
sonstig	Bestätigungen

Further information

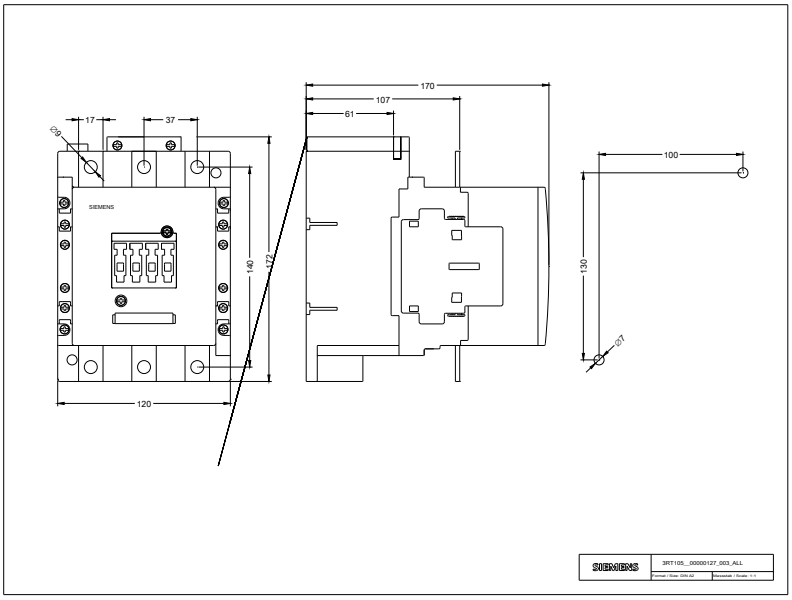
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

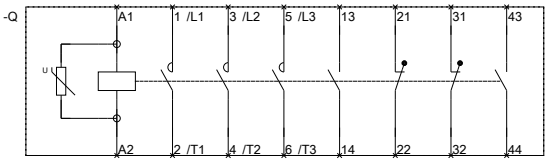
Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT14566AP36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT14566AP36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT14566AP36&lang=en





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