

Overload relay 25...100 A For motor protection Size S3, Class 5...30
 Stand-alone installation Main circuit: straight-through transformer
 Auxiliary circuit: Screw terminal Manual-Automatic-Reset Internal
 ground fault detection !!! Phased-out product !!! Successor is SIRIUS
 3RB3 Preferred successor type is >>3RB3143-4XW1<<



Product brand name	SIRIUS
Product designation	solid-state overload relay

General technical data

Size of contactor can be combined company-specific	S3
Insulation voltage	1 000 V
<ul style="list-style-type: none"> with degree of pollution 3 rated value 	
Surge voltage resistance rated value	8 kV
Protection class IP	IP20
<ul style="list-style-type: none"> on the front 	
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	2 000 m
<ul style="list-style-type: none"> maximum 	
Ambient temperature	-25 ... +60 °C
<ul style="list-style-type: none"> during operation 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	screw-type terminals
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	0.5 ... 2.5 mm ² , 2x (0.5 ... 1.5 mm ²)
• 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
• 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
--------------------------	-----	--------------------------------



Declaration of Conformity	Test Certificates	Marine / Shipping
---------------------------	-------------------	-------------------



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
-------------------	-------



[Miscellaneous](#)

[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2143-4EW1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2143-4EW1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4EW1>

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

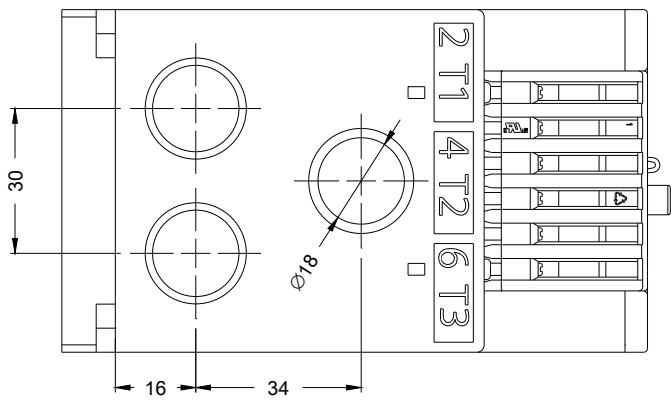
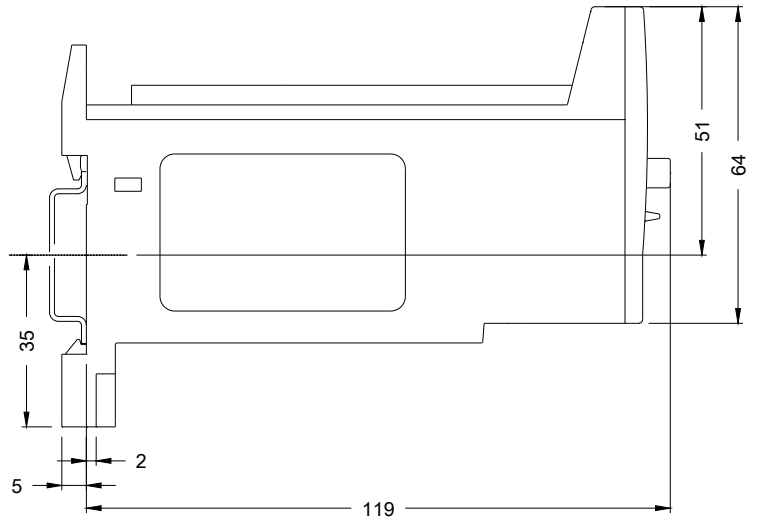
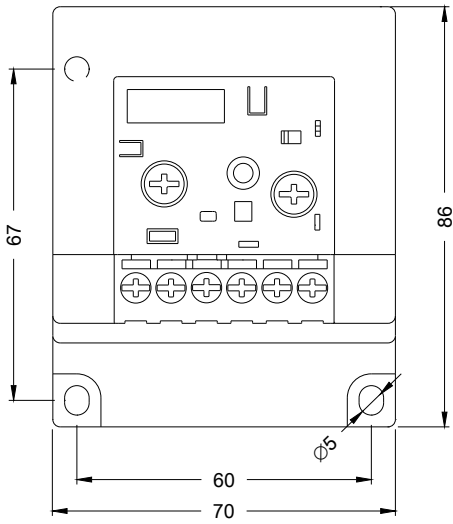
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2143-4EW1&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4EW1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2143-4EW1&objecttype=14&gridview=view1>



last modified:

09/24/2019