SIEMENS

Data sheet

3RU2116-1CB1



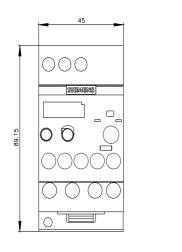
Overload relay 1.8...2.5 A Thermal For motor protection Size S00, Class 10 Standalone installation Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

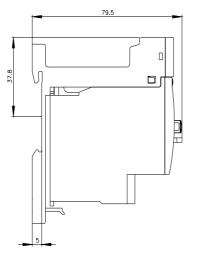
product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
General technical data	
size of overload relay	S00
size of contactor can be combined company-specific	S00
power loss [W] for rated value of the current at AC in hot operating state	5.7 W
• per pole	1.9 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 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	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
operational current at AC-3e at 400 V rated value	2.5 A
operating power	

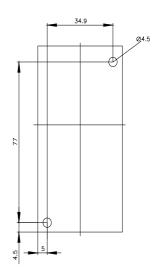
-+ • • • •			
• at AC-3	0.75 1444		
— at 400 V rated value	0.75 kW		
— at 500 V rated value	1.1 kW		
— at 690 V rated value	1.5 kW		
• at AC-3e			
— at 400 V rated value	0.75 kW		
— at 500 V rated value	1.1 kW		
— at 690 V rated value	1.5 kW		
Auxiliary circuit			
design of the auxiliary switch	integrated		
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		
• 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			
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 2.5 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 2.5 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	thermal 2.5 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	thermal 2.5 A 2.5 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 2.5 A 2.5 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	thermal 2.5 A 2.5 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 • 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	thermal 2.5 A 2.5 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 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation		
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 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm		
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	thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm		
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	thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm		
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	thermal 2.5 A 2.5 A 2.5 A any stand-alone installation 89 mm 45 mm 80 mm		
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	thermal 2.5 A 2.5 A 2.5 A any stand-alone installation 89 mm 45 mm 80 mm		
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 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 	thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 mm No No screw-type terminals		
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 	thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 mm No No		
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 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 	thermal 2.5 A 2.5 A 2.5 A 2.5 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 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 	thermal 2.5 A 2.5 A 2.5 A 2.5 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 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 	thermal 2.5 A 2.5 A 2.5 A 2.5 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 of or 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 of or main current circuit of or auxiliary and control circuit arrangement of electrical connectors for main current circuit upper of connectable conductor cross-sections of or main contacts - solid or stranded	thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 mm No 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		
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 type of connectable conductor cross-sections for main contacts 	thermal 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 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 2x (0.5 1.5 mm²), 2x (0.75 2,5 mm²)		
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 auxiliary and control 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 finely stranded with core end processing for AWG cables for main contacts for AWG cables for main contacts 	thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 mm No 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		
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 ofor auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections of romain contacts — solid or stranded — finely stranded with core end processing	thermal 2.5 A 2.5 A 2.5 A fuse gG: 6 A, quick: 10 A any stand-alone installation 89 mm 45 mm 80 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 2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)		

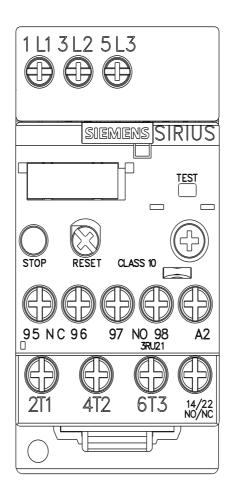
— solid or str — finely strar	randed nded with core end process	sing	2x (0.5 1.5 mm²), 2x (0.75 . 2x (0.5 1.5 mm²), 2x (0.75 .			
• for AWG cables for auxiliary contacts		2x (20 16), 2x (18 14)				
tightening torque						
 for main contacts with screw-type terminals 			0.8 1.2 N·m			
 for auxiliary contacts 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 contact 	for main contacts		M3			
 of the auxiliary a 	 of the auxiliary and control contacts 		M3			
Safety related data						
failure rate [FIT] with le	ow 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		20 a			
61508						
protection class IP o	n the front according to I	EC 60529	IP20			
touch protection on	the front according to IEC	C 60529	finger-safe, for vertical contac	t from the front		
Display						
display version for swi	tching status		Slide switch			
Certificates/ approvals	- ;					
General Product Ap				For use in hazardous	slocations	
eeneral reduct ap	provar					
<u>Confirmation</u>		(UL)	EHC	K ATEX	IECEx	
Declaration of Confo	ormity	Test Certificat	tes	Marine / Shipping		
CE EG-Konf.	UK CA	<u>Special Test Cr</u> ate	ertific- <u>Type Test Certific-</u> ates/Test Report	ABS	B U REAU VERITAS	
Marine / Shipping					other	
	Llovd's Register	PRS	RINA	RMRS	<u>Confirmation</u>	
other	Railway					
	Vibration and Shock					
https://press.siemens. Siemens is working	d to exit the Russian mar com/global/en/pressrelease on the renewal of the cur cal Siemens office on the s	e/siemens-wind-de rent EAC certific		nd to import or offer to sup	ply these products to an	
EAC relevant market (Information on the page	other than the sanctioned I	EAEU member sta		,		
Information- and Dov https://www.siemens.co	wnloadcenter (Catalogs, E com/ic10					
Industry Mall (Online https://mall.industry.sig						
Cax online generator		alog/product?mitb	<u>=3RU2116-1CB1</u>			

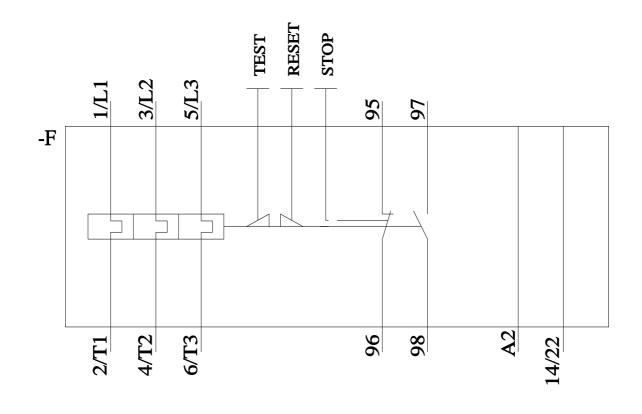
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1CB1 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1CB1&lang=en Characteristic: Tripping characteristics, I²t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1CB1/char Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1CB1&objecttype=14&gridview=view1











3/8/2022 🖸