SIEMENS

Data sheet 3RB2143-4EX1

Figure similar

Overload relay 25...100 A For motor protection Size S3, Class 5...30 Stand-alone installation Main circuit: straight-through transformer Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset Internal ground fault detection !!! Phased-out product !!! Successor is SIRIUS 3RB3 Preferred successor type is >>3RB3143-4XX1<<

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	IP20
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
Relative humidity during operation	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
• at 110 V	4 A
• at 120 V	4 A
• at 125 V	4 A
• at 230 V	3 A
Operating current of auxiliary contacts at DC-13	
• at 24 V	2 A
• at 60 V	0.55 A
• at 110 V	0.3 A
• at 125 V	0.3 A
• at 220 V	0.11 A

Protective and monitoring functions	
Trip class	CLASS 5E, 10E, 20E and 30E adjustable

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	stand-alone installation
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	straight-through transformers
• for auxiliary and control current circuit	spring-loaded terminals
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid	2x (0.25 ... 1.5 mm²)
— finely stranded with core end processing	2x (0.25 ... 1.5 mm²)
• at AWG conductors for auxiliary contacts	2x (24 ... 16)

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
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to earth) corresponds to degree of severity 3
• 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	Type Test Certificates/Test Report	Special Test Certificate	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=3RB2143-4EX1

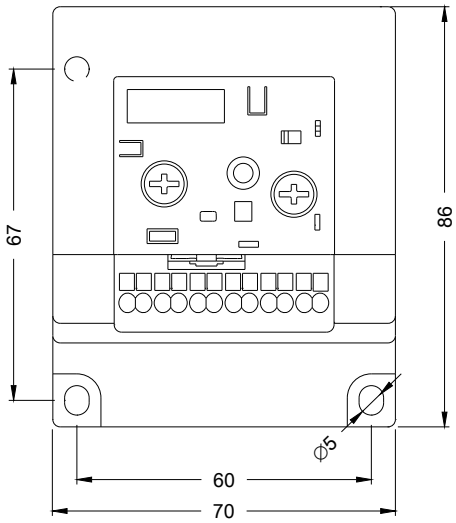
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2143-4EX1

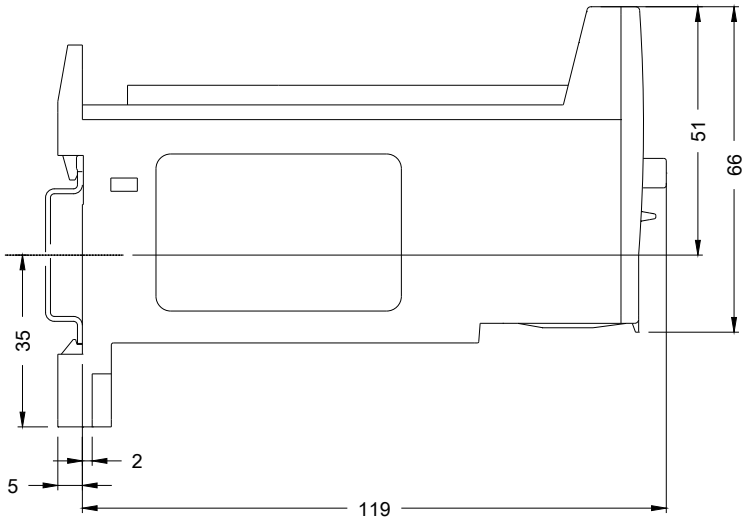
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4EX1

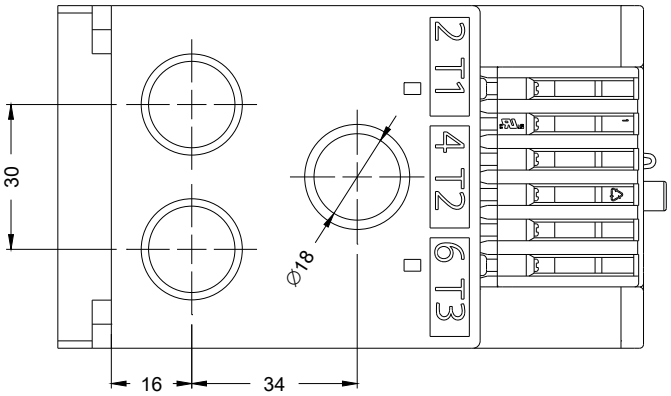
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2143-4EX1&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4EX1/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2143-4EX1&objecttype=14&gridview=view1







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