SIEMENS

Product data sheet 3RF2320-1DA02



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 20 A $\,$ 40 DEGREES C 24-230 V / 24 V DC 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 / _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 		Κ
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	Α	20
• at AC-51 / rated value	Α	20
Operating current / of line safety switch / for AC / rated value	Α	20
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
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	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	Α	1,150
I2t-level / maximum	A²·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 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		
• solid		1x (0.5 2.5 mm2), 2x (0.5 1.0 mm2)
• finely stranded		
 with conductor end processi ng 		1x (0.5 2.5 mm2), 2x (0.5 1.0 mm2)
without conductor final cut ting		1x (0.5 2.5 mm2), 2x (0.5 1.0 mm2)
Conductor cross section that can be connected		
• for main contacts		
• solid	mm²	1.5 6
stranded wire		
 with conductor end processing 	mm²	1 10
for auxiliary and control contacts		
• solid	mm²	0.5 2.5
stranded wire		
 with conductor end processing / minimum 	mm²	0.5 2.5
without conductor final cutting	mm²	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 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

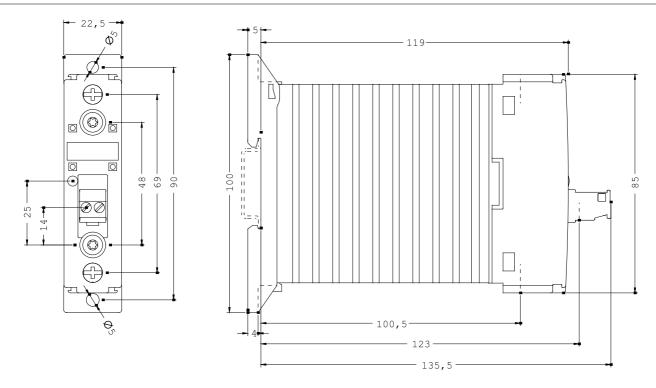
http://www.siemens.com/cax

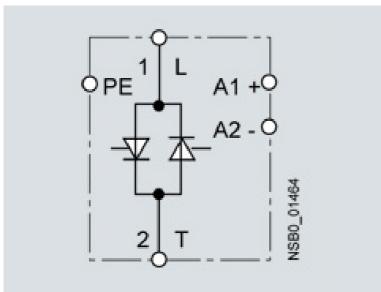
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

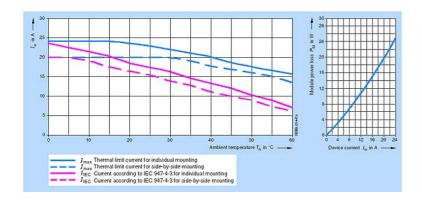
http://support.automation.siemens.com/WW/view/en/3RF2320-1DA02/all

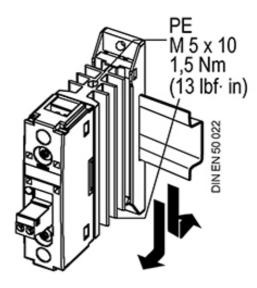
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

 $\underline{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2320-1DA02$









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