

SEMI-COND. CONTACTOR 3RF2,1-PH. AC51 20 A 40
DEGREE C 48-600 V / 110 V DC SCREW CONNECTION
BLOCKING VOLTAGE 1200 V

General technical data:

product brand name		SIRIUS
Product designation		solid-state contactor
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
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
Shock resistance / 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		
• at AC-1 / at 400 V / rated value	A	20
• at AC-51 / rated value	A	20
Operating current / minimum	mA	500
Operating voltage		
• at 50 Hz / at AC / rated value	V	48 ... 600

• at 60 Hz / at AC / rated value	V	48 ... 600
Working range relative to the operating voltage		
• at 50 Hz / with AC	V	40 ... 660
• at 60 Hz / with AC	V	40 ... 660
Operating frequency		
• rated value	Hz	50 ... 60
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	20
Resistance against the impulse current / rated value	A	600
I²t-level / maximum	A ² ·s	1,800
Short-circuit protection, design of the fuse link		https://www.automation.siemens.com/cd-static/material/info/3RF23_eng.pdf

Control circuit/ Control:		
Voltage type / of control feed voltage		DC
Control supply voltage / 1		
• for DC		
• initial rated value	V	77
Control supply voltage		
• for DC / final 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 / 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	100
Depth	mm	140.5

Connections/ terminals:		
Design of the electrical connection / for main current circuit		screw-type terminals

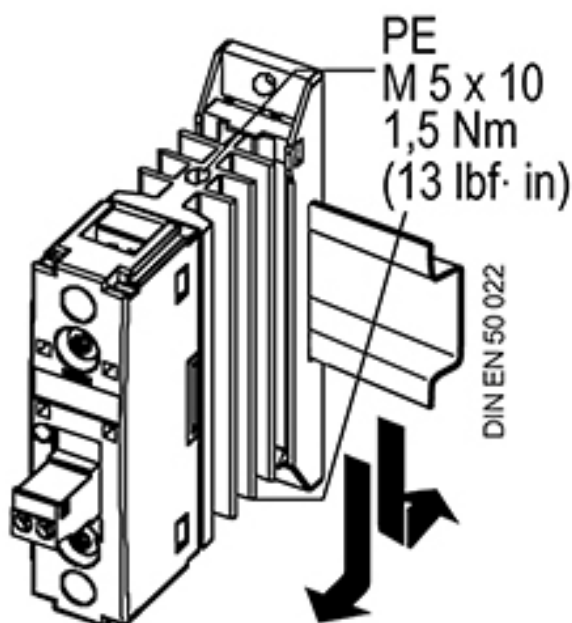
Design of the thread / of the connection screw / for main contacts		M4
Tightening torque / for main contacts • with screw-type terminals	N·m	2 ... 2.5
Tightening torque (lbf-in) / for main contacts • with screw-type terminals	lbf-in	18 ... 22
Type of the connectable conductor cross-section • for main contacts • solid • finely stranded • with conductor end processing • for AWG conductors • for main contacts • for auxiliary and control contacts • for auxiliary and control contacts • solid • finely stranded • with conductor end processing • without conductor final cutting		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) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
Conductor cross section that can be connected • for main contacts • single- or multi-stranded • stranded wire • with conductor end processing • for auxiliary and control contacts • solid • stranded wire • with conductor end processing / • without conductor final cutting	mm ² mm ² mm ² mm ² mm ²	1.5 ... 6 1 ... 10 0.5 ... 2.5 0.5 ... 2.5 0.5 ... 2.5
AWG number / as coded connectable conductor cross-section / for main contacts		10 ... 14
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 • 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 • 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

4.5 ... 5.3

Certificates/ approvals:**General Product
Approval****Declaration of
Conformity****Test Certificates**[Type Test
Certificates/Test
Report](#)**other**[Environmental
Confirmations](#)**Further information:****Information- and Downloadcenter (Catalogs, Brochures,...)**<http://www.siemens.com/industrial-controls/catalogs>**Industry Mall (Online ordering system)**<https://mall.industry.siemens.com/>**Cax online generator**<http://www.siemens.com/cax>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<http://support.automation.siemens.com/WW/view/en/3RF2320-1AA65/all>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2320-1AA65

last change:

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