SIEMENS

Data sheet 3RU2116-1CB0



Overload relay 1.8...2.5 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 %	
Main circuit		
number of poles for main current circuit	3	
adjustable current response value current of the current- dependent overload release	1.8 2.5 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	2.5 A	

	0.5.4
operational current at AC-3e at 400 V rated value	2.5 A
operating power	
• at AC-3	
— at 400 V rated value	0.75 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 kW
• at AC-3e	
— at 400 V rated value	0.75 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 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
	0.00 A
● at 125 V	0.22 A
at 125 Vat 220 V	0.22 A 0.11 A
• at 220 V	0.11 A
at 220 V contact rating of auxiliary contacts according to UL	0.11 A
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions	0.11 A B600 / R300
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class	0.11 A B600 / R300 CLASS 10
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release	0.11 A B600 / R300 CLASS 10
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings	0.11 A B600 / R300 CLASS 10
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	0.11 A B600 / R300 CLASS 10 thermal
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value	0.11 A B600 / R300 CLASS 10 thermal
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value	0.11 A B600 / R300 CLASS 10 thermal
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection	0.11 A B600 / R300 CLASS 10 thermal
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection design of the fuse link	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm
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at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 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	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any Contactor mounting 76 mm 45 mm 70 mm No screw-type terminals screw-type terminals
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at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value for 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	0.11 A B600 / R300 CLASS 10 thermal 2.5 A 2.5 A 2.5 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
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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	
display version for switching status	Slide switch
Approvals Certificates	

Approvais Certificates

General Product Approval





Confirmation







For use in hazardous locations

Test Certificates

Marine / Shipping





Special Test Certificate

Type Test Certificates/Test Report





Marine / Shipping



Confirmation



LRS







Miscellaneous

other

other Railway

Special Test Certificate



Environment

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=3RU2116-1CB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1CB0

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

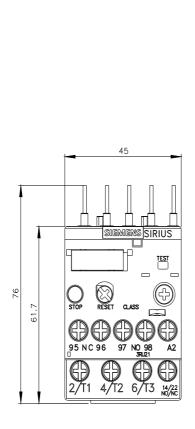
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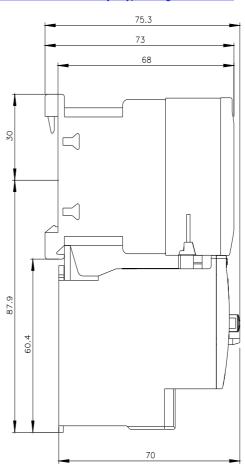
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1CB0&lang=en

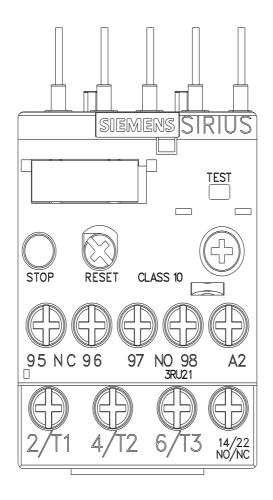
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1CB0/characteristics, I't, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1CB0/characteristics, I't is the support of the support

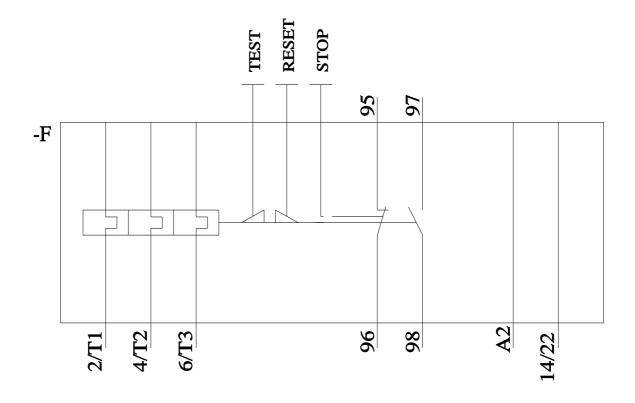
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1CB0&objecttype=14&gridview=view1









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