SIEMENS

Data sheet 3RU2116-1AC0



Overload relay 1.1...1.6 A Thermal For motor protection Size S00, Class 10 Contactor mounting Main circuit: Spring-type terminal Auxiliary circuit: spring-type terminal 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	0.152 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	1.1 1.6 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	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 disconnection
	1
number of NO contacts for auxiliary contacts	
• 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	
Protective and monitoring functions trip class	CLASS 10
	CLASS 10 thermal
trip class design of the overload release	
trip class design of the overload release UL/CSA ratings	
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	thermal 1.6 A
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	thermal
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	thermal 1.6 A
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	1.6 A 1.6 A
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	thermal 1.6 A
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	1.6 A 1.6 A fuse gG: 6 A, quick: 10 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any
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	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting
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	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm
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trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm No
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm No spring-loaded terminals spring-loaded terminals
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm No spring-loaded terminals spring-loaded terminals
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trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm No spring-loaded terminals spring-loaded terminals Top and bottom 1x (0,5 4 mm²)
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	thermal 1.6 A 1.6 A fuse gG: 6 A, quick: 10 A any Contactor mounting 87 mm 45 mm 70 mm No spring-loaded terminals spring-loaded terminals Top and bottom

• for AWG cables for main contacts	1x (20 12)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or stranded	2x (0.5 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded without core end processing 	2x (0.5 1.5 mm²)
for AWG cables for auxiliary contacts	2x (20 14)
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm
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





Miscellaneous

Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping













other Railway Environment

Miscellaneous

Confirmation

Special Test Certific-



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=3RU2116-1AC0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1AC0

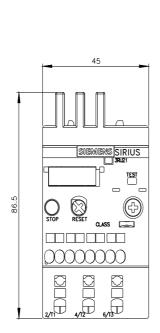
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

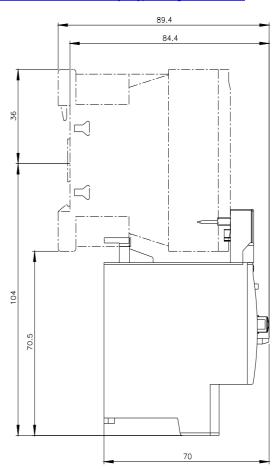
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1AC0

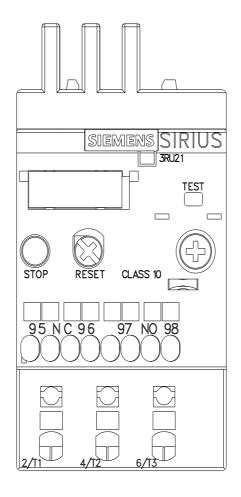
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

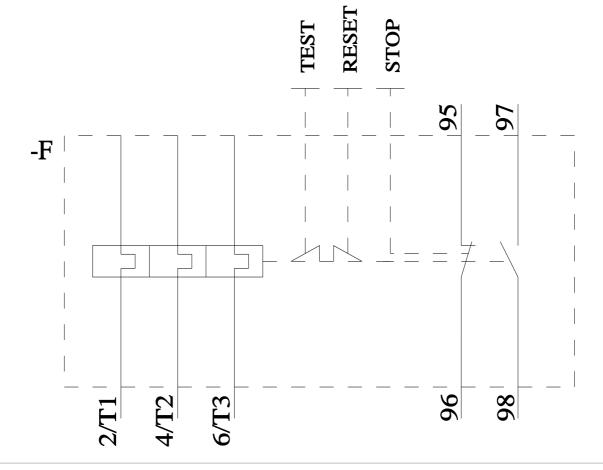
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1AC0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1AC0&objecttype=14&gridview=view1









last modified: 4/5/2024 🖸