



SEMICONDUCTOR RELAY 3RF2 WIDTH 22.5 MM,
50 A 48-460V / 24V DC SCREW CONNECTION WITHOUT
CONTROL CONNECTOR

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 / _1 / of the accessories that can be ordered	terminal cover
Manufacturer article number / _1 / of the accessories that can be ordered	3RF2900-3PA88
Product designation / _3 / of the accessories that can be ordered	converter
Manufacturer article number / _3 / of the accessories that can be ordered	3RF2900-0EA18
Product designation / _4 / of the accessories that can be ordered	load monitoring
Manufacturer article number / _4 / of the accessories that can be ordered	3RF2950-0GA16
Product designation / _5 / of the accessories that can be ordered	load monitoring, basis
Manufacturer article number / _5 / of the accessories that can be ordered	3RF2920-0FA08
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
Reference code		
• according to DIN 40719 extended according to 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 changeover 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	50
• minimum	mA	500
Operating voltage		
• at 50 Hz / at AC / rated value	V	48 ... 460
• at 60 Hz / at AC / rated value	V	48 ... 460
Working range relative to the operating voltage		
• at 50 Hz / with AC	V	40 ... 506
• at 60 Hz / with AC	V	40 ... 506
Operating frequency		
• 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	1,000
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	66
Apparent loss power / maximum	V·A	66
Resistance against the impulse current / rated value	A	600
I²t-level / maximum	A ² ·s	1,800

Control circuit/ Control:

Voltage type / of control feed 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	15
	V	24
Control supply voltage		
<ul style="list-style-type: none"> • for DC / final value for signal<0>-recognition 	V	5
Control current		
<ul style="list-style-type: none"> • at minimum control supply voltage / for DC • for DC / rated value 	mA	2
	mA	15

Installation/ mounting/ dimensions:

Mounting type		screw fixing
Mounting type / 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/ terminals:

Design of the electrical connection / for main current circuit		screw-type terminals
Design of the thread / of the connection screw / for main contacts		M4
Tightening torque / for main contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	N-m	2 ... 2.5
Tightening torque (lbf-in) / for main contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	lbf-in	7 ... 10.3
Type of the connectable conductor cross-section		
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • for AWG conductors <ul style="list-style-type: none"> • for main contacts • for auxiliary and control contacts 		2x (1.5 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (14 ... 10) 1x (AWG 20 ... 12)

<ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
<ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
<ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> • without conductor final cutting 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
Conductor cross section that can be connected		
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • single- or multi-stranded • stranded wire <ul style="list-style-type: none"> • with conductor end processing • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • stranded wire <ul style="list-style-type: none"> • with conductor end processing / • without conductor final cutting 	mm ²	1.5 ... 6
	mm ²	1 ... 10
	mm ²	0.5 ... 2.5
	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		screw-type terminals
Design of the thread / of the connection screw / of the auxiliary and control pins		M3
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	7
Skinning length / of the cable / for auxiliary and control contacts	mm	7
Tightening torque / for auxiliary and control contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	N·m	0.5 ... 0.6
Tightening torque (lbf·in) / for auxiliary and control contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	lbf·in	4.5 ... 5.3

Certificates/ approvals:

General Product Approval

EMC

Test Certificates

other



[Special Test Certificate](#)

[Environmental Confirmations](#)

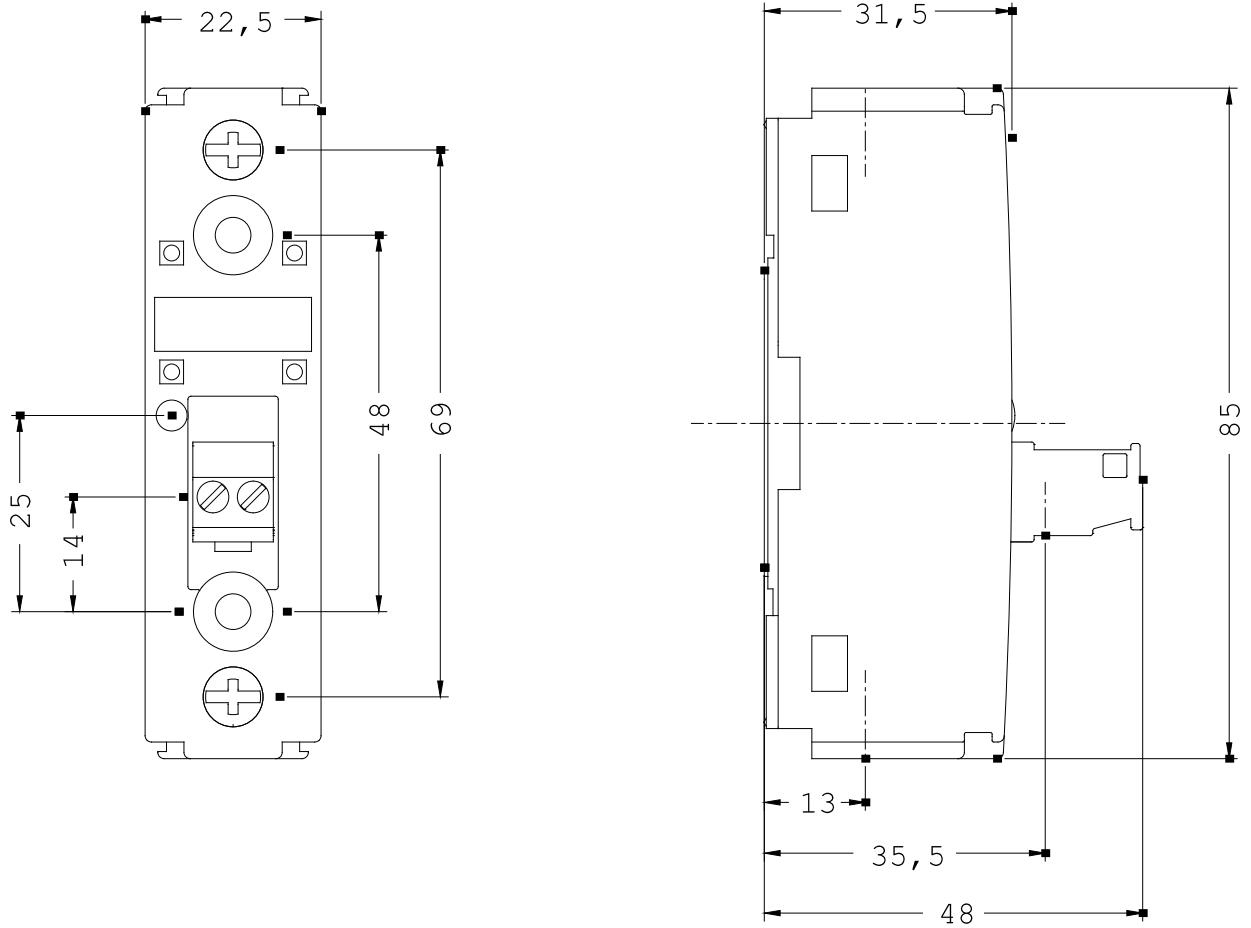
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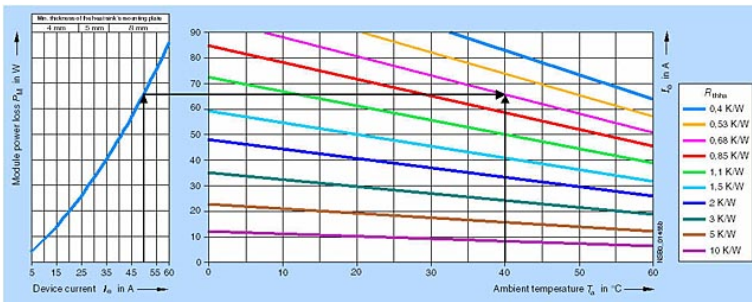
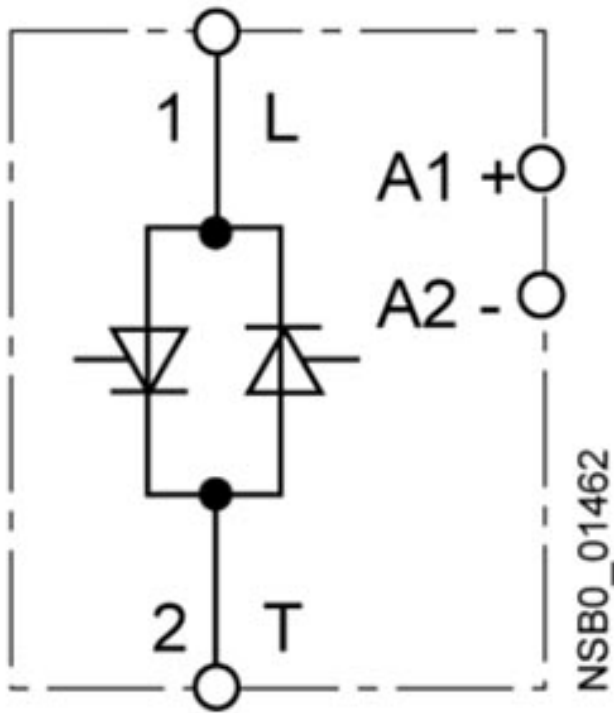
Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/>





last change:

Jun 16, 2014