



SOLID STATE RELAY 3-PHASE 3RF2

### General technical data:

<b>Product brand name</b>		SIRIUS
<b>product designation</b>		solid-state relays
<b>Product function</b>		zero-point switching
<b>Number of poles / for main current circuit</b>		3
<b>Protection class IP</b>		IP20
<b>Product designation / _2 / of the accessories that can be ordered</b>		converter
<b>Manufacturer article number / _2 / of the accessories that can be ordered</b>		<a href="#">3RF2900-0EA18</a>
<b>Ambient temperature</b>		
• during operating	°C	-25 ... 60
• during storage	°C	-55 ... 80
<b>Installation altitude / at a height over sea level / maximum</b>	m	1,000
<b>Resistance against vibration / according to IEC 60068-2-6</b>		2g
<b>Resistance against shock / according to IEC 60068-2-27</b>		15g / 11 ms
<b>Item designation</b>		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
<b>Number of NC contacts / for auxiliary contacts</b>		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		3
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	55 55
Derating temperature	°C	40
Operating current / minimum	mA	500
Resistance against the impulse current / rated value	A	600
I <sup>2</sup> t-level / maximum	A <sup>2</sup> ·s	1,800
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	100
Block voltage / at the thyristor / for main contacts / maximum permissible	V	1,200
Reverse current / of the thyristor	mA	10
Control current / at minimum control supply voltage <ul style="list-style-type: none"> <li>• for AC</li> <li>• for DC</li> </ul>	mA mA	2 2
Fuse assignments	<a href="https://www.automation.siemens.com/cd-static/material/info/3RF22_eng.pdf">https://www.automation.siemens.com/cd-static/material/info/3RF22_eng.pdf</a>	

#### Control circuit:

Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1 <ul style="list-style-type: none"> <li>• for DC</li> </ul>	V	4 ... 30
Control supply voltage <ul style="list-style-type: none"> <li>• for DC / final value for signal&lt;0&gt;-recognition</li> </ul>	V	1
Control current		

- for DC / rated value

mA	15
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#### Installation/mounting/dimensions:

Type of mounting		screw fixing
Type of fixing/fixation / series installation		Yes
Design of the thread / of the screw for fastening of the operating resource		M4
Tightening torque / of the screw for fastening of the operating resource	N·m	1.5
Width	mm	45
Height	mm	95
Depth	mm	47

#### Connections:

Design of the electrical connection / for main current circuit		screw-type terminals
Design of the thread / of the connection screw / for main contacts		M4
Tightening torque / for main contacts <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	N·m	2 ... 2.5
Tightening torque (lbf·in) / for main contacts <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	lbf·in	7 ... 10.3
Type of the connectable conductor cross-section <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> </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 (1.5 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> )  2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>  2x (14 ... 10) 1x (AWG 20 ... 12)  1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )  1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
Conductor cross section that can be connected <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> </ul> </li> </ul> </li> <li>• for auxiliary and control contacts <ul style="list-style-type: none"> <li>• solid</li> </ul> </li> </ul>	mm <sup>2</sup>   mm <sup>2</sup>  mm <sup>2</sup>	1.5 ... 6   1 ... 10  0.5 ... 2.5

<ul style="list-style-type: none"> <li>• stranded wire</li> </ul>		
<ul style="list-style-type: none"> <li>• with conductor end processing / minimum</li> </ul>	mm <sup>2</sup>	0.5 ... 2.5
<ul style="list-style-type: none"> <li>• without conductor final cutting</li> </ul>	mm <sup>2</sup>	0.5 ... 2.5
<b>AWG number / as coded connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts</li> </ul>		10 ... 14
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>		20 ... 12
<b>Design of the electrical connection / for auxiliary and control current circuit</b>		screw-type terminals
<b>Design of the thread / of the connection screw / of the auxiliary and control pins</b>		M3
<b>Skinning length / of the cable</b>		
<ul style="list-style-type: none"> <li>• for main contacts</li> </ul>	mm	7
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>	mm	7
<b>Tightening torque / for auxiliary and control contacts</b>		
<ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	N·m	0.5 ... 0.6
<b>Tightening torque (lbf·in) / for auxiliary and control contacts</b>		
<ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	lbf·in	4.5 ... 5.3

#### Certificates/approvals:

##### General Product Approval



[ROSTEST](#)



##### Test Certificates

[Manufacturer](#)

##### other

[Manufacturer](#)

#### 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

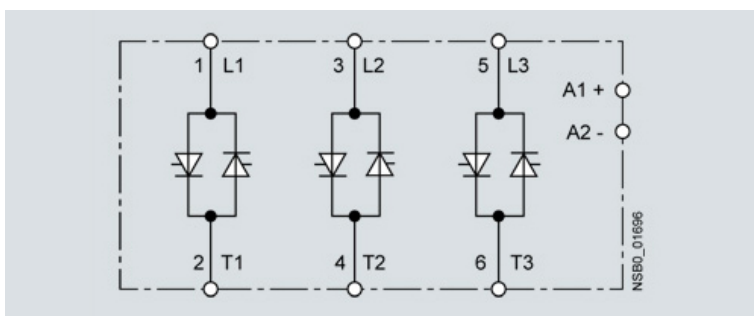
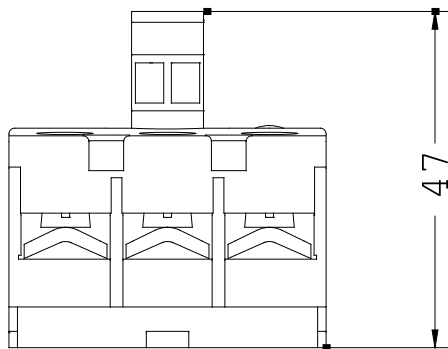
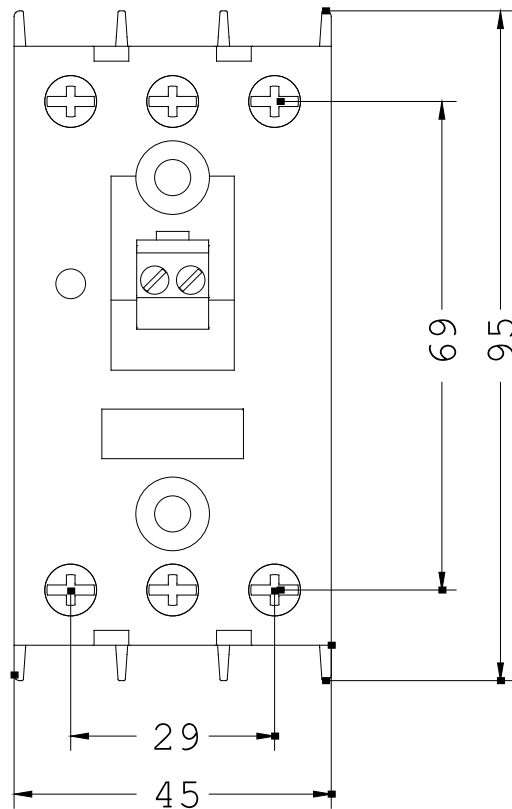
<http://www.siemens.com/cax>

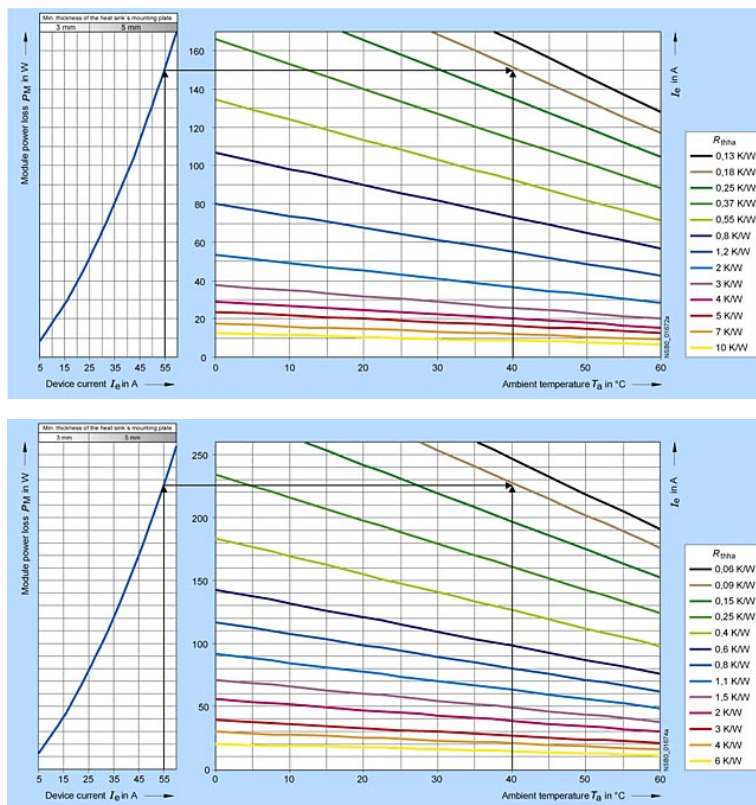
##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2255-1AC45/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RF2255-1AC45](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2255-1AC45)





last change:

Aug 24, 2011