

Load monitoring Current range 50 A / 40 °C 110-230 V / 110 V AC for semiconductor relay / contactor



General technical data		
Product brand name		SIRIUS
Product designation		load monitoring
Product function		solid-state relay / solid-state contactor 3RF2
Number of poles for main current circuit		0
Protection class IP		IP20
Product designation _1 of the accessories that can be ordered		sealable end cover
Manufacturer's article number _1 of the accessories that can be ordered		<a href="#">3RF2900-0RA88</a>
Hole diameter of the current transformer	mm	17
Number of partial loads for load monitoring		12
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-55 ... +80
Installation altitude at height above sea level maximum	m	1 000
Vibration resistance acc. to IEC 60068-2-6		2g
Shock resistance acc. to IEC 60068-2-27		15g / 11 ms

Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		A
Reference code acc. to DIN EN 61346-2		B

### Main circuit

Number of NO contacts for main contacts		0
Number of NC contacts for main contacts		0
Operating current		
• at AC-1 at 400 V rated value	A	50
Derating temperature	°C	40
Operating voltage at AC		
• at 50 Hz rated value	V	110 ... 230
• at 60 Hz rated value	V	110 ... 230
Operating range relative to the operating voltage at AC		
• at 50 Hz	V	93.5 ... 253
• at 60 Hz	V	93.5 ... 253
Operating frequency rated value	Hz	50 ... 60
Relative symmetrical tolerance of the operating frequency	%	10
Insulation voltage rated value	V	600
Compensation of the supply voltage fluctuations	%	20
Partial load for load monitoring	A	1.6
Teach range current	A	1.62 ... 50
Current measuring range	A	0 ... 55

### Control circuit/ Control

Type of voltage		AC
Control supply voltage		
• at AC		
— at 50 Hz		
— rated value	V	90 ... 121
— Full-scale value for signal<0> recognition	V	15
— at 60 Hz		
— rated value	V	90 ... 121
— Full-scale value for signal<0> recognition	V	15
Supply voltage frequency for auxiliary and control current circuit rated value	Hz	50 ... 60
Symmetrical line frequency tolerance	Hz	5
Relative symmetrical tolerance of the supply voltage frequency	%	10
Control current		
• at AC rated value	mA	20

<b>Response delay</b>	s	0.1 ... 3
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### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b>		1
<b>Number of NO contacts for auxiliary contacts</b>		1
<b>Number of CO contacts for auxiliary contacts</b>		1
<b>Operating voltage of auxiliary contacts</b>		
• at AC	V	90 ... 121
• at DC	V	90 ... 121
<b>Operating current of auxiliary contacts</b>		
• at AC	mA	5 ... 1 000
• at DC	mA	5 ... 1 000

### Installation/ mounting/ dimensions

<b>Mounting type</b>		clip-on
<b>Mounting type Side-by-side mounting</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	111.5
<b>Depth</b>	mm	69.5

### Connections/Terminals

<b>Type of electrical connection</b>		
• for auxiliary and control current circuit		screw-type terminals
<b>Design of the thread of the connection screw of the auxiliary and control contacts</b>		M3
<b>Type of connectable conductor cross-sections</b>		
• for auxiliary and control contacts		
— solid		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
— finely stranded		
— with core end processing		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
— without core end processing		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
• at AWG conductors for auxiliary and control contacts		1x (AWG 20 ... 12)
<b>Connectable conductor cross-section for auxiliary and control contacts</b>		
• solid	mm <sup>2</sup>	0.5 ... 2.5
• finely stranded		
— with core end processing	mm <sup>2</sup>	0.5 ... 2.5
— without core end processing	mm <sup>2</sup>	0.5 ... 2.5
<b>AWG number as coded connectable conductor cross section for auxiliary and control contacts</b>		12 ... 20
<b>Wire stripping length of the cable for auxiliary and control contacts</b>	mm	7
<b>Tightening torque for auxiliary and control contacts with screw-type terminals</b>	N·m	0.5 ... 0.6

Tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals

lbf·in

4.5 ... 5.3

## Certificates/approvals

### General Product Approval



CSA



UL

EAC



RCM



EG-Konf.

[Miscellaneous](#)

### Test Certificates

### other

[Type Test Certificates/Test Report](#)

[Confirmation](#)

## Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2950-0GA33>

### Cax online generator

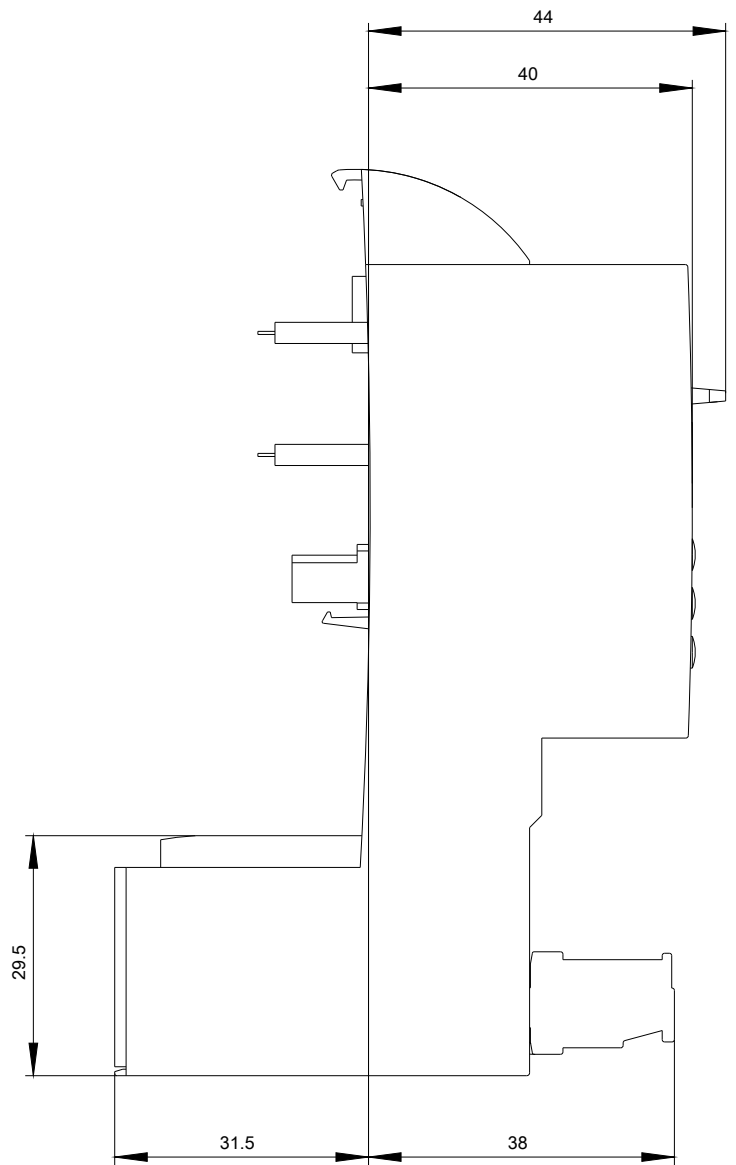
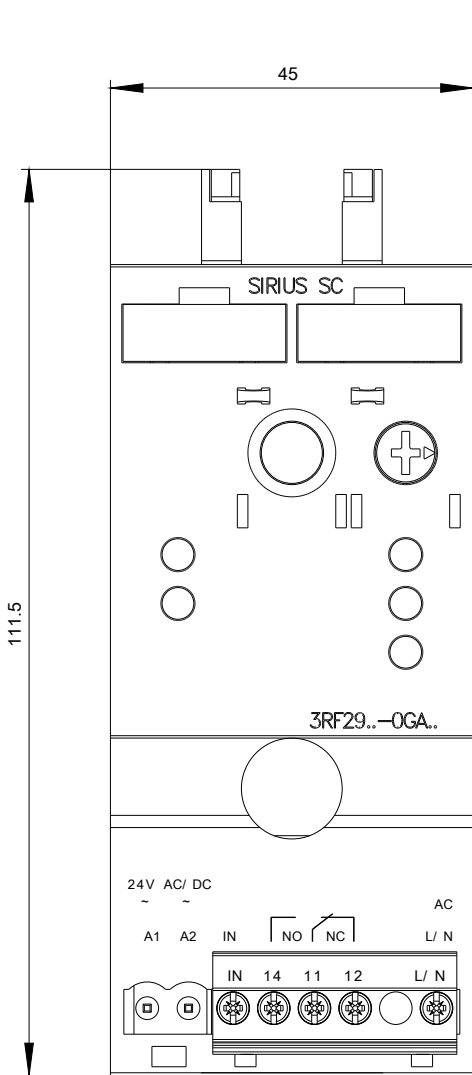
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2950-0GA33>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2950-0GA33>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2950-0GA33&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2950-0GA33&lang=en)



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