SIEMENS

Data sheet 3RU2116-0BB0



Overload relay 0.14...0.20 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 ungrounded star point between auxiliary and auxiliary circuit 	440 V	
 in networks with grounded star point between auxiliary and auxiliary circuit 	440 V	
 in networks with ungrounded star point between main and auxiliary circuit 	440 V	
 in networks with grounded star point between main and auxiliary circuit 	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	0.143 kg	
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	0.14 0.2 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	0.2 A	

operational current at AC-3e at 400 V rated value	0.2 A
operating power	
• at AC-3	
— at 400 V rated value	0.06 kW
— at 500 V rated value	0.06 kW
— at 690 V rated value	0.09 kW
• at AC-3e	
— at 400 V rated value	0.06 kW
— at 500 V rated value	0.06 kW
— at 690 V rated value	0.09 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	1A
• at 690 V	0.75 A
	0.73 A
operational current of auxiliary contacts at DC-13	0.4
• 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	0.2 A
at 600 V rated value	0.2 A
at 600 V rated value Short-circuit protection	0.2 A
	0.2 A
Short-circuit protection	
Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required	0.2 A fuse gG: 6 A, quick: 10 A
Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	fuse gG: 6 A, quick: 10 A
Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	fuse gG: 6 A, quick: 10 A any
Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	fuse gG: 6 A, quick: 10 A any Contactor mounting
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
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	fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
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	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
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	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
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	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

type of connectable conductor cross-sections	
 for auxiliary contacts 	
— 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
IEC 61508	
T1 value	
 for proof test interval or service life according to IEC 61508 	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





Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping



Lloyd's legister







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=3RU2116-0BB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0BB0

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

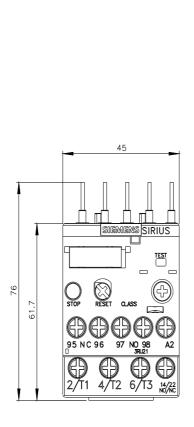
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0BB0

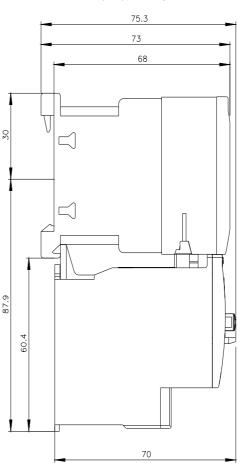
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0BB0&lang=en

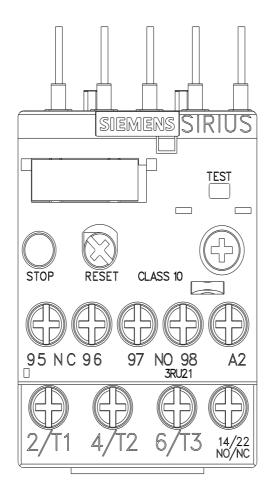
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0BB0/char

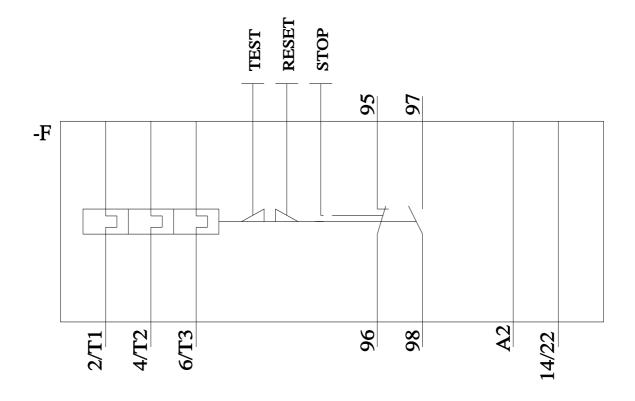
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-0BB0&objecttype=14&gridview=view1









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