SIEMENS

Product data sheet

3RF2330-1BA22



SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 30A / AC15 15A 40 DEG. C 24-230 V / 110-230 V AC 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		<u>3RF2900-3PA88</u>
Product designation / _2 / of the accessories that can be ordered		power regulator
Manufacturer article number / $_2$ / of the accessories that can be ordered		<u>3RF2950-0HA33</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>3RF2950-0GA33</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 shock / according to EEC 60082-27 15g / 11 ms Item designation K • according to DIN 40719 extendable after EC 204-2 / according to DIN EN 813462 0 Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for auxiliary contacts 0 Number of NC contacts / for main contacts 1 Number of NC contacts / for main contacts 0 Number of NC contacts / for main contacts 0 Operating current	Resistance against vibration / according to IEC 60068-2-6		2g
• according to DIN 40719 extendable after IEC 204-2 / according to DIN EN 61346-2CNumber of NC contacts / for auxiliary contacts0Number of NC contacts / for auxiliary contacts0Number of NC contacts / for auxiliary contacts0Number of NC contacts / for main contacts1Number of NC contacts / for main contacts0Operating current1• at AC-1 / at 400 V / rated valueA• at AC-1 / at 400 V / rated valueA• at AC-1 / at 400 V / rated valueA• at AC-1 / at 400 V / rated valueA• at AC-1 / rated valueA• at BO / triated valueV• at BO / triated valueN• at BO / triated valueV• Disted valueV <t< th=""><th>Resistance against shock / according to IEC 60068-2-27</th><th>_</th><th>15g / 11 ms</th></t<>	Resistance against shock / according to IEC 60068-2-27	_	15g / 11 ms
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Number of change-over switches / for auxiliary contacts 0 Main circuit: 1 Number of NC contacts / for main contacts 0 Operating current 0 • at AC-1 / at 400 V/ rated value A 30 • at AC-1 / rated value A 30 Operating current / minimum mA 500 Operating voltage · · • at S0 Hz / rated value V 24 230 Working area related to the operating voltage · · • at S0 Hz / for AC V 20 253 · at advalue Hz 50 60 Relative symmetrical tolerance / of the operation frequency · · ·	Number of NC contacts / for auxiliary contacts		0
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Number of NC contacts / for main contacts0Operating currentI• at AC-1/ at 400 V/ rated valueA030Operating current / minimummAOperating voltagemA• at 50 Hz / at AC / rated valueV• at 60 Hz / at AC / rated valueV• at 60 Hz / at AC / rated valueV• at 60 Hz / at AC / rated valueV• at 50 Hz / for ACV• at 60 Hz / for ACV• bit Hz / for ACV• bit Hz / for ACV• at 60 Hz / for ACV• bit Hz / for ACV	Main circuit:		
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• at 60 Hz / for ACV20 253Operating frequencyHz50 60• rated valueHz50 60Relative symmetrical tolerance / of the operation frequency%10Insulation voltage / rated valueV600Voltage slew rate / at the thyristor / for main contacts / maximum permissibleV/µs1,000Block voltage / at the thyristor / for main contacts / maximum permissibleV800Reverse current / of the hyristormA10Derating temperature°C40Active power loss / total / typicalW33Resistance against the impulse current / rated valueA ² -s1,800Control supply voltage frequency + 1/ rated valueHz50	Working area related to the operating voltage		
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• rated valueHz50 60Relative symmetrical tolerance / of the operation frequency%10Insulation voltage / rated valueV600Voltage slew rate / at the thyristor / for main contacts / maximum permissibleV/µs1,000Block voltage / at the thyristor / for main contacts / maximum permissibleV800Block voltage / at the thyristor / for main contacts / maximum permissibleV800Reverse current / of the thyristormA10Derating temperature°C40Active power loss / total / typicalW33Resistance against the impulse current / rated valueA600Izt-level / maximumA ² -s1,800Control circuit:Control supply voltage frequency • 1/ rated valueHz50	• at 60 Hz / for AC	V	20 253
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 1,000 Block voltage / at the thyristor / for main contacts / maximum permissible V 800 Pervise current / of the thyristor mA 10 Derating temperature mA 10 Active power loss / total / typical W 33 Resistance against the impulse current / rated value A 600 Izt-level / maximum A ² -s 1,800	Operating frequency		
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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 33 Resistance against the impulse current / rated value A 600 I2t-level / maximum A ² -s 1,800	Relative symmetrical tolerance / of the operation frequency	%	10
maximum permissible Image: Control circuit: 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 33 Resistance against the impulse current / rated value A 600 I2t-level / maximum A ² -s 1,800	Insulation voltage / rated value	V	600
permissibleImage: Control supply voltage frequencyImage: Control supply voltage frequency <td>-</td> <td>V/µs</td> <td>1,000</td>	-	V/µs	1,000
Derating temperature °C 40 Active power loss / total / typical W 33 Resistance against the impulse current / rated value A 600 I2t-level / maximum A ² ·s 1,800		V	800
Active power loss / total / typical W 33 Resistance against the impulse current / rated value A 600 I2t-level / maximum A ² ·s 1,800	Reverse current / of the thyristor	mA	10
Resistance against the impulse current / rated value A 600 I2t-level / maximum A²-s 1,800 Control circuit: Control supply voltage frequency • 1 / rated value Hz 50	Derating temperature	°C	40
I2t-level / maximum A ² -s 1,800 Control circuit: Image: Control supply voltage frequency Image: Control supply voltage frequency • 1 / rated value Hz 50	Active power loss / total / typical	W	33
Control circuit: Control supply voltage frequency • 1 / rated value Hz	Resistance against the impulse current / rated value	А	600
Control supply voltage frequency Hz • 1 / rated value Hz	I2t-level / maximum	A²·s	1,800
• 1 / rated value Hz 50	Control circuit:		
	Control supply voltage frequency		
• 2 / rated value Hz 60	• 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

		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	45
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 (Ibf·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:

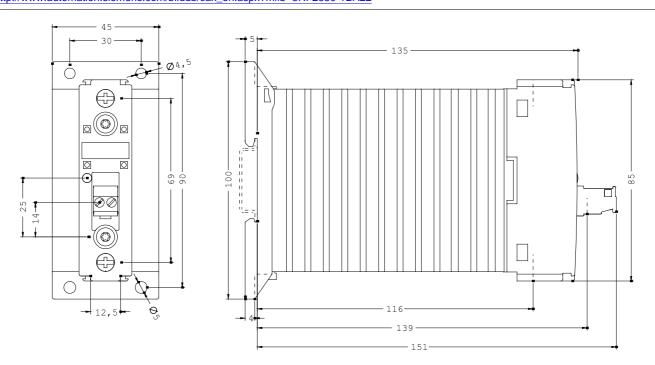
General Produ	ct Approval		Test Certificates	other
(SA	<u>ROSTEST</u>		Manufacturer	<u>Manufacturer</u>
Further inform	ation:			
	Downloadcenter (Catans.com/industrial-controls			
•	nline ordering system)	s/mall		

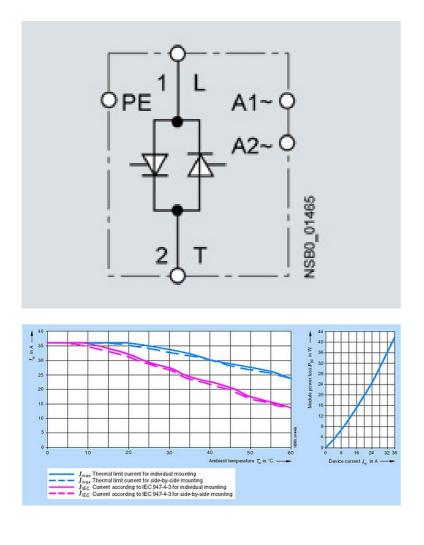
CAx-Online-Generator

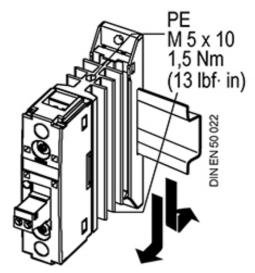
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RF2330-1BA22/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2330-1BA22







last change:

Aug 22, 2011