SIEMENS

Product data sheet

3RF2320-1CA22



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 20 A 40 DEGREES C 24-230 V / 110-230 V AC LOW NOISE

General technical data:				
Product brand name		SIRIUS		
product designation	-	solid-state contactor		
Product function		low noise		
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		<u>3RF2900-3PA88</u>		
Product designation / _4 / of the accessories that can be ordered		load monitoring		
Manufacturer article number / _4 / of the accessories that can be ordered		<u>3RF2920-0GA33</u>		
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 		к
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	А	20
• at AC-51 / rated value	А	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	25
Derating temperature	°C	40
Active power loss / total / typical	W	20
Resistance against the impulse current / rated value	А	600
l2t-level / maximum	A²-s	1,800
Control circuit:		
Control supply voltage frequency		
• 1 / rated value	Hz	50
• 2 / rated value	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
Relative symmetrical tolerance / of the supply voltage frequency	%	10
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	

Design of the electrical connection / for main current circuit screw-type terminals Design of the thread / of the connection screw / for main M4 contacts Tightening torque / for main contacts 2 ... 2.5 • with screw-type terminals N∙m Tightening torque (lbf-in) / for main contacts lbf∙in 18 ... 22 • with screw-type terminals 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 (Ibf·in) / for auxiliary and control contacts		
with screw-type terminals	lbf∙in	4.5 5.3
Certificates/approvals:		
General Product Approval	Test Certific	ates other



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

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

Industry Mall (Online ordering system)

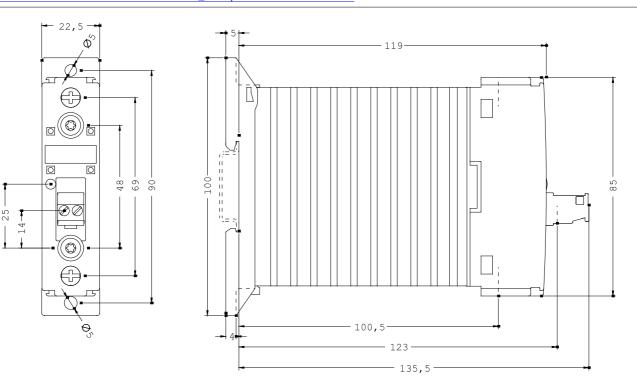
http://www.siemens.com/industrial-controls/mall

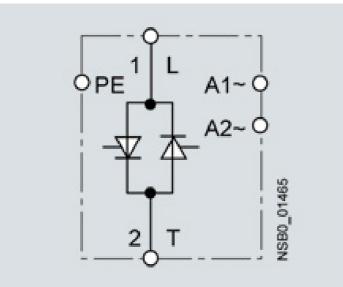
CAx-Online-Generator

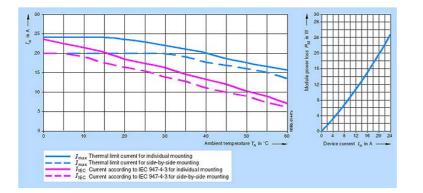
http://www.siemens.com/cax

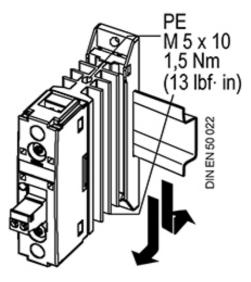
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RF2320-1CA22/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2320-1CA22









last change:

Aug 22, 2011