

Load monitoring Current range 90 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		3RF2900-0RA88
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	90
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	2.9
Teach range current	A	2.93 ... 90
Current measuring range	A	0 ... 99

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

Response delay	s	0.1 ... 3
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Auxiliary circuit

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

Installation/ mounting/ dimensions

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

Connections/Terminals

Type of electrical connection		
• for auxiliary and control current circuit		screw-type terminals
Design of the thread of the connection screw of the auxiliary and control contacts		M3
Type of connectable conductor cross-sections		
• for auxiliary and control contacts		
— solid		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
— finely stranded		
— with core end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
— without core end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• at AWG conductors for auxiliary and control contacts		1x (AWG 20 ... 12)
Connectable conductor cross-section for auxiliary and control contacts		
• solid	mm ²	0.5 ... 2.5
• finely stranded		
— with core end processing	mm ²	0.5 ... 2.5
— without core end processing	mm ²	0.5 ... 2.5
AWG number as coded connectable conductor cross section for auxiliary and control contacts		12 ... 20
Wire stripping length of the cable for auxiliary and control contacts	mm	7
Tightening torque for auxiliary and control contacts with screw-type terminals	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=3RF2990-0GA33>

Cax online generator

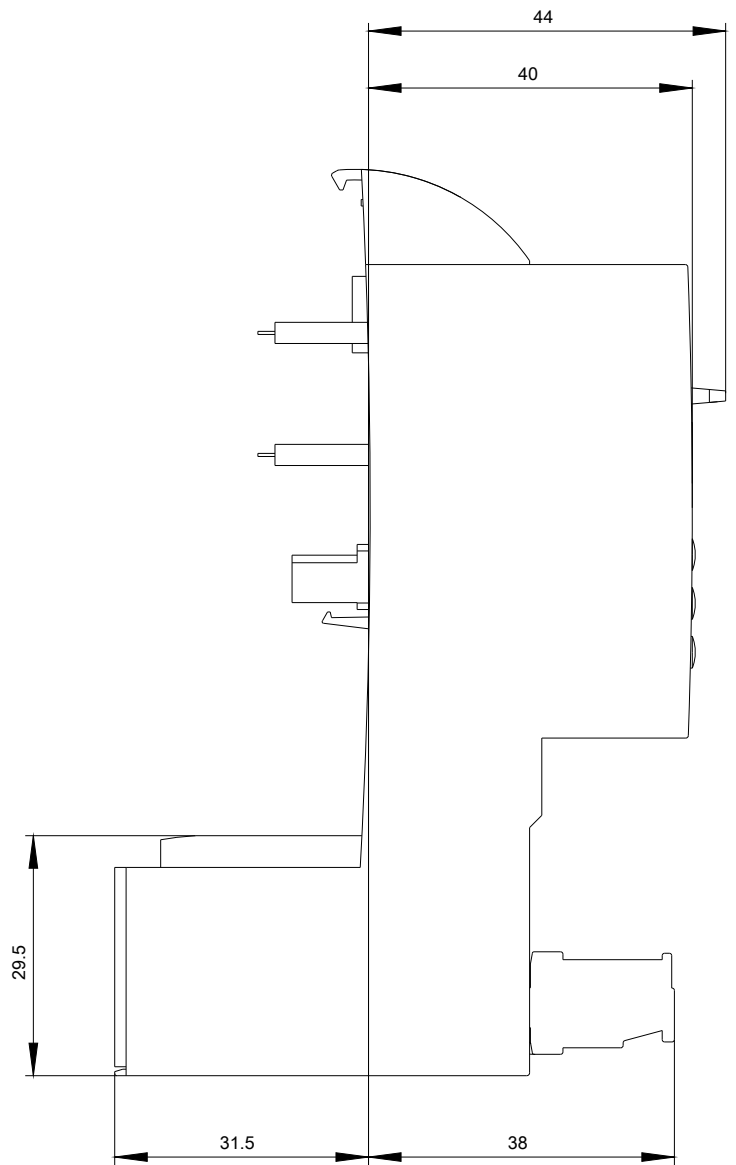
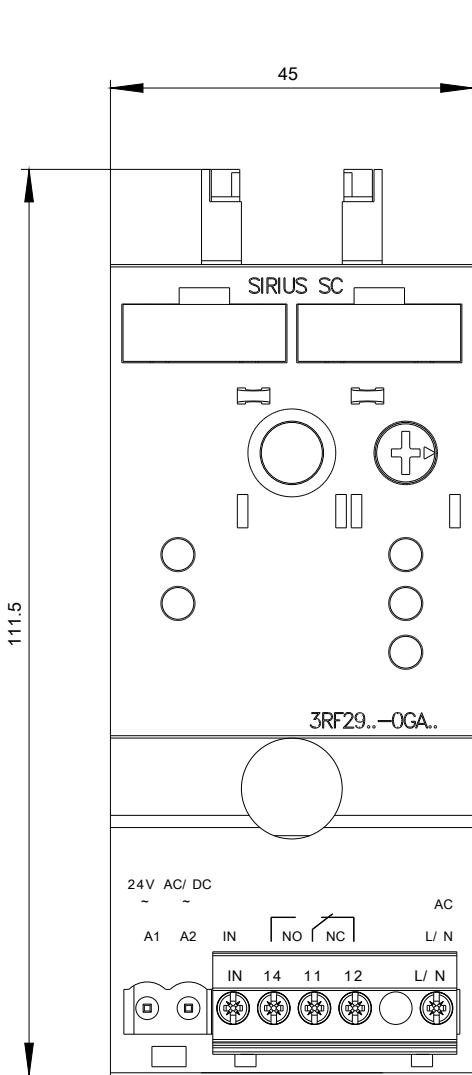
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2990-0GA33>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2990-0GA33>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2990-0GA33&lang=en



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