SIEMENS

Data sheet 3RR2142-1AW30



MONITORING RELAY ATTACHABLE TO
CONTACTOR 3RT2. SIZE S0 BASIC, ANALOG
ADJUSTABLE APPARENT CURRENT MONITORING 4
- 40A, 50-60 HZ, 2-PHASE SUPPLY 24-240 V AC/DC 1
CO CONTACT MONITORING FOR CURRENT
OVERSHOOT/UNDERSHOOT PHASE FAILURE,
WIRE BREAK WITH OR W/O ERROR LOG ON-DELAY
0-60 S SPURIOUS PEAK SUPPR.0-30 S SWITCHING
HYSTERESIS 6% SCREW CONNECTION

| General technical data: | | |
|---|-----|---|
| product brand name | | SIRIUS |
| Product designation | - | multi-phase current monitoring |
| Design of the product | | multi-phase current monitoring |
| Size of contactor can be combined company-specific | | S0 |
| Protection class IP | | |
| • on the front | | IP20 |
| of the terminal | | IP20 |
| Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 Rated value | V | 690 |
| Installation altitude at height above sea level maximum | m | 2 000 |
| Ambient temperature | | |
| during storage | °C | -40 +80 |
| during operation | °C | -25 + 60 |
| Electromagnetic compatibility | | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4 |
| EMI immunity acc. to IEC 60947-1 | | ambience A (industrial sector) |
| EMC emitted interference acc. to IEC 60947-1 | | ambience A (industrial sector) |
| Shock resistance | | 15g / 11 ms |
| Vibration resistance | | 10 55 Hz / 0.35 mm |
| Surge voltage resistance Rated value | kV | 6 |
| Operating apparent output Rated value | V·A | 4 |
| Operating power Rated value | W | 2.5 |
| Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | | К |

| Equipment marking acc. to DIN EN 61346-2 | | К |
|--|------|------------|
| Mechanical service life (switching cycles) typical | | 10 000 000 |
| Electrical endurance (switching cycles) at AC-15 at 230 V typical | | 100 000 |
| Adjustable response delay time | | |
| when starting | s | 0 60 |
| with lower or upper limit violation | S | 0 30 |
| Stand-by time for restart after fault | S | 0.3 |
| Phase number | | 3 |
| Number of monitored phases | | 2 |
| Product function | | |
| Overcurrent monitoring | | Yes |
| Undercurrent monitoring | | Yes |
| Overcurrent and undercurrent monitoring | | Yes |
| Apparent current monitoring | | Yes |
| active current monitoring | | No |
| • undercurrent detection DC | | No |
| • undercurrent detection 1 phase | | No |
| Overcurrent detection DC | | No |
| Current window recognition DC | | No |
| undercurrent detection 3 phases | | No |
| Overcurrent detection 1 phase | | No |
| Voltage window recognition 3 phase | | No |
| Voltage window recognition 1 phase | | No |
| phase sequence recognition | | No |
| can be activated or deactivated phase sequence recognition | | No |
| Auto-reset | | Yes |
| External reset | | No |
| Manual RESET | | Yes |
| Adjustable response value current | | |
| • 1 | Α | 4 40 |
| • 2 | Α | 4 40 |
| Relative metering precision | | |
| relating to measuring range limit | % | 10 |
| Type of current for monitoring | | AC |
| Measurable current with AC | Α | 4 40 |
| Relative switching hysteresis for measured current value | % | 6.25 |
| Response time maximum | ms | 300 |
| Relative repeat accuracy | % | 2 |
| Temperature drift per °C | %/°C | 0.1 |
| Ampacity | | |
| Ampacity | | |

| for permanent overcurrent maximum permissible | Α | 40 |
|---|---|-----|
| for overcurrent duration < 1 s maximum permissible | Α | 800 |

| Supply voltage: | | |
|--|----|--------|
| Type of voltage of the supply voltage | | AC/DC |
| Supply voltage frequency 1 | Hz | 50 60 |
| Supply voltage 1 | | |
| • for DC | V | 24 240 |
| • with AC | | |
| — at 50 Hz | V | 24 240 |
| — at 60 Hz | V | 24 240 |
| Buffering time in the event of power failure minimum | ms | 10 |

| Auxiliary circuit: | | |
|---|----|------------------------|
| Circuit principle of the output relay | | closed-circuit current |
| Operating current at 17 V minimum | mA | 5 |
| Number of CO contacts | | |
| • for auxiliary contacts | | 1 |
| Operating current of the auxiliary contacts | | |
| ● at AC-15 | | |
| — at 24 V | Α | 3 |
| — at 230 V | Α | 3 |
| — at 400 V | Α | 3 |
| • at DC-13 | | |
| — at 24 V | Α | 1 |
| — at 125 V | Α | 0.2 |
| — at 250 V | Α | 0.1 |

Inputs/ Outputs:

Short-circuit:

| nstallation/ mounting/ dimensions: | | |
|---|----|-----------------|
| mounting position | | any |
| Mounting type | | direct mounting |
| Width | mm | 45 |
| Height | mm | 87 |
| Depth | mm | 91 |
| Required spacing with side-by-side mounting | | |
| • forwards | mm | 0 |
| Backwards | mm | 0 |
| • upwards | mm | 0 |
| • downwards | mm | 0 |
| | | |

| • at the side | mm | 0 |
|-------------------------------------|----|---|
| Required spacing for grounded parts | | |
| forwards | mm | 6 |
| Backwards | mm | 0 |
| • upwards | mm | 6 |
| downwards | mm | 6 |
| • at the side | mm | 6 |
| Required spacing for live parts | | |
| • forwards | mm | 6 |
| Backwards | mm | 0 |
| • upwards | mm | 6 |
| • downwards | mm | 6 |
| • at the side | mm | 6 |
| | | |

| Connections/ Terminals: | | |
|--|-----|---|
| Type of electrical connection | | |
| • for main current circuit | | screw-type terminals |
| for auxiliary and control current circuit | | screw-type terminals |
| Product function | | |
| removable terminal for main circuit | | No |
| removable terminal for auxiliary and control | | Yes |
| circuit | | |
| Type of connectable conductor cross-section | | |
| • for main contacts | | |
| — solid | | 2x (1 2.5 mm²), 2x (2.5 10 mm²) |
| — finely stranded | | |
| — with core end processing | | 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² |
| for AWG conductors | | |
| — for main contacts | | 2 x (16 14), 2x (14 8) |
| — for auxiliary contacts | | 2x (20 14) |
| for auxiliary contacts | | |
| — solid | | 1x (0.5 4 mm²), 2x (0.5 2.5 mm²) |
| — finely stranded | | |
| — with core end processing | | 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) |
| Tightening torque with screw-type terminals | N·m | 0.8 1.2 |

| Certificates/ approvals: | |
|----------------------------|---------------|
| Certificate of suitability | CE / UL / CSA |

General Product Approval

EMC

Declaration of Conformity













Test Certificates

Shipping Approval

Type Test Certificates/Test Report

Special Test Certificate









Shipping Approval

other







Environmental Confirmations

Confirmation

UL/CSA ratings:

Contact rating of the auxiliary contacts acc. to UL

B300 / R300

Safety related data:

Protection against electrical shock

finger-safe

Further information

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

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

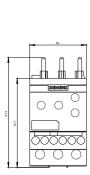
http://www.siemens.com/industrymall

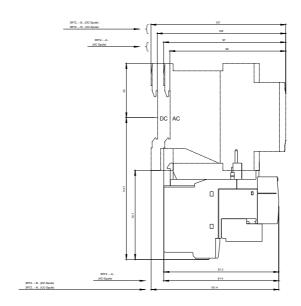
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR21421AW30

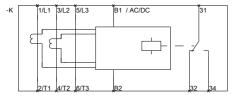
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RR21421AW30/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RR21421AW30&lang=en





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