



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 50A / AC15
25A 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		3RF2950-0HA13
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		3RF2950-0GA13
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	50
• at AC-51 / rated value	A	50
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	54
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 • final rated value	V	15
	V	24
Control supply voltage • for DC / final value for signal<0>-recognition	V	5
Control current • at minimum control supply voltage / for DC • for DC / rated value		
	mA	2
	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	67.5
Height	mm	100
Depth	mm	156

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 • finely stranded • with conductor end processing • for AWG conductors • for main contacts • for auxiliary and control contacts • for auxiliary and control contacts • solid		
		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)

- finely stranded - with conductor end processing - without conductor final cutting		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 - solid - 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			EMC	Declaration of Conformity
 CSA	 GOST	 UL	 C-TICK	 EG-Konf.
Test Certificates		other		
Special Test Certificate	Type Test Certificates/Test Report	Environmental Confirmations		

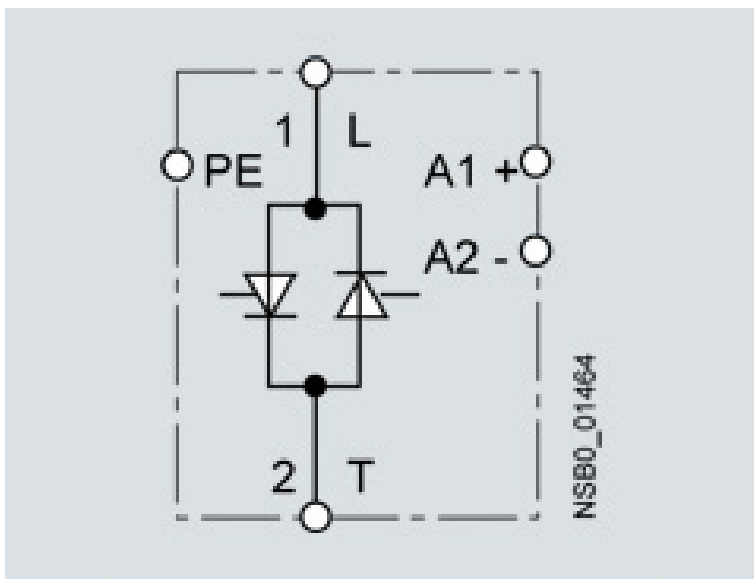
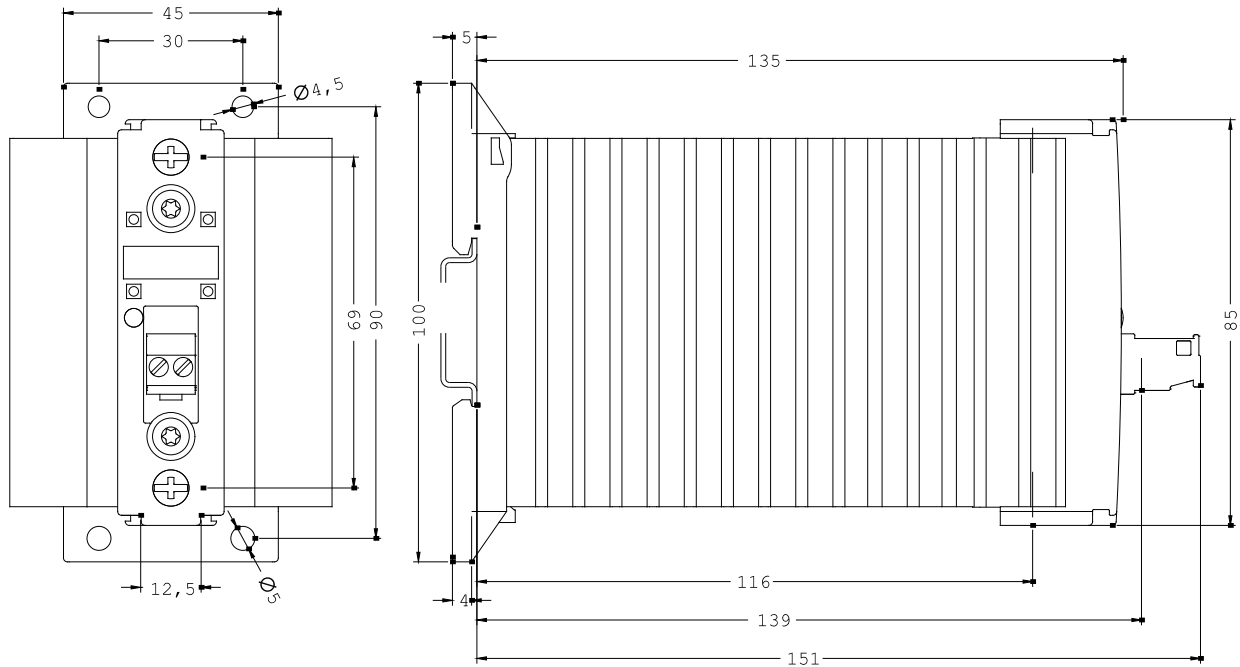
Further information:

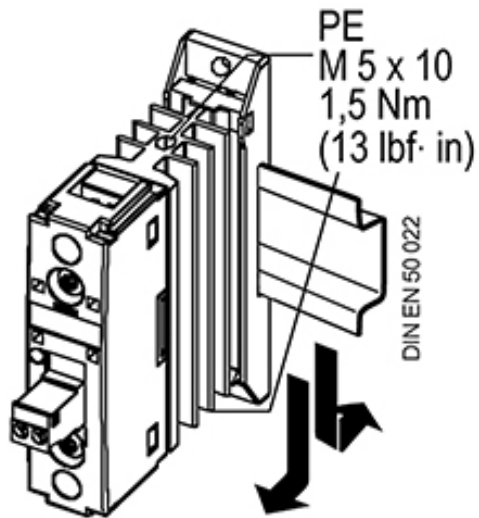
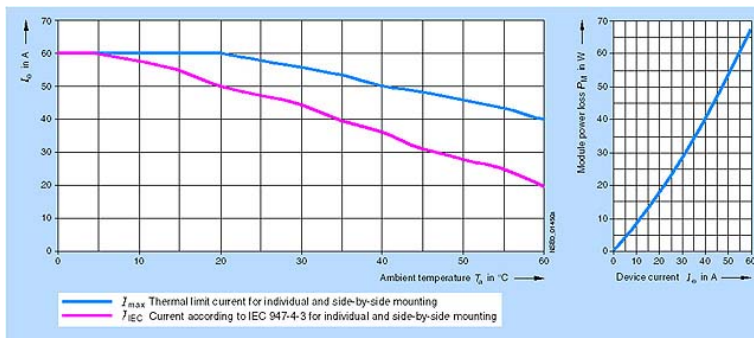
Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

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





last change:

Feb 4, 2013