

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 |
| Power loss [W] for rated value of the current | |
| <ul style="list-style-type: none"> at AC in hot operating state | 0.05 W |
| <ul style="list-style-type: none"> at AC in hot operating state per pole | 0.02 W |
| <ul style="list-style-type: none"> Insulation voltage with degree of pollution 3 at AC rated value | 1 000 V |
| Surge voltage resistance rated value | 8 kV |
| <ul style="list-style-type: none"> 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 | |
| <ul style="list-style-type: none"> maximum | 2 000 m |
| Ambient temperature | |

| | |
|--|----------------|
| <ul style="list-style-type: none"> • during operation | -25 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -40 ... +80 °C |
| <ul style="list-style-type: none"> • 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 | |
| <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 5E, 10E, 20E and 30E adjustable |
|-------------------|---------------------------------------|

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 | 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 |
| • Type of electrical connection 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 |
| • 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 |
|--------------------------|-----|--------------------------------|



| | | |
|---------------------------|-------------------|-------------------|
| 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,...)

<https://www.siemens.com/ic10>

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, ...)

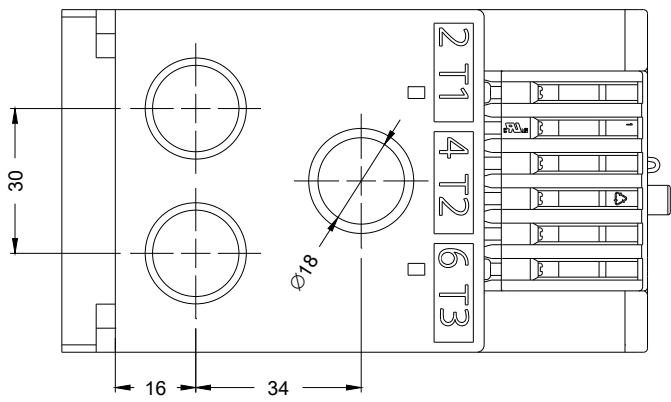
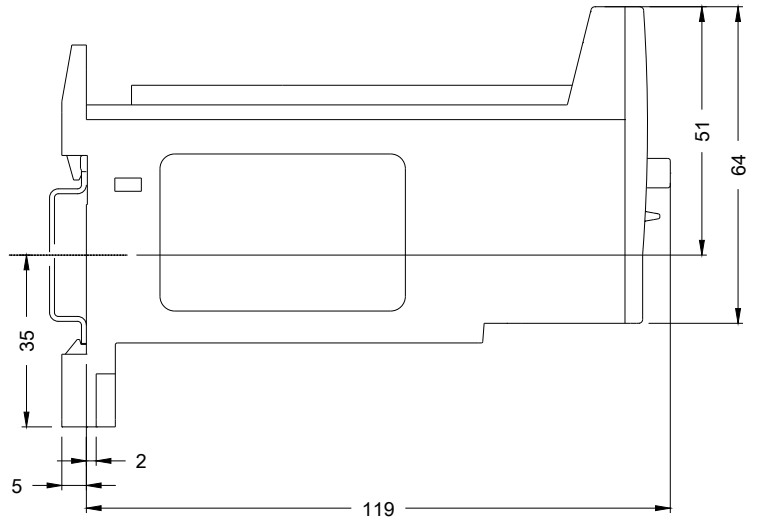
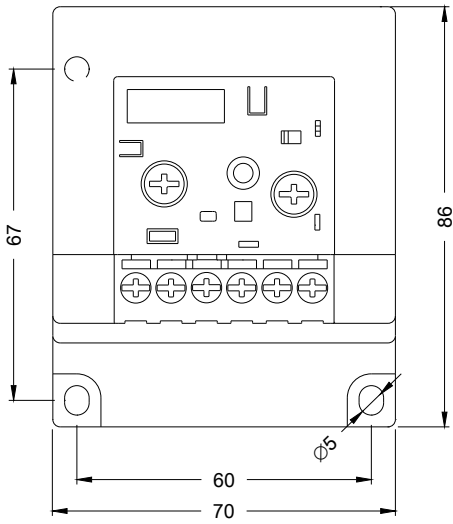
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2143-4EW1&lang=en

Characteristic: Tripping characteristics, I²t, 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>



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