



overload relay 1.4...2.0 A thermal for motor protection frame size S00, Class 10 stand-alone installation main circuit: spring-loaded terminal auxiliary circuit: spring-loaded terminal manual-automatic RESET

<b>product brand name</b>	SIRIUS
<b>product designation</b>	thermal overload relay
<b>product type designation</b>	3RU2
<b>General technical data</b>	
<b>size of overload relay</b>	S00
<b>size of contactor can be combined company-specific</b>	S00
power loss [W] for rated value of the current at AC in hot operating state	5.7 W
• per pole	1.9 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
<b>surge voltage resistance rated value</b>	6 kV
<b>maximum permissible voltage for protective separation</b>	
• in networks with ungrounded star point between auxiliary and auxiliary circuit	440 V
• in networks with grounded star point between auxiliary and auxiliary circuit	440 V
• in networks with ungrounded star point between main and auxiliary circuit	440 V
• in networks with grounded star point between main and auxiliary circuit	440 V
<b>shock resistance according to IEC 60068-2-27</b>	8g / 11 ms
<b>reference code according to IEC 81346-2</b>	F
<b>Substance Prohibitance (Date)</b>	10/01/2009
<b>SVHC substance name</b>	Lead - 7439-92-1
<b>Net Weight</b>	0.216 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
<b>temperature compensation</b>	-40 ... +60 °C
relative humidity during operation	10 ... 95 %
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	1.4 ... 2 A
<b>operating voltage</b>	
• rated value	690 V
• at AC-3e rated value maximum	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz

<b>operational current rated value</b>	2 A
operational current at AC-3e at 400 V rated value	2 A
<b>operating power</b>	
• at AC-3	
— at 400 V rated value	0.75 kW
— at 500 V rated value	0.75 kW
— at 690 V rated value	1.1 kW
• at AC-3e	
— at 400 V rated value	0.75 kW
— at 500 V rated value	0.75 kW
— at 690 V rated value	1.1 kW
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	integrated
<b>number of NC contacts for auxiliary contacts</b>	1
• note	for contactor disconnection
<b>number of NO contacts for auxiliary contacts</b>	1
• note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
• at 24 V	3 A
• at 110 V	3 A
• at 120 V	3 A
• at 125 V	3 A
• at 230 V	2 A
• at 400 V	1 A
• at 690 V	0.75 A
<b>operational current of auxiliary contacts at DC-13</b>	
• at 24 V	2 A
• at 60 V	0.3 A
• at 110 V	0.22 A
• at 125 V	0.22 A
• at 220 V	0.11 A
<b>contact rating of auxiliary contacts according to UL</b>	B600 / R300
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	2 A
• at 600 V rated value	2 A
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable; for more details see manual
<b>fastening method</b>	stand-alone installation
<b>height</b>	102 mm
<b>width</b>	45 mm
<b>depth</b>	79 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	No
<b>type of electrical connection</b>	
• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>type of connectable conductor cross-sections</b>	

• for main contacts	1x (0,5 ... 4 mm <sup>2</sup> )
— solid or stranded	1x (0,5 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing	1x (0,5 ... 2,5 mm <sup>2</sup> )
— finely stranded without core end processing	1x (20 ... 12)
• for AWG cables for main contacts	
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	2x (0,5 ... 2,5 mm <sup>2</sup> )
— solid or stranded	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0,5 ... 1,5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (20 ... 14)
• for AWG cables for auxiliary contacts	
<b>design of screwdriver shaft</b>	Diameter 3 mm
<b>size of the screwdriver tip</b>	3,0 x 0,5 mm
<b>Safety related data</b>	
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 a
IEC 61508	
<b>T1 value</b>	
• for proof test interval or service life according to IEC 61508	20 a
<b>Electrical Safety</b>	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
<b>Display</b>	
display version for switching status	Slide switch
<b>Approvals Certificates</b>	
Environmental Product Declaration	
• global warming potential [CO2 eq] / during manufacturing	1.26 kg
• global warming potential [CO2 eq] / during sales	0.0543 kg
• global warming potential [CO2 eq] / during operation	39 kg
• global warming potential [CO2 eq] / after end of life	0.00624 kg
• global warming potential [CO2 eq] / total	40.3 kg
<b>Environment</b>	<b>General Product Approval</b>



[Environmental Con-  
firmations](#)



General Product Approval	For use in hazardous locations	Test Certificates
		 ATEX

Maritime application
 ABS

Maritime application	other	Railway
	<a href="#">Miscellaneous</a>	<a href="#">Confirmation</a>

## Further information

### Information on the packaging

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

### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

### 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=3RU2116-1BC1>

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

<https://support.industry.siemens.com/cs/ww/en/pb/3RU2116-1BC1>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2116-1BC1&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1BC1&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1BC1>

### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



