



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 10 A 40  
DEGREES C 48-600 V / 24 V DC SPRING-LOADED  
TERMINAL

### General technical data:

Product brand name		SIRIUS
product designation		solid-state contactor
Product function		zero-point switching
Number of poles / for main current circuit		1
Protection class IP		IP20
Product designation / _3 / of the accessories that can be ordered		converter
Manufacturer article number / _3 / of the accessories that can be ordered		<a href="#">3RF2900-0EA18</a>
Ambient temperature		
• during operating	°C	-25 ... 60
• during storage	°C	-55 ... 80
Installation altitude / at a height over sea level / maximum	m	1,000
Resistance against vibration / according to IEC 60068-2-6		2g
Resistance against shock / according to IEC 60068-2-27		15g / 11 ms
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
Number of NC contacts / for auxiliary contacts		0

Number of NO contacts / for auxiliary contacts		0
Number of change-over switches / for auxiliary contacts		0

#### Main circuit:

Number of NO contacts / for main contacts		1
Number of NC contacts / for main contacts		0
Operating current <ul style="list-style-type: none"> <li>• at AC-1 / at 400 V / rated value</li> <li>• at AC-51 / rated value</li> </ul>	A A	10.5 10.5
Operating current / minimum	mA	100
Operating voltage <ul style="list-style-type: none"> <li>• at 50 Hz / at AC / rated value</li> <li>• at 60 Hz / at AC / rated value</li> </ul>	V V	48 ... 600 48 ... 600
Working area related to the operating voltage <ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> <li>• at 60 Hz / for AC</li> </ul>	V V	40 ... 660 40 ... 660
Operating frequency <ul style="list-style-type: none"> <li>• rated value</li> </ul>	Hz	50 ... 60
Relative symmetrical tolerance / of the operation frequency	%	10
Insulation voltage / rated value	V	600
Voltage slew rate / at the thyristor / for main contacts / maximum permissible	V/μs	1,000
Block voltage / at the thyristor / for main contacts / maximum permissible	V	1,600
Reverse current / of the thyristor	mA	10
Derating temperature	°C	40
Active power loss / total / typical	W	11
Resistance against the impulse current / rated value	A	400
I <sup>2</sup> t-level / maximum	A <sup>2</sup> ·s	800

#### Control circuit:

Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1 <ul style="list-style-type: none"> <li>• for DC <ul style="list-style-type: none"> <li>• initial rated value</li> <li>• final rated value</li> </ul> </li> </ul>	V V	15 24
Control supply voltage <ul style="list-style-type: none"> <li>• for DC / final value for signal&lt;0&gt;-recognition</li> </ul>	V	5
Control current <ul style="list-style-type: none"> <li>• at minimum control supply voltage / for DC</li> <li>• for DC / rated value</li> </ul>	mA mA	2 15

**Installation/mounting/dimensions:**



<b>Type of mounting</b>		screw and snap-on mounting onto 35 mm standard mounting rail
<b>Type of fixing/fixation / series installation</b>		Yes
<b>Design of the thread / of the screw for fastening of the operating resource</b>		M4
<b>Tightening torque / of the screw for fastening of the operating resource</b>	N·m	1.5
<b>Width</b>	mm	22.5
<b>Height</b>	mm	100
<b>Depth</b>	mm	94

**Connections:**

<b>Design of the electrical connection / for main current circuit</b>		spring-loaded 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> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> <li>• without conductor final cutting</li> </ul> </li> </ul> </li> <li>• for AWG conductors <ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary and control contacts</li> </ul> </li> <li>• for auxiliary and control 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> <li>• without conductor final cutting</li> </ul> </li> </ul> </li> </ul>		2x (0.5 ... 2.5 mm <sup>2</sup> )  2x (0.5 ... 1.5 mm <sup>2</sup> ) 2x (0.5 ... 2.5 mm <sup>2</sup> )  2x (18 ... 14) 1x (AWG 20 ... 12)  0.5 ... 1.5 mm <sup>2</sup>  0.5 ... 2.5 mm <sup>2</sup>  0.5 ... 2.5 mm <sup>2</sup>
<b>Conductor cross section that can be connected</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded wire <ul style="list-style-type: none"> <li>• with conductor end processing</li> <li>• without conductor final cutting</li> </ul> </li> </ul> </li> <li>• for auxiliary and control contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• stranded wire</li> </ul> </li> </ul>	mm <sup>2</sup>   mm <sup>2</sup> mm <sup>2</sup>  mm <sup>2</sup>	0.5 ... 2.5  0.5 ... 1.5 0.5 ... 2.5  0.5 ... 1.5

• with conductor end processing / minimum	mm <sup>2</sup>	0.5 ... 2.5
• without conductor final cutting	mm <sup>2</sup>	0.5 ... 2.5
<b>AWG number / as coded connectable conductor cross-section / for main contacts</b>		10 ... 14
<b>Design of the electrical connection / for auxiliary and control current circuit</b>		spring-loaded terminals
<b>AWG number / as coded connectable conductor cross-section</b> • for auxiliary and control contacts		20 ... 12
<b>Skinning length / of the cable / for main contacts</b>	mm	7
<b>Skinning length / of the cable / for auxiliary and control contacts</b>	mm	7

#### Certificates/approvals:

General Product Approval	Test Certificates	other
 <a href="#">ROSTEST</a> 	<a href="#">Manufacturer</a>	<a href="#">Manufacturer</a>

#### 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

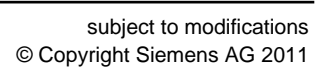
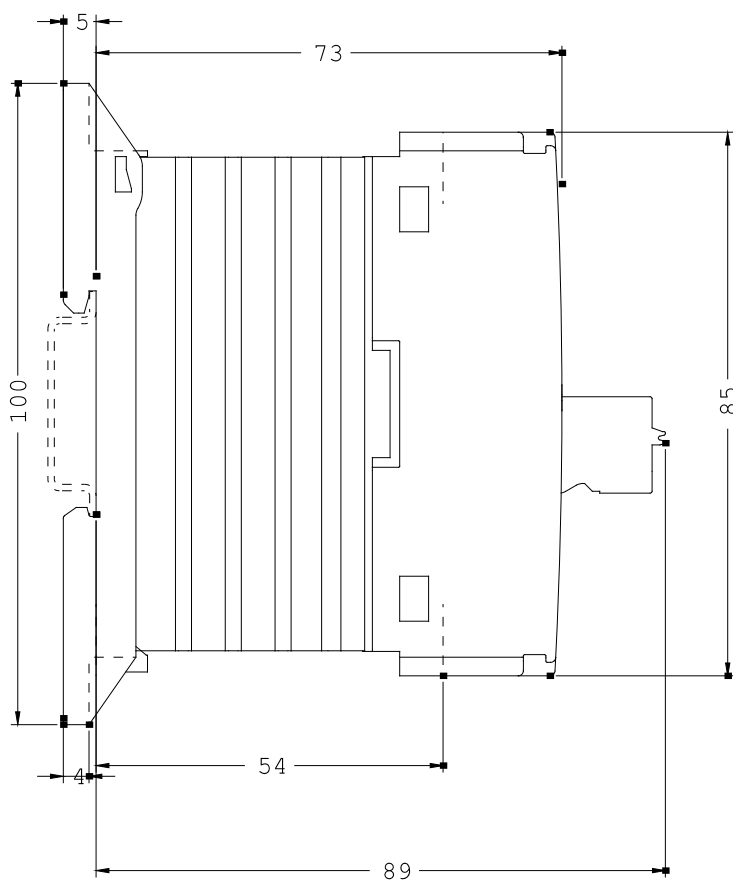
<http://www.siemens.com/cax>

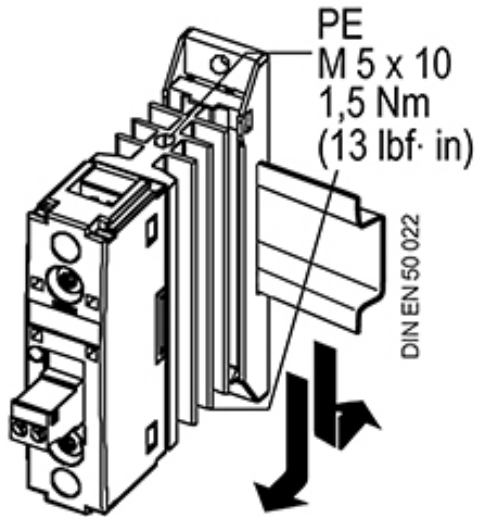
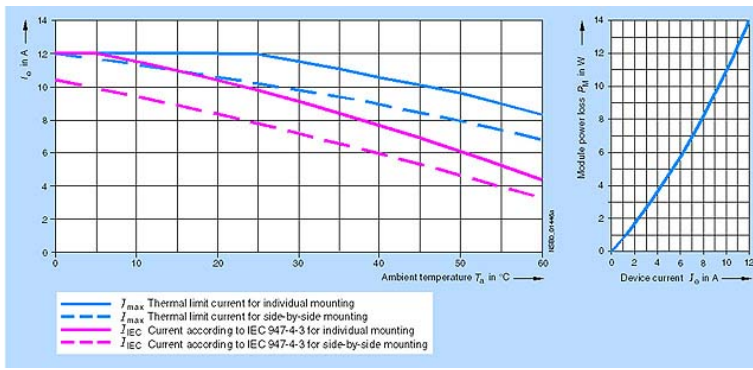
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2310-2AA06/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RF2310-2AA06](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2310-2AA06)





last change:

Aug 22, 2011