SIEMENS

Data sheet

3RU2116-0EB1



Overload relay 0.28...0.40 A Thermal For motor protection Size S00, Class 10 Stand-alone 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	4.8 W
• per pole	1.6 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	0.18 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	0.978 kg
global warming potential [CO2 eq] during sales	0.043 kg
global warming potential [CO2 eq] during operation	39 kg
global warming potential [CO2 eq] after end of life	-0.045 kg
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-	0.28 0.4 A

dependent overload release	
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	0.4 A
operational current at AC-3e at 400 V rated value	0.4 A
operating power	
• at AC-3	
— at 400 V rated value	0.09 kW
— at 500 V rated value	0.12 kW
— at 690 V rated value	0.18 kW
• at AC-3e	
— at 400 V rated value	0.09 kW
— at 500 V rated value	0.12 kW
— at 690 V rated value	0.18 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	1A
• at 690 V	0.75 A
operational current of auxiliary contacts at DC-13	0.73 A
• at 24 V	2 A
• at 24 V	0.3 A
• at 110 V	0.22 A
• at 125 V	0.22 A
• at 220 V	0.12 A
contact rating of auxiliary contacts according to UL	
Protective and monitoring functions	B0007 R300
	0140040
trip class	CLASS 10
design of the overload release	thermal
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	0.4.4
at 480 V rated value	0.4 A
• at 600 V rated value	0.4 A
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	for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable
fastening method	stand-alone installation
height	89 mm
width	45 mm
depth	80 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection for main current circuit 	screw-type terminals

e for auxiliany and a	optrol airquit		arow type terminale		
for auxiliary and co	cal connectors for main		crew-type terminals		
circuit		current	Top and bottom		
type of connectable co	nductor cross-sections				
for main contacts					
— solid or stran	nded	2	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²		
- finely strande	ed with core end processi	ng 2	x (0.5 1.5 mm²), 2x (0.75	2.5 mm²)	
 for AWG cables for 	-		x (20 16), 2x (18 14), 2		
type of connectable co	nductor cross-sections				
 for auxiliary contact 					
— solid or stran		2	x (0.5 1.5 mm²), 2x (0.75	2.5 mm ²)	
	ed with core end processi		2x (0.5 1.5 mm ²), 2x (0.75 2.5 mm ²)		
 for AWG cables for 	•	0	2x (0.5 1.5 mm), 2x (0.75 2.5 mm)		
tightening torque					
	with screw-type terminals	0	.8 1.2 N·m		
	cts with screw-type termin		.8 1.2 N·m		
design of screwdriver s			Diameter 5 6 mm		
size of the screwdriver			ozidriv PZ 2		
	•				
 design of the thread of for main contacts 	the connection screw		13		
	d control contacto		13		
 of the auxiliary and Sofety related data 		N	13		
Safety related data failure rate [FIT] with lo 31920	w demand rate accordin	ng to SN 5	0 FIT		
MTTF with high deman	d rato	2	280 a		
IEC 61508	ulate	2	200 a		
T1 value					
	val or convice life accordin	a to IEC 2	20 a		
61508	val or service life accordin		u 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					
-	e front according to IEC	00529	nger-sale, for vertical contac		
Display			liste en diele		
display version for switching status Slide switch					
Approvals Certificates					
General Product Appro	oval				For use in hazard- ous locations
For use in hazard- ous locations	UK CA Test Certificates	CE EG-Konf.	UL UL Marine / Shipping	EHC	ATEX
IECEx	<u>Special Test Certific-</u> <u>ate</u>	Type Test Certific ates/Test Report		BUREAU VERITAS	
Marine / Shipping				other	
Lloyds Register us	PRS	RINA	RMRS	<u>Miscellaneous</u>	<u>Confirmation</u>



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=3RU2116-0EB1

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0EB1

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

https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0EB1

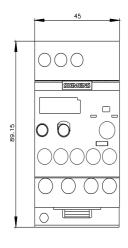
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

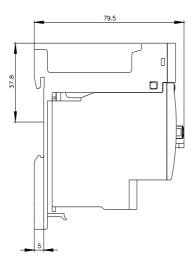
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0EB1&lang=en

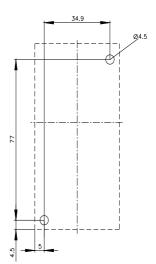
Characteristic: Tripping characteristics, I²t, Let-through current

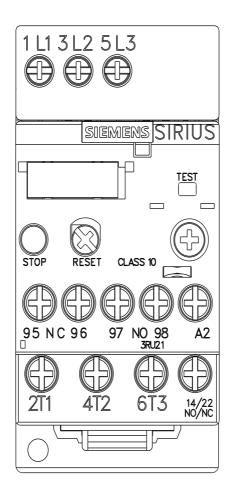
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0EB1/char Further characteristics (e.g. electrical endurance, switching frequency)

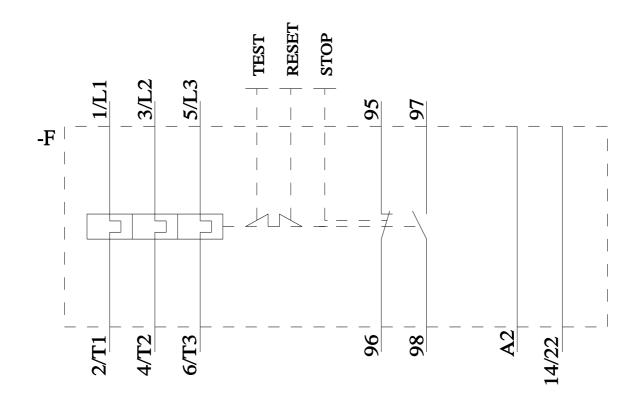
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