



POWER CONTROLLER CURRENT RANGE 20A 40
DEGREES C 400-600V / 24V AC/DC FOR
SEMICONDUCTOR RELAY / CONTACTOR PARTIAL LOAD
MONITORING W. PARTIAL LOAD MONITORING

General technical data:

product brand name		SIRIUS
product designation		power controller
Product function		solid-state relay / solid-state contactor 3RF2
Number of poles / for main current circuit		0
Protection class IP		IP20
Product designation / _1 / of the accessories that can be ordered		sealable end cover
Manufacturer article number / _1 / of the accessories that can be ordered		3RF2900-0RA88
Product designation / _2 / of the accessories that can be ordered		input reactor / 1AC
Manufacturer article number / _2 / of the accessories that can be ordered		4EM5007-7CB00
Hole diameter / of the current transformer	mm	17
Number of partial loads / for load monitoring		6
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
- according to DIN EN 61346-2

A

K

Main circuit:**Number of NO contacts / for main contacts**

0

Number of NC contacts / for main contacts

0

Operating current

- at AC-1 / at 400 V / rated value

A

20

Derating temperature

°C

40

Operating voltage

- at 50 Hz / at AC / rated value

V

400 ... 600

- at 60 Hz / at AC / rated value

V

400 ... 600

Working area related to the operating voltage

- at 50 Hz / for AC

V

340 ... 660

- at 60 Hz / for AC

V

340 ... 660

Operating frequency

- rated value

Hz

50 ... 60

Relative symmetrical tolerance / of the operation frequency

%

10

Insulation voltage / rated value

V

600

Kompensation of the mains voltage swing

%

20

Partial load / for load monitoring

A

0.65

Metering range current

A

0 ... 22

Control circuit:**type of voltage**

AC/DC

Control supply voltage

- for DC / rated value

V

24 ... 24

- at 50 Hz / at AC / rated value

V

24 ... 24

- at 60 Hz / at AC / rated value

V

24 ... 24

- at 50 Hz / for AC / final value for signal<0>-recognition

V

14

- at 60 Hz / for AC / final value for signal<0>-recognition

V

14

- for DC / final value for signal<0>-recognition

V

15

Supply voltage frequency / for auxiliary and control current circuit

- rated value

Hz

50 ... 60

Tolerance of the line frequency

Hz

5

Relative symmetrical tolerance / of the supply voltage frequency

%

10

Control current / for AC / rated value

mA

40

Control current / for DC / rated value

mA

40

Operating voltage

- at the analog input

V

-1 ... +11

Source resistance / at the analog input	Ω	8,000
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Auxiliary circuit:		
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0
Operating voltage / of the auxiliary contacts		
• for AC	V	15 ... 30
• for DC	V	15 ... 30
Operating current / of the auxiliary contacts		
• for AC	mA	5 ... 1,000
• for DC	mA	5 ... 1,000

Installation/mounting/dimensions:		
Type of mounting		clip-on
Type of fixing/fixation / series installation		Yes
Width	mm	45
Height	mm	111.5
Depth	mm	69.5

Connections:		
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
Type of the connectable conductor cross-section		
• for auxiliary and control contacts		
• solid		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
• finely stranded		
• with conductor end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
• without conductor final cutting		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
• for AWG conductors / for auxiliary and control contacts		1x (AWG 20 ... 12)
Conductor cross-section that can be connected / for auxiliary and control contacts		
• solid	mm²	0.5 ... 2.5
• stranded wire		
• with conductor end processing /	mm²	0.5 ... 2.5
• without conductor final cutting	mm²	0.5 ... 2.5
AWG number / as coded connectable conductor cross-section		
• for auxiliary and control contacts		12 ... 20
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
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[Type Test
Certificates/Test
Report](#)

other

[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>

CAX-Online-Generator

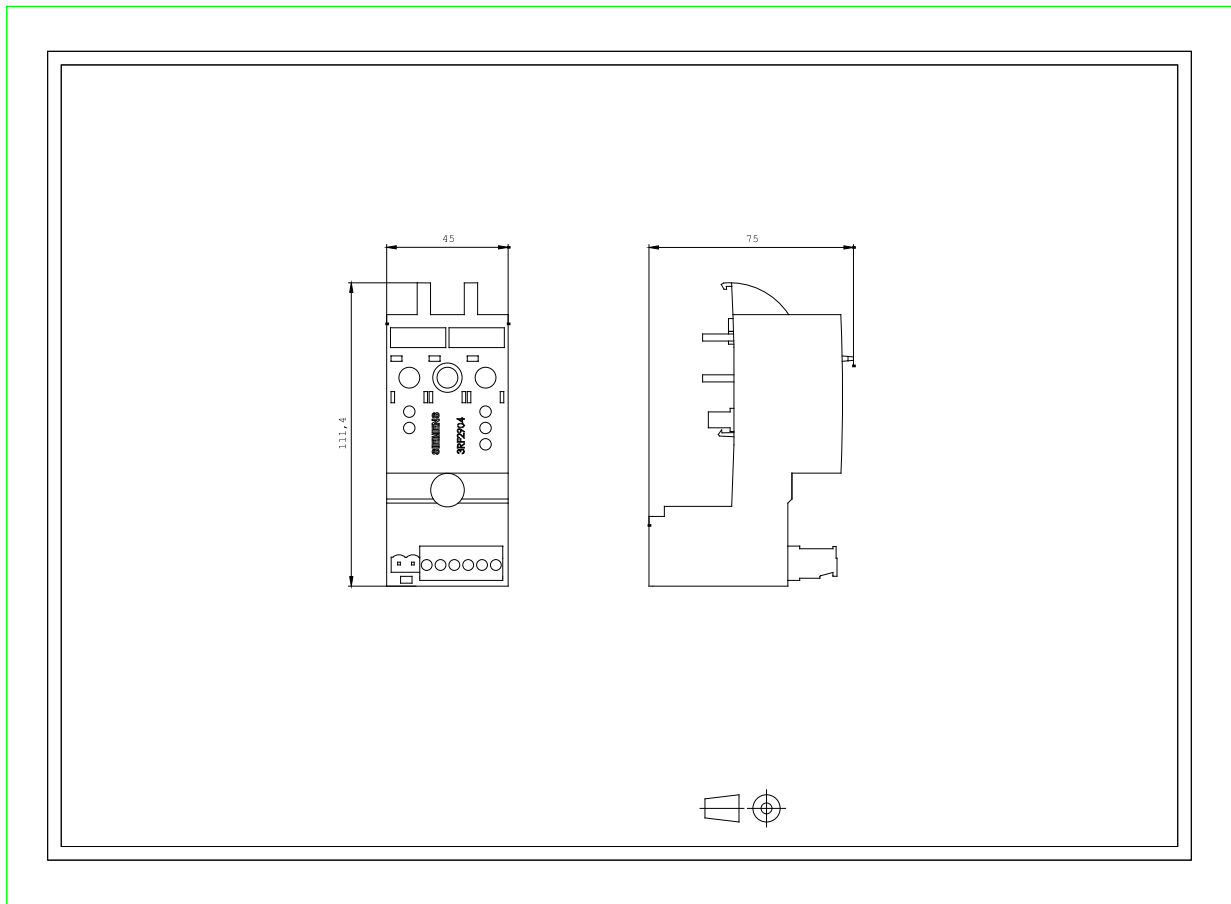
<http://www.siemens.com/cax>

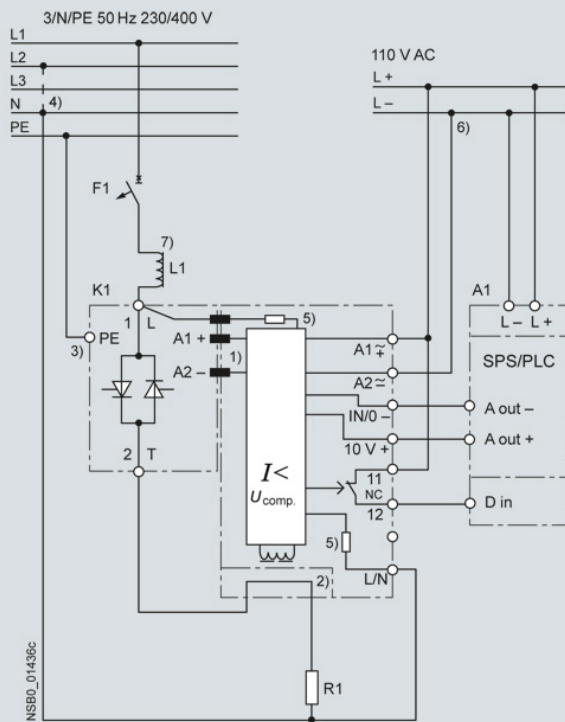
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2920-0KA16/all>

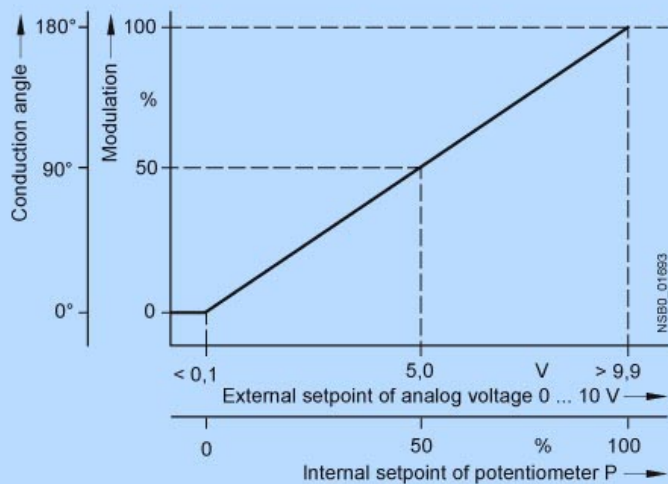
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2920-0KA16





- 1) Internal connection to the solid-state relay/contactor
- 2) Straight-through
- 3) Make PE/ground connection according to installation regulations
- 4) Connection of L/N contact with
 - 3RF29 ...0GA.3 load monitoring on neutral conductor N (e.g. 230 V),
 - 3RF29 ...0GA.6 load monitoring on a second phase (e.g. 400 V)
- 5) Voltage detection not electrically isolated (3 M Ω per path)
- 6) Grounding of connection L- is recommended
- 7) A 200 μ H choke must be used when operating with leading-edge phase in order to observe the limit values of the conducted interference voltage according to Class A



last change:

Feb 18, 2013