# **SIEMENS**

Data sheet 3RU2116-0FB0



Overload relay 0.35...0.50 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	0.15 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	
during storage	-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	0.35 0.5 A	
operating voltage		
rated value	690 V	
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V	
operating frequency rated value	50 60 Hz	
operational current rated value	0.5 A	

	0.5.4
operational current at AC-3e at 400 V rated value	0.5 A
operating power	
• at AC-3	
— at 400 V rated value	0.12 kW
— at 500 V rated value	0.18 kW
— at 690 V rated value	0.25 kW
• at AC-3e	
— at 400 V rated value	0.12 kW
— at 500 V rated value	0.18 kW
— at 690 V rated value	0.25 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	50071000
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	0.5 A
at 600 V rated value	0.5 A
Short-circuit protection	0.071
<u> </u>	
design of the fuse link	fuse aG: 6 A quick: 10 A
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions	fuse gG: 6 A, quick: 10 A
	the state of the s
Installation/ mounting/ dimensions	
mounting position	any
mounting position fastening method	Contactor mounting
mounting position fastening method height	Contactor mounting 76 mm
mounting position fastening method height width	Contactor mounting 76 mm 45 mm
mounting position fastening method height width depth	Contactor mounting 76 mm
mounting position fastening method height width	Contactor mounting 76 mm 45 mm
mounting position fastening method height width depth	Contactor mounting 76 mm 45 mm
mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and	Contactor mounting 76 mm 45 mm 70 mm
mounting position fastening method height width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	Contactor mounting 76 mm 45 mm 70 mm
mounting position fastening method height width depth  Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	Contactor mounting 76 mm 45 mm 70 mm
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	Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals
mounting position fastening method height width depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals
mounting position fastening method height width depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals
mounting position fastening method height width depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals
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	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
mounting position fastening method height width depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	Contactor mounting 76 mm 45 mm 70 mm  No  screw-type terminals screw-type terminals Top and bottom

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	
<ul> <li>for main contacts</li> </ul>	M3
<ul> <li>of the auxiliary and control contacts</li> </ul>	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	

#### Approvals Certificates

**General Product Approval** 





Confirmation







## For use in hazardous locations Test Certificates



IECEx



**Miscellaneous** 

Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping

# Marine / Shipping













other Railway Environment

Miscellaneous

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=3RU2116-0FB0

### Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0FB0

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

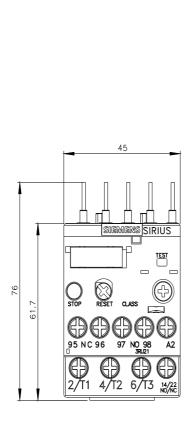
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0

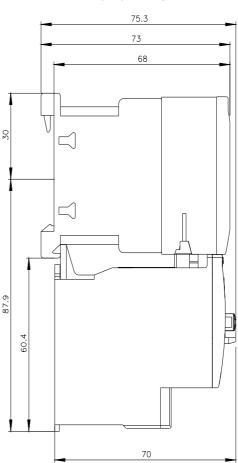
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0FB0&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2116-0FB0&lang=en</a>

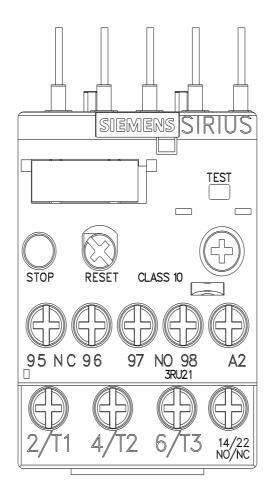
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0/char

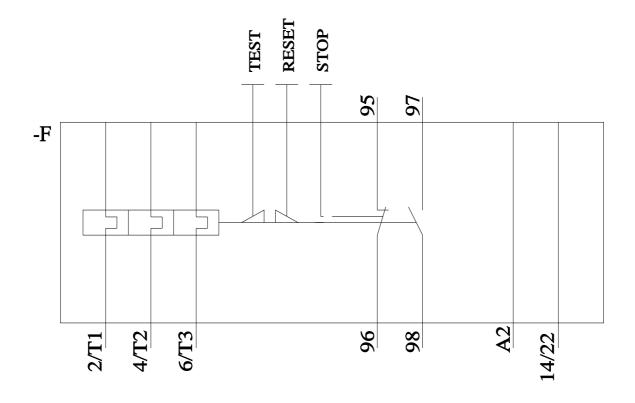
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0FB0&objecttype=14&gridview=view1









last modified: 4/5/2024 🖸