SIEMENS

Data sheet 3RT1025-1AC20



Power contactor, AC-3 17 A, 7.5 kW / 400 V 24 V AC, 50/60 Hz 3-pole, Size S0 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2025-1AC20<<

Figure similar

product brand name	SIRIUS
product designation	power contactor
General technical data	
size of contactor	S0
degree of pollution	3
protection class IP	
on the front	IP20
of the terminal	IP00
mechanical service life (switching 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 acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.07.2006 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
 ambient temperature during operation 	-25 +60 °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
operational current	
 at AC-1 at 400 V at ambient temperature 40 °C rated value 	40 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	40 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	35 A
• at AC-3	
— at 400 V rated value	17 A
at AC-4 at 400 V rated value	15.5 A
operational current	
 at 1 current path at DC-1 	
— at 24 V rated value	35 A

— at 110 V rated value	4.5 A
 with 2 current paths in series at DC-1 	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
 with 3 current paths in series at DC-1 	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
operational current	
 at 1 current path at DC-3 at DC-5 	
— at 24 V rated value	20 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	35 A
— at 110 V rated value	15 A
 with 3 current paths in series at DC-3 at DC-5 	
— at 24 V rated value	35 A
— at 110 V rated value	35 A
operating power	
• at AC-1	
— at 400 V rated value	23 kW
• at AC-2 at 400 V rated value	7.5 kW
• at AC-3	
— at 400 V rated value	7.5 kW
— at 500 V rated value	10 kW
— at 690 V rated value	11 kW
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	0.8 1.1
• at 60 Hz	0.85 1.1
apparent pick-up power of magnet coil at AC	64 V·A
inductive power factor with closing power of the coil	0.72
apparent holding power of magnet coil at AC	8.4 V·A
inductive power factor with the holding power of the	0.24
coil	<u> </u>
Auxiliary circuit	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
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
operational 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
operational 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

-t 000 \ /tdl	0.3 A
at 220 V rated value	
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)
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: 63 A
 — with type of assignment 2 required 	fuse gL/gG: 25 A
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
side-by-side mounting	Yes
height	85 mm
width	45 mm
depth	91 mm
required spacing for grounded parts at the side	6 mm
Connections/ Terminals	
type of electrical connection	
 for main current circuit 	screw-type terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
 for main contacts 	
— solid	2x (1 2.5 mm²), 2x (2.5 6 mm²), max. 2x 10 mm²
— solid or stranded	2x (1 2,5 mm²), 2x (2,5 6 mm²), max. 2x 10 mm²
 finely stranded with core end processing 	2x (1 2.5 mm²), 2x (2.5 6 mm²)
 at AWG cables for main contacts 	2x (16 12), 2x (14 10), 1x 8
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 cables for auxiliary contacts 	2x (20 16), 2x (18 14), 1x 12
Certificates/ approvals	

Certificates/ approvals

General Product Approval

EMC

Declaration of Conformity











Miscellaneous

Test Certificates

Marine / Shipping

Special Test Certificate Type Test Certificates/Test Report

Miscellaneous









Marine / Shipping

other

Confirmation

Confirmation

Miscellaneous

Special Test Certificate

Railway

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=3RT1025-1AC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1025-1AC20

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

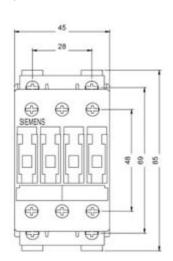
https://support.industry.siemens.com/cs/ww/en/ps/3RT1025-1AC20

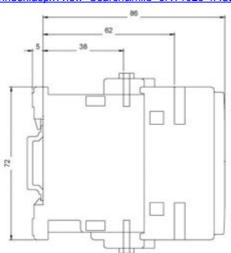
Characteristic: Tripping characteristics, I2t, Let-through current

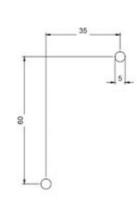
https://support.industry.siemens.com/cs/ww/en/ps/3RT1025-1AC20/char

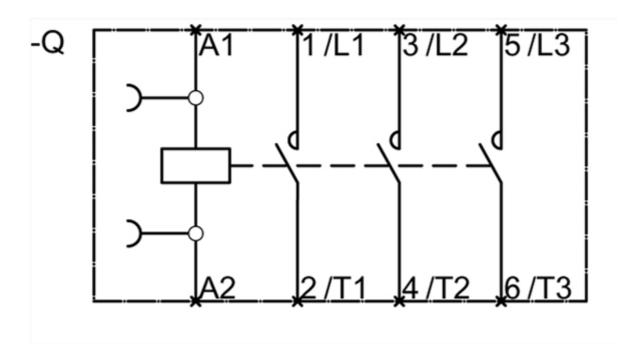
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1025-1AC20&objecttype=14&gridview=view1









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