SIEMENS

Data sheet 3RF2950-0KA16

Power controller Current range 50 A / 40 °C 400-600 V / 24 V AC/DC
for semiconductor relay / contactor with partial load monitoring

Product brand name	SIRIUS
Product designation	power controller
Manufacturer's article number	
• _1 / of the accessories that can be ordered	3RF2900-0RA88
• _2 / of the accessories that can be ordered	4EU2452-3UA00-0AA0
Product designation	
• _1 / of the accessories that can be ordered	sealable end cover
• _2 / of the accessories that can be ordered	input reactor / 1AC

General technical data	
Product function	solid-state relay / solid-state contactor 3RF2
Insulation voltage	
• rated value	600 V
Degree of pollution	3
Protection class IP	IP20
Shock resistance / acc. to IEC 60068-2-27	15g / 11 ms
Vibration resistance / acc. to IEC 60068-2-6	2g
Reference code / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750	A
Reference code / acc. to DIN EN 81346-2	K

Reference code / acc. to DIN EN 61346-2	K

Main circuit

Number of poles / for main current circuit	0
Number of NO contacts / for main contacts	0
Number of NC contacts / for main contacts	0
Operating voltage / at AC	
• at 50 Hz / rated value	400 ... 600 V
• at 60 Hz / rated value	400 ... 600 V
Operating frequency / rated value	50 ... 60 Hz
Relative symmetrical tolerance / of the operating frequency	10 %
Operating range relative to the operating voltage / at AC	
• at 50 Hz	340 ... 660 V
• at 60 Hz	340 ... 660 V
Operating current	
• at AC-1 / at 400 V / rated value	50 A
• at AC-51 / rated value	50 A
Derating temperature	40 °C

Control circuit/ Control

Control supply voltage / 1	
• at DC	24 V
Control supply voltage / at AC	
• at 50 Hz / Full-scale value for signal<0> recognition	5 V
• at 60 Hz / Full-scale value for signal<0> recognition	5 V
Control supply voltage	
• at DC / Full-scale value for signal<0> recognition	5 V
Symmetrical line frequency tolerance	5 Hz
Control current / at minimum control supply voltage	
• at AC	2 mA
• at DC	2 mA
Control current / at AC / rated value	40 mA
Control current / at DC / rated value	40 mA
Number of NC contacts / for auxiliary contacts	1
Number of NO contacts / for auxiliary contacts	1
Number of CO contacts / for auxiliary contacts	0

Installation/ mounting/ dimensions

Mounting type	clip-on
• Side-by-side mounting	Yes

Height	111.5 mm
Width	45 mm
Depth	69.5 mm
Installation altitude / at height above sea level / maximum	1 000 m

Connections/ Terminals

Type of electrical connection	
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• for auxiliary and control contacts	
— solid	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
— finely stranded / with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
— finely stranded / without core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
• at AWG conductors / for auxiliary and control contacts	1x (AWG 20 ... 12)
Tightening torque / for auxiliary and control contacts / with screw-type terminals	0.5 ... 0.6 N·m
Tightening torque [lbf·in]	
• for auxiliary and control contacts / with screw-type terminals	4.5 ... 5.3 lbf·in
Design of the thread / of the connection screw	
• of the auxiliary and control contacts	M3
Wire stripping length / of the cable	
• for auxiliary and control contacts	7 mm

Ambient conditions

Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C

Electromagnetic compatibility

Conducted interference	
• due to burst / acc. to IEC 61000-4-4	2 kV / 5 kHz behavior criterion 2
• due to conductor-earth surge / acc. to IEC 61000-4-5	2 kV behavior criterion 2
• due to conductor-conductor surge / acc. to IEC 61000-4-5	1 kV behavior criterion 2
• due to high-frequency radiation / acc. to IEC 61000-4-6	140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1
Electrostatic discharge / acc. to IEC 61000-4-2	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
Conducted HF-interference emissions / acc. to CISPR11	Class A for industrial environment

Field-bound HF-interference emission / acc. to CISPR11	Class B for the domestic, business and commercial environments

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2950-0KA16

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2950-0KA16

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RF2950-0KA16

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2950-0KA16&lang=en

Short-circuit protection, design of the fuse link
https://www.automation.siemens.com/cd-static/material/info/3RF20_eng.pdf

Short-circuit protection, design of the fuse link
https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf

Short-circuit protection, design of the fuse link
https://www.automation.siemens.com/cd-static/material/info/3RF22_eng.pdf

Short-circuit protection, design of the fuse link
https://www.automation.siemens.com/cd-static/material/info/3RF23_eng.pdf

Short-circuit protection, design of the fuse link
https://www.automation.siemens.com/cd-static/material/info/3RF24_eng.pdf