## **SIEMENS**

Data sheet 3RU2116-0HC0



Overload relay 0.55...0.80 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Spring-type terminal Auxiliary circuit: spring-type 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] for rated value of the current at AC in hot operating state	4.8 W
• per pole	1.6 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 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- dependent overload release	0.55 0.8 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	0.8 A
operational current at AC-3e at 400 V rated value	0.8 A
operating power	

• at AC-3	
- at 500 V rated value - at 690 V rated value 0.37 kW  ● at AC-3e - at 400 V rated value 0.18 kW - at 500 V rated value 0.25 kW - at 690 V rated value 0.37 kW   Auxiliary circuit  design of the auxiliary switch number of NC contacts for auxiliary contacts 1	
- at 690 V rated value  • at AC-3e  - at 400 V rated value  - at 500 V rated value  - at 690 V rated value  - at 690 V rated value  - at 690 V rated value  0.25 kW  - at 690 V rated value  0.37 kW   Auxillary circuit  design of the auxiliary switch  number of NC contacts for auxiliary contacts  • note  number of NO contacts for auxiliary contacts  • note  number of CO contacts for auxiliary contacts  1  onete  number of CO contacts for auxiliary contacts  0  operational current of auxiliary contacts at AC-15  • at 24 V  • at 110 V  • at 120 V  • at 125 V  • at 230 V  • at 230 V	
<ul> <li>at AC-3e</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> <li>— auxiliary circuit</li> <li>— note</li> <li>— onote</li> <li>— onote<td></td></li></ul>	
- at 400 V rated value - at 500 V rated value - at 690 V rated value 0.25 kW - at 690 V rated value 0.37 kW  Auxiliary circuit  design of the auxiliary switch number of NC contacts for auxiliary contacts • 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 • at 110 V • at 120 V • at 125 V • at 230 V	
- at 500 V rated value - at 690 V rated value 0.37 kW  Auxiliary circuit  design of the auxiliary switch number of NC contacts for auxiliary contacts	
— at 690 V rated value  Auxiliary circuit  design of the auxiliary switch  number of NC contacts for auxiliary contacts  • note  number of NO contacts for auxiliary contacts  • note  number of CO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  • at 24 V  • at 110 V  • at 120 V  • at 125 V  • at 230 V  output  0.37 kW  integrated  integrated  for contactor disconnection  0  for message "Tripped"  3 A  3 A  3 A  4 A  4 A  4 A  5 A  6 A  7 A  8 A  9 A  9 A  9 A  9 A  9 A  9 A  9	
Auxiliary circuit  design of the auxiliary switch  number of NC contacts for auxiliary contacts  • note  number of NO contacts for auxiliary contacts  • note  number of CO contacts for auxiliary contacts  1  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  • at 24 V  • at 110 V  • at 120 V  • at 125 V  • at 230 V  2 A	
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     3 A       • 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	
number of NC contacts for auxiliary contacts  ● note  number of NO contacts for auxiliary contacts  ● note  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  ● at 24 V  ● at 110 V  ● at 120 V  ● at 125 V  ● at 230 V  1  for contactor disconnection  1  for message "Tripped"  3 A  3 A  3 A  4 A  4 A  5 A  5 A  6 A  6 A  7 A  7 A  7 A  7 A  7 A  7	
<ul> <li>note</li> <li>number of NO contacts for auxiliary contacts</li> <li>note</li> <li>note</li> <li>number of CO contacts for auxiliary contacts</li> <li>operational current of auxiliary contacts at AC-15</li> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> <li>2 A</li> </ul>	
number of NO contacts for auxiliary contacts  ● note  number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  ● at 24 V  • at 110 V  • at 120 V  • at 125 V  • at 230 V  at 230 V	
<ul> <li>note</li> <li>number of CO contacts for auxiliary contacts</li> <li>operational current of auxiliary contacts at AC-15</li> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> <li>for message "Tripped"</li> <li>3 A</li> <li>3 A</li> <li>3 A</li> <li>3 A</li> <li>2 A</li> </ul>	
number of CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  o at 24 V 3 A  o at 110 V 3 A  o at 120 V 3 A  o at 125 V 3 A  o at 230 V 2 A	
operational current of auxiliary contacts at AC-15	
<ul> <li>at 24 V</li> <li>at 110 V</li> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> </ul> 3 A 3 A 2 A 3 A 2 A 3 A 3 A 3 A 4 A 4 A 4 A 4 A 4 A 5 A 6 A 6 A 6 A 6 A 6 A 6 A 6 A 6 A 6 A 6	
<ul> <li>at 120 V</li> <li>at 125 V</li> <li>at 230 V</li> <li>3 A</li> <li>2 A</li> </ul>	
<ul> <li>at 125 V</li> <li>at 230 V</li> <li>3 A</li> <li>2 A</li> </ul>	
• at 230 V 2 A	
• at 400 V	
• 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	
design of the overload release thermal	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value     ot 600 V rated value	
at 600 V rated value     0.8 A  Short-circuit protection	
design of the fuse link	
• for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A	
Installation/ mounting/ dimensions	
mounting position any	
fastening method Contactor mounting	
height 87 mm	
width 45 mm	
depth 70 mm	
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	
type of electrical connection	
• for main current circuit spring-loaded terminals	
• for auxiliary and control circuit spring-loaded terminals	
arrangement of electrical connectors for main current circuit	
type of connectable conductor cross-sections	
• for main contacts	
for main contacts	
- solid or stranded 1x (0,5 4 mm²)	
— solid or stranded 1x (0,5 4 mm²)	
<ul> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> <li>1x (0,5 4 mm²)</li> <li>1x (0.5 2.5 mm²)</li> </ul>	

• for auxiliary contacts - solid or stranded 2x (0.5 ... 2.5 mm<sup>2</sup>) - finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) - finely stranded without core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>) • for AWG cables for auxiliary contacts 2x (20 ... 14) design of screwdriver shaft Diameter 3 mm size of the screwdriver tip 3,0 x 0,5 mm Safety related data failure rate [FIT] with low demand rate according to SN 31920 50 FIT MTTF with high demand rate 2 280 a T1 value for proof test interval or service life according to IEC 20 a 61508 IP20 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front display version for switching status Slide switch

Certificates/ approvals

**General Product Approval** 

For use in hazardous locations

Confirmation











**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report Special Test Certificate





Marine / Shipping



LR:S







Confirmation

other

other

Railway



Vibration and Shock

## Further information

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

 $\underline{\text{https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business}}$ 

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=3RU2116-0HC0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0HC0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

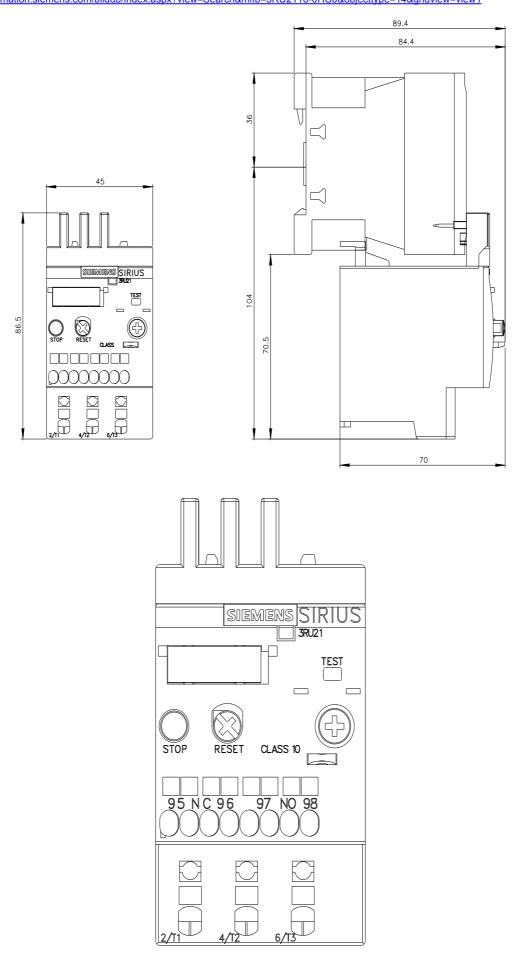
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0HC0

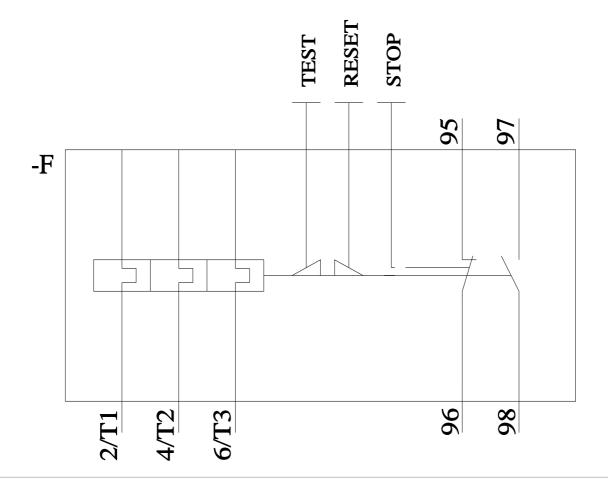
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0HC0&lang=en

 $\label{eq:Characteristic:Tripping characteristics, I^2t, Let-through current} \end{substitute}$ 

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0HC0/cha





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