

Load monitoring Current range 90 A / 40 °C 400-600 V / 24 V AC/DC
for semiconductor relay / contactor



product brand name	SIRIUS
product designation	load monitoring
manufacturer's article number	
<ul style="list-style-type: none"> • _1 / of the accessories that can be ordered 	3RF2900-0RA88
product designation	
<ul style="list-style-type: none"> • _1 / of the accessories that can be ordered 	sealable end cover

General technical data

product function	solid-state relay / solid-state contactor 3RF2
insulation voltage	
<ul style="list-style-type: none"> • rated value 	600 V
degree of pollution	3
protection class IP	IP20
shock resistance / acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance / acc. to IEC 60068-2-6	2g
reference code / acc. to DIN EN 81346-2	B

Main circuit

number of poles / for main current circuit	0
number of NO contacts / for main contacts	0
number of NC contacts / for main contacts	0

operating voltage / at AC	
<ul style="list-style-type: none"> • at 50 Hz / rated value • at 60 Hz / rated value 	400 ... 600 V
operating frequency / rated value	50 ... 60 Hz
relative symmetrical tolerance / of the operating frequency	10 %
operating range relative to the operating voltage / at AC	
<ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	340 ... 660 V
operating current	
<ul style="list-style-type: none"> • at AC-51 / rated value 	90 A
derating temperature	40 °C

Control circuit/ Control

control supply voltage / 1	
<ul style="list-style-type: none"> • at DC 	24 V
control supply voltage / at AC	
<ul style="list-style-type: none"> • at 50 Hz / full-scale value for signal<0> recognition • at 60 Hz / full-scale value for signal<0> recognition 	5 V
control supply voltage	
<ul style="list-style-type: none"> • at DC / full-scale value for signal<0> recognition 	5 V
symmetrical line frequency tolerance	5 Hz
control current / at minimum control supply voltage	
<ul style="list-style-type: none"> • at AC • at DC 	2 mA
control current / at AC / rated value	40 mA
control current / at DC / rated value	40 mA
number of NC contacts / for auxiliary contacts	1
number of NO contacts / for auxiliary contacts	1
number of CO contacts / for auxiliary contacts	1

Installation/ mounting/ dimensions

mounting type	clip-on
<ul style="list-style-type: none"> • side-by-side mounting 	Yes
height	111.5 mm
width	45 mm
depth	69.5 mm

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> • for auxiliary and control current circuit 	screw-type terminals

type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> — solid — finely stranded / with core end processing — finely stranded / without core end processing • at AWG conductors / for auxiliary and control contacts 	<p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)</p> <p>1x (AWG 20 ... 12)</p>
tightening torque	
<ul style="list-style-type: none"> • for auxiliary and control contacts / with screw-type terminals 	0.5 ... 0.6 N·m
tightening torque [lbf-in]	
<ul style="list-style-type: none"> • for auxiliary and control contacts / with screw-type terminals 	4.5 ... 5.3 lbf-in
design of the thread / of the connection screw	
<ul style="list-style-type: none"> • of the auxiliary and control contacts 	M3
wire stripping length / of the cable	
<ul style="list-style-type: none"> • for auxiliary and control contacts 	7 mm

Ambient conditions

installation altitude / at height above sea level / maximum	1 000 m
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage 	<p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p>

Electromagnetic compatibility

conducted interference	
<ul style="list-style-type: none"> • due to burst / acc. to IEC 61000-4-4 • due to conductor-earth surge / acc. to IEC 61000-4-5 • due to conductor-conductor surge / acc. to IEC 61000-4-5 • due to high-frequency radiation / acc. to IEC 61000-4-6 	<p>2 kV / 5 kHz behavior criterion 2</p> <p>2 kV behavior criterion 2</p> <p>1 kV behavior criterion 2</p> <p>140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1</p>
electrostatic discharge / acc. to IEC 61000-4-2	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
conducted HF-interference emissions / acc. to CISPR11	Class A for industrial environment
field-bound HF-interference emission / acc. to CISPR11	Class B for the domestic, business and commercial environments

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)

Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

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=3RF2990-0GA16>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2990-0GA16>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2990-0GA16>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2990-0GA16&lang=en



