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 in networks with grounded star point	
 between auxiliary and auxiliary circuit 	440 V
 between auxiliary and auxiliary circuit 	440 V
 between main and auxiliary circuit 	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	
 during operation 	-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
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	0.5 A
operational current at AC-3e at 400 V rated value	0.5 A
operating power	

• at AC-3			
● at AC-3 — at 400 V rated value	0.12 kW		
— at 500 V rated value			
	0.18 kW		
— at 690 V rated value • at AC-3e	0.25 kW		
	0.42 kW		
— at 400 V rated value	0.12 kW		
— at 500 V rated value — at 690 V rated value	0.18 kW		
Auxiliary circuit	0.25 kW		
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	0.5 A		
at 600 V rated value	0.5 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	76 mm		
width	76 mm 45 mm		
width depth	76 mm		
width depth Connections/ Terminals	76 mm 45 mm 70 mm		
width depth	76 mm 45 mm		
width depth Connections/ Terminals product component removable terminal for auxiliary and	76 mm 45 mm 70 mm		
width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit	76 mm 45 mm 70 mm		
width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	76 mm 45 mm 70 mm No		
width depth Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit	76 mm 45 mm 70 mm No screw-type terminals		
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	76 mm 45 mm 70 mm No screw-type terminals screw-type terminals		
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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	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		
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 — finely stranded with core end processing	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)		
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 — solid or stranded 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)		
tightening torque			
 for main contacts with screw-type terminals 	0.8 1.2 N·m		
 for auxiliary contacts with screw-type terminals 	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		
T1 value for proof test interval or service life according to IEC 61508	20 a		
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		
Certificates/ approvals			
General Product Approval		For use in hazardous locations	

Confirmation











Declaration of Conformity

Test Certificates

Marine / Shipping





Special Test Certificate

Type Test Certificates/Test Report





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=3RU2116-0FB0

Cax online generator

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

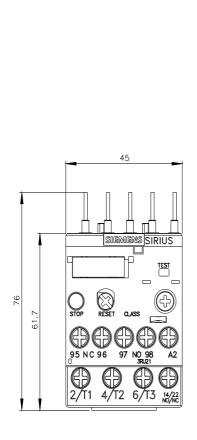
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

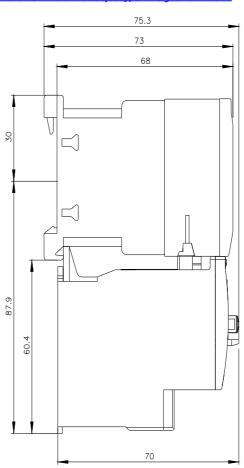
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0

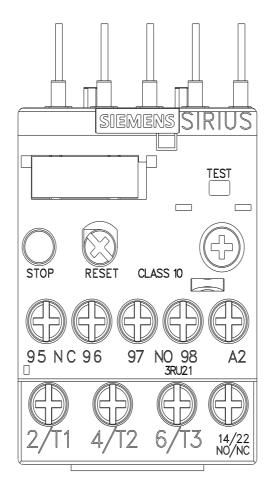
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0FB0&lang=en

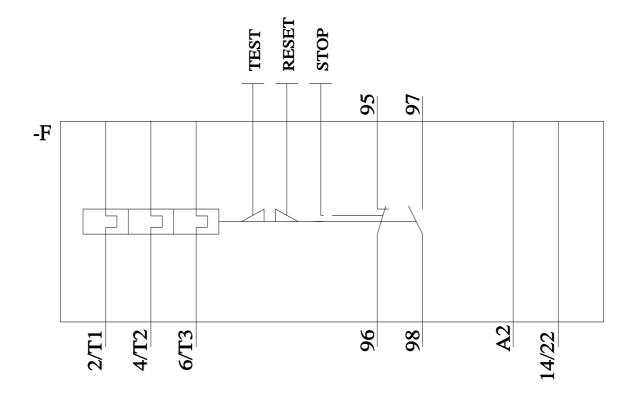
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0FB0/char

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









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