



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 20 A 40
DEGREES C 24-230 V / 110-230 V AC SHORT-CIRC.
RESIST. WITH B-MCB

General technical data:

product brand name		SIRIUS
product designation		solid-state contactor
Product function		short-circuit resistant with B-automatic device
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 / _4 / of the accessories that can be ordered		load monitoring
Manufacturer article number / _4 / of the accessories that can be ordered		3RF2920-0GA33
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 • according to DIN EN 61346-2		K
		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 • at AC-51 / rated value	A	20
	A	20
Operating current / of line safety switch / for AC / rated value	A	20
Operating current / minimum	mA	500
Operating voltage • at 50 Hz / at AC / rated value • at 60 Hz / at AC / rated value	V	24 ... 230
	V	24 ... 230
Working area related to the operating voltage • at 50 Hz / for AC • at 60 Hz / for AC	V	20 ... 253
	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	20
Resistance against the impulse current / rated value	A	1,150
I²t-level / maximum	A ² ·s	6,600
Control circuit:		
Control supply voltage frequency • 1 / rated value • 2 / rated value	Hz	50
	Hz	60
Type of voltage / of the controlled supply voltage		AC
Control supply voltage / 1 • at 50 Hz / for AC		

• initial rated value	V	110
• final rated value	V	230
• at 60 Hz / for AC		
• initial rated value	V	110
• final rated value	V	230
Control supply voltage		
• at 50 Hz / for AC / final value for signal<0>-recognition	V	40
• at 60 Hz / for AC / final value for signal<0>-recognition	V	40
Tolerance of the line frequency	Hz	5
Control current		
• at minimum control supply voltage / for AC	mA	2
• for AC / 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	140.5

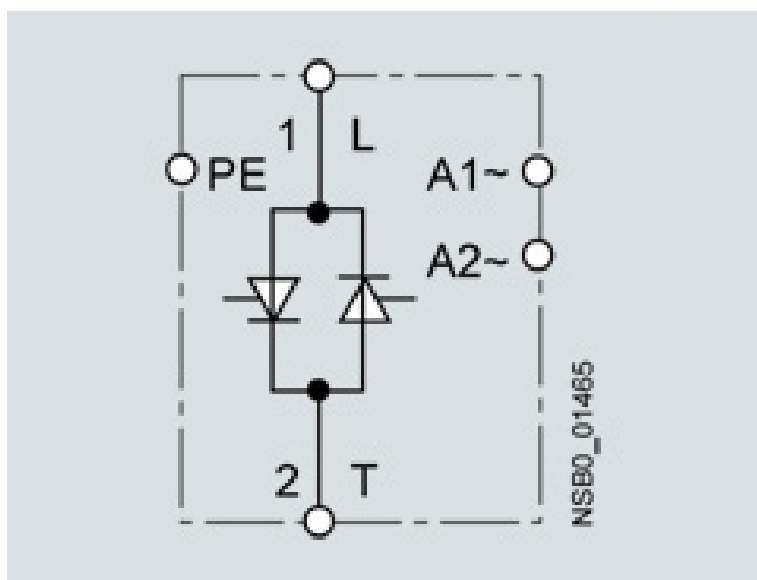
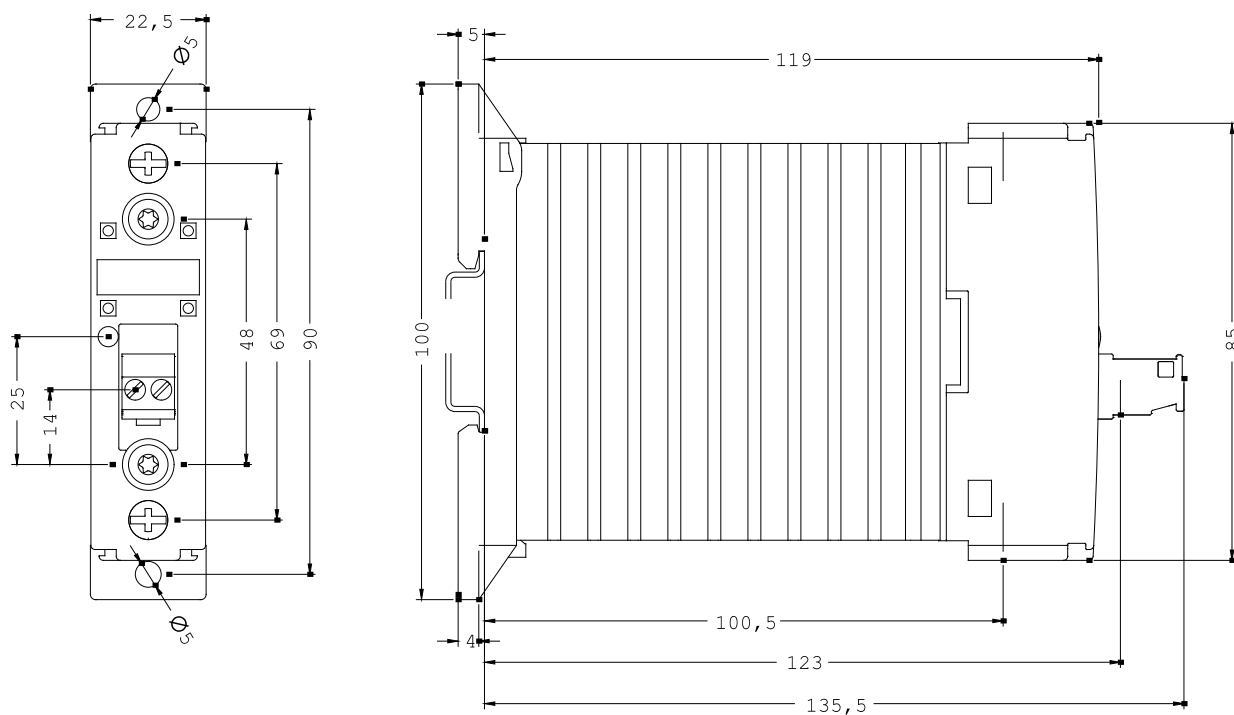
Connections:		
Design of the electrical connection / for main current circuit		screw-type terminals
Design of the thread / of the connection screw / for main contacts		M4
Tightening torque / for main contacts		
• with screw-type terminals	N·m	2 ... 2.5
Tightening torque (lbf·in) / for main contacts		
• with screw-type terminals	lbf·in	18 ... 22
Type of the connectable conductor cross-section		
• for main contacts		
• solid		2x (1.5 ... 2.5 mm²), 2x (2.5 ... 6 mm²)
• finely stranded		
• with conductor end processing		2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm²
• for AWG conductors		
• for main contacts		2x (14 ... 10)

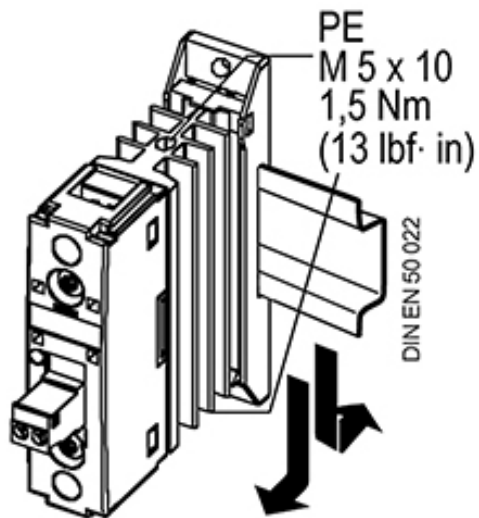
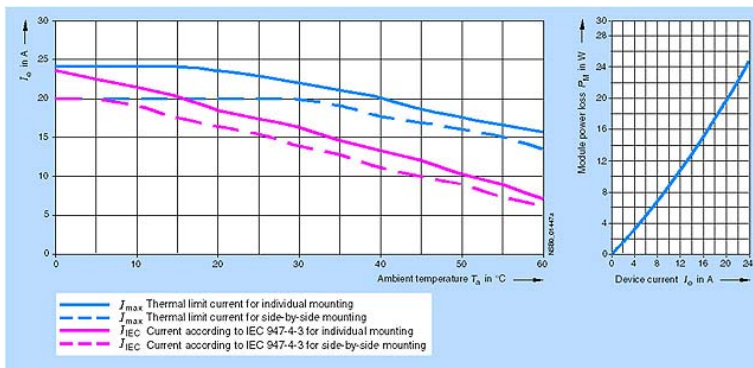
• for auxiliary and control contacts		1x (AWG 20 ... 12)
• for auxiliary and control contacts		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• solid		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• finely stranded		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
• with conductor end processing		1x (0.5 ... 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 main contacts		
• solid	mm ²	1.5 ... 6
• stranded wire		
• with conductor end processing	mm ²	1 ... 10
• for auxiliary and control contacts		
• solid	mm ²	0.5 ... 2.5
• stranded wire		
• with conductor end processing /	mm ²	0.5 ... 2.5
• 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		
• 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:





last change:

Feb 4, 2013