SIEMENS

Data sheet 3RB2046-1EB0

Overload relay 25...100 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 >>3RB3046-1XB0<<

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	

• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
Wertebereich	100 %

Main circuit

Number of poles for main current circuit	3
adjustable pick-up value current of the current-dependent overload release	25 ... 100 A
Operating voltage	
• 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	
• for auxiliary contacts	0
• operating current of auxiliary contacts at AC-15 at 24 V	4 A
• Operating current of auxiliary contacts at AC-15 at 110 V	4 A
• Operating current of auxiliary contacts at AC-15 at 120 V	4 A
• Operating current of auxiliary contacts at AC-15 at 125 V	4 A
• Operating current of auxiliary contacts at AC-15 at 230 V	3 A
• operating current of auxiliary contacts at DC-13 at 24 V	2 A
• Operating current of auxiliary contacts at DC-13 at 60 V	0.55 A
• Operating current of auxiliary contacts at DC-13 at 110 V	0.3 A
• operating current of auxiliary contacts at DC-13 at 125 V	0.3 A
• Operating current of auxiliary contacts at DC-13 at 220 V	0.11 A

Protective and monitoring functions

Trip class	CLASS 10E

Short-circuit protection

Design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A

Installation/ mounting/ dimensions

• **mounting position**	any
Mounting type	Contactor 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 mm²)
— stranded	2x (10 ... 50 mm²), 10 ... 70 mm²
— finely stranded with core end processing	2x (2.5 ... 35 mm²), 2.5 ... 50 mm²
• 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 mm², 2x (0.5 ... 2.5 mm²)
— finely stranded with core end processing	0.5 ... 2.5 mm², 2x (0.5 ... 1.5 mm²)

• at AWG conductors for auxiliary contacts	2x (20 ... 14)

Electromagnetic compatibility

• Conducted interference due to burst acc. to IEC 61000-4-4	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
• Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to earth) corresponds to degree of severity 3
• Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV (line to line) corresponds to degree of severity 3
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	CSA	UL	EAC	RCM	ATEX

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

Marine / Shipping		other	
RINA		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=3RB2046-1EB0

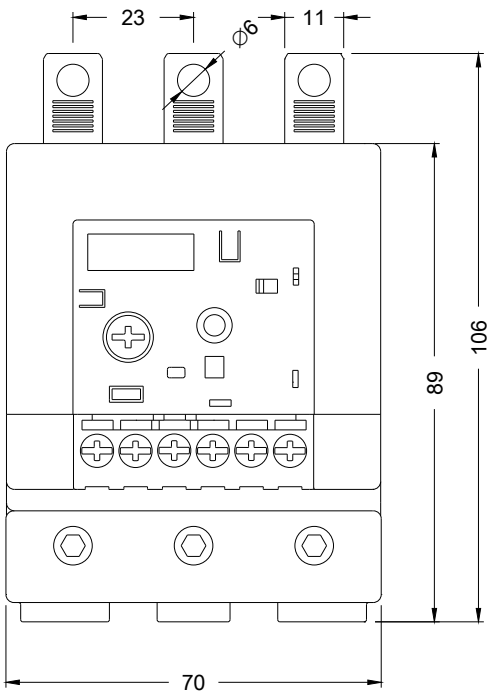
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2046-1EB0

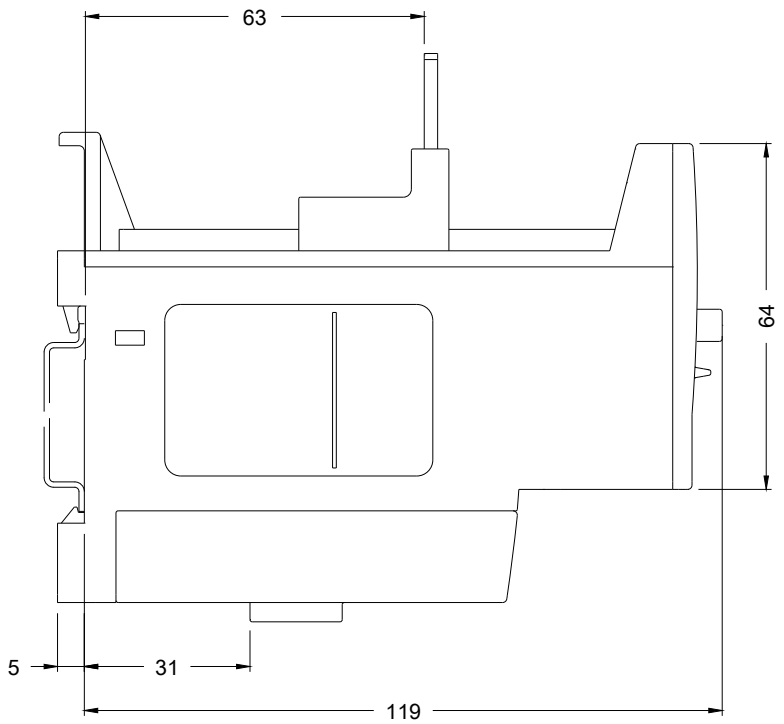
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-1EB0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2046-1EB0&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RB2046-1EB0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2046-1EB0&objecttype=14&gridview=view1





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