SIEMENS

Data sheet 3RU2116-1DB0



Overload relay 2.2...3.2 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	5.7 W
• per pole	1.9 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	0.157 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	2.2 3.2 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	3.2 A

operational current at AC-3e at 400 V rated value	3.2 A
operating power	
• at AC-3	
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
• at AC-3e	
— at 400 V rated value	1.1 kW
	1.5 kW
— at 500 V rated value	
— at 690 V rated value	2.2 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
	B600 / R300
contact rating of auxiliary contacts according to UL	B600 / R300 CLASS 10
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class	
contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release	CLASS 10
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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	
	Slide switch

General Product Approval







Confirmation





For use in hazardous locations

Test Certificates

Marine / Shipping





Miscellaneous

Special Test Certific-<u>ate</u>

Type Test Certificates/Test Report



Marine / Shipping







Special Test Certific-<u>ate</u>







other Railway Environment

Confirmation **Miscellaneous**

Environmental Con-firmations

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=3RU2116-1DB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1DB0

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

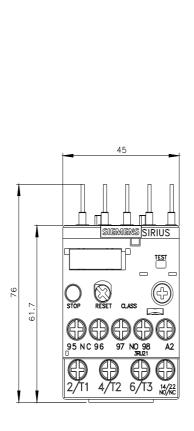
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DB0

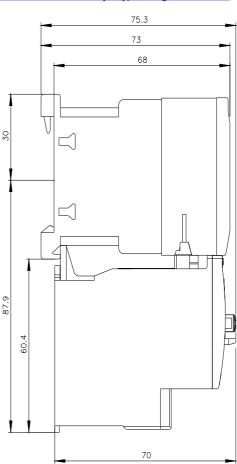
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1DB0&lang=en

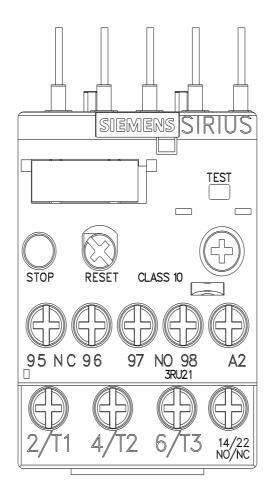
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DB0/char

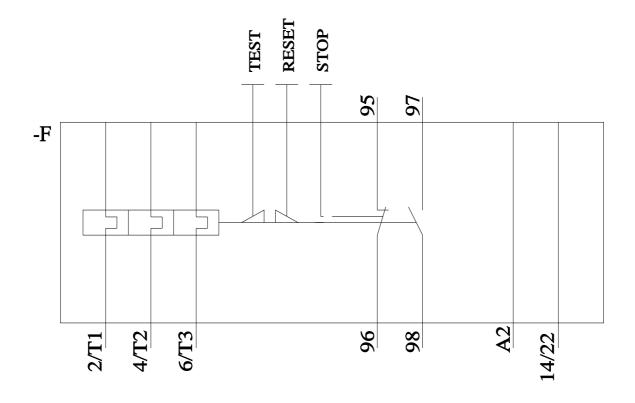
Further characteristics (e.g. electrical endurance, switching frequency)

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