# **SIEMENS**

Product data sheet 3RT2026-1AL20



CONTACTOR, AC-3, 11KW/400V, 1NO+1NC, AC 230V 50/60HZ, 3-POLE, SZ SO SCREW TERMINAL

General technical data:		
Product brand name		SIRIUS
Size of the contactor		S0
Product extension / auxiliary switch		Yes
Protection class IP / on the front		IP20
Protection against electrical shock		finger-safe
Degree of pollution		3
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature / during storage	°C	-55 80
Ambient temperature / during operating	°C	-25 60
Shock resistance		
at rectangular impulse		
• at AC		8,3g / 5 ms, 5,3g / 10 ms
• at sine pulse		
• at AC		13,5g / 5 ms, 8,3g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
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	40
• at 60 °C ambient temperature / rated value	А	35
• at AC-2 / at 400 V / rated value	А	25
• at AC-3 / at 400 V / rated value	А	25
• at AC-4 / at 400 V / rated value	Α	15.5
Operating current		
• with 1 current path / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	А	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	А	35
• at 110 V / rated value	А	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	А	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	А	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	35
• at 110 V / rated value	Α	35
Service power		
• at AC-2 / at 400 V / rated value	kW	11
• at AC-3 / at 400 V / rated value	kW	11
• at AC-4 / at 400 V / rated value	kW	7.5
Active power loss / per conductor / typical	W	1.6
Off-load operating frequency		
• at AC	1/h	5,000
• at DC	1/h	1,500

Frequency of operation		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	750
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	750
at AC-4 / according to IEC 60947-6-2 / maximum	1/h	250

Control circuit:		
Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
Working range factor supply voltage rated value / of the magnet coil		
• at 50 Hz / for AC		0.8 1.1
• at 60 Hz / for AC		0.85 1.1
Apparent pull-in power / of the solenoid / for AC	V-A	81
Apparent holding power / of the solenoid / for AC	V-A	10.5
Inductive power factor		
with the pull-in power of the coil		0.82
with the pull-in power of the coil		0.25
Closing delay		
• at AC	ms	8 40
Opening delay		
• at AC	ms	4 16
Arcing time	ms	10 10

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		1
Number of NO contacts / for auxiliary contacts / instantaneous switching		1
Operating current / of the auxiliary contacts		
• at AC-12 / maximum	Α	10
• at AC-15		
• at 230 V	Α	6
• at 400 V	Α	3
• at DC-12		
• at 48 V	Α	6
• at 60 V	Α	6
• at 110 V	Α	3

• at 220 V	Α	1
• at DC-13		
• at 24 V	Α	6
• at 48 V	Α	2
• at 60 V	Α	2
• at 110 V	Α	1
• at 220 V	Α	0.3

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	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A
• at type of coordination 2 / required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35A

Installation/mounting/dimensions:		
Built in orientation		vertical
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
Type of fixing/fixation / series installation		Yes
Width	mm	45
Height	mm	85
Depth	mm	97
Distance, to be maintained, to the ranks assembly / sidewards	mm	0
Distance, to be maintained, to earthed part / sidewards	mm	6

Connections:	
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 (1 2.5 mm²), 2x (2.5 10 mm²)
• stranded	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (1 2.5 mm2), 2x (2.5 6 mm2), 1x 10 mm2
• for AWG conductors / for main contacts	2x (16 12), 2x (14 8)
• for auxiliary contacts	
• solid	2x (0.5 1.5 mm2), 2x (0.75 2.5 mm2)
• finely stranded	

- with conductor end processing
- for AWG conductors / for auxiliary contacts

2x (0.5 ... 1.5 mm2), 2x (0.75 ... 2.5 mm2)

#### 2x (20 ... 16), 2x (18 ... 14)

# Certificates/approvals:

## **General Product Approval**





**ROSTEST** 



Test Certificates

Manufacturer

### **Shipping Approval**













**Shipping Approval** 

other



Manufacturer



UL/CSA ratings:		
yielded mechanical performance (hp)		
for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	2
• at 230 V / rated value	hp	3
for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	5
• at 220/230 V / rated value	hp	7.5
• at 460/480 V / rated value	hp	15
• at 575/600 V / rated value	hp	20
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	21
• at 600 V / rated value	Α	22
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Safety:related Parameter:		
B10 value / with high demand rate		
according to SN 31920		1,000,000
T1 value / for proof test interval or service life		
according to IEC 61508	а	20
Proportion of dangerous failures		
<ul> <li>with low demand rate / according to SN 31920</li> </ul>	%	40
with high demand rate / according to SN 31920	%	73
Failure rate (FIT value) / with low demand rate		

• according to SN 31920	FIT	100
Product function		
• mirror contact to IEC 60947-4-1		Yes
<ul> <li>positively driven operation to IEC 60947-5-1</li> </ul>		No

# **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:

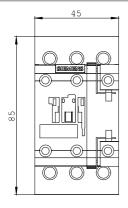
http://www.siemens.com/cax

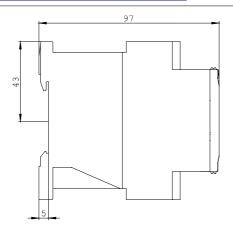
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

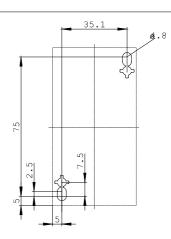
http://support.automation.siemens.com/WW/view/en/3RT2026-1AL20/all

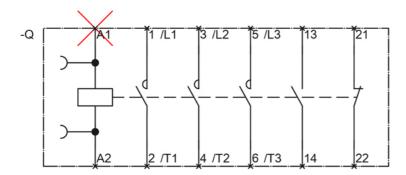
#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT2026-1AL20









last change: Oct 17, 2011