# **SIEMENS**

Product data sheet 3RF2330-1AA45



SOLID-STATE CONTACTOR 3RF2,1-PH AC51 30A  $\,$  40 C  $\,$  48-600V / 4-30V DC SCREW-TYPE TERMINAL BLOCKING VOLTAGE 1200V

General technical data:	
product brand name	SIRIUS
product designation	solid-state contactor
Product function	zero-point 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	3RF2950-0HA16
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	3RF2950-0GA16

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 <b>+</b> 60
during storage	°C	-55 <b>+</b> 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		
<ul> <li>according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</li> </ul>		К
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	30
• at AC-51 / rated value	Α	30
Operating current / minimum	mA	500
Operating voltage		
• at 50 Hz / at AC / rated value	V	48 600
• at 60 Hz / at AC / rated value	V	48 600
Working area related to the operating voltage		
• at 50 Hz / for AC	V	40 660
• at 60 Hz / for AC	V	40 660
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	1,200
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	Α	600

I2t-level / maximum	A²-s	1,800
Control circuit:		
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		
• for DC		
• initial rated value	V	4
• final rated value	V	30
Control supply voltage		
• for DC / final value for signal<0>-recognition	V	1
Control current		
• for DC / rated value	mA	20
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	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 (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		
<ul> <li>with conductor end processing</li> </ul>		2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
• for AWG conductors		
• for main contacts		2x (14 10)
<ul> <li>for auxiliary and control contacts</li> </ul>		1x (AWG 20 12)

for auxiliary and control contacts		
• solid		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
• finely stranded		
<ul> <li>with conductor end processing</li> </ul>		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
<ul> <li>without conductor final cutting</li> </ul>		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		
<ul> <li>with conductor end processing</li> </ul>	mm²	1 10
for auxiliary and control contacts		
• solid	mm²	0.5 2.5
• stranded wire		
<ul><li>with conductor end processing /</li></ul>	mm²	0.5 2.5
<ul> <li>without conductor final cutting</li> </ul>	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	EMC	Declaration of Conformity	Test Certificates	other
P T	<b>UL</b>	C-TICK	EG-Konf.	Special Test Certificate	Environmental Confirmations

### Further information:

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

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

Industry Mall (Online ordering system)

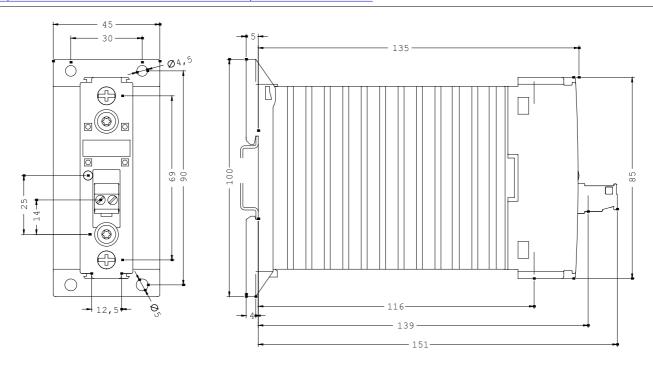
http://www.siemens.com/industrial-controls/mall

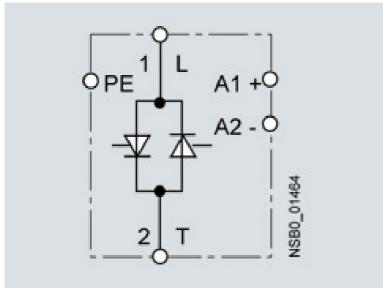
#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

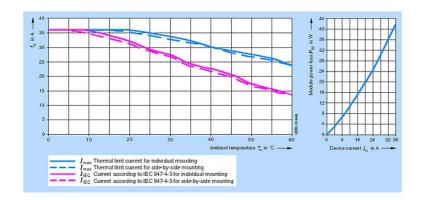
http://support.automation.siemens.com/WW/view/en/3RF2330-1AA45/all

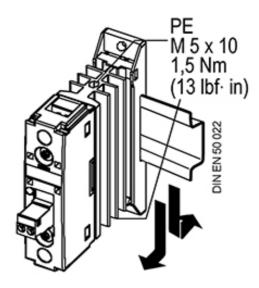
### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RF2330-1AA45









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