

3RT2018-1AP01 CONTACTOR,AC3:7,5KW 1NO AC230V 50/60HZ

Technical / CAx data

☒ Technical Data ☐ CAx data



CONTACTOR, AC-3, 7.5KW/400V, 1NO, AC 230V, 50/60 HZ,  
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
Ambient temperature / 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
• 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

<b>Operating current</b>		
• at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	22
• at 60 °C ambient temperature / rated value	A	20
• at AC-2 / at 400 V / rated value	A	16
• at AC-3 / at 400 V / rated value	A	16
• at AC-4 / at 400 V / rated value	A	11.5
<b>Operating current</b>		
• with 1 current path / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.1
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	12
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.1
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	0.35
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	20
<b>Service power</b>		
• 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
<b>Active power loss / per conductor / typical</b>	W	2.2
<b>Off-load operating frequency</b>		
• at AC	1/h	10,000
• at DC	1/h	10,000
<b>Frequency of operation / at AC-1 / according to IEC 60947-6-2</b>	1/h	1,000
<b>Frequency of operation / at AC-2 / according to IEC 60947-6-2</b>	1/h	750
<b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>	1/h	750
<b>Frequency of operation / at AC-4 / according to IEC 60947-6-2</b>	1/h	250
<b>Control circuit:</b>		
<b>Type of voltage / of the controlled supply voltage</b>	AC	
<b>Control supply voltage / 1</b>		
• at 50 Hz / for AC / rated value	V	230
• at 60 Hz / for AC / rated value	V	230
<b>operating range factor control supply voltage rated value / of the magnet coil</b>		
• at 50 Hz / for AC		0.8...1.1
• at 60 Hz / for AC		0.85...1.1

<b>Apparent pull-in power / of the solenoid / for AC</b>	V·A	37
<b>Apparent holding power / of the solenoid / for AC</b>	V·A	5.7
<b>Inductive power factor</b>		
• with the pull-in power of the coil		0.8
• with the pull-in power of the coil		0.25
<b>Closing delay</b>		
• at AC	ms	8...33
<b>Opening delay</b>		
• at AC	ms	4...15
<b>Arcing time</b>	ms	10...15

#### Auxiliary circuit:

<b>Contact reliability / of the auxiliary contacts</b>		1 faulty switching per 100 million (17 V, 1 mA)
<b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b>		0
<b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b>		1
<b>Operating current / of the auxiliary contacts</b>		
• at AC-12 / maximum	A	10
• at AC-15		
• at 230 V	A	6
• at 400 V	A	3
• at DC-12		
• at 48 V	A	6
• at 60 V	A	6
• at 110 V	A	3
• at 220 V	A	1
• at DC-13		
• at 24 V	A	6
• at 48 V	A	2
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3

#### Short-circuit:

<b>Design of the fuse link</b>		
• 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:

<b>Built in orientation</b>		vertical
<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Type of fixing/fixation / series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	57.5
<b>Depth</b>	mm	73
<b>Distance, to be maintained, to the ranks assembly / sideways</b>	mm	0
<b>Distance, to be maintained, to earthed part / sideways</b>	mm	6

#### Connections:

<b>Design of the electrical connection</b>	
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<ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control current circuit</li> </ul>	screw-type terminals screw-type terminals
<b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>for main contacts             <ul style="list-style-type: none"> <li>solid</li> </ul> </li> <li>finely stranded             <ul style="list-style-type: none"> <li>with conductor end processing</li> </ul> </li> <li>for AWG conductors / for main contacts</li> <li>for auxiliary contacts             <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded                 <ul style="list-style-type: none"> <li>with conductor end processing</li> </ul> </li> </ul> </li> <li>for AWG conductors / for auxiliary contacts</li> </ul>	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14), 2x 12  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14), 2x 12

#### Certificates/approvals:

General Product Approval				Declaration of Conformity	Test Certificates
<input checked="" type="checkbox"/> CCC	<input checked="" type="checkbox"/> CSA	<input checked="" type="checkbox"/> GOST	<input checked="" type="checkbox"/> UL	<input checked="" type="checkbox"/> EC-Declaration	Special Test Certificate
Shipping Approval					
<input checked="" type="checkbox"/> ABS (America)	<input checked="" type="checkbox"/> DNV / Det Nor	<input checked="" type="checkbox"/> GL / Germani	<input checked="" type="checkbox"/> LRS / Lloyds R	<input checked="" type="checkbox"/> PRS / Polski R	<input checked="" type="checkbox"/> RINA / Registr
Shipping Approval other					
<input checked="" type="checkbox"/> RMRS / Russ	Confirmation	<input checked="" type="checkbox"/> Household ar			

#### UL/CSA ratings:

<b>yielded mechanical performance (hp)</b> <ul style="list-style-type: none"> <li>for single-phase squirrel cage motors             <ul style="list-style-type: none"> <li>at 110/120 V / rated value</li> <li>at 230 V / rated value</li> </ul> </li> <li>for three-phase squirrel cage motors             <ul style="list-style-type: none"> <li>at 200/208 V / rated value</li> <li>at 220/230 V / rated value</li> <li>at 460/480 V / rated value</li> <li>at 575/600 V / rated value</li> </ul> </li> </ul>	hp 1 hp 2  hp 3 hp 5 hp 10 hp 10
<b>Operating current (FLA) / for three-phase squirrel cage motors</b> <ul style="list-style-type: none"> <li>at 480 V / rated value</li> <li>at 600 V / rated value</li> </ul>	A 14 A 11
<b>Contact rating designation / for auxiliary contacts / according to UL</b>	A600 / Q600

#### Safety-related Parameter:

<b>B10 value / with high demand rate</b> <ul style="list-style-type: none"> <li>according to SN 31920</li> </ul>	1,000,000
<b>T1 value / for proof test interval or service life</b> <ul style="list-style-type: none"> <li>according to IEC 61508</li> </ul>	a 20
<b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>with low demand rate / according to SN 31920</li> <li>with high demand rate / according to SN 31920</li> </ul>	% 40 % 73
<b>Failure rate (FIT value) / with low demand rate</b>	

- according to SN 31920

**Product function**

- mirror contact to IEC 60947-4-1
- comment
- positively driven operation to IEC 60947-5-1

FIT 100

Yes  
with 3RH29  
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:**

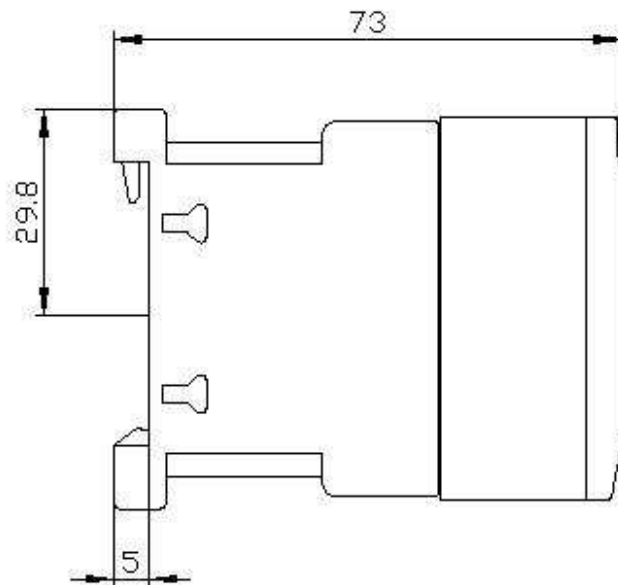
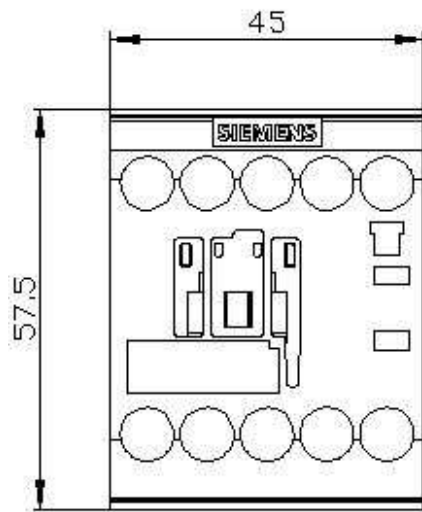
<http://www.siemens.com/cax>

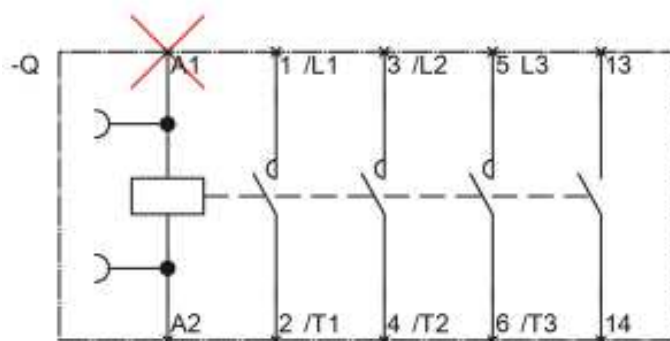
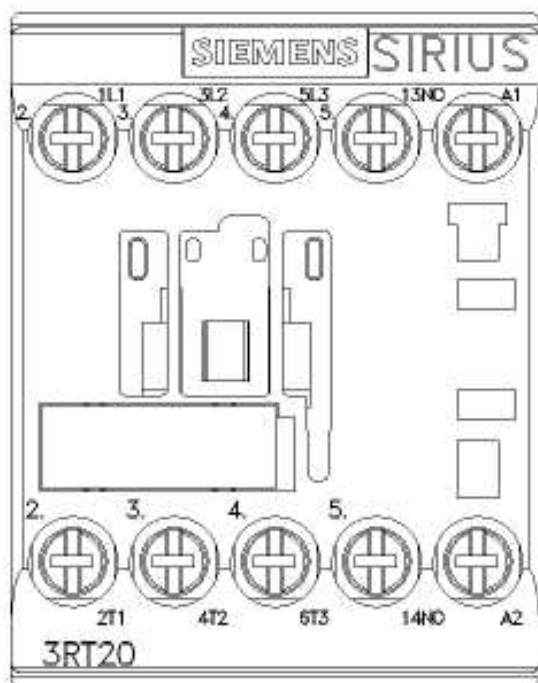
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2018-1AP01/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3RT2018-1AP01](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3RT2018-1AP01)





last change:

Mar 27, 2012