SIEMENS

Data sheet

3RT1456-6AB38-0PA5



power contactor AC-1 275 A / 690 V / 40 $^\circ$ C 3-pole, Uc: 23-26 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	S6
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 	86.4 W
 at AC in hot operating state per pole 	28.8 W
 without load current share typical 	5.2 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

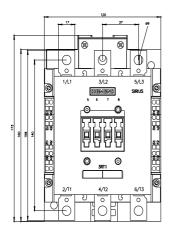
type of voltage AC/DC type of voltage of the control supply voltage AC/DC control supply voltage at AC 326 V • at 50 Hz rated value 2326 V • at 60 Hz rated value 2326 V or or or aupply voltage at DC	number of NO contacts for main contacts	3
operations control • at AC-1 • and BSD V at ambient temperature 55 °C rated voice275 A- up to BSD V at ambient temperature 55 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice280 A- up to BSD V at ambient temperature 50 °C rated voice97 A- up to BSD V at ambient temperature 50 °C rated voice97 A- up to BSD V at ambient temperature 50 °C rated voice97 A- up to BSD V at ambient temperature 50 °C rated voice97 A- up to BSD V at ambient temperature 50 °C rated voice97 A- up to BSD V at ambient temperature 50 °C rated voice2000 1th- up to BSD V at ambient temperature 50 °C rated voice2000 1th- up to BSD V at ambient temperature 50 °C rated voice2000 1th- up to A2000 1th- up to A<	number of NC contacts for main contacts	
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		250 A
	• at AC-3	
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	number of NO contacts for auxiliary contacts	2
• instantaneous contact 2	attachable	4
	 instantaneous contact 	2

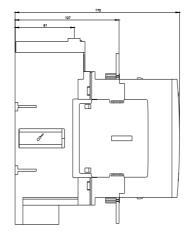
operational current at AC-12 maximum	10 A			
operational current at AC-15				
• at 230 V rated value	6 A			
• at 400 V rated value	3 A			
• at 500 V rated value	2 A			
• at 690 V rated value	1 A			
operational current at DC-13				
 at 24 V rated value 	10 A			
 at 48 V rated value 	2 A			
• at 60 V rated 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	gG: 10 A (230 V, 400 A)			
of the auxiliary switch required	1 faulty switching per 100 million (17 V, 1 mA)			
contact reliability of auxiliary contacts	Tradity switching per 100 million (17 V, T mA)			
Short-circuit protection	No			
product function short circuit protection	No			
design of the fuse link				
for short-circuit protection of the main circuit with type of ecoerclination 1 required	2C: 2EE A (600.) (100.1/A)			
 with type of coordination 1 required with type of coordination 2 required 	gG: 355 A (690 V, 100 kA)			
 — with type of assignment 2 required a for abort circuit protection of the quiviliant quitab required 	gR: 350 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	172 mm			
width	120 mm			
depth	170 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	17 mm			
thickness of connection bar	3 mm			
diameter of holes	9 mm			
number of holes	1			
connectable conductor cross-section for main contacts				
solid or stranded	25 120 mm²			
stranded	25 120 mm²			

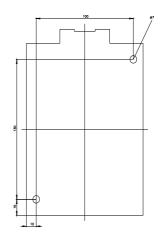
• solid or strande	ctor cross-section for auxil	-	0.5 4 mm²			
			0.5 4 mm² 0.5 2.5 mm²			
-	with core end processing		0.5 2.5 ጠጠ			
	conductor cross-sections					
 for auxiliary con 	ntacts					
— solid				75 2.5 mm²), max. 2x (0.75	·	
— solid or st				75 2,5 mm²), max. 2x (0,75	4 mm²)	
— finely stra	nded with core end process	÷	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)			
	s for auxiliary contacts		2x (20 16), 2x (18 14)), 1x 12		
Safety related data						
product function						
 mirror contact a 	according to IEC 60947-4-1		Yes			
• positively driven operation according to IEC 60947-5-1 protection class IP on the front according to IEC 60529		60947-5-1	No IP00; IP20 with box terminal/cover			
		EC 60529				
touch protection on	the front according to IEC	60529	finger-safe, for vertical con	tact from the front with box te	rminal/cover	
Certificates/ approval	s					
General Product Ap	proval					
SP	<u>Confirmation</u>			KC	EHC	
EMC	Functional Safety/Safety of Ma- chinery	Declaration of Co	onformity	Test Certificates		
	<u>Type Examination Cer-</u> tificate	CE EG-Konf.	UK CA	Type Test Certific- ates/Test Report	Special Test Certific- ate	
Marine / Shipping				other		
-		0	-	Orafination	O and firms at land	
1-11-1	Lloyds	633		<u>Confirmation</u>	Confirmation	
A. Star	Kegister					
ABS	LRS	PRS	RMRS			
other	Railway					
Miscellaneous	<u>Special Test Certific-</u> <u>ate</u>	Vibration and Sho	<u>ick</u>			
urther information						
Siemens has decide	d to exit the Russian mark					
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Please contact your le EAC relevant market Information on the p https://support.industr	ocal Siemens office on the s (other than the sanctioned E packaging ry.siemens.com/cs/ww/en/vie	tatus of validity of th AEU member state ew/109813875	e EAC certification if you ir	ntend to import or offer to sup	oly these products to an	
https://www.siemens.						
https://mall.industry.s Cax online generato	iemens.com/mall/en/en/Cata r					
Service&Support (M	tion.siemens.com/WW/CAX anuals, Certificates, Chara y.siemens.com/cs/ww/en/ps	cteristics, FAQs,)	<u> AB38-0PA5</u>		
Image database (pro	oduct images, 2D dimensio			rams, EPLAN macros,)		
nttp://www.automation	n.siemens.com/bilddb/cax_d					

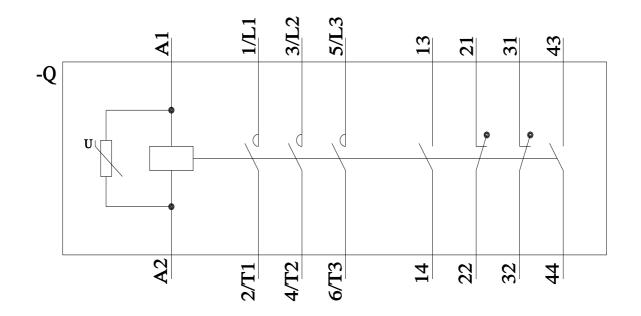
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https://support.industry.siemens.com/cs/ww/en/ps/3RT1456-6AB38-0PA5/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1456-6AB38-0PA5&objecttype=14&gridview=view1









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