SIEMENS

Show actual product details

Data sheet 3RT1476-6AF36

CONTACTOR, 690A/AC-1 AC(40...60HZ)/DC OPERATION UC 110-127V AUXILIARY CONTACTS 2NO+2NC 3-POLE, SIZE S12 BAR CONNECTIONS CONVENT. OPERATING MECHANISM

Figure similar

product brandname	SIRIUS
Product designation	power contactor

General technical data	
Size of contactor	S12
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 maximum	2 000 m
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	690 A
• at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	690 A
— up to 690 V at ambient temperature 60 °C rated value	650 A
— up to 1000 V at ambient temperature 40 °C rated value	250 A
— up to 1000 V at ambient temperature 60 °C rated value	250 A
• at AC-3	
— at 400 V rated value	170 A
— at 690 V rated value	170 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	370 mm²
• at 40 °C minimum permissible	370 mm²
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	500 A

— at 110 V rated value	33 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	500 A
— at 110 V rated value	500 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	500 A
— at 110 V rated value	500 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	500 A
— at 110 V rated value	3 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	500 A
— at 24 V rated value	500 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	500 A
— at 24 V rated value	500 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	245 kW
— at 400 V rated value	430 kW
— at 690 V rated value	740 kW
— at 690 V at 60 °C rated value	740 kW
— at 1000 V at 60 °C rated value	410 W
• at AC-2 at 400 V rated value	90 kW
• **at AC-3**	
— at 230 V rated value	160 kW
— at 400 V rated value	90 kW
— at 500 V rated value	110 kW
— at 690 V rated value	160 kW
Thermal short-time current limited to 10 s	4 000 A
Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor	55 W
No-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
Operating frequency	
• at AC-1 maximum	700 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	830 V·A
Inductive power factor with closing power of the coil	0.9
Apparent holding power of magnet coil at AC	9.2 V·A
Inductive power factor with the holding power of the coil	0.9
Closing power of magnet coil at DC	920 W
Holding power of magnet coil at DC	10 W
Closing delay	
• at AC	45 ... 100 ms
• at DC	45 ... 100 ms
Opening delay	
• at AC	60 ... 100 ms
• at DC	60 ... 100 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	fuse gL/gG: 800 A
— with type of assignment 2 required	fuse gR: 710 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	214 mm
Width	160 mm
Depth	225 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	2/0 ... 500 kcmil
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				Declaration of Conformity	Test Certificates
CCC	CSA	UL	EAC	EG-Konf.	spezielle Prüfbescheinigungen

Test Certificates	Shipping Approval				other
sonstig	ABS	DNV	GL	RMRS	Bestätigungen

other	
sonstig	Umweltbestätigung

Further information

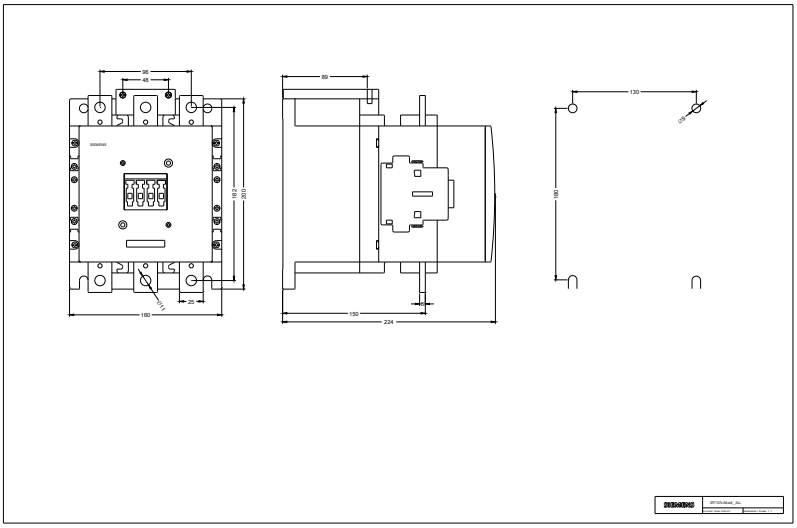
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

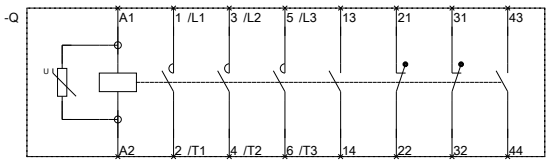
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1476-6AF36

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1476-6AF36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AF36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1476-6AF36&lang=en





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