

OVERLOAD RELAY 9.0...12.5 A FOR MOTOR PROTECTION BGR S00, CLASS 10 STAND-ALONE INSTALLATION MAIN CIRCUIT: SCREW TERMINAL AUXILIARY CIRCUIT:SCREW TERMINAL MANUAL-AUTOMATIC-RESET



| | |
|--------------------------|------------------------|
| Product brand name | SIRIUS |
| Product designation | thermal overload relay |
| Product type designation | 3RU2 |

General technical data

| | |
|--|-------|
| Size of overload relay | S00 |
| Size of contactor can be combined company-specific | S00 |
| Power loss [W] total typical | 5.1 W |
| Insulation voltage with degree of pollution 3 rated value | 690 V |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| <ul style="list-style-type: none"> • in networks with grounded star point between auxiliary and auxiliary circuit | 440 V |
| <ul style="list-style-type: none"> • in networks with grounded star point between auxiliary and auxiliary circuit | 440 V |
| <ul style="list-style-type: none"> • in networks with grounded star point between main and auxiliary circuit | 440 V |
| <ul style="list-style-type: none"> • in networks with grounded star point between main and auxiliary circuit | 440 V |
| Protection class IP | |

| | |
|---|-------------|
| <ul style="list-style-type: none"> • on the front • of the terminal | IP20 |
| Type of protection | Ex e |
| Protection against electrical shock | finger-safe |
| Equipment marking acc. to DIN EN 81346-2 | F |

Ambient conditions

| | |
|--|---|
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during storage • during transport | <p>-40 ... +70 °C</p> <p>-55 ... +80 °C</p> <p>-55 ... +80 °C</p> |
| Temperature compensation | -40 ... +60 °C |

Main circuit

| | |
|--|---|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 9 ... 12.5 A |
| Operating voltage | |
| <ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum | <p>690 V</p> <p>690 V</p> |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 12.5 A |
| Operating power at AC-3 | |
| <ul style="list-style-type: none"> • at 400 V rated value • at 500 V rated value • at 690 V rated value | <p>5.5 kW</p> <p>7.5 kW</p> <p>7.5 kW</p> |

Auxiliary circuit

| | |
|---|---|
| Design of the auxiliary switch | integrated |
| Number of NC contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts — Note | <p>1</p> <p>for contactor disconnection</p> |
| Number of NO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts — Note | <p>1</p> <p>for message "Tripped"</p> |
| Number of CO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts | 0 |
| Operating current of auxiliary contacts at AC-15 | |
| <ul style="list-style-type: none"> • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V • at 400 V | <p>3 A</p> <p>3 A</p> <p>3 A</p> <p>3 A</p> <p>2 A</p> <p>1 A</p> |

| | |
|---|-------------|
| Operating current of auxiliary contacts at DC-13 | |
| • at 24 V | 2 A |
| • at 110 V | 0.22 A |
| • at 125 V | 0.22 A |
| • at 220 V | 0.11 A |
| Contact rating of auxiliary contacts according to UL | B600 / R300 |

Protective and monitoring functions

| | |
|---------------------------------------|----------|
| Trip class | CLASS 10 |
| Design of the overload release | thermal |

UL/CSA ratings

| | |
|---|--------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 12.5 A |
| • at 600 V rated value | 12.5 A |

Installation/ mounting/ dimensions

| | |
|------------------------------|--------------------------|
| Mounting position | any |
| Mounting type | stand-alone installation |
| Height | 89 mm |
| Width | 45 mm |
| Depth | 80 mm |
| Required spacing | |
| • with side-by-side mounting | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 6 mm |
| — downwards | 6 mm |
| — at the side | 6 mm |
| • for grounded parts | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 6 mm |
| — at the side | 6 mm |
| — downwards | 6 mm |
| • for live parts | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 6 mm |
| — downwards | 6 mm |
| — at the side | 6 mm |

Connections/Terminals

| | |
|-------------------------|--|
| Product function | |
|-------------------------|--|

| | |
|--|---|
| <ul style="list-style-type: none"> removable terminal for auxiliary and control circuit | No |
| Type of electrical connection <ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit | screw-type terminals screw-type terminals |
| Arrangement of electrical connectors for main current circuit | Top and bottom |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing at AWG conductors for main contacts | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing at AWG conductors for auxiliary contacts | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14) |
| Tightening torque <ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals | 0.8 ... 1.2 N·m 0.8 ... 1.2 N·m |
| Design of screwdriver shaft | Diameter 5 ... 6 mm |

Safety related data

| | |
|---|---------|
| Failure rate [FIT] <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 | 50 FIT |
| MTTF with high demand rate | 2 280 y |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |

Display

| | |
|---|--------------|
| Display version <ul style="list-style-type: none"> for switching status | Slide switch |
|---|--------------|

Certificates/approvals

| | |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |
|--------------------------|--------------------------------|



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



[Type Test Certificates/Test Report](#)



| | | |
|-------------------|-------|---------|
| Marine / Shipping | other | Railway |
|-------------------|-------|---------|



[Environmental Confirmations](#)

[Confirmation](#)

[Vibration and Shock](#)

Further information

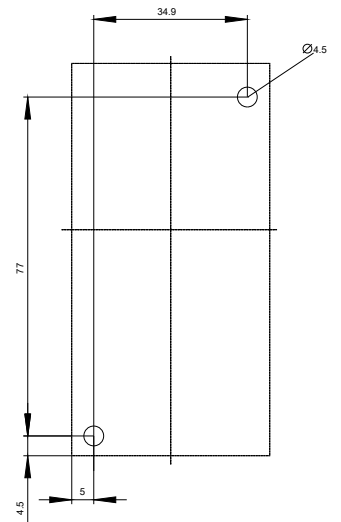
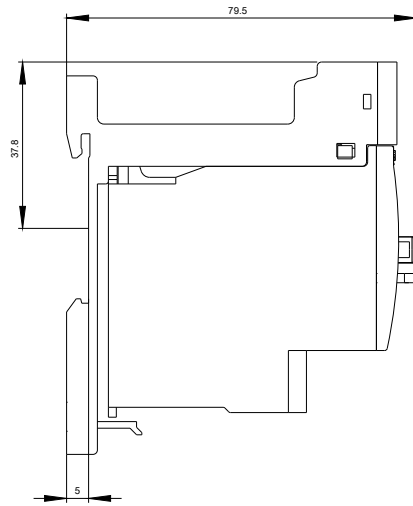
Information- and Downloadcenter (Catalogs, Brochures,...)
<http://www.siemens.com/industrial-controls/catalogs>

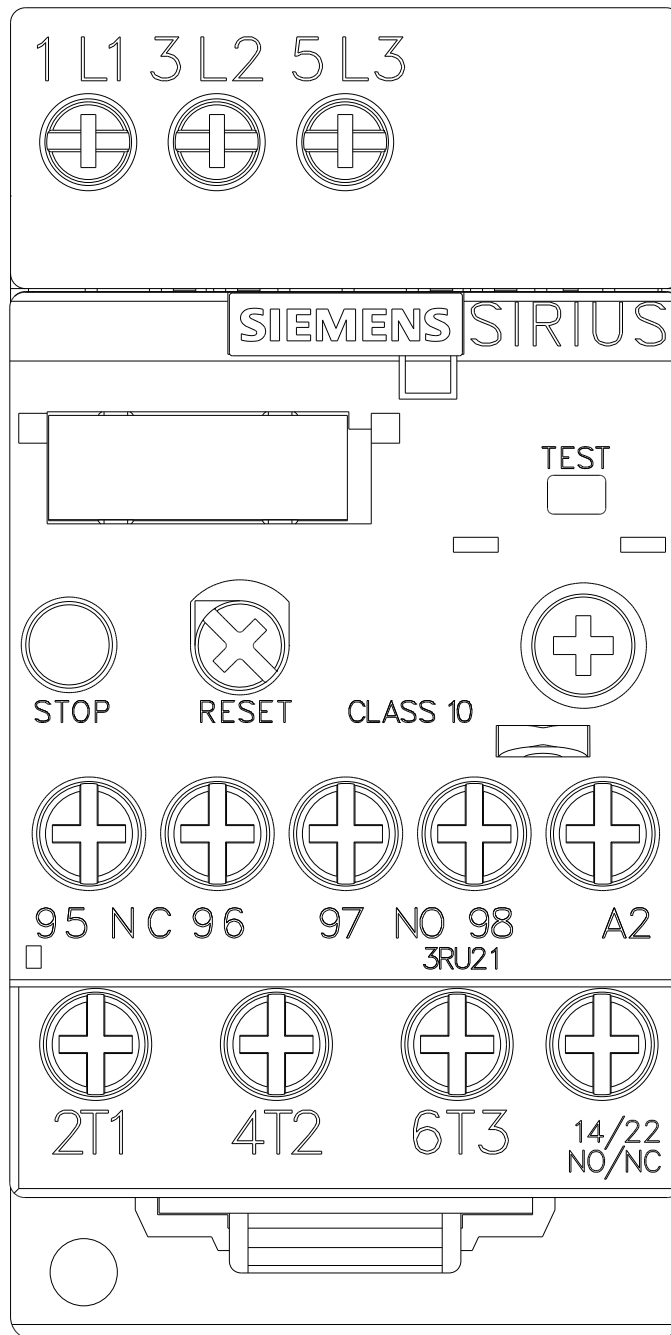
Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1KB1>

Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1KB1>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1KB1>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1KB1&lang=en







last modified:

07/17/2017