SIEMENS

Data sheet

3RT1476-6AR36



power contactor AC-1 690 A / 690 V / 40 $^\circ$ C 3-pole, Uc: 440-480 V AC(50-60 Hz) / DC drive: conventional auxiliary contacts 2 NO + 2 NC main circuit: busbar control and auxiliary circuit: screw terminal

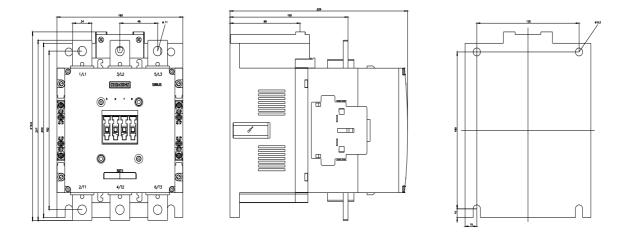
product brand name	SIRIUS
product designation	Contactor
product type designation	3RT14
General technical data	
size of contactor	S12
product extension	
 function module for communication 	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	185.7 W
 at AC in hot operating state per pole 	61.9 W
 without load current share typical 	10 W
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 	500 V
surge voltage resistance	
 of main circuit rated value 	8 kV
 of auxiliary circuit rated value 	6 kV
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
shock resistance 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 (operating cycles)	
 of contactor typical 	10 000 000
 of the contactor with added electronically optimized auxiliary switch block typical 	5 000 000
of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
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
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

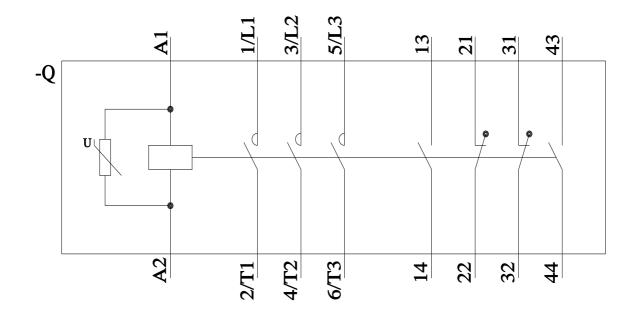
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0
type of voltage for main current circuit	AC
operational current	
• at AC-1	
 up to 690 V at ambient temperature 40 °C rated value 	690 A
— up to 690 V at ambient temperature 55 °C rated value	650 A
— up to 690 V at ambient temperature 60 °C rated value	650 A
• at AC-3	
— at 400 V rated value	170 A
— at 690 V rated value	170 A
minimum cross-section in main circuit at maximum AC-1 rated value	480 mm²
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency at AC-1 maximum	600 1/h
Control circuit/ Control	
type of voltage	AC/DC
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
• at 50 Hz rated value	440 480 V
• at 60 Hz rated value	440 480 V
control supply voltage at DC	
rated value	440 480 V
operating range factor control supply voltage rated value of magnet coil at DC	
● initial value	0.8
• full-scale value	1.1
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
design of the surge suppressor	with varistor
apparent pick-up power of magnet coil at AC	
• at 50 Hz	830 VA
inductive power factor with closing power of the coil	
• at 50 Hz	0.9
apparent holding power of magnet coil at AC	
• at 50 Hz	9.2 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.9
closing power of magnet coil at DC	920 W
holding power of magnet coil at DC	10 W
closing delay	15 100
• 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
control version of the switch operating mechanism	Standard A1 - A2
Auxiliary circuit	0
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	10 A			
operational current at AC-15				
 at 230 V rated value 	6 A			
• at 400 V rated value	3 A			
• at 500 V rated value	2 A			
• at 690 V rated value	1 A			
operational current at DC-13				
 at 24 V rated value 	10 A			
 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 	0.9 A			
at 220 V rated value	0.3 A			
at 600 V rated value	0.1 A			
design of the miniature circuit breaker for short-circuit protection of the auxiliary switch required	gG: 10 A (230 V, 400 A)			
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)			
Short-circuit protection				
product function short circuit protection	No			
design of the fuse link				
 for short-circuit protection of the main circuit 				
- with type of coordination 1 required	gG: 800 A (690 V, 50 kA)			
— with type of assignment 2 required	gR: 710 A (690 V, 100 kA)			
• for short-circuit protection of the auxiliary switch required	gG: 10 A (500 V, 1 kA)			
Installation/ mounting/ dimensions				
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back			
fastening method	screw fixing			
 side-by-side mounting 	Yes			
height	214 mm			
width	160 mm			
depth	225 mm			
required spacing				
 with side-by-side mounting 				
— forwards	20 mm			
— upwards	10 mm			
— downwards	10 mm			
— at the side	0 mm			
 for grounded parts 				
— forwards	20 mm			
— upwards	10 mm			
— at the side	10 mm			
— downwards	10 mm			
• for live parts				
— forwards	20 mm			
— upwards	10 mm			
— downwards	10 mm			
- at the side	10 mm			
Connections/ Terminals				
type of electrical connection for main current circuit 	Connection bar			
 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	25 mm			
thickness of connection bar	6 mm			
diameter of holes	11 mm			
number of holes	1			
connectable conductor cross-section for main contacts				
• solid or stranded	70 240 mm²			
• stranded	70 240 mm²			

	or cross-section for auxi	-	4				
• solid or stranded			0.5 4 mm ²				
	ith core end processing		2.5 mm²				
	onductor cross-sections	;					
 for auxiliary containing 	acts						
— solid			2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)				
	— solid or stranded			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 cables for auxiliary contacts 			2x (20 16), 2x (18 14), 1x 12				
Safety related data							
product function							
 mirror contact according to IEC 60947-4-1 							
 positively driven 	 positively driven operation according to IEC 60947-5-1 			No			
protection class IP on the front according to IEC 60529			IP00; IP20 with box terminal/cover				
touch protection on th	e front according to IEC	60529 finge	r-safe, for vertical contact	t from the front with box te	rminal/cover		
Certificates/ approvals							
General Product App	roval				EMC		
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Service&Support (Manuals, Certificates, Characteristics, FAQs,) https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AR36							
Image database (prod	uct images, 2D dimensio	on drawings, 3D models		ns, EPLAN macros,)			
http://www.automation.s	siemens.com/bilddb/cax_c	le.aspx?mlfb=3RT1476-6					
Characteristic: Trippir	ng characteristics, I ² t, Le	t-through current					

https://support.industry.siemens.com/cs/ww/en/ps/3RT1476-6AR36/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1476-6AR36&objecttype=14&gridview=view1





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