SIEMENS

Data sheet

3RT1456-6AF36-Z X95



CONTACTOR, 275A/AC-1, AC(40...60HZ)/DC OPERATION UC 110...127V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6 BAR CONNECTIONS CONVENT. OPERATING MECHANISM REUSABLE PACKAGING 1 PACK = 9 UNITS

product brand name	SIRIUS
Product designation	power contactor
General technical data	
Size of contactor	\$6
Insulation voltage	
• rated value	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 60947-1 	690 V
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Shock resistance	
at rectangular impulse	
— at AC	8,5g / 5 ms, 4,2g / 10 ms
— at DC	8,5g / 5 ms, 4,2g / 10 ms
• with sine pulse	

— at AC	13,4g / 5 ms, 6,5g / 10 ms
— at DC	13,4g / 5 ms, 6,5g / 10 ms
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	2 000 m
maximum	
Ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °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 	275 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	275 A
— up to 690 V at ambient temperature 60 °C rated value	250 A
— up to 1000 V at ambient temperature 40 °C rated value	100 A
— up to 1000 V at ambient temperature 60 °C rated value	100 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	
• at 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	
• at 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 1000 V at 60 °C rated value	165 W
● 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 limited to 10 s	1 480 A
Power loss [W] at AC-3 at 400 V for rated value of	20 W
the operating current per conductor	
No-load switching frequency	0.000.4/
• at AC	2 000 1/h
• at DC	2 000 1/h
Operating frequency	900 1/h
• 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	110 127 V
 at 60 Hz rated value 	110 127 V

Control supply voltage at DC	
rated value	110 127 V
Control supply voltage frequency 1 rated value	50 Hz
Control supply voltage frequency 2 rated value	60 Hz
Operating range factor control supply voltage rated	
value of 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 magnet coil at DC	0.8 1.1
Design of the surge suppressor	with varistor
Apparent pick-up power of magnet coil at AC	300 V·A
Inductive power factor with closing power of the coil	0.9
Apparent holding power of magnet coil at AC	5.8 V·A
Inductive power factor with the holding power of the coil	0.8
Closing power of magnet coil at DC	360 W
Holding power of magnet coil at 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 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
 - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 355 A

fuse gR: 350 A

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-sections

at AWG conductors for main contacts

4 ... 250 kcmil

Type of connectable conductor cross-sections

• for auxiliary contacts

— solid

- finely stranded with core end processing

• at AWG conductors for auxiliary contacts

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)

2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)

2x (20 ... 16), 2x (18 ... 14), 1x 12

Certificates/approvals

General Product Approval

Declaration of Conformity

Test Certificates Shipping Approval









spezielle Prüfbescheinigunge n



Shipping Approval

other

GL®



Bestätigungen

Umweltbestätigung

sonstig

Further information

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

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

Industry Mall (Online ordering system)

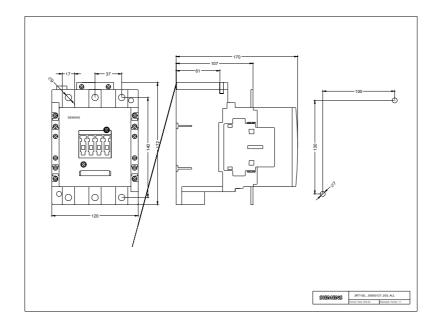
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1456-6AF36-Z X95

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1456-6AF36-Z X95

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RT1456-6AF36-Z X95

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1456-6AF36-Z X95&lang=en





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