# **SIEMENS**

Product data sheet 3RT2018-1AN61



CONTACTOR, AC-3, 7.5KW/400V, 1NO, AC 200V 50HZ, 200...220V 60HZ 3-POLE, SZ S00 SCREW TERMINAL

General technical data:			
product brand name		SIRIUS	
Size of the contactor		S00	
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	
during operating	°C	-25 +60	
Shock resistance			
at rectangular impulse			
• at AC		7,3g / 5 ms, 4,7g / 10 ms	
at sine pulse			
• at AC		11,4g / 5 ms, 7,3g / 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		30,000,000	

<ul> <li>of the contactor with added auxiliary switch block / typica</li> </ul>	<ul> <li>of the contactor with</li> </ul>	added	auxiliary	switch	block /	typical
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• of the contactor with added electronics-compatible auxiliary switch block / typical

10,000,000
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	22
• at 60 °C ambient temperature / rated value	Α	20
• at AC-2 / at 400 V / rated value	Α	16
• at AC-3 / at 400 V / rated value	Α	16
• at AC-4 / at 400 V / rated value	Α	11.5
Operating current		
• with 1 current path / at DC-1		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	12
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	20
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	Α	20
• at 110 V / rated value	Α	20
Service power		
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3 / at 400 V / rated value	kW	7.5
• at AC-4 / at 400 V / rated value	kW	5.5
Active power loss / per conductor / typical	W	2.2
Off-load operating frequency		
• at AC	1/h	10,000

• at DC	1/h	10,000
Frequency of operation / at AC-1 / according to IEC 60947-6-2	1/h	1,000
Frequency of operation / at AC-2 / according to IEC 60947-6-2	1/h	750
Frequency of operation / at AC-3 / according to IEC 60947-6-2	1/h	750
Frequency of operation / at AC-4 / according to IEC 60947-6-2	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	200	
• at 60 Hz / for AC / rated value	V	220	
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		0.85 1.1	
Apparent pull-in power / of the solenoid / for AC	V-A	43	
Apparent holding power / of the solenoid / for AC	V-A	6.5	
Inductive power factor			
• with the pull-in power of the coil		0.8	
• with the pull-in power of the coil		0.25	
Closing delay			
• at AC	ms	8 33	
Opening delay			
• at AC	ms	4 15	
Arcing time	ms	10 15	

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		1	
Operating current / of the auxiliary contacts			
• at AC-12 / maximum	Α	10	
• at AC-15			
• at 230 V	Α	10	
• 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	10
• 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: 35 A
• at type of coordination 2 / required	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A

Installation/mounting/dimensions:			
mounting position		+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface	
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	57.5	
Depth	mm	73	
Distance, to be maintained, to the ranks assembly / sidewards	mm	0	
Distance, to be maintained, to earthed part / sidewards	mm	6	

Connections:	
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 (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
• finely stranded	
<ul> <li>with conductor end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for main contacts	2x (20 16), 2x (18 14), 2x 12
for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 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), 2x 12

# Certificates/approvals:

#### **General Product Approval**

Declaration of Conformity

**Test Certificates** 











Special Test Certificate

## **Shipping Approval**













**Shipping Approval** 

other



Confirmation



UL/CSA ratings:		
yielded mechanical performance (hp)		
• for single-phase squirrel cage motors		
• at 110/120 V / rated value	hp	1
• at 230 V / rated value	hp	2
• for three-phase squirrel cage motors		
• at 200/208 V / rated value	hp	3
• at 220/230 V / rated value	hp	5
• at 460/480 V / rated value	hp	10
• at 575/600 V / rated value	hp	10
Operating current (FLA) / for three-phase squirrel cage motors		
• at 480 V / rated value	Α	14
• at 600 V / rated value	Α	11
Contact rating designation / for auxiliary contacts / according to UL		A600 / Q600

Sicherheitsrelevante Kenngrößen:			
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			
• with low demand rate / according to SN 31920	%	40	
<ul> <li>with high demand rate / according to SN 31920</li> </ul>	%	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
• comment		with 3RH29
• positively driven operation to IEC 60947-5-1		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:

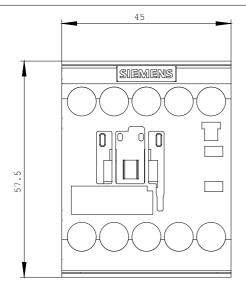
http://www.siemens.com/cax

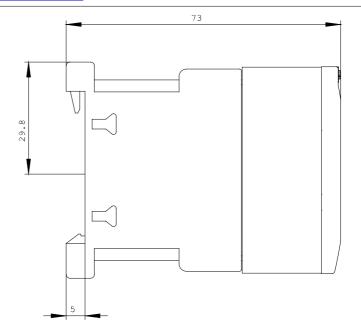
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

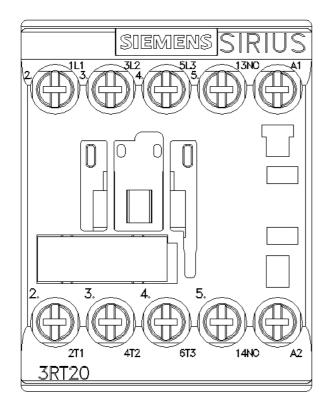
http://support.automation.siemens.com/WW/view/en/3RT2018-1AN61/all

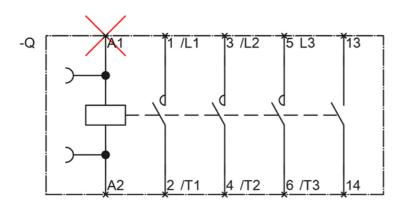
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RT2018-1AN61









last change: Jul 26, 2012