

SEMI-CONDUCTOR CONTACT.3-PH.3RF2 AC51 20A
 40 DEG. C 48-600V / 4-30V DC 2-PHASE
 CONTROLLED SCREW TERMINAL BLOCKING
 VOLTAGE 1200V



General technical data		
product brandname		SIRIUS
Product designation		solid-state contactor
Product function		zero-point switching
Number of poles for main current circuit		3
Protection class IP		IP20
Product designation _2 of the accessories that can be ordered		converter
Manufacturer's article number _2 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
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		K
Equipment marking 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		2
Number of NC contacts for main contacts		0
Operating current		
• minimum	mA	500
• at AC-51 rated value	A	22
• at AC-51 according to IEC 60947-4-3	A	15
Derating temperature	°C	40
Power loss [W] total typical	W	44
Reverse current of the thyristor	mA	10
Surge current resistance rated value	A	600
I ² t value maximum	A ² ·s	1 800
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/μs	1 000
Blocking voltage at the thyristor for main contacts maximum permissible	V	1 200
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	V	4 ... 30
Control supply voltage		
• at DC initial value for signal <1> detection	V	4
• at DC Full-scale value for signal <0> recognition	V	1
Symmetrical line frequency tolerance	Hz	5
Control current		
• at minimum control supply voltage		
— at DC	mA	22

— 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 main contacts		14 ... 10
• for auxiliary and control contacts		20 ... 12
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
Wire stripping length of the cable		
• for main contacts	mm	7
• 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	7.5 ... 5.3

Certificates/approvals

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CSA	 UL		 C-Tick
		 EG-Konf.	Type Test Certificates/Test Report

other

[Environmental Confirmations](#)

[Confirmation](#)

Further information

Short-circuit protection, design of the fuse link

https://www.automation.siemens.com/cd-static/material/info/3RF24_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=3RF2420-1AB45>

Cax online generator

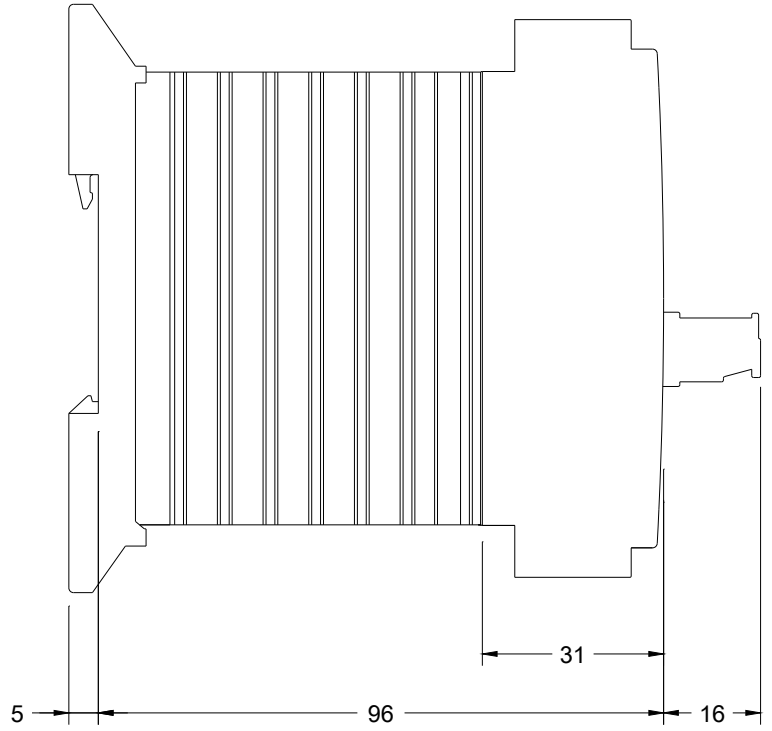
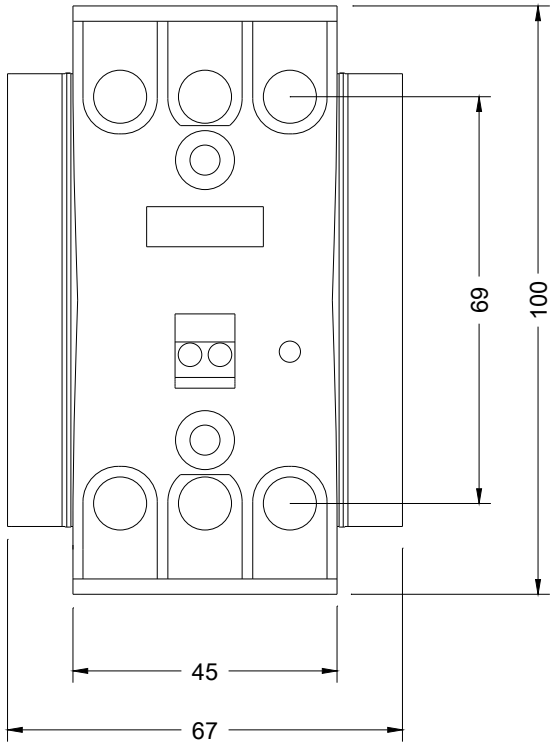
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2420-1AB45>

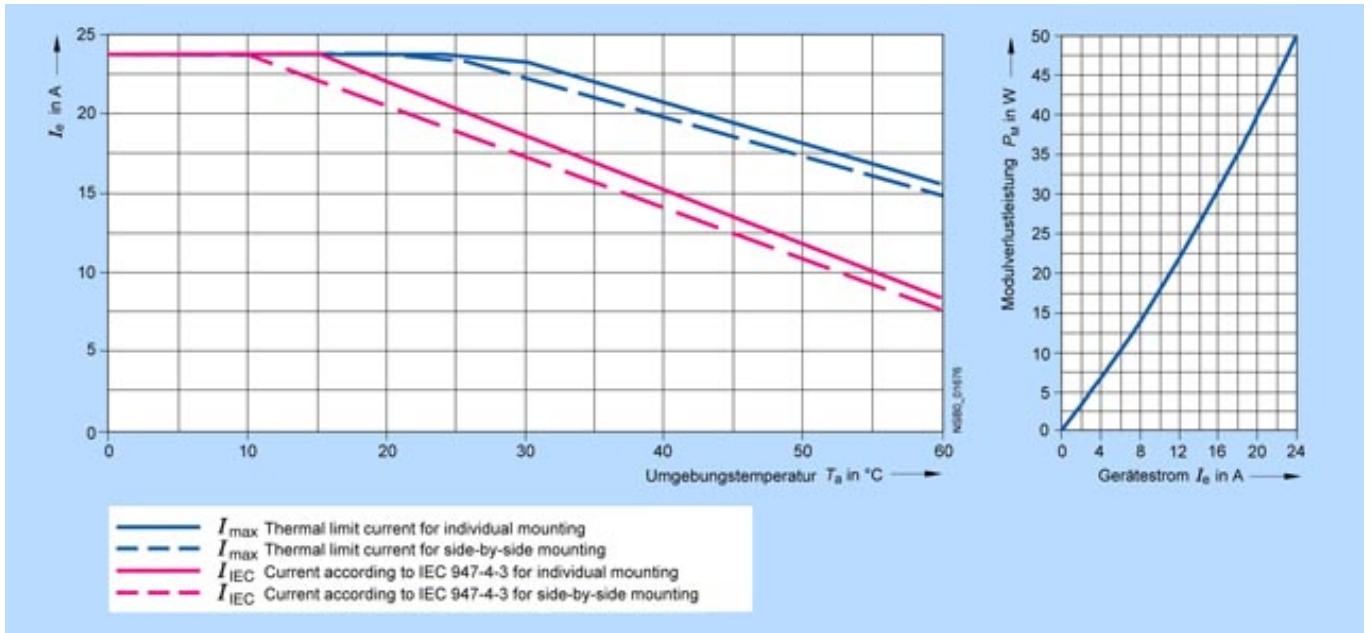
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2420-1AB45>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2420-1AB45&lang=en





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