## **SIEMENS**

Data sheet 3RU2116-1AB0



Overload relay 1.1...1.6 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw 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] for rated value of the current at AC in hot operating state                    | 5.7 W                  |
| • per pole  | 1.9 W                  |
| insulation voltage with degree of pollution 3 at AC rated value                               | 690 V                  |
| surge voltage resistance rated value  | 6 kV                   |
| maximum permissible voltage for protective separation in<br>networks with grounded star point |                        |
| <ul> <li>between auxiliary and auxiliary circuit</li> </ul>                                   | 440 V                  |
| <ul> <li>between auxiliary and auxiliary circuit</li> </ul>                                   | 440 V                  |
| <ul> <li>between main and auxiliary circuit</li> </ul>  | 440 V                  |
| between main and auxiliary circuit  | 440 V                  |
| shock resistance according to IEC 60068-2-27  | 8g / 11 ms             |
| type of protection according to ATEX directive 2014/34/EU                                     | Ex II (2) GD           |
| certificate of suitability according to ATEX directive 2014/34/EU                             | DMT 98 ATEX G 001      |
| reference code according to IEC 81346-2   | F                      |
| Substance Prohibitance (Date)   | 10/01/2009             |
| Ambient conditions  |                        |
| installation altitude at height above sea level maximum                                       | 2 000 m                |
| ambient temperature   |                        |
| <ul> <li>during operation</li> </ul>  | -40 +70 °C             |
| <ul> <li>during storage</li> </ul>  | -55 +80 °C             |
| during transport  | -55 +80 °C             |
| temperature compensation  | -40 +60 °C             |
| relative humidity during operation  | 10 95 %                |
| Main circuit  |                        |
| number of poles for main current circuit  | 3                      |
| adjustable current response value current of the current-<br>dependent overload release       | 1.1 1.6 A              |
| operating voltage   |                        |
| rated value   | 690 V                  |
| at AC-3e rated value maximum  | 690 V                  |
| operating frequency rated value   | 50 60 Hz               |
| operational current rated value   | 1.6 A                  |
| operational current at AC-3e at 400 V rated value   | 1.6 A                  |
| operating power   |                        |

| • at AC-3  |   |
|--|---|
| — at 400 V rated value   | 0.55 kW   |
| — at 500 V rated value   | 0.75 kW   |
| — at 690 V rated value   | 1.1 kW  |
| • at AC-3e   |   |
| — at 400 V rated value   | 0.55 kW   |
| — at 500 V rated value   | 0.75 kW   |
| — at 690 V rated value   | 1.1 kW  |
| Auxiliary circuit  |   |
| design of the auxiliary switch   | integrated  |
| number of NC contacts for auxiliary contacts   | 1   |
| • note   | for contactor disconnection   |
| number of NO contacts for auxiliary contacts   | 1   |
| • note   | for message "Tripped"   |
| number of CO contacts for auxiliary contacts   | 0   |
| operational current of auxiliary contacts at AC-15   |   |
| • at 24 V  | 3 A   |
| ● at 110 V   | 3 A   |
| • at 120 V   | 3 A   |
| ● at 125 V   | 3 A   |
| ● at 230 V   | 2 A   |
| • at 400 V   | 1 A   |
| ● at 690 V   | 0.75 A  |
| operational current of auxiliary contacts at DC-13   |   |
| • at 24 V  | 2 A   |
| ● at 60 V  | 0.3 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  |
| trip class<br>design of the overload release   | CLASS 10 thermal  |
| trip class design of the overload release UL/CSA ratings   |   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor  | thermal   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value   | thermal  1.6 A  |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value  | thermal   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection   | thermal  1.6 A  |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link   | thermal  1.6 A  1.6 A   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required   | thermal  1.6 A  |
| trip class design of the overload release  UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value  Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  | thermal  1.6 A  1.6 A   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method   | thermal  1.6 A  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting   |
| trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height  | thermal  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any  Contactor mounting 76 mm   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm  |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any  Contactor mounting 76 mm   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A  1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm  |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm   |
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| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any  Contactor mounting 76 mm 45 mm 70 mm  No  Screw-type terminals screw-type terminals   |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | thermal  1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  Screw-type terminals screw-type terminals  |
| trip class  design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  Short-circuit protection  design of the fuse link  • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for main current circuit  • for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  | thermal  1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  Screw-type terminals screw-type terminals  |
| trip class  design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  Short-circuit protection  design of the fuse link  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for main current circuit  • for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts                    | thermal  1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom   |
| trip class  design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for main current circuit  • for auxiliary and control circuit  arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts  — solid or stranded | thermal  1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom  2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²                                  |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | 1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom  2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |
| trip class design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  | 1.6 A 1.6 A 1.6 A  fuse gG: 6 A, quick: 10 A  any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom  2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |

| 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)              |
|--|
| 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)              |
| 2x (20 16), 2x (18 14)                           |
|  |
| 0.8 1.2 N·m                                      |
| 0.8 1.2 N·m                                      |
| Diameter 5 6 mm                                  |
| Pozidriv PZ 2                                    |
|  |
| M3   |
| M3   |
|  |
| 50 FIT   |
| 2 280 a  |
| 20 a   |
| IP20   |
| finger-safe, for vertical contact from the front |
|  |
| Slide switch                                     |
|  |
|  |

**((()** 

Confirmation







For use in hazardous locations



**Declaration of Conformity** 

**General Product Approval** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





LRS







Confirmation

other

other

Railway



Vibration and Shock

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RU2116-1AB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1AB0

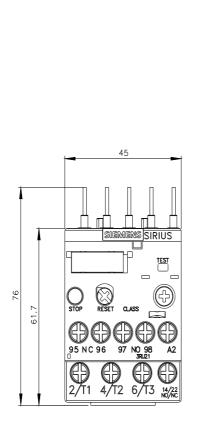
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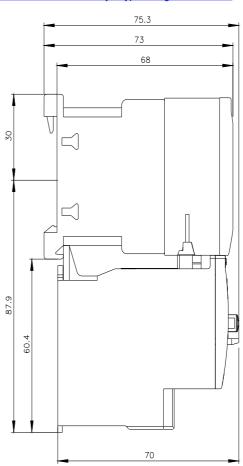
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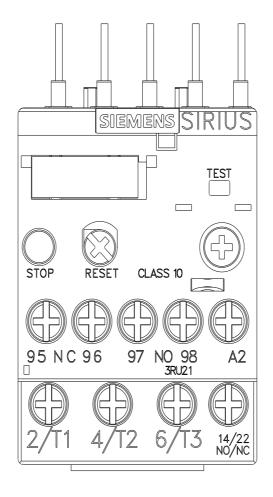
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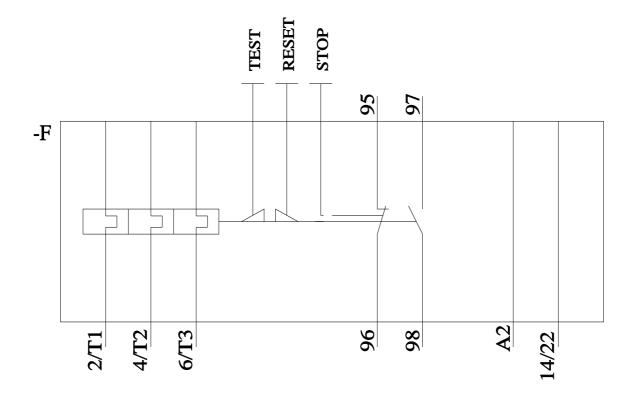
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1AB0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1AB0&objecttype=14&gridview=view1









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