

SEMI-COND. CONTACTOR 3RF2,1-PH. AC51 30 A
40 DEG. C 48-460 V / 110 V DC SHORT CIRC. PROOF
UP TO 25 A WITH B-AUTOMAT

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
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
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-1 at 400 V Rated value	A	30
• at AC-51 Rated value	A	30
Operating current of the MCB with AC Rated value	A	25
Operating current minimum	mA	500
Operating voltage with AC		
• at 50 Hz Rated value	V	48 ... 460
• at 60 Hz Rated value	V	48 ... 460
Operating range relative to the operating voltage with AC		

• at 50 Hz	V	40 ... 506
• at 60 Hz	V	40 ... 506
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	1 200
Reverse current of the thyristor	mA	10
Derating temperature	°C	40
Active power loss total typical	W	33
Surge current resistance Rated value	A	1 150
I ² t value maximum	A ² ·s	6 600

Control circuit/ Control:

Type of voltage of the control supply voltage		DC
Control supply voltage 1		
• for DC		
— Initial rated value	V	77
— Final rated value	V	110
Control supply voltage		
• for DC Full-scale value for signal<0> recognition	V	40
Control current		
• for DC Rated value	mA	10

Installation/ mounting/ dimensions:

Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Mounting type Side-by-side mounting		Yes
Design of the thread of the screw for securing the equipment		M4
Tightening torque of the screw for securing the equipment	N·m	1.5
Width	mm	22.5
Height	mm	100
Depth	mm	140.5

Connections/ Terminals:

Type of electrical connection for main current circuit		spring-loaded terminals
Type of connectable conductor cross-section for main contacts		
• solid		2x (0.5 ... 2.5 mm ²)
• finely stranded		
— with core end processing		2x (0.5 ... 1.5 mm ²)
— without core end processing		2x (0.5 ... 2.5 mm ²)

Type of connectable conductor cross-section		
<ul style="list-style-type: none"> • for AWG conductors <ul style="list-style-type: none"> — for main contacts — for auxiliary and control contacts 		2x (18 ... 14) 1x (AWG 20 ... 12)
Type of connectable conductor cross-section for auxiliary and control contacts		
<ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> — with core end processing — without core end processing 		1x (0.5 ... 2.5 mm ²) 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ²
Connectable conductor cross-section		
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded <ul style="list-style-type: none"> — with core end processing — without core end processing • for auxiliary and control contacts <ul style="list-style-type: none"> — solid — finely stranded <ul style="list-style-type: none"> — with core end processing — without core end processing 	mm ² mm ² mm ²	0.5 ... 2.5 0.5 ... 1.5 0.5 ... 2.5 0.5 ... 2.5 0.5 ... 2.5 0.5 ... 2.5
AWG number as coded connectable conductor cross section for main contacts		18 ... 14
Type of electrical connection for auxiliary and control current circuit		spring-loaded terminals
Design of the thread of the connection screw of the auxiliary and control contacts		M3
AWG number as coded connectable conductor cross section for auxiliary and control contacts		20 ... 12
Wire stripping length of the cable		
<ul style="list-style-type: none"> • for main contacts • for auxiliary and control contacts 	mm mm	10 10

Certificates/ approvals:

General Product Approval	Declaration of Conformity	Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Environmental Confirmations](#)

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&mfb=3RF23302DA64>

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

<http://support.automation.siemens.com/WW/view/en/3RF23302DA64/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RF23302DA64&lang=en

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