

Overload relay 12.5...50 A For motor protection Size S3, Class 10
 Contactor mounting Main circuit: Screw terminal Auxiliary circuit:
 Screw terminal Manual-Automatic-Reset !!! Phased-out product !!!
 Successor is SIRIUS 3RB3 Preferred successor type is >>3RB3036-1UB0<<



Figure similar

product brand name	SIRIUS
Product designation	solid-state overload relay

General technical data

Size of contactor can be combined company-specific	S3
Power loss [W] for rated value of the current	
• at AC in hot operating state	0.05 W
• at AC in hot operating state per pole	0.02 W
• Insulation voltage with degree of pollution 3 at AC rated value	1 000 V
Surge voltage resistance rated value	8 kV
• protection class IP on the front	IP00
Shock resistance	15g / 11 ms
Type of protection	PTB 06 ATEX 3001 Ex II (2) GD
Reference code acc. to DIN EN 81346-2	F

Ambient conditions

Installation altitude at height above sea level	
• maximum	2 000 m

Ambient temperature	
<ul style="list-style-type: none"> during operation during storage during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>
Wertebereich	100 %

Main circuit

Number of poles for main current circuit	3
adjustable pick-up value current of the current-dependent overload release	12.5 ... 50 A
Operating voltage	
<ul style="list-style-type: none"> at AC-3 rated value maximum 	1 000 V

Auxiliary circuit

Number of NC contacts for auxiliary contacts	1
Number of NO contacts for auxiliary contacts	1
Number of CO contacts	
<ul style="list-style-type: none"> for auxiliary contacts 	0
<ul style="list-style-type: none"> operating current of auxiliary contacts at AC-15 at 24 V 	4 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 110 V 	4 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 120 V 	4 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 125 V 	4 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 230 V 	3 A
<ul style="list-style-type: none"> operating current of auxiliary contacts at DC-13 at 24 V 	2 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 60 V 	0.55 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 110 V 	0.3 A
<ul style="list-style-type: none"> operating current of auxiliary contacts at DC-13 at 125 V 	0.3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 220 V 	0.11 A

Protective and monitoring functions

Trip class	CLASS 10E
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Short-circuit protection

Design of the fuse link	
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 6 A

Installation/ mounting/ dimensions

• mounting position	any
Mounting type	Contacteur mounting
Height	106 mm
Width	70 mm
Depth	124 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	Yes
• Type of electrical connection for main current circuit	screw-type terminals
• Type of electrical connection for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— solid	2x (2.5 ... 16 mm ²)
— stranded	2x (10 ... 50 mm ²), 10 ... 70 mm ²
— finely stranded with core end processing	2x (2.5 ... 35 mm ²), 2.5 ... 50 mm ²
• at AWG conductors for main contacts	2x (10 ... 1/0), 1x (10 ... 2/0)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)

- finely stranded with core end processing
- at AWG conductors for auxiliary contacts




0.5 ... 2.5 mm², 2x (0.5 ... 1.5 mm²)
2x (20 ... 14)



Electromagnetic compatibility

<ul style="list-style-type: none"> • Conducted interference due to burst acc. to IEC 61000-4-4 • Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5 • Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5 	<p>2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3</p> <p>2 kV (line to earth) corresponds to degree of severity 3</p> <p>1 kV (line to line) corresponds to degree of severity 3</p>
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Certificates/ approvals

General Product Approval	EMC	For use in hazardous locations
 CCC	 UL	 ATEX
 CSA	 EAC	 RCM

Declaration of Conformity	Test Certificates	Marine / Shipping
 EG-Konf.	Miscellaneous Special Test Certificate Type Test Certificates/Test Report	 ABS  LRS

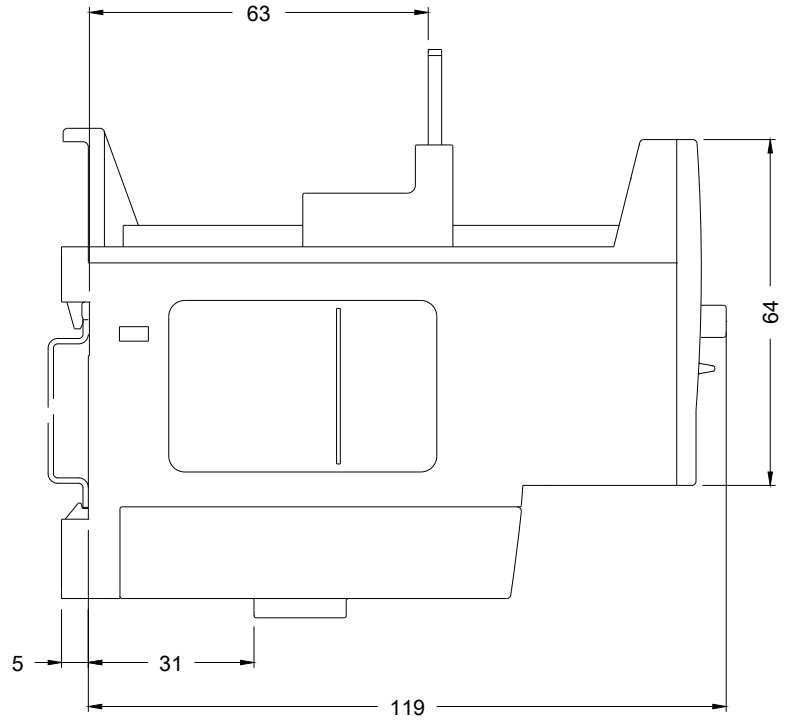
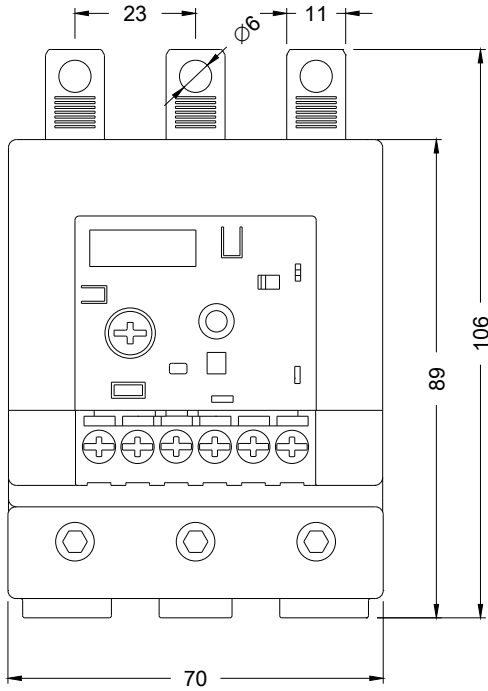
Marine / Shipping	other
 RINA  DNV-GL DNVGL.COM/AF	Miscellaneous Confirmation

Further information

- 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=3RB2046-1UB0>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2046-1UB0>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-1UB0>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2046-1UB0&lang=en
- Characteristic: Tripping characteristics, I²t, Let-through current**
<https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-1UB0/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2046-1UB0&objecttype=14&gridview=view1>



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