## **SIEMENS**

Data sheet 3RU2116-0JB0



Overload relay 0.70...1.0 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	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		
<ul> <li>in networks with ungrounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V	
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V	
<ul> <li>in networks with ungrounded star point between main and auxiliary circuit</li> </ul>	440 V	
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V	
shock resistance according to IEC 60068-2-27	8g / 11 ms	
reference code according to IEC 81346-2	F	
Substance Prohibitance (Date)	10/01/2009	
SVHC substance name	Lead - 7439-92-1	
Weight	0.154 kg	
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	0.7 1 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 A	

operational current at AC-3e at 400 V rated value	1 A
operating power	
• at AC-3	
— at 400 V rated value	0.25 kW
— at 500 V rated value	0.37 kW
— at 690 V rated value	0.55 kW
• at AC-3e	
— at 400 V rated value	0.25 kW
— at 500 V rated value	0.37 kW
— at 690 V rated value	0.55 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
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	1 A
at 600 V rated value	1 A
Short-circuit protection	
design of the fuse link	
design of the fuse link  • for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
-	fuse gG: 6 A, quick: 10 A
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position	any
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method	any Contactor mounting
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	any Contactor mounting 76 mm
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	any Contactor mounting 76 mm 45 mm
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  Connections/ Terminals	any Contactor mounting 76 mm 45 mm 70 mm
• for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm 45 mm
• 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	any Contactor mounting 76 mm 45 mm 70 mm
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	any Contactor mounting 76 mm 45 mm 70 mm
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	any Contactor mounting 76 mm 45 mm 70 mm
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	any Contactor mounting 76 mm 45 mm 70 mm  No
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  in for auxiliary and control circuit  for auxiliary and connectors for main current circuit  for auxiliary and connectors for main current circuit	any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals
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	any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals
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	any Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom
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	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
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	any Contactor mounting 76 mm 45 mm 70 mm  No  Screw-type terminals screw-type terminals Top and bottom $2x (0.5 1.5 mm^2), 2x (0.75 2.5 mm^2), 2x 4 mm^2 2x (0.5 1.5 mm^2), 2x (0.75 2.5 mm^2)$
for short-circuit protection of the auxiliary switch required nstallation/ 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	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

type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m
<ul> <li>for auxiliary contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw	
• for main contacts	M3
of the auxiliary and control contacts	M3
Safety related data	
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 a
IEC 61508	
T1 value	
<ul> <li>for proof test interval or service life according to IEC 61508</li> </ul>	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Slide switch
Approvals Certificates	

General Product Approval







Confirmation





For use in hazardous locations

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping

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LRS







Miscellaneous

other

other Railway

Environment

Confirmation

Special Test Certificate



Environmental Confirmations

Further information

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=3RU2116-0JB0

## Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0JB0

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

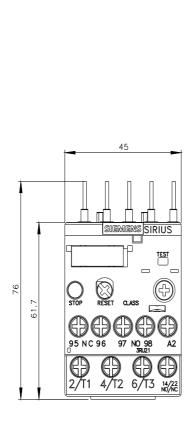
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0JB0

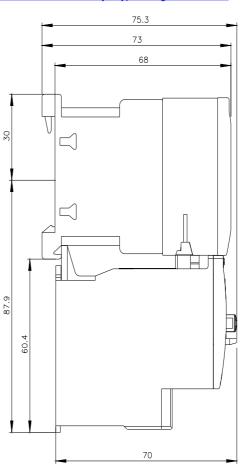
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0JB0&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0JB0&lang=en</a>

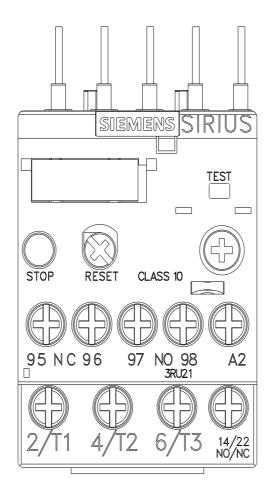
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0JB0/char

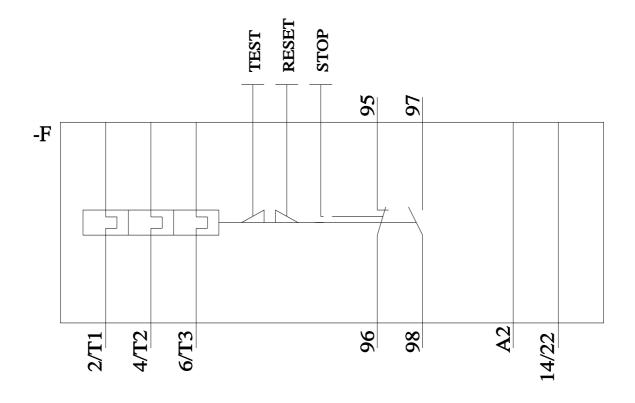
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0JB0&objecttype=14&gridview=view1









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