SIEMENS

Product data sheet 3RT1446-1AC20



CONTACTOR, AC-1 140 A/400 V, AC 24 V, 50/60 HZ, 3-POLE, SIZE S3, SCREW CONNECTION

General technical data:		
product brand name		SIRIUS
Size of the contactor		S3
Protection class IP / on the front		IP00
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature / during operating	°C	-25 +60
Mechanical operating cycles as operating time		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
 of the contactor with added electronics-compatible auxiliary switch block / typical 		5,000,000

Main circuit:			
Number of NC contacts / for main contacts		0	
Number of NO contacts / for main contacts		3	
Operating current			
• at AC-1 / at 400 V			
• at 40 °C ambient temperature / rated value	А	140	
• at AC-3 / at 400 V / rated value	Α	44	
• with 1 current path / at DC-1			

• at 24 V / rated value	Α	130
• at 110 V / rated value	Α	12
 with 2 current paths in series / at DC-1 		
• at 24 V / rated value	Α	130
• at 110 V / rated value	Α	130
 with 3 current paths in series / at DC-1 		
• at 24 V / rated value	Α	130
• at 110 V / rated value	Α	130
 with 1 current path / at DC-3 / at DC-5 		
• at 24 V / rated value	Α	6
• at 110 V / rated value	Α	1.25
 with 2 current paths in series / at DC-3 / at DC-5 		
• at 24 V / rated value	Α	130
• at 110 V / rated value	Α	130
 with 3 current paths in series / at DC-3 / at DC-5 		
• at 24 V / rated value	Α	130
• at 110 V / rated value	Α	130
Service power		
• at AC-2 / at 400 V / rated value	kW	22
• at AC-3 / at 400 V / rated value	kW	22

Control circuit:		
Voltage type / of control feed voltage		AC
Operating range factor control supply voltage rated value / of the magnet coil		
• at 50 Hz		
• for AC		0.8 1.1
• at 60 Hz		
• for AC		0.8 1.1
Apparent pull-in power / of the solenoid / for AC	V·A	298
Apparent holding power / of the solenoid / for AC	V·A	27
Inductive power factor / with the pull-in power of the coil		0.7
Inductive power factor / with the pull-in power of the coil		0.29

Auxiliary circuit:		
Contact reliability / of the auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)	
Number of NC contacts / for auxiliary contacts / instantaneous switching	0	
Number of NO contacts / for auxiliary contacts / instantaneous switching	0	

Short-circuit:

Design of the fuse link	
• for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A
• for short-circuit protection of the main circuit	
 with type of assignment 1 / required 	fuse gL/gG: 250 A
 at type of coordination 2 / required 	fuse gL/gG: 250 A

Installation/mounting/dimensions:		
Mounting type		screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail
series installation		Yes
Width	mm	70
Height	mm	146
Depth	mm	139
Distance, to be maintained, to earthed part / sidewards	mm	6

Connection type:	
Design of the electrical connection	
for main current circuit	screw-type terminals
 for auxiliary and control current circuit 	screw-type terminals
Type of the connectable conductor cross-section	
• for main contacts	
• solid	2x (2.5 16 mm²)
• stranded	2x (10 50 mm²)
• finely stranded	
 with conductor end processing 	2x (2.5 35 mm²)
 without conductor final cutting 	2x (10 35 mm²)
• for AWG conductors / for main contacts	2x (10 1/0)
• 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 conductor end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12

Certificates/approvals:

General Product Approval

Functional Safety / Safety of Machinery Declaration of Conformity









Type Examination



Test Certificates

Shipping Approval

Special Test Certificate











other

Confirmation

other

Environmental Confirmations

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

Cax online generator:

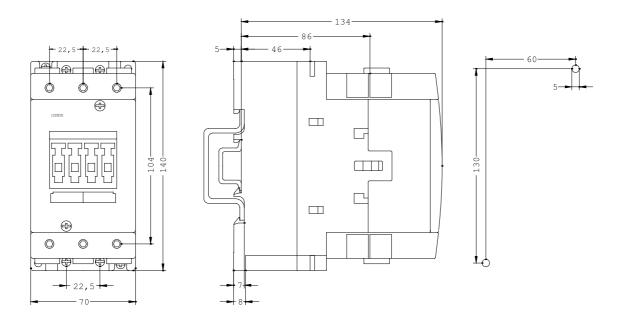
http://www.siemens.com/cax

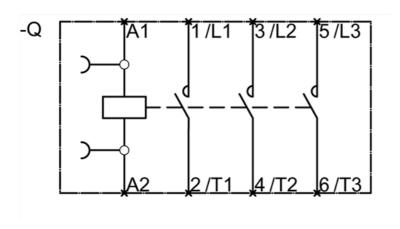
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RT1446-1AC20/all

 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ ...)$

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1446-1AC20}}$





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