



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 90A / AC15
30A 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	3RF2990-0HA13
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	3RF2990-0GA13
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	88
• at AC-51 / rated value	A	88
Operating current / minimum	mA	500
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
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	800
Reverse current / of the thyristor	mA	10
Derating temperature	°C	40
Active power loss / total / typical	W	117
Resistance against the impulse current / rated value	A	1,150
I²t-level / maximum	A ² ·s	6,600

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 fixing
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	180
Height	mm	100
Depth	mm	162.5

Connections:

Design of the electrical connection / for main current circuit		ring cable connection
Design of the thread / of the connection screw / for main contacts		M5
Tightening torque / for main contacts		
• with screw-type terminals	N·m	2 ... 2.5
Type of the connectable conductor cross-section		
• for main contacts / for JIS cable lug		JIS C 2805 R 2-5, 5,5-5, 8-5, 14-5
• for DIN cable lug / for main contacts		DIN 46234 -5-2,5, -5-6, -5-10, -5-16, -5-25
• for AWG conductors		
• for auxiliary and control contacts		1x (AWG 20 ... 12)
• for auxiliary and control contacts		
• solid		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• 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		
• for auxiliary and control contacts		
• 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 / 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • without conductor final cutting 	mm ²	0.5 ... 2.5
Design of the electrical connection / for auxiliary and control current circuit		ring cable connection
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	10
Skinning length / of the cable / for auxiliary and control contacts	mm	10
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	EMC	Declaration of Conformity	Test Certificates
 CSA	 C-TICK	 EG-Konf.	Type Test Certificates/Test Report
 GOST			
 UL			

other

[Environmental Confirmations](#)

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

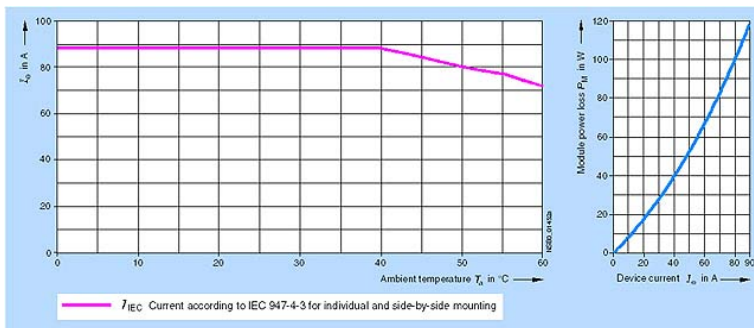
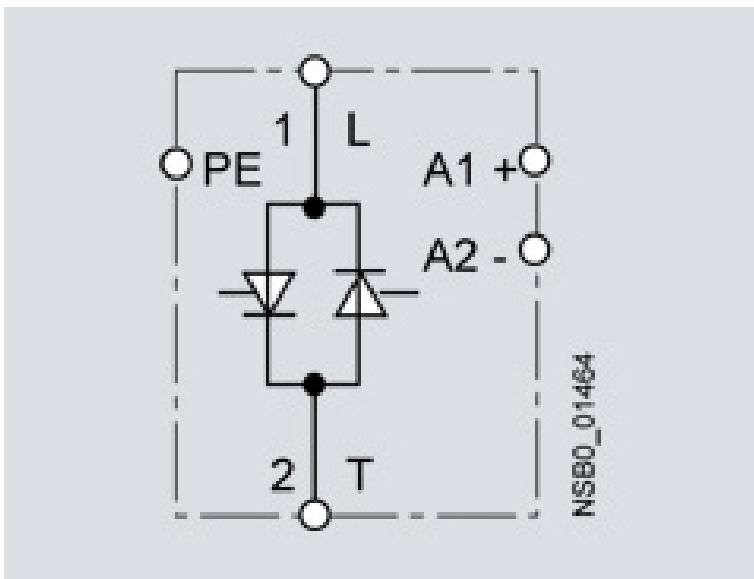
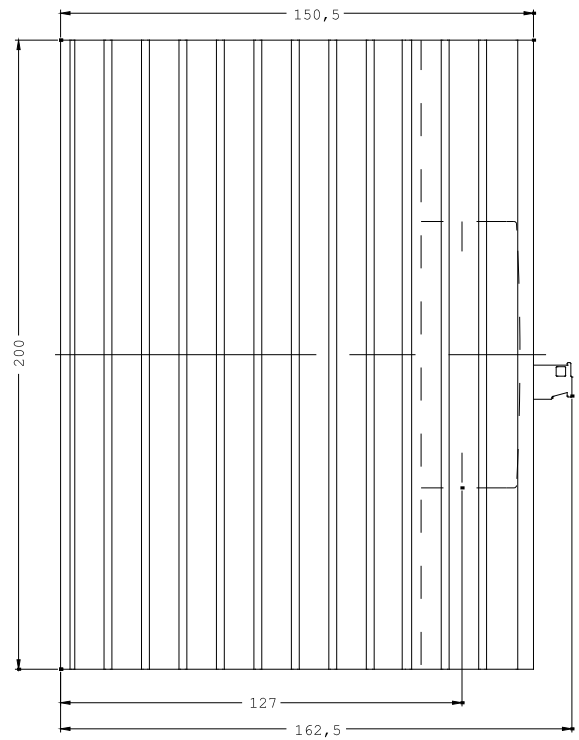
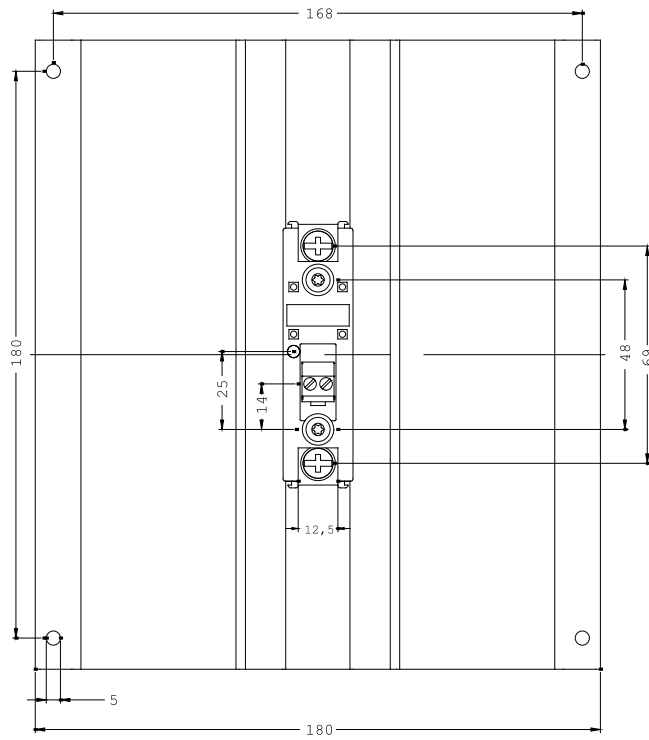
<http://www.siemens.com/cax>

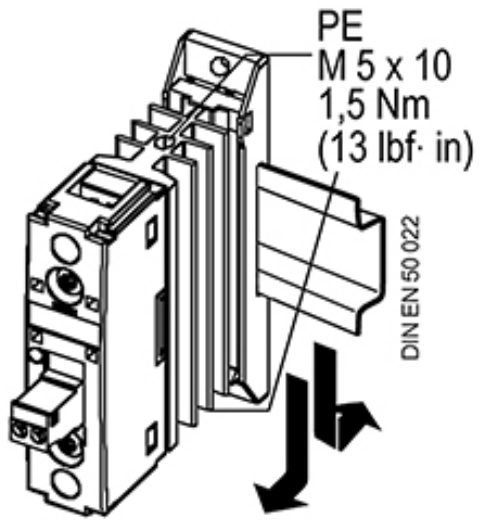
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2390-3BA02/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2390-3BA02





last change:

Feb 4, 2013