SIEMENS

Data sheet

3RU2116-1GB0



Overload relay 4.5...6.3 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	6.6 W
• per pole	2.2 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	4.5 6.3 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	6.3 A
operational current at AC-3e at 400 V rated value	6.3 A
operating power	

• at AC-3	
• at AC-3 — at 400 V rated value	2.2 kW
	2.2 KW 3 kW
— at 500 V rated value	
— at 690 V rated value	4 kW
• at AC-3e	
— at 400 V rated value	2.2 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 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
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	6.3 A
• at 600 V rated value	6.3 A
Short-circuit protection	
Short-circuit protection design of the fuse link	
design of the fuse link	fuse aG: 6 A. auick: 10 A
design of the fuse linkfor short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position	any
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method	any Contactor mounting
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	any Contactor mounting 76 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	any Contactor mounting 76 mm 45 mm
design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width depth	any Contactor mounting 76 mm
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	any Contactor mounting 76 mm 45 mm 70 mm
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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	any Contactor mounting 76 mm 45 mm 70 mm
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	any Contactor mounting 76 mm 45 mm 70 mm
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	any Contactor mounting 76 mm 45 mm 70 mm No No
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	any Contactor mounting 76 mm 45 mm 70 mm No No screw-type terminals screw-type terminals
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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 arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded	any Contactor mounting 76 mm 45 mm 70 mm No No screw-type terminals screw-type terminals
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 — solid or stranded — finely stranded with core end processing for AWG cables for auxiliary contacts 	2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²) 2x (20 16), 2x (18 14)	
tightening torque for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals design of screwdriver shaft	0.8 1.2 N·m 0.8 1.2 N·m Diameter 5 6 mm	
size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts	Pozidriv PZ 2 M3 M3	
Safety related data failure rate [FIT] with low demand rate according to SN 31920 MTTF with high demand rate	50 FIT 2 280 a	
T1 value for proof test interval or service life according to IEC 61508 protection class IP on the front according to IEC 60529	20 a IP20	
touch protection on the front according to IEC 60529 Display	finger-safe, for vertical contact from the front	
display version for switching status Certificates/ approvals	Slide switch	
General Product Approval	For use in hazardous locations	
Declaration of Conformity Test Certification	ates Marine / Shipping	
CE UK ates/Test C EG-Konf.		
Marine / Shipping	other	
DINV URS PRS	Confirmation RINA	
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=3RU2116-1GB0 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1GB0		

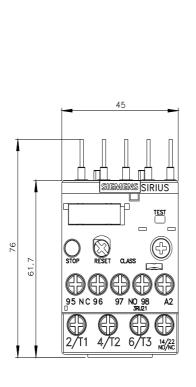
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

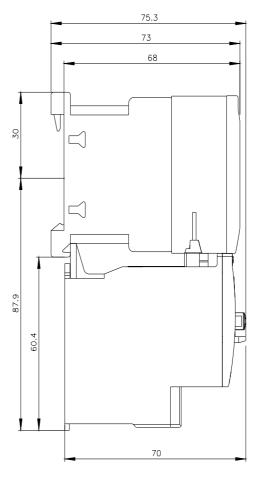
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1GB0

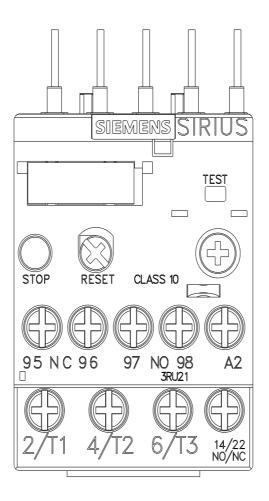
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1GB0&lang=en

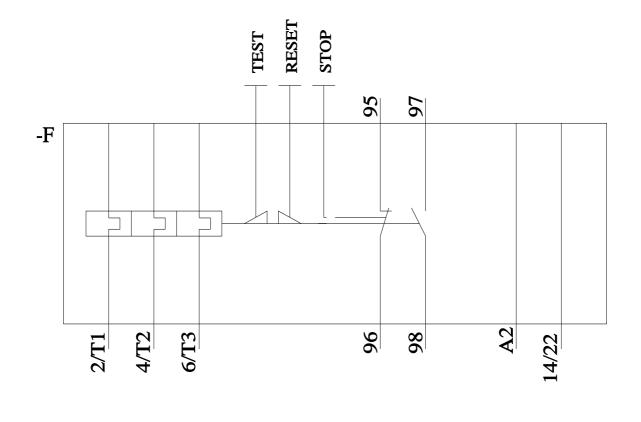
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1GB0/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1GB0&objecttype=14&gridview=view1









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