## SIEMENS

## Data sheet

## 3RR2143-1AW30

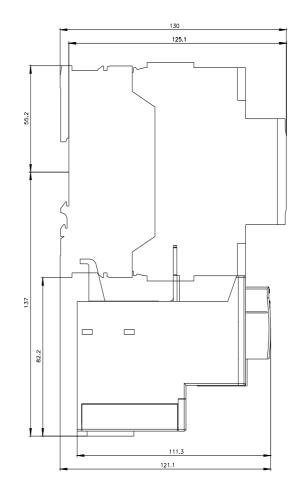


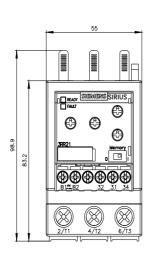
Monitoring relay, can be mounted to Contactor 3RT2, Size S2 basic, analog adjustment Apparent current monitoring 8...80 A, 50...60 Hz, 2-phase Supply 24-240 V AC/DC 1 change-over contact Monitoring for Current overshoot and undershoot Phase failure, Cable break with or without fault buffer ON delay 0-60 s Noise pulse suppression 0-30 s Switching hysteresis 6% Screw connection system

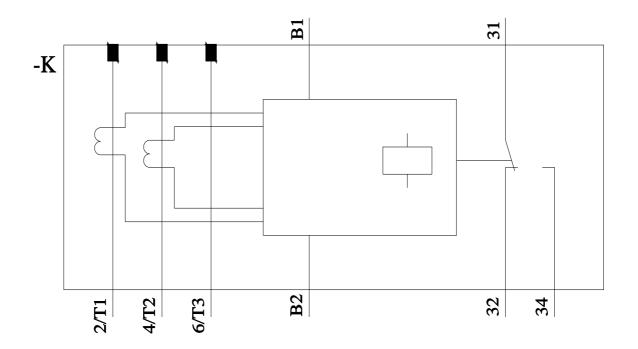
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|---|---|--|--|--|
| product brand name  | SIRIUS  |  |  |  |
| product designation   | Monitoring relays                                   |  |  |  |
| design of the product   | analogically adjustable, 2-phase current monitoring |  |  |  |
| product type designation  | 3RR2  |  |  |  |
| General technical data  |   |  |  |  |
| size of contactor can be combined company-specific                        | S2  |  |  |  |
| operating apparent power rated value                                      | 4 VA  |  |  |  |
| insulation voltage for overvoltage category III<br>according to IEC 60664 |   |  |  |  |
| <ul> <li>with degree of pollution 3 rated value</li> </ul>                | 690 V   |  |  |  |
| surge voltage resistance rated value                                      | 6 kV  |  |  |  |
| consumed current at 24 V  | 90 mA   |  |  |  |
| protection class IP   |   |  |  |  |
| • on the front  | IP20  |  |  |  |
| <ul> <li>of the terminal</li> </ul>                                       | IP00  |  |  |  |
| shock resistance  | 10g / 11 ms   |  |  |  |
| vibration resistance  | 10 55 Hz / 0.35 mm                                  |  |  |  |
| mechanical service life (operating cycles) typical                        | 10 000 000  |  |  |  |
| electrical endurance (operating cycles) at AC-15 at 230 V typical         | 100 000   |  |  |  |
| reference code according to IEC 81346-2                                   | К   |  |  |  |
| relative repeat accuracy  | 2 %   |  |  |  |
| Substance Prohibitance (Date)   | 03/01/2017  |  |  |  |
| Supply voltage  |   |  |  |  |
| type of voltage of the supply voltage                                     | AC/DC   |  |  |  |
| supply voltage 1 at AC  |   |  |  |  |
| • at 50 Hz  | 24 240 V  |  |  |  |
| • at 60 Hz  | 24 240 V  |  |  |  |
| supply voltage 1 at DC  | 24 240 V  |  |  |  |
| supply voltage frequency 1  | 50 60 Hz  |  |  |  |
| Measuring circuit   |   |  |  |  |
| type of current for monitoring  | AC  |  |  |  |
| adjustable current response value current                                 |   |  |  |  |
| • 1   | 8 80 A  |  |  |  |
| • 2   | 8 80 A  |  |  |  |
| adjustable response delay time  |   |  |  |  |
| when starting   | 0 60 s  |  |  |  |
| <ul> <li>with lower or upper limit violation</li> </ul>                   | 0 30 s  |  |  |  |
| Precision   |   |  |  |  |
| temperature drift per °C  | 0.1 %/°C  |  |  |  |
| Short-circuit protection  |   |  |  |  |

| design of the fuse link for short-circuit protection of the auxiliary switch required                             | fuse gG: 4 A   |
|---|--|
| Communication/ Protocol   |  |
| protocol is supported IO-Link protocol  | No   |
| type of voltage supply via input/output link master   | No   |
| Auxiliary circuit   |  |
| number of CO contacts   |  |
| <ul> <li>for auxiliary contacts</li> </ul>  | 1  |
| operational current of auxiliary contacts at AC-15  |  |
| • at 24 V   | 3 A  |
| • at 230 V  | 3 A  |
| • at 400 V  | 3 A  |
| operational current of auxiliary contacts at DC-13  |  |
| • at 24 V   | 1 A<br>0.2 A   |
| ● at 125 V<br>● at 250 V  | 0.2 A<br>0.1 A   |
| • at 250 v<br>contact rating of auxiliary contacts according to UL  | B300 / R300  |
| Main circuit  | 50077000   |
| operating power rated value   | 2.5 W  |
| ampacity of the semiconductor output in SIO mode  | 2.5 W  |
| operational current at 17 V minimum   | 5 mA   |
| Electromagnetic compatibility   |  |
| EMC emitted interference according to IEC 60947-1   | ambience A (industrial sector)                               |
| EMC immunity according to IEC 60947-1   | ambience A (industrial sector)                               |
| Connections/ Terminals  | × ,  |
| product component removable terminal for main circuit   | No   |
| product component removable terminal for auxiliary<br>and control circuit   | Yes  |
| type of electrical connection   |  |
| <ul> <li>for main current circuit</li> </ul>  | screw-type terminals   |
| <ul> <li>for auxiliary and control circuit</li> </ul>   | screw-type terminals   |
| type of connectable conductor cross-sections  |  |
| <ul> <li>for main contacts</li> </ul>   |  |
| — solid   | 2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )       |
| — stranded  | 2x (1 35 mm <sup>2</sup> ), 1x (1 50 mm <sup>2</sup> )       |
| <ul> <li>finely stranded with core end processing</li> <li>at AWG cables for main contacts</li> </ul>             | 2x (1 25 mm²), 1x (1 35 mm²)                                 |
| connectable conductor cross-section for main  | 2x (18 2), 1x (18 1)   |
| contacts  |  |
| <ul> <li>solid or stranded</li> </ul>   | 1 50 mm²   |
| <ul> <li>finely stranded with core end processing</li> </ul>  | 1 35 mm²   |
| type of connectable conductor cross-sections  |  |
| <ul> <li>for auxiliary contacts</li> </ul>  |  |
| — solid   | 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )   |
| — finely stranded with core end processing  | 1x (0.5 2.5 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) |
| <ul> <li>at AWG cables for auxiliary contacts</li> <li>AWG number as coded connectable conductor cross</li> </ul> | 2x (20 14)   |
| AWG number as coded connectable conductor cross section for main contacts   | 18 1   |
| tightening torque with screw-type terminals   | 0.8 1.2 N·m  |
| Installation/ mounting/ dimensions  |  |
| mounting position   | any  |
| fastening method  | direct mounting  |
| height  | 99 mm  |
| width   | 55 mm  |
| depth   | 112 mm   |
| required spacing  |  |
| <ul> <li>with side-by-side mounting<br/>— forwards</li> </ul>   | 0 mm   |
| — forwards<br>— backwards   | 0 mm<br>0 mm   |
| — upwards   | 0 mm   |
| — upwards<br>— downwards  | 10 mm  |
| — at the side   | 0 mm   |
|   |  |

| <ul> <li>for grounded part         <ul> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li> <li>for live parts         <ul> <li>forwards</li> <li>for live parts</li> <li>forwards</li> <li>backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>Monte and the side</li> </ul> Ambient conditions installation altitude at he ambient temperature   |                     | I maximum                           | 10 mm<br>0 mm<br>10 mm<br>10 mm<br>10 mm<br>10 mm<br>10 mm<br>10 mm<br>2 000 mm |                   |                            |     |  |
|--|---------------------|-------------------------------------|---|-------------------|----------------------------|-----|--|
| during operation   |                     |                                     | -25   | +60 °C            |                            |     |  |
| during storage   |                     |                                     | -40   | +80 °C            |                            |     |  |
| Certificates/ approvals  |                     |                                     |   |                   |                            |     |  |
| General Product App  | roval               |                                     |   |                   |                            | EMC |  |
|  | <u>Confirmation</u> |                                     | )   | (U)<br>u          | EHC                        | RCM |  |
| Declaration of Confor  | rmity               | Test Certifica                      | ates  | Marine / Shipping |                            |     |  |
| UK<br>CA   | EG-Konf.            | <u>Special Test C</u><br><u>ate</u> | <u>ertific-</u>   | ABS               | Llovd's<br>Register<br>urs | PRS |  |
| Marine / Shipping  |                     | other                               |   |                   |                            |     |  |
| Confirmation<br>Confirmation   |                     |                                     |   |                   |                            |     |  |
| Further information  |                     |                                     |   |                   |                            |     |  |
| Information- and Downloadcenter (Catalogs, Brochures,)<br>https://www.siemens.com/ic10<br>Industry Mall (Online ordering system)<br>https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RR2143-1AW30<br>Cax online generator<br>http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RR2143-1AW30<br>Service&Support (Manuals, Certificates, Characteristics, FAQs,)<br>https://support.industry.siemens.com/cs/ww/en/ps/3RR2143-1AW30<br>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)<br>http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RR2143-1AW30⟨=en<br>Characteristic: Derating<br>https://support.industry.siemens.com/cs/ww/en/ps/3RR2143-1AW30/manual |                     |                                     |   |                   |                            |     |  |







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