

3RT2015-1FB41 CONTACTOR,AC3:3KW 1NO DC24V M. DIODE

Technical / CAx data

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CONTACTOR, AC-3, 3KW/400V, 1NO, DC 24V, W.  
INTEGRATED DIODE 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	<ul style="list-style-type: none"><li>at rectangular impulse</li><li>at DC</li><li>at sine pulse</li><li>at DC</li></ul>	
	6,7g / 5 ms, 4,2g / 10 ms	
	10,5g / 5 ms, 6,6g / 10 ms	
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Mechanical operating cycles as operating time	<ul style="list-style-type: none"><li>of the contactor / typical</li><li>of the contactor with added auxiliary switch block / typical</li><li>of the contactor with added electronics-compatible auxiliary switch block / typical</li></ul>	
	30,000,000	
	10,000,000	
	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	A	18	
• at 40 °C ambient temperature / rated value	A	16	
• at 60 °C ambient temperature / rated value	A	7	
• at AC-2 / at 400 V / rated value	A	7	
• at AC-3 / at 400 V / rated value	A	6.5	
• at AC-4 / at 400 V / rated value			
<b>Operating current</b>			
• with 1 current path / at DC-1	A	15	
• at 24 V / rated value	A	1.5	
• at 110 V / rated value	A	8.4	
• with 2 current paths in series / at DC-1	A	15	
• at 24 V / rated value	A	15	
• at 110 V / rated value	A	15	
• with 3 current paths in series / at DC-1	A	15	
• at 24 V / rated value	A	15	
• at 110 V / rated value	A	15	
• with 1 current path / at DC-3 / at DC-5	A	15	
• at 24 V / rated value	A	0.1	
• at 110 V / rated value	A	15	
• with 2 current paths in series / at DC-3 / at DC-5	A	0.25	
• at 24 V / rated value	A	15	
• at 110 V / rated value	A	15	
• with 3 current paths in series / at DC-3 / at DC-5	A	15	
• at 24 V / rated value	A	15	
• at 110 V / rated value			
<b>Service power</b>			
• at AC-2 / at 400 V / rated value	kW	3	
• at AC-3 / at 400 V / rated value	kW	3	
• at AC-4 / at 400 V / rated value	kW	3	
<b>Active power loss / per conductor / typical</b>	W	0.4	
<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>Design of the surge suppressor</b>		with diode	
<b>Type of voltage / of the controlled supply voltage</b>		DC	
<b>Control supply voltage / 1</b>			
• for DC / rated value	V	24	
<b>operating range factor control supply voltage rated value / of the magnet coil</b>			
• for DC		0.8...1.1	
<b>Pull-in power / of the solenoid / for DC</b>	W	4	
<b>Holding power / of the solenoid / for DC</b>	W	4	

<b>Closing delay</b>		
● at DC	ms	30...100
<b>Opening delay</b>		
● at DC	ms	7...13
<b>Arcing time</b>	ms	10...15

<b>Auxiliary circuit:</b>		
<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	A	6
● at 230 V	A	3
● at 400 V	A	6
● at DC-12	A	6
● at 48 V	A	6
● at 60 V	A	3
● at 110 V	A	1
● at 220 V	A	0.3
● at DC-13	A	6
● at 24 V	A	2
● at 48 V	A	2
● at 60 V	A	1
● at 110 V	A	0.3
● at 220 V	A	0.3

<b>Short-circuit:</b>		
<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		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
● with type of assignment 1 / required		gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20A
● at type of coordination 2 / required		

<b>Installation/mounting/dimensions:</b>		
<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

<b>Connections:</b>		
<b>Design of the electrical connection</b>		
● for main current circuit		screw-type terminals
● for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
● for main 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> <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> <li>• for AWG conductors / for auxiliary contacts</li> </ul> </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
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#### Certificates/approvals:

##### General Product Approval



##### Declaration of Conformity

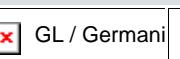


##### Test Certificates

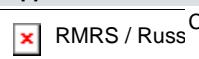
Special Test Certificate

Type Test Certificates/Test Report

##### 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
  - at 230 V / rated value
- for three-phase squirrel cage motors
  - at 200/208 V / rated value
  - at 220/230 V / rated value
  - at 460/480 V / rated value
  - at 575/600 V / rated value

hp	0.25
hp	0.75
hp	1.5
hp	2
hp	3
hp	5

##### Operating current (FLA) / for three-phase squirrel cage motors

- at 480 V / rated value
- at 600 V / rated value

A	4.8
A	6.1

##### 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

a	20
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##### Proportion of dangerous failures

- with low demand rate / according to SN 31920
- with high demand rate / according to SN 31920

%	40
%	73

##### Failure rate (FIT value) / with low demand rate

- according to SN 31920

FIT	100
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**Product function**

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

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:**

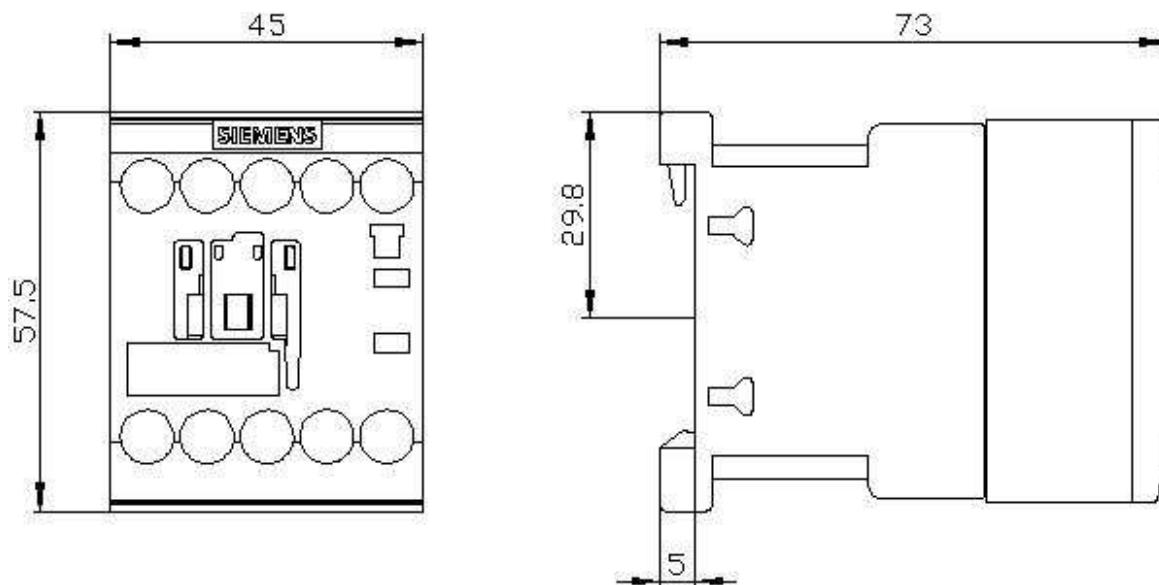
<http://www.siemens.com/cax>

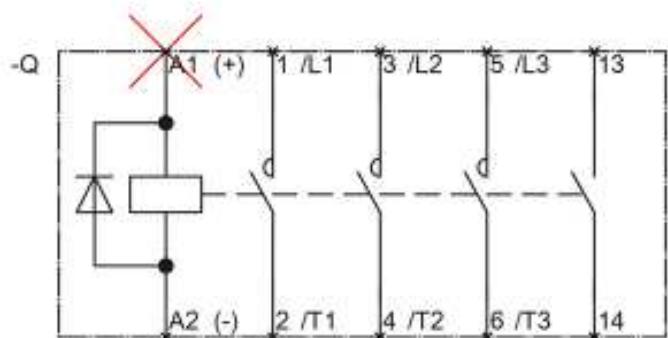
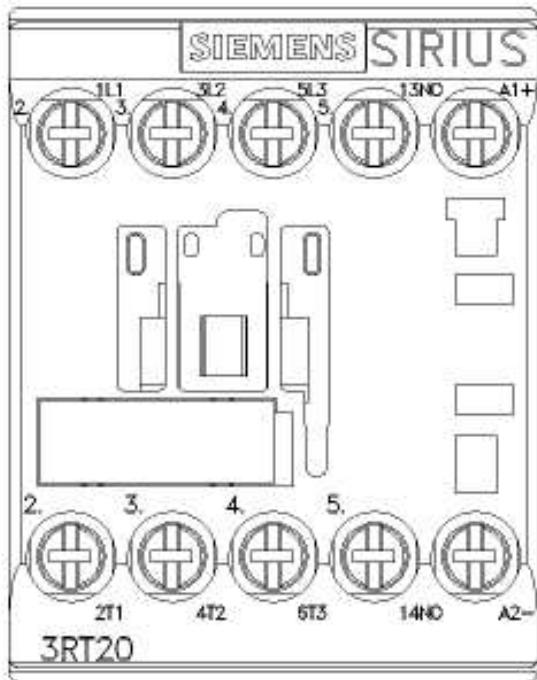
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2015-1FB41/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2015-1FB41](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2015-1FB41)





last change:

Mar 27, 2012