SIEMENS

Data sheet 3RU2116-1AB0

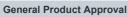


Overload relay 1.1...1.6 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

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	0.16 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 %	
Environmental footprint		
Global Warming Potential [CO2 eq] total	39.9 kg	
Global Warming Potential [CO2 eq] during manufacturing	0.921 kg	
global warming potential [CO2 eq] during sales	0.039 kg	
Global Warming Potential [CO2 eq] during operation	39 kg	
Global Warming Potential [CO2 eq] after end of life	-0.015 kg	
Main circuit		
number of poles for main current circuit	3	
adjustable current response value current of the current-	1.1 1.6 A	

operating voltage • rated value 690 V	
● rated value 690 V	
• at AC-3e rated value maximum 690 V	
operating frequency rated value 50 60 Hz	
operational current rated value 1.6 A	
operational current at AC-3e at 400 V rated value 1.6 A	
operating power	
• at AC-3	
— at 400 V rated value 0.55 kW	
— at 500 V rated value 0.75 kW	
— at 690 V rated value 1.1 kW	
• at AC-3e	
— at 400 V rated value 0.55 kW	
— at 500 V rated value 0.75 kW	
— at 690 V rated value 1.1 kW	
Auxiliary circuit	
design of the auxiliary switch integrated	
number of NC contacts for auxiliary contacts 1	
• note for contactor disconnectio	n
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 1.6 A at 600 V rated value 1.6 A	
at 600 V rated value 1.6 A Short sireuit protection.	
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 45 mm	
depth 70 mm	
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	
type of electrical connection	
• for main current circuit screw-type terminals	
• for auxiliary and control circuit screw-type terminals	

circuit	
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for main contacts 	2x (20 16), 2x (18 14), 2x 12
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	
	-









Confirmation





For use in hazardous locations

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping











Miscellaneous

other

other Railway

Environment

Confirmation

Special Test Certificate



Environmental Confirmations

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=3RU2116-1AB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1AB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1AB0

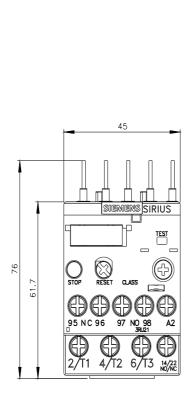
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

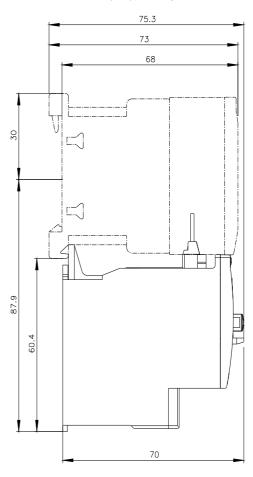
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1AB0&lang=en

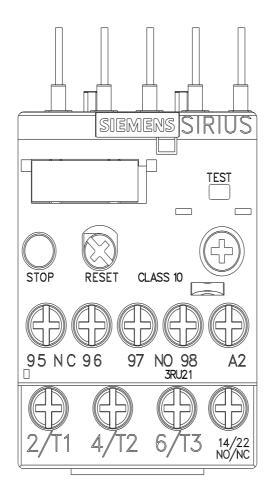
Characteristic: Tripping characteristics, I²t, Let-through current

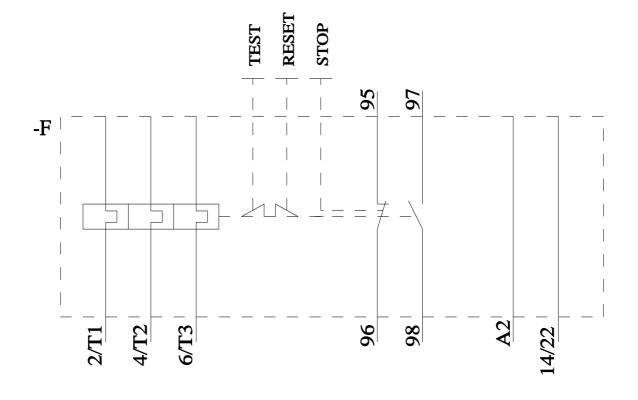
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1AB0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1AB0&objecttype=14&gridview=view1









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