



extended load monitoring current range 90 A / 40 °C 110 ... 230 V 24 V AC/DC for semiconductor relay / contactor

<b>product brand name</b>	SIRIUS
<b>product designation</b>	extended load monitoring
<b>product type designation</b>	3RF29
<b>manufacturer's article number</b>	
<ul style="list-style-type: none"> <li>_1 of the accessories that can be ordered</li> </ul>	<a href="#">3RF2900-ORA88</a>
<b>product designation</b>	
<ul style="list-style-type: none"> <li>_1 of the accessories that can be ordered</li> </ul>	sealable end cover
<b>General technical data</b>	
<b>power loss [W] for rated value of the current</b>	
<ul style="list-style-type: none"> <li>without load current share typical</li> </ul>	1 W
<b>insulation voltage rated value</b>	600 V
<b>degree of pollution</b>	3
surge voltage resistance of main circuit rated value	2.5 kV
<b>protection class IP</b>	IP20
protection class IP on the front according to IEC 60529	IP20
<b>shock resistance according to IEC 60068-2-27</b>	15g / 11 ms
<b>vibration resistance according to IEC 60068-2-6</b>	2g
<b>reference code according to IEC 81346-2</b>	B
<b>Substance Prohibitance (Date)</b>	05/01/2012
<b>SVHC substance name</b>	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) - 3147-75-9
<b>Weight</b>	0.169 kg
<b>Switching Function</b>	
<b>design of the switching function</b>	CO contact
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	0
<b>number of NO contacts for main contacts</b>	0
<b>number of NC contacts for main contacts</b>	0
<b>type of voltage</b>	AC/DC
operating voltage at AC	
<ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>	110 ... 230 V
<ul style="list-style-type: none"> <li>at 60 Hz rated value</li> </ul>	110 ... 230 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>relative symmetrical tolerance of the operating frequency</b>	10 %
<b>operating range relative to the operating voltage at AC</b>	
<ul style="list-style-type: none"> <li>at 50 Hz</li> </ul>	93.5 ... 253 V
<ul style="list-style-type: none"> <li>at 60 Hz</li> </ul>	93.5 ... 253 V
<b>operational current</b>	

<ul style="list-style-type: none"> <li>at AC-51 rated value</li> </ul>	90 A
<b>derating temperature</b>	40 °C
<b>Control circuit/ Control</b>	
<b>type of voltage</b>	AC/DC
<b>control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>	20.5 ... 26.5 V
<ul style="list-style-type: none"> <li>at 60 Hz rated value</li> </ul>	20.5 ... 26.5 V
<b>control supply voltage 1 at AC</b>	
<ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>	24 V
<ul style="list-style-type: none"> <li>at 60 Hz rated value</li> </ul>	24 V
<b>control supply voltage at DC rated value</b>	18 ... 30 V
<b>control supply voltage 1 at DC rated value</b>	24 V
<b>control supply voltage 1 at DC final rated value</b>	24 V
<b>control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>at 50 Hz full-scale value for signal&lt;0&gt; recognition</li> </ul>	5 V
<ul style="list-style-type: none"> <li>at 60 Hz full-scale value for signal&lt;0&gt; recognition</li> </ul>	5 V
control supply voltage at DC full-scale value for signal<0> recognition	5 V
<b>supply voltage frequency for auxiliary and control circuit rated value</b>	50 ... 60 Hz
<b>symmetrical line frequency tolerance</b>	5 Hz
<b>control current at minimum control supply voltage</b>	
<ul style="list-style-type: none"> <li>at AC</li> </ul>	2 mA
<ul style="list-style-type: none"> <li>at DC</li> </ul>	2 mA
control current at AC rated value	40 mA
control current at DC rated value	40 mA
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
number of CO contacts for auxiliary contacts	1
<b>Installation/ mounting/ dimensions</b>	
fastening method side-by-side mounting	Yes
<b>fastening method</b>	clip-on
<b>height</b>	111.5 mm
<b>width</b>	45 mm
<b>depth</b>	69.5 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>for auxiliary and control contacts</li> </ul>	
<ul style="list-style-type: none"> <li>— solid</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded with core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>— finely stranded without core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>for AWG cables for auxiliary and control contacts</li> </ul>	1x (20 ... 12)
tightening torque for auxiliary and control contacts with screw-type terminals	0.5 ... 0.6 N·m
tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals	4.5 ... 5.3 lbf·in
design of the thread of the connection screw of the auxiliary and control contacts	M3
stripped length of the cable for auxiliary and control contacts	7 mm
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	1 000 m
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-55 ... +80 °C
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	

- due to burst according to IEC 61000-4-4
- due to conductor-earth surge according to IEC 61000-4-5
- due to conductor-conductor surge according to IEC 61000-4-5
- due to high-frequency radiation according to IEC 61000-4-6

2 kV / 5 kHz behavior criterion 2  
 2 kV behavior criterion 2  
 1 kV behavior criterion 2  
 140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1

<b>electrostatic discharge according to IEC 61000-4-2</b>	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
<b>conducted HF interference emissions according to CISPR11</b>	Class A for industrial environment
<b>field-bound HF interference emission according to CISPR11</b>	Class B for the domestic, business and commercial environments

#### Approvals Certificates

General Product Approval	EMV	Test Certificates
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[Type Test Certificates/Test Report](#)

other	Environment
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[Confirmation](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2990-0GA13>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2990-0GA13>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2990-0GA13>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2990-0GA13&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2990-0GA13&lang=en)



