



overload relay 2.2...3.2 A thermal for motor protection frame size S00, Class 10 for mounting on contactors main circuit: spring-loaded terminal auxiliary circuit: spring-loaded terminal manual-automatic RESET

product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
General technical data	
size of overload relay	S00
size of contactor can be combined company-specific	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
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• 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
shock resistance according to IEC 60068-2-27	8g / 11 ms
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Net Weight	0.172 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
temperature compensation	-40 ... +60 °C
relative humidity during operation	10 ... 95 %
Environmental footprint	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO ₂ eq] total	40 kg
global warming potential [CO ₂ eq] during manufacturing	1.01 kg
global warming potential [CO ₂ eq] during sales	0.044 kg
global warming potential [CO ₂ eq] during operation	39 kg
global warming potential [CO ₂ eq] after end of life	0.022 kg

Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	2.2 ... 3.2 A
operating voltage	
• rated value	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	3.2 A
operational current at AC-3e at 400 V rated value	3.2 A
operating power	
• at AC-3	
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
• at AC-3e	
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
Auxiliary circuit	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts	1
• note	for contactor disconnection
number of NO contacts for auxiliary contacts	1
• note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• 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
operational current of auxiliary contacts at DC-13	
• 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
contact rating of auxiliary contacts according to UL	B600 / R300
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	3.2 A
• at 600 V rated value	3.2 A
Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions	
mounting position	for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable; for more details see manual
fastening method	Contactor mounting
height	87 mm
width	45 mm
depth	70 mm

Connections/ Terminals					
product component removable terminal for auxiliary and control circuit	No				
type of electrical connection					
• for main current circuit	spring-loaded terminals				
• for auxiliary and control circuit	spring-loaded terminals				
arrangement of electrical connectors for main current circuit	Top and bottom				
type of connectable conductor cross-sections					
• for main contacts					
— solid or stranded	1x (0,5 ... 4 mm ²)				
— finely stranded with core end processing	1x (0,5 ... 2,5 mm ²)				
— finely stranded without core end processing	1x (0,5 ... 2,5 mm ²)				
• for AWG cables for main contacts	1x (20 ... 12)				
type of connectable conductor cross-sections					
• for auxiliary contacts					
— solid or stranded	2x (0,5 ... 2,5 mm ²)				
— finely stranded with core end processing	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)				
— finely stranded without core end processing	2x (0,5 ... 1,5 mm ²)				
• for AWG cables for auxiliary contacts	2x (20 ... 14)				
design of screwdriver shaft	Diameter 3 mm				
size of the screwdriver tip	3,0 x 0,5 mm				
Safety related data					
failure rate [FIT] with low demand rate according to SN 31920	50 FIT				
MTTF with high demand rate	2 280 a				
IEC 61508					
T1 value					
• for proof test interval or service life according to IEC 61508	20 a				
Electrical Safety					
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				
Display					
display version for switching status	Slide switch				
Approvals Certificates					
General Product Approval					
					

For use in hazardous locations	Test Certificates	Maritime application
 IECEx	 ATEX	Special Test Certificate Type Test Certificates/Test Report  ABS

Maritime application	other
 DNV	 LRS

other	Railway	Environment
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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=3RU2116-1DC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DC0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1DC0&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1DC0>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



