

SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 10A / AC15
6A 40 DEG. C 24-230 V / 24 V DC INSTANTANEOUS
SWITCHING

General technical data:

Product brand name		SIRIUS
product designation		solid-state contactor
Product function		instantaneous 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 / _2 / of the accessories that can be ordered		power regulator
Manufacturer article number / _2 / of the accessories that can be ordered		3RF2920-0HA13
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		3RF2920-0GA13
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
Item designation		
• according to DIN 40719 extendable after 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 change-over switches / 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	10.5
• at AC-51 / rated value	A	10.5
Operating current / minimum	mA	100
Operating voltage		
• at 50 Hz / at AC / rated value	V	24 ... 230
• at 60 Hz / at AC / rated value	V	24 ... 230
Working area related to the operating voltage		
• at 50 Hz / for AC	V	20 ... 253
• at 60 Hz / for AC	V	20 ... 253
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	500
Block 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	11
Resistance against the impulse current / rated value	A	200
I²t-level / maximum	A ² ·s	200

Control circuit:		
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
• for DC		
• initial rated value	V	15
• final rated value	V	24
Control supply voltage		
• for DC / final value for signal<0>-recognition	V	5
Control current		
• at minimum control supply voltage / for DC	mA	2

• for DC / rated value	mA	15
Fuse assignments	https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf	
Installation/mounting/dimensions:		
Type of mounting		screw and snap-on mounting onto 35 mm standard mounting rail
Type of fixing/fixation / 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	94
Connections:		
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	18 ... 22
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• 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		2x (1.5 ... 2.5 mm2), 2x (2.5 ... 6 mm2) 2x (1 ... 2.5 mm2), 2x (2.5 ... 6 mm2), 1x 10 mm2 2x (14 ... 10) 1x (AWG 20 ... 12) 1x (0.5 ... 2.5 mm2), 2x (0.5 ... 1.0 mm2) 1x (0.5 ... 2.5 mm2), 2x (0.5 ... 1.0 mm2) 1x (0.5 ... 2.5 mm2), 2x (0.5 ... 1.0 mm2)
Conductor cross section that can be connected <ul style="list-style-type: none">• for main contacts<ul style="list-style-type: none">• solid• stranded wire	mm²	1.5 ... 6

<ul style="list-style-type: none"> • with conductor end processing 	mm ²	1 ... 10
<ul style="list-style-type: none"> • for auxiliary and control contacts 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • solid 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • stranded wire 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • with conductor end processing / minimum 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • without conductor final cutting 		
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		
<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	Test Certificates	other
 ROSTEST 	Manufacturer	Manufacturer

Further information:

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

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

Industry Mall (Online ordering system)

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

CAX-Online-Generator

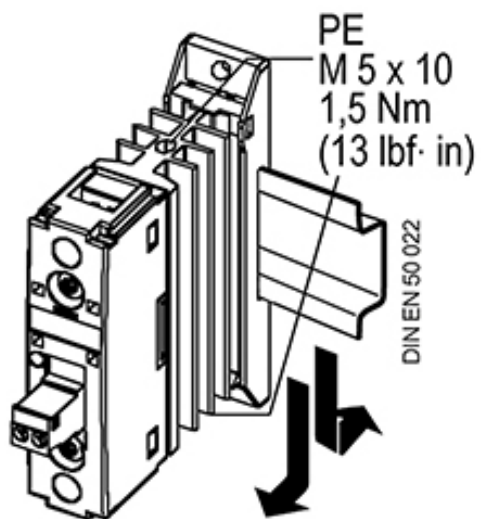
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RF2310-1BA02/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2310-1BA02



last change:

Aug 22, 2011