SIEMENS

Data sheet 3RT1481-6AF36

power contactor AC-1 900 A / 690 V / 40 °C 3-pole, Uc: 110-127 V AC(50-60 Hz) / 100-110 V DC, drive: conventional auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

product brand name	SIRIUS
product designation	Contactor
product type designation	3RT14
General technical data	
product extension	
● function module for communication	No
● auxiliary switch	Yes
power loss [W] for rated value of the current	
● at AC in hot operating state	300 W
● at AC in hot operating state per pole	100 W
● without load current share typical	6 W
type of calculation of power loss depending on pole	quadratic
insulation voltage	
● of main circuit with degree of pollution 3 rated value	1 000 V
● of auxiliary circuit with degree of pollution 3 rated value	600 V
surge voltage resistance	
● of main circuit rated value	8 kV
● of auxiliary circuit rated value	6 kV
shock resistance with sine pulse	
● at AC	8g / 11 ms
● at DC	8g / 11 ms
mechanical service life (operating cycles)	
● of contactor typical	1 000 000
Substance Prohibitance (Date)	03/27/2020
SVHC substance name	Lead - 7439-92-1
Weight	23.1 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	-25 ... +55 °C
● during storage	-40 ... +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %
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
type of voltage for main current circuit	AC
operational current	

● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	900 A
— up to 690 V at ambient temperature 55 °C rated value	900 A
— up to 1000 V at ambient temperature 40 °C rated value	900 A
— up to 1000 V at ambient temperature 55 °C rated value	900 A
minimum cross-section in main circuit at maximum AC-1 rated value	600 mm²
no-load switching frequency	
● at AC	600 1/h
● at DC	600 1/h
operating frequency at AC-1 maximum	600 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	100 ... 127 V
● at 60 Hz rated value	100 ... 127 V
control supply voltage at DC rated value	100 ... 110 V
operating range factor control supply voltage rated value of magnet coil at DC	
● initial value	0.85
● full-scale value	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.85 ... 1.1
● at 60 Hz	0.85 ... 1.1
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
● at 50 Hz	1 000 VA
● at 60 Hz	1 000 VA
apparent holding power of magnet coil at AC	
● at 50 Hz	18 VA
● at 60 Hz	18 VA
closing power of magnet coil at DC	1 400 W
holding power of magnet coil at DC	6 W
closing delay	
● at AC	80 ms
● at DC	80 ms
opening delay	
● at AC	70 ms
● at DC	70 ms
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
● attachable	4
● instantaneous contact	2
number of NO contacts for auxiliary contacts	2
● attachable	4
● instantaneous contact	2
operational current at AC-12 maximum	16 A
operational current at AC-15	
● at 230 V rated value	3 A
● at 400 V rated value	1.5 A
● at 500 V rated value	1.4 A
operational current at DC-13	
● at 48 V rated value	2 A
● at 60 V rated value	2 A
● at 110 V rated value	1 A
● at 125 V rated value	0.55 A
● at 220 V rated value	0.27 A

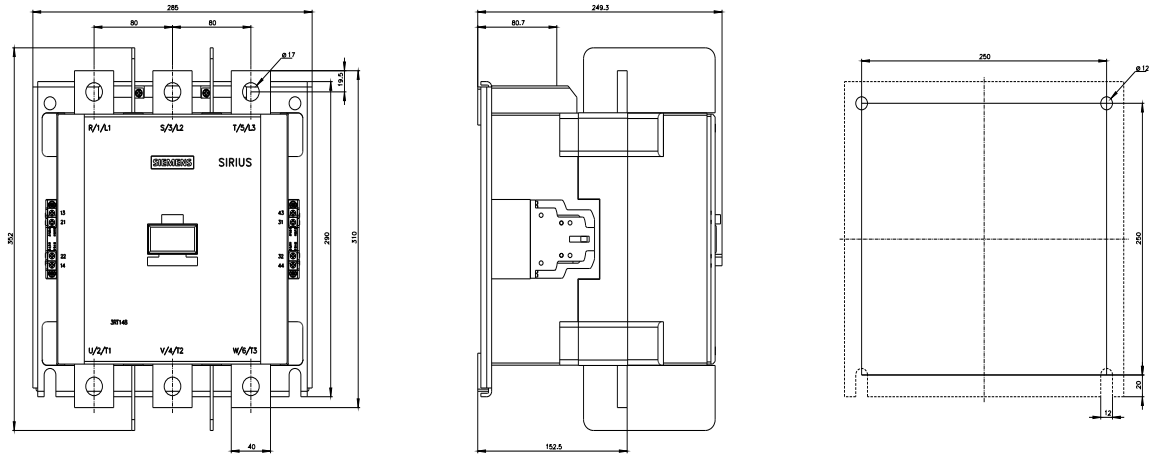
● at 600 V rated value	0.1 A
Short-circuit protection	
design of the fuse link	
● for short-circuit protection of the main circuit	
— with type of coordination 2 required	aR: 1000 A (1000 V, 30 kA)
● for short-circuit protection of the auxiliary switch required	gG: 16 A (600 V, 1 kA)
Installation/ mounting/ dimensions	
mounting position	+/-30° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 30° on vertical mounting surface
fastening method side-by-side mounting	No
fastening method	screw fixing
height	352 mm
width	285 mm
depth	250 mm
required spacing	
● for grounded parts	
— forwards	125 mm
— at the side	75 mm
net weight	22 kg
Connections/ Terminals	
type of electrical connection	
● for main current circuit	busbar connection
● for auxiliary and control circuit	screw-type terminals
● at contactor for auxiliary contacts	Screw-type terminals
● of magnet coil	Screw-type terminals
width of connection bar	40 mm
thickness of connection bar	10 mm
diameter of holes	17 mm
connectable conductor cross-section for auxiliary contacts	
● solid or stranded	1 ... 2.5 mm²
● finely stranded with core end processing	1 ... 2.5 mm²
type of connectable conductor cross-sections	
● for auxiliary contacts	
— solid	2x (1 ... 2,5 mm²)
— solid or stranded	2x (1 ... 2.5 mm²)
— finely stranded with core end processing	2x (1 ... 2,5 mm²)
● for AWG cables for auxiliary contacts	2x (16 ... 14)
AWG number as coded connectable conductor cross section for auxiliary contacts	16 ... 14
Safety related data	
product function	
● mirror contact according to IEC 60947-4-1	Yes
● positively driven operation according to IEC 60947-5-1	No
suitability for use safety-related switching OFF	No
service life maximum	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP00
Approvals Certificates	

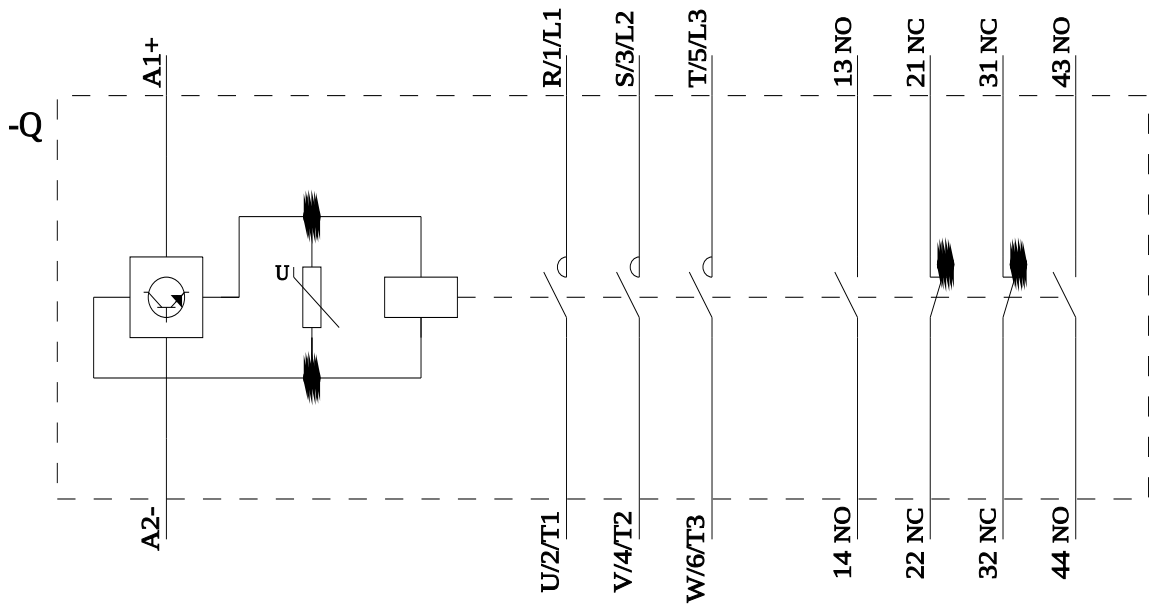
General Product Approval					EMV
CCC	EG-Konf.	UKCA	UL	EAC	RCM

other			Railway	Environment
产品合格 QC PASS	Confirmation	Miscellaneous	Special Test Certific-ate	Environmental Con-firmations

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1481-6AF36
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1481-6AF36
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RT1481-6AF36
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1481-6AF36&lang=en
Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RT1481-6AF36/char
Further characteristics (e.g. electrical endurance, switching frequency)
https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1481-6AF36&objecttype=14&gridview=view1





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