



SEMICONDUCTOR RELAY 3RF2,
1-PH. WIDTH 22.5MM,
20A 48-600V / 4-30V DC SPRING-LOADED TERM.
BLOCKING VOLTAGE 1200V

General technical data:

Product brand name		SIRIUS
product designation		solid-state relays
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 article number / _3 / of the accessories that can be ordered		3RF2900-0EA18
Ambient temperature		
• during operating	°C	-25 ... 60
• during storage	°C	-55 ... 80
Installation altitude / at a height over sea level / maximum	m	1,000
Resistance against vibration / according to IEC 60068-2-6		2g
Resistance against shock / according to IEC 60068-2-27		15g / 11 ms
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
Number of NC contacts / for auxiliary contacts		0

Number of NO contacts / for auxiliary contacts		0
Number of change-over switches / for auxiliary contacts		0

Main circuit:

Number of NO contacts / for main contacts		1
Number of NC contacts / for main contacts		0
Operating current <ul style="list-style-type: none"> • at AC-1 / at 400 V / rated value • at AC-51 / rated value 	A A	20 20
Operating current / minimum	mA	100
Operating voltage <ul style="list-style-type: none"> • at 50 Hz / at AC / rated value • at 60 Hz / at AC / rated value 	V V	48 ... 600 48 ... 600
Working area related to the operating voltage <ul style="list-style-type: none"> • at 50 Hz / for AC • at 60 Hz / for AC 	V V	40 ... 660 40 ... 660
Operating frequency <ul style="list-style-type: none"> • rated value 	Hz	50 ... 60
Relative symmetrical tolerance / of the operation frequency	%	10
Insulation voltage / rated value	V	600
Voltage slew rate / at the thyristor / for main contacts / maximum permissible	V/μs	500
Block voltage / at the thyristor / for main contacts / maximum permissible	V	1,200
Reverse current / of the thyristor	mA	10
Derating temperature	°C	40
Active power loss / total / typical	W	28.6
Resistance against the impulse current / rated value	A	200
I ² t-level / maximum	A ² ·s	200

Control circuit:

Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1 <ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> • initial rated value • final rated value 	V V	4 30
Control supply voltage <ul style="list-style-type: none"> • for DC / final value for signal<0>-recognition 	V	1
Control current <ul style="list-style-type: none"> • at minimum control supply voltage / for AC • at minimum control supply voltage / for DC 	mA mA	2 2

• for DC / rated value	mA	15
Fuse assignments	https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf	
Installation/mounting/dimensions:		
Type of mounting		screw fixing
Type of fixing/fixation / series installation		Yes
Design of the thread / of the screw for fastening of the operating resource		M4
Tightening torque / of the screw for fastening of the operating resource	N·m	1.5
Width	mm	22.5
Height	mm	85
Depth	mm	48
Connections:		
Design of the electrical connection / for main current circuit		spring-loaded terminals
Tightening torque / for main contacts		
• with screw-type terminals	N·m	2 ... 2.5
Tightening torque (lbf·in) / for main contacts		
• with screw-type terminals	lbf·in	7 ... 10.3
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (0.5 ... 2.5 mm²)
• finely stranded		
• with conductor end processing		2x (0.5 ... 1.5 mm²)
• without conductor final cutting		2x (0.5 ... 2.5 mm²)
• for AWG conductors		
• for main contacts		2x (18 ... 14)
• for auxiliary and control contacts		1x (AWG 20 ... 12)
• for auxiliary and control contacts		
• solid		0.5 ... 1.5 mm²
• finely stranded		
• with conductor end processing		0.5 ... 2.5 mm²
• without conductor final cutting		0.5 ... 2.5 mm²
Conductor cross section that can be connected		
• for main contacts		
• solid	mm²	0.5 ... 2.5
• stranded wire		
• with conductor end processing	mm²	0.5 ... 1.5
• without conductor final cutting	mm²	0.5 ... 2.5

<ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • stranded wire <ul style="list-style-type: none"> • with conductor end processing / minimum • without conductor final cutting 	mm ²	0.5 ... 1.5
	mm ²	0.5 ... 2.5
	mm ²	0.5 ... 2.5
AWG number / as coded connectable conductor cross-section / for main contacts		14 ... 10
Design of the electrical connection / for auxiliary and control current circuit		spring-loaded terminals
AWG number / as coded connectable conductor cross-section <ul style="list-style-type: none"> • for auxiliary and control contacts 		20 ... 12
Skinning length / of the cable / for main contacts	mm	10
Skinning length / of the cable / for auxiliary and control contacts	mm	10

Certificates/approvals:

General Product Approval



[ROSTEST](#)



Test Certificates

[Manufacturer](#)

other

[Manufacturer](#)

Further information:

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

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

Industry Mall (Online ordering system)

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

CAX-Online-Generator

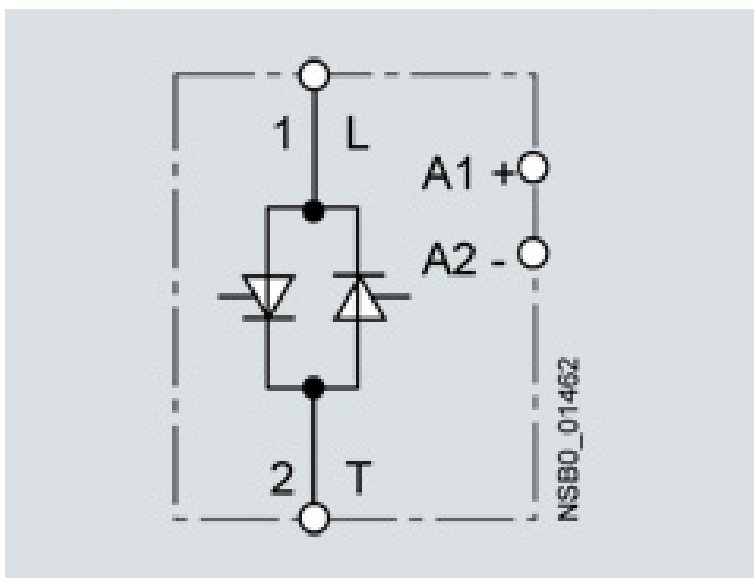
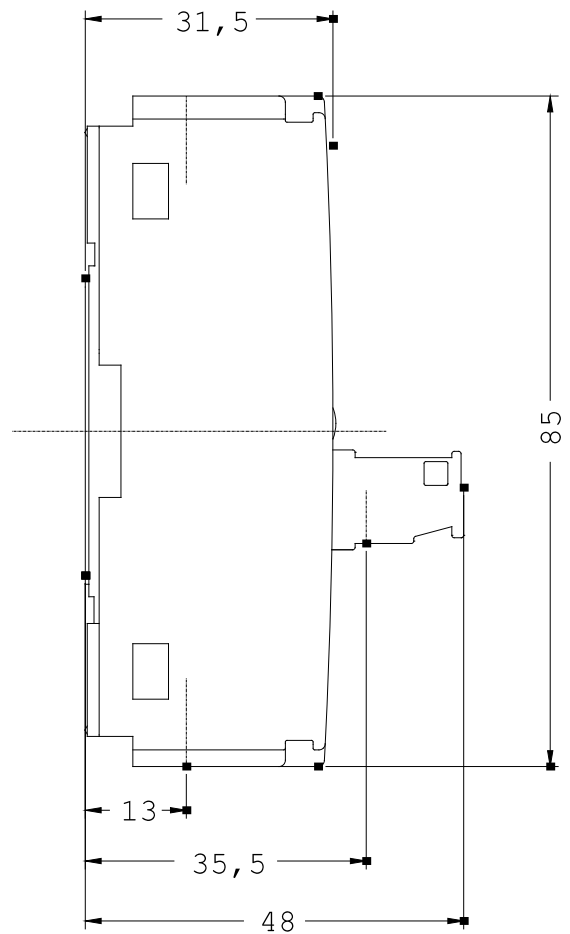
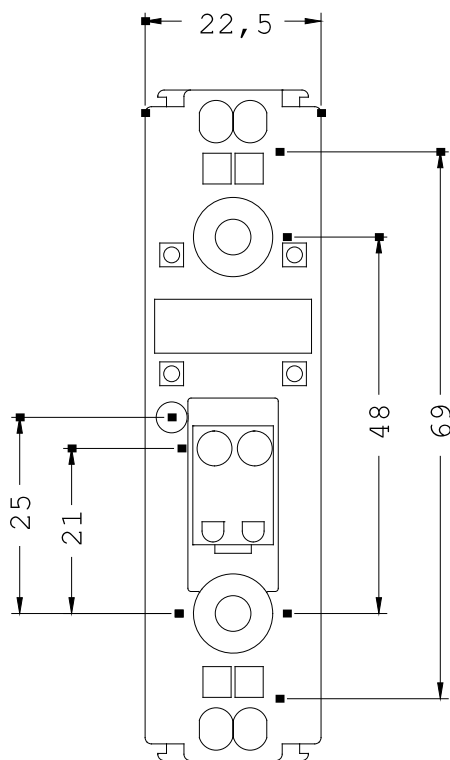
<http://www.siemens.com/cax>

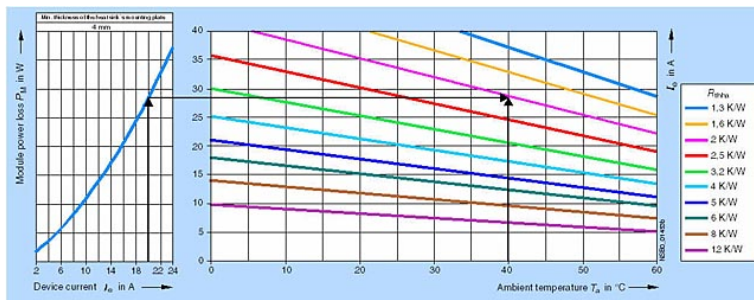
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2120-2AA45/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2120-2AA45





last change:

Aug 22, 2011