



power regulator current range 90 A / 40 °C 400 ... 600 V 24 V AC/DC for semiconductor relay / contactor

product brand name	SIRIUS
product designation	power regulator
manufacturer's article number	
• _1 of the accessories that can be ordered	<a href="#">3RF2900-0RA88</a>
• _2 of the accessories that can be ordered	<a href="#">4EU2452-3UA00-0AA0</a>
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
power loss [W] for rated value of the current	
• without load current share typical	1 W
insulation voltage rated value	600 V
degree of pollution	3
surge voltage resistance of main circuit rated value	2.5 kV
protection class IP	IP20
protection class IP on the front according to IEC 60529	IP20
shock resistance according to IEC 60068-2-27	15g / 11 ms
vibration resistance according to IEC 60068-2-6	2g
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
Weight	0.17 kg
Switching Function	
design of the switching function	NC contact
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
type of voltage	AC/DC
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
operational current	

• at AC-51 rated value	90 A
<b>derating temperature</b>	40 °C
<b>Control circuit/ Control</b>	
<b>type of voltage</b>	AC/DC
<b>control supply voltage at AC</b>	
• at 50 Hz rated value	20.5 ... 26.5 V
• at 60 Hz rated value	20.5 ... 26.5 V
<b>control supply voltage 1 at AC</b>	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
<b>control supply voltage at DC rated value</b>	18 ... 30 V
<b>control supply voltage 1 at DC rated value</b>	24 V
<b>control supply voltage 1 at DC final rated value</b>	24 V
<b>control supply voltage at AC</b>	
• 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
<b>supply voltage frequency for auxiliary and control circuit rated value</b>	50 ... 60 Hz
<b>symmetrical line frequency tolerance</b>	5 Hz
<b>control current at minimum control supply voltage</b>	
• at AC	2 mA
• at DC	2 mA
control current at AC rated value	40 mA
control current at DC rated value	40 mA
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	0
<b>Installation/ mounting/ dimensions</b>	
fastening method side-by-side mounting	Yes
<b>fastening method</b>	clip-on
<b>height</b>	111.5 mm
<b>width</b>	45 mm
<b>depth</b>	69.5 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
• for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
• for auxiliary and control contacts	
— solid	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
— finely stranded with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
— finely stranded without core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.0 mm <sup>2</sup> )
• for AWG cables 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
stripped length of the cable for auxiliary and control contacts	7 mm
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	1 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	

- due to burst according to IEC 61000-4-4
- due to conductor-earth surge according to IEC 61000-4-5
- due to conductor-conductor surge according to IEC 61000-4-5
- due to high-frequency radiation according to IEC 61000-4-6

2 kV / 5 kHz behavior criterion 2  
 2 kV behavior criterion 2  
 1 kV behavior criterion 2  
 140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1

electrostatic discharge according to IEC 61000-4-2	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
conducted HF interference emissions according to CISPR11	Class A for industrial environment
field-bound HF interference emission according to CISPR11	Class B for the domestic, business and commercial environments

#### Approvals Certificates

General Product Approval	EMV
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[Confirmation](#)



Test Certificates	other	Environment
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Environmental Confirmations](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2990-0HA16>

##### Cax online generator

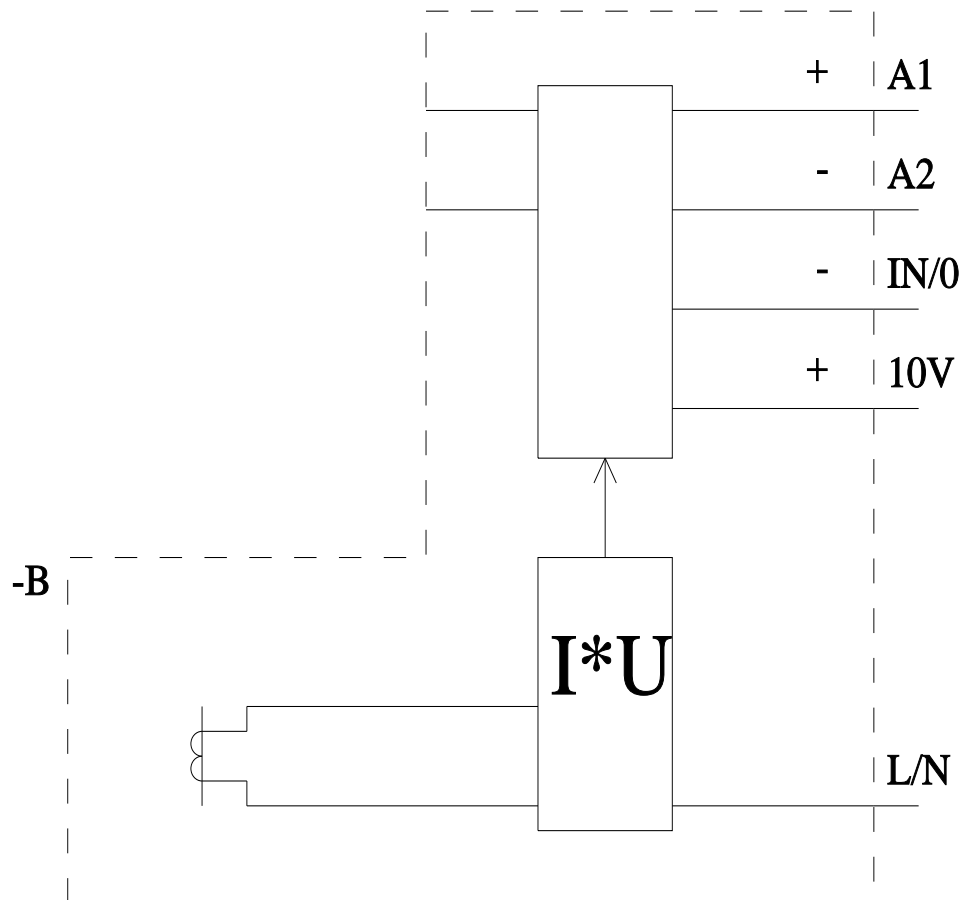
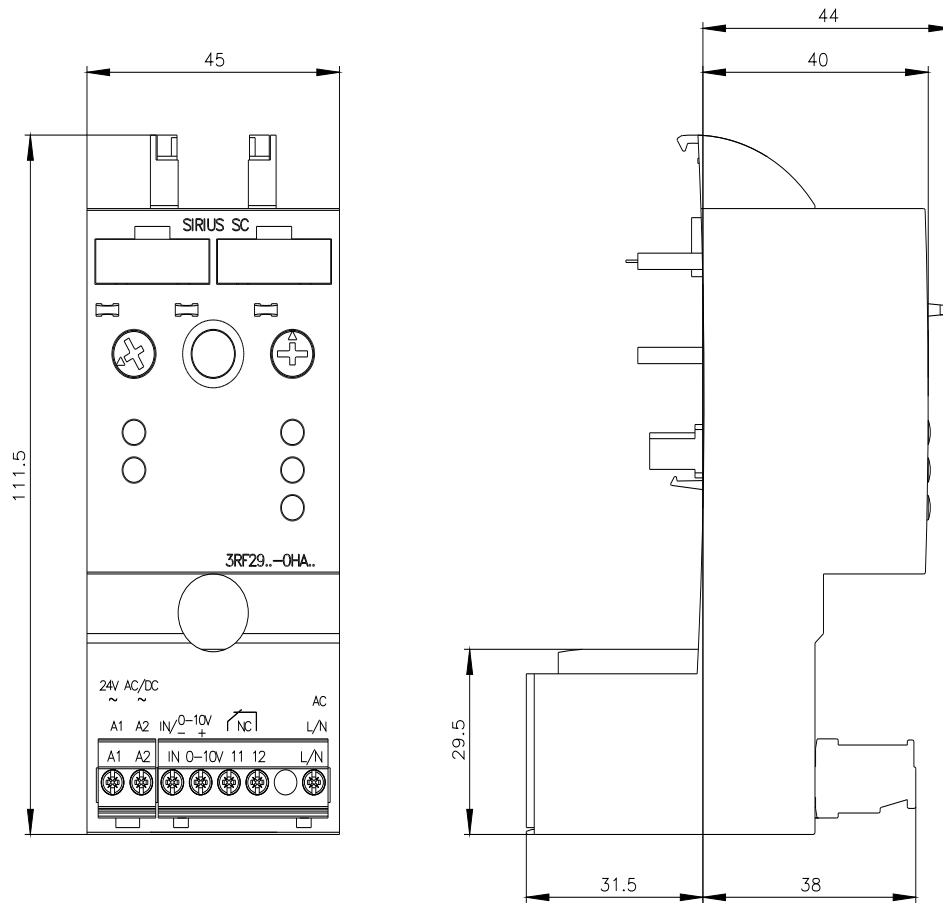
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2990-0HA16>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2990-0HA16>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2990-0HA16&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2990-0HA16&lang=en)





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