SIEMENS

Product data sheet

3RT1045-3AL20-1AA0



CONTACTOR 3-PH, 37 KW/ 400V 230 V AC 50/ 60 HZ 3-POLE, SIZE S3, CAGE CLAMP EXISTING MOUNTING POSITION

General technical data:		
product brand name		SIRIUS
Size of the contactor		S3
Protection class IP / on the front		IP20
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	Α	120
• at AC-3 / at 400 V / rated value	Α	80
• at AC-4 / at 400 V / rated value	Α	66

• with 1 current path / at DC-1		
• at 24 V / rated value	Α	100
• at 110 V / rated value	Α	9
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	Α	100
at 110 V / rated value	Α	100
 with 3 current paths in series / at DC-1 		
• at 24 V / rated value	Α	100
at 110 V / rated value	Α	100
with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	40
at 110 V / rated value	Α	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	100
at 110 V / rated value	Α	100
 with 3 current paths in series / at DC-3 / at DC-5 		
• at 24 V / rated value	Α	100
at 110 V / rated value	Α	100
Service power		
• at AC-2 / at 400 V / rated value	kW	37
• at AC-3 / at 400 V / rated value	kW	37
• at AC-4 / at 400 V / rated value	W	37,000

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: 160 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	Cage Clamp 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 (0.25 2.5 mm²)
• finely stranded	
 with conductor end processing 	2x (0.25 1.5 mm²)
 without conductor final cutting 	2x (0.25 2.5 mm²)
• for AWG conductors / for auxiliary contacts	2x (24 14)

Certificates/approvals:

General Product Approval

Functional Safety / Safety of Machinery Declaration of Conformity









Type Examination



Test Certificates

Special Test Certificate

Shipping Approval













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:

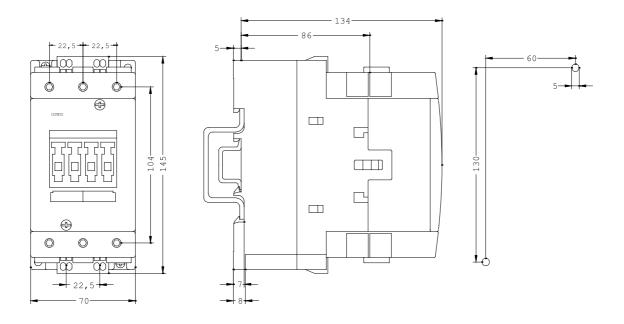
http://www.siemens.com/cax

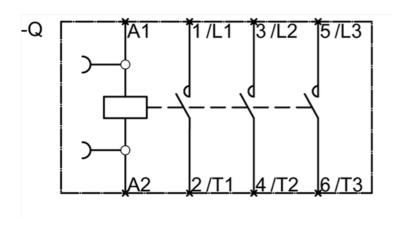
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

 $\underline{\text{http://support.automation.siemens.com/WW/view/en/3RT1045-3AL20-1AA0/all}}$

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

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT1045-3AL20-1AA0}$





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