SIEMENS

Data sheet 3RT1034-1AC20

Power contactor, AC-3 32 A, 15 kW / 400 V 24 V AC, 50 / 60 Hz, 3-pole, Size S2, Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2027-1AC20<<



product brand name	SIRIUS
Product designation	power contactor

General technical data	
Size of contactor	S2
 Insulation voltage rated value 	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
 between coil and main contacts acc. to EN 60947-1 	400 V
• protection class IP on the front	IP20
Protection class IP of the terminal	IP00
Shock resistance at rectangular impulse	
• at AC	10g / 5 ms, 5g / 10 ms
Shock resistance with sine pulse	
• at AC	15g / 5 ms, 8g / 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
Reference code acc. to DIN EN 81346-2	Q

5.55h t) p.156h	
Reference code acc. to DIN EN 81346-2	Q
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	50 A
● at AC-1	
— up to 690 V at ambient temperature 40 °C rated value	50 A
— up to 690 V at ambient temperature 60 °C rated value	45 A
• at AC-3	
— at 400 V rated value	32 A
— at 690 V rated value	20 A
● at AC-4 at 400 V rated value	29 A
Connectable conductor cross-section in main circuit at AC-1	
• at 60 °C minimum permissible	10 mm²
• at 40 °C minimum permissible	16 mm²
Operating current for approx. 200000 operating cycles at AC-4	
at 400 V rated value	15.6 A
• at 690 V rated value	11 A
Operating current	
• at 1 current path at DC-1	
— at 24 V rated value	45 A
— at 110 V rated value	4.5 A
with 2 current paths in series at DC-1	
— at 24 V rated value	45 A
— at 110 V rated value	25 A

 with 3 current paths in series at DC-1 	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating current	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 24 V rated value	45 A
— at 110 V rated value	25 A
• with 3 current paths in series at DC-3 at DC-5	
— at 24 V rated value	45 A
— at 110 V rated value	45 A
Operating power	
• at AC-1	
— at 230 V at 60 °C rated value	18 kW
— at 400 V rated value	31 kW
— at 690 V rated value	54 kW
— at 690 V at 60 °C rated value	54 kW
• at AC-2 at 400 V rated value	15 kW
• at AC-3	
— at 230 V rated value	7.5 kW
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	18.5 kW
Operating power for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	8.2 kW
• at 690 V rated value	10 kW
Thermal short-time current limited to 10 s	320 A
No-load switching frequency	
• at AC	5 000 1/h
Operating frequency	
● at AC-1 maximum	1 200 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	1 000 1/h
at AC-4 maximum	250 1/h
Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
● at 50 Hz rated value	24 V

• at 60 Hz rated value 24 V control supply voltage frequency • 1 rated value 50 Hz • 2 rated value 60 Hz Operating range factor control supply voltage rated value of magnet coil at AC • at 50 Hz • at 60 Hz Apparent pick-up power of magnet coil at AC Inductive power factor with dosing power of the coil Apparent holding power of magnet coil at AC Inductive power factor with the holding power of the coil Closing delay • at AC Opening delay • at AC Arcing time Auxiliary circuit Number of NC contacts for auxiliary contacts • instantaneous contact Operating current at AC-12 maximum Operating current at AC-12 • at 30 V rated value • at 400 V rated value • at 220 V rated value • a	
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● at 220 V rated value 0.3 A contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA)	
contact reliability of auxiliary contacts 1 faulty switching per 100 million (17 V, 1 mA)	
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: 125 A fuse gL/gG: 63 A fuse gL/gG: 10 A

'				
Installation/ mounting/ dimensions				
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail			
	according to DIN EN 50022			
 Side-by-side mounting 	Yes			
Height	112 mm			
Width	55 mm			
Depth	115 mm			
Required spacing				
for grounded parts				
— at the side	6 mm			
Connections/ Terminals				
Type of electrical connection for main current circuit	screw-type terminals			
Type of electrical connection for auxiliary and	screw-type terminals			
control current circuit				
Type of connectable conductor cross-sections				
• for main contacts				
— solid	2x (0.75 16 mm²)			
— stranded	2x (0.75 25 mm²)			
— single or multi-stranded	2x (0,75 16 mm²)			
 finely stranded with core end processing 	2x (0.75 16 mm²)			
— finely stranded without core end	2x (0.75 16 mm²)			
processing				
 at AWG conductors for main contacts 	2x (18 2)			
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)			

Certificates/ approvals

• at AWG conductors for auxiliary contacts

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

General Product Approval

EMC

Functional Safety/Safety of Machinery











Type Examination Certificate

Declaration of Conformity Test Certification		Test Certificates	ertificates		Marine / Ship- ping
CE	Miscellaneous	Type Test Certificates/Test Report	Special Test Certificate	Miscellaneous	SA SAIPPING

Marine / Shipping

other



EG-Konf.







Miscellaneous

Confirmation

ABS

Railway

Special Test Certificate

Further information

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=3RT1034-1AC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1034-1AC20

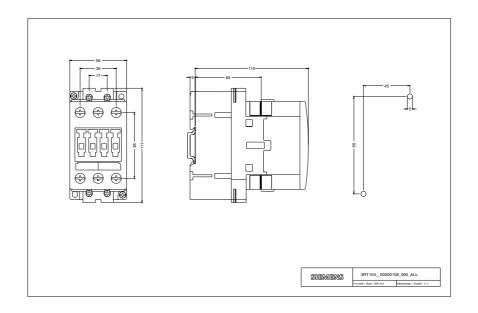
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

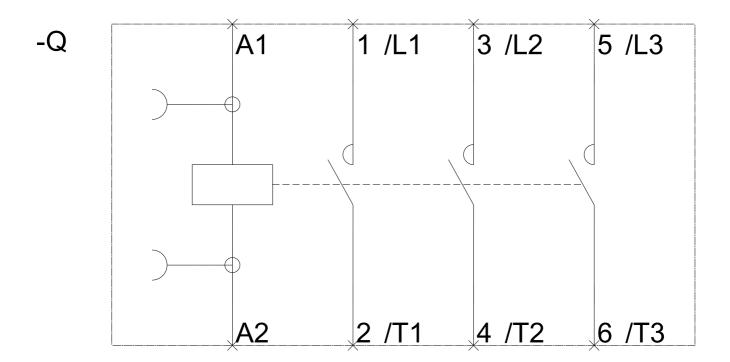
https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1AC20

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1034-1AC20&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RT1034-1AC20/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1034-1AC20&objecttype=14&gridview=view1





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