



SOLID-STATE CONTACTOR 3RF2,1-PH AC51 20A / AC15 12A 40 DEGR. C 48-460V / 4-30V DC INSTANT. 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	3RF2920-0HA16
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	3RF2920-0GA16

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	20
• at AC-51 / rated value	A	20
Operating current / minimum	mA	500
Operating voltage		
• at 50 Hz / at AC / rated value	V	48 ... 460
• at 60 Hz / at AC / rated value	V	48 ... 460
Working area related to the operating voltage		
• at 50 Hz / for AC	V	40 ... 506
• at 60 Hz / for AC	V	40 ... 506
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	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
I ² t-level / maximum	A ² ·s	1,800

Control circuit:

Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
• for DC		
• initial rated value	V	4
• final rated value	V	30
Control supply voltage		
• for DC / final value for signal<0>-recognition	V	1
Control current		
• for DC / rated value	mA	20
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	140.5

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		
• 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		2x (1.5 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ²
• for AWG conductors		
• for main contacts		2x (14 ... 10)

<ul style="list-style-type: none"> • for auxiliary and control contacts 		1x (AWG 20 ... 12)
<ul style="list-style-type: none"> • for auxiliary and control contacts 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
<ul style="list-style-type: none"> • solid 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
<ul style="list-style-type: none"> • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
Conductor cross section that can be connected		
<ul style="list-style-type: none"> • for main contacts 		
<ul style="list-style-type: none"> • solid 	mm ²	1.5 ... 6
<ul style="list-style-type: none"> • stranded wire <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 		
<ul style="list-style-type: none"> • solid 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • stranded wire <ul style="list-style-type: none"> • with conductor end processing / minimum • without conductor final cutting 	mm ²	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		
<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

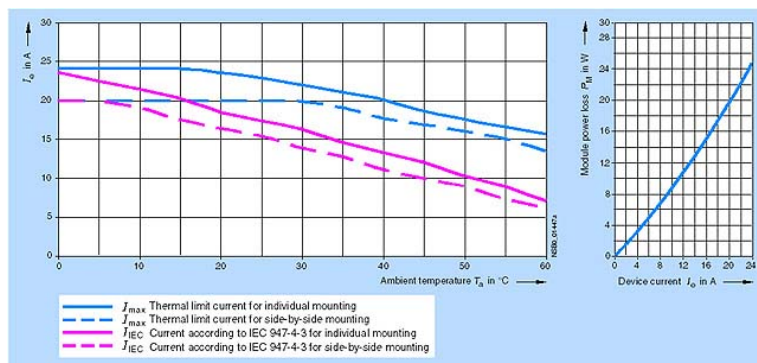
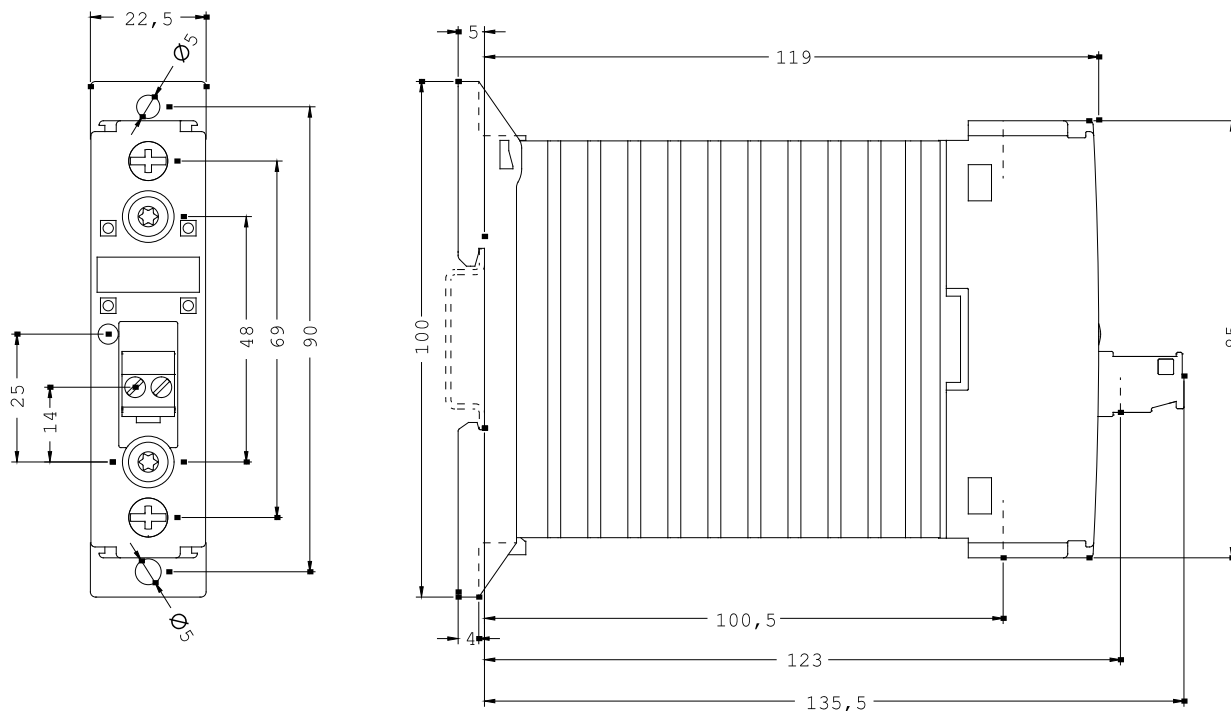
Certificates/approvals:

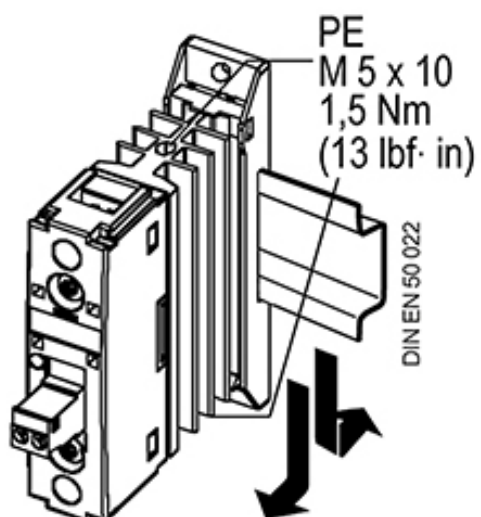
General Product Approval	Test Certificates	other
ROSTEST 	Manufacturer	Manufacturer

Further information:

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

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





last change:

Aug 22, 2011