SIEMENS

Data sheet 3RU2116-1FB1



Overload relay 3.5...5.0 A Thermal For motor protection Size S00, Class 10 Standalone installation 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	3.5 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	5 A		
operational current at AC-3e at 400 V rated value			
operational current at A0-50 at 400 v rated value	5 A		

at AC-3— at 400 V rated value	1.5 kW		
— at 500 V rated value			
	2.2 kW		
— at 690 V rated value • at AC-3e	4 kW		
	4 E MM		
— at 400 V rated value	1.5 kW		
— at 500 V rated value— at 690 V rated value	2.2 kW 4 kW		
Auxiliary circuit	4 KVV		
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			
	5 A		
• at 480 V rated value	5 A		
• at 600 V rated value	5 A		
at 600 V rated value Short-circuit protection			
at 600 V rated value Short-circuit protection design of the fuse link	5 A		
 at 600 V rated value Short-circuit protection design of the fuse link for short-circuit protection of the auxiliary switch required 			
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	fuse gG: 6 A, quick: 10 A		
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	fuse gG: 6 A, quick: 10 A any		
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	fuse gG: 6 A, quick: 10 A any stand-alone installation		
at 600 V rated value Short-circuit protection design of the fuse link of r short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height	fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm		
at 600 V rated value Short-circuit protection design of the fuse link or short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions mounting position fastening method height width	fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm		
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	fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm		
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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	fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 mm		
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 — 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		
T1 value for proof test interval or service life according to IEC 61508	20 a		
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		
Certificates/ approvals			
General Product Approval		For use in hazardous locations	

Confirmation











Declaration of Conformity

Test Certificates

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





LRS







Confirmation

other

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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1FB1}$

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1FB1

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

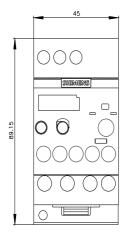
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1FB1

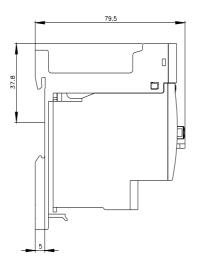
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

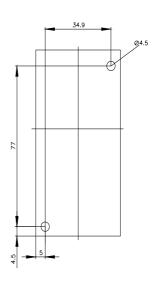
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1FB1&lang=en

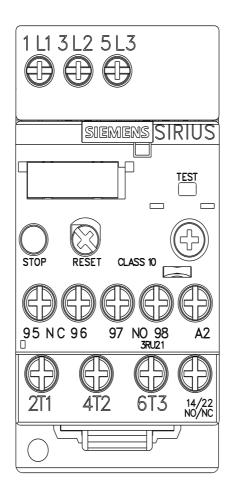
Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1FB1/char

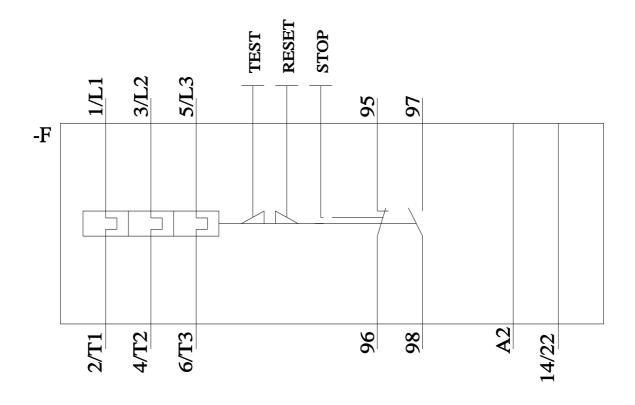
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1FB1&objecttype=14&gridview=view1











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