

Semiconductor relay, 1-phase 3RF2 Overall width 22.5 mm, 50 A 48-600 V / 24 V DC Spring-type terminal



General technical data		
Product brand name		SIRIUS
Product designation		solid-state relay
Product function		zero-point switching
Number of poles for main current circuit		1
Protection class IP		IP20
Product designation _3 of the accessories that can be ordered		converter
Manufacturer's article number _3 of the accessories that can be ordered		3RF2900-0EA18
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		K
Reference code acc. to DIN EN 61346-2		Q

Number of NC contacts for auxiliary contacts		0
Number of NO contacts for auxiliary contacts		0
Number of CO contacts for auxiliary contacts		0

Main circuit






Number of NO contacts for main contacts		1
Number of NC contacts for main contacts		0
Operating current		
• rated value maximum	A	50
• at AC-51 rated value	A	20
• minimum	mA	500
Operating voltage at AC		
• at 50 Hz rated value	V	48 ... 600
• at 60 Hz rated value	V	48 ... 600
Operating range relative to the operating voltage at AC		
• at 50 Hz	V	40 ... 660
• at 60 Hz	V	40 ... 660
Operating frequency rated value	Hz	50 ... 60
Relative symmetrical tolerance of the operating frequency	%	10
Insulation voltage rated value	V	600
Rate of voltage rise at the thyristor for main contacts maximum permissible	V/ μ s	1 000
Blocking voltage at the thyristor for main contacts maximum permissible	V	1 600
Reverse current of the thyristor	mA	10
Derating temperature	$^{\circ}$ C	40
Power loss [W] total typical	W	66
Power loss [V·A] maximum	V·A	66
Surge current resistance rated value	A	600
I ² t value maximum	A ² ·s	1 800
Short-circuit protection, design of the fuse link		

Control circuit/ Control

Type of voltage of the control supply voltage		DC
Control supply voltage 1		
• at DC		
— Initial rated value	V	15
— Final rated value	V	24
— rated value maximum permissible	V	30
Control supply voltage		
• at DC initial value for signal <1> detection	V	15
• at DC Full-scale value for signal<0> recognition	V	5

— without core end processing	mm ²	0.5 ... 2.5
AWG number as coded connectable conductor cross section		
• for main contacts		18 ... 14
• for auxiliary and control contacts		20 ... 12
Type of electrical connection for auxiliary and control current circuit		spring-loaded terminals
Wire stripping length of the cable		
• for main contacts	mm	10
• for auxiliary and control contacts	mm	10

Certificates/approvals

General Product Approval	EMC	Declaration of Conformity
 CSA  UR  EAC	 C-Tick	 CE EG-Konf.

[Miscellaneous](#)

Test Certificates	other	Railway
Type Test Certificates/Test Report	Confirmation	Vibration and Shock
Special Test Certificate		

Further information

Short-circuit protection, design of the fuse link

https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf

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=3RF2150-2AA06>

Cax online generator

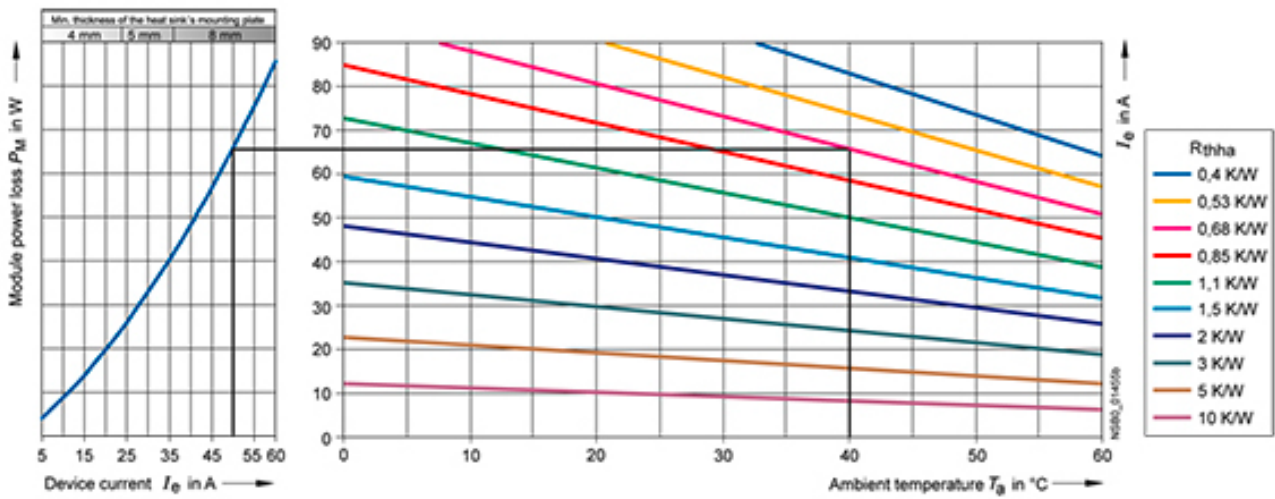
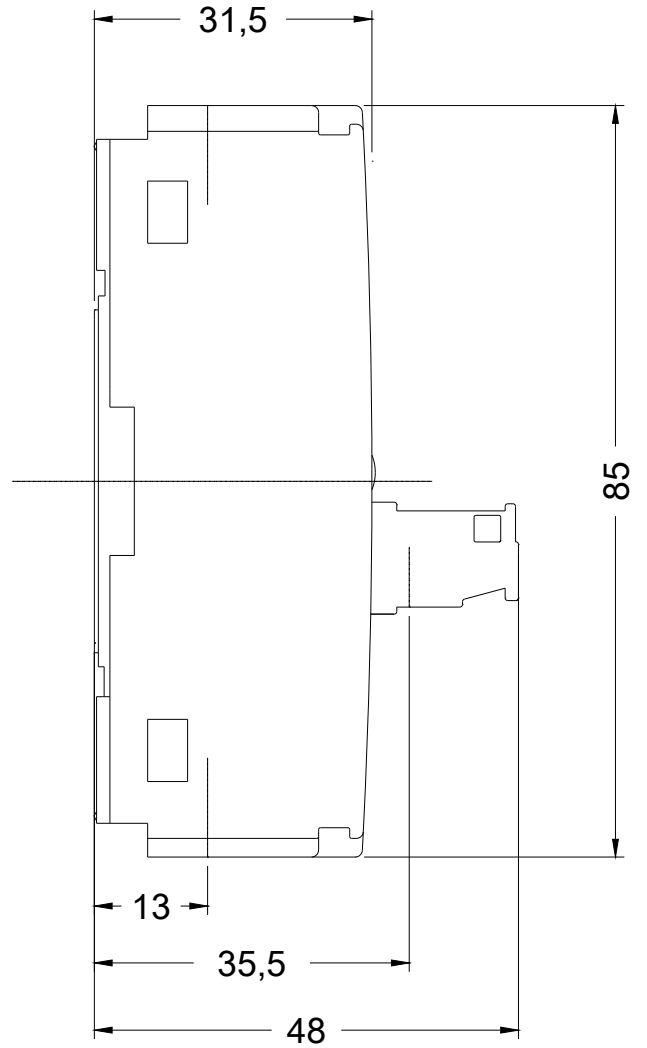
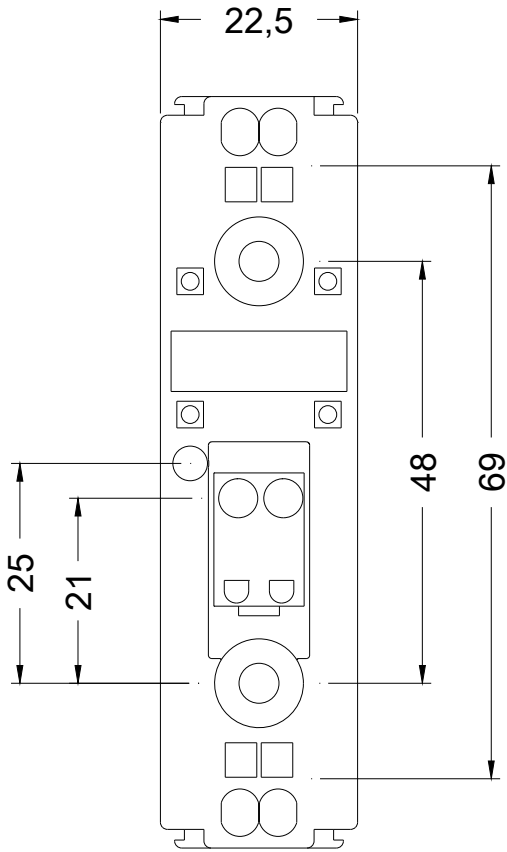
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2150-2AA06>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2150-2AA06>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2150-2AA06&lang=en



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