

SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 20 A
40 DEGREES C 24-230 V / 110-230 V AC SHORT-
CIRC. RESIST. WITH B-MCB



General technical data:		
product brand name		SIRIUS
Product designation		solid-state contactor
Product function		short-circuit resistant with B-automatic device
Number of poles for main current circuit		1
Protection class IP		IP20
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		1
Number of NC contacts for main contacts		0
Operating current		
• at AC-51 Rated value	A	20
Operating current of the MCB at AC Rated value	A	20
Operating current minimum	mA	500
Operating voltage at AC		
• at 50 Hz Rated value	V	24 ... 230
• at 60 Hz Rated value	V	24 ... 230
Operating range relative to the operating voltage at AC		
• at 50 Hz	V	20 ... 253
• at 60 Hz	V	20 ... 253
Operating frequency Rated value	Hz	50 ... 60
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	800
Reverse current of the thyristor	mA	10
Derating temperature	°C	40
Active power loss total typical	W	20
Surge current resistance Rated value	A	1 150
I ² t value maximum	A ² ·s	6 600

Control circuit/ Control:		
Control supply voltage frequency		
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
Type of voltage of the control supply voltage		AC
Control supply voltage 1		
• at AC		
— at 50 Hz Initial rated value	V	110
— at 50 Hz Final rated value	V	230
— at 60 Hz Initial rated value	V	110
— at 60 Hz Final rated value	V	230
Control supply voltage		
• at AC		
— at 50 Hz Full-scale value for signal<0> recognition	V	40
— at 60 Hz Full-scale value for signal<0> recognition	V	40
Symmetrical line frequency tolerance	Hz	5

— 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 ... 18
• 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	7
• for auxiliary and control contacts	mm	7

Certificates/ approvals:

General Product Approval	EMC	Declaration of Conformity	Test Certificates
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[spezielle Prüfbescheinigungen](#)

Test Certificates

other

[Typprüfbescheinigung/Werkszeugnis](#)

[Umweltbestätigung](#)

Further information

Short-circuit protection, design of the fuse link

https://www.automation.siemens.com/cd-static/material/info/3RF23_eng.pdf

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

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

Industry Mall (Online ordering system)

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

Cax online generator

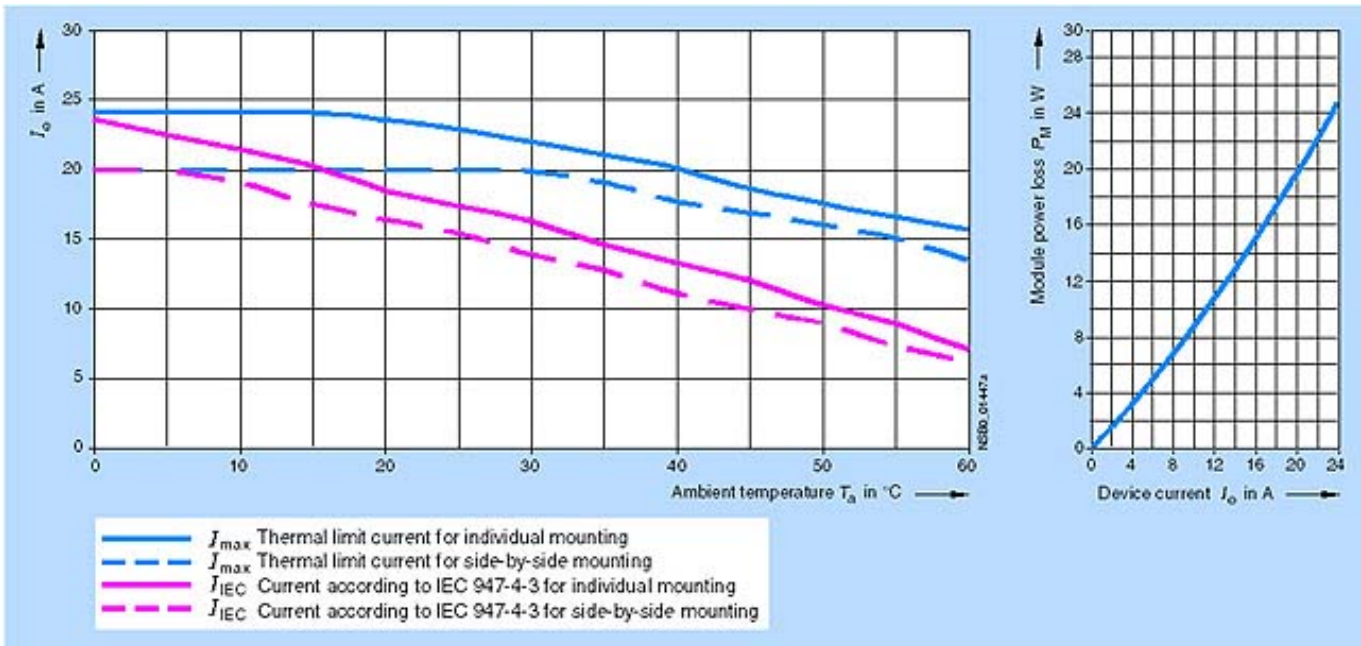
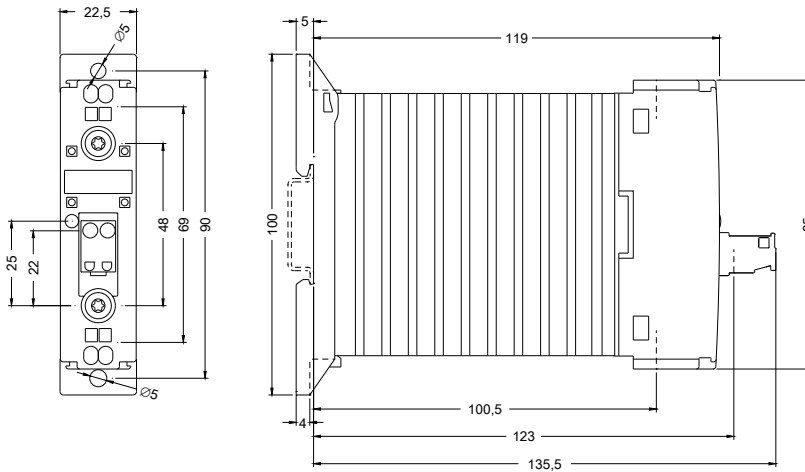
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF23202DA22>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF23202DA22>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF23202DA22&lang=en



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17.07.2015