SIEMENS

product brand name

Data sheet 3RU2116-1GC1



OVERLOAD RELAY 4.5...6.3 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-AUTOMATIC-RESET

Product designation	3RU2 thermal overload relay
General technical data:	
Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Active power loss total typical	5.7 W
Insulation voltage with degree of pollution 3 Rated	690 V
value	
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	8g / 11 ms
Type of assignment	2
Type of protection	Ex e
Certificate of suitability relating to ATEX	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

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Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
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	0 90 %
Main circuit:	
Number of poles for main current circuit	3
Adjustable response value current of the current-	4.5 6.3 A
dependent overload release	
Operating voltage	
Rated value	690 V
at AC-3 Rated value maximum	690 V
Operating frequency Rated value	50 60 Hz
Operating current Rated value	6.3 A
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
Operating current of the 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
Operating current of the auxiliary contacts at DC-13	
● at 24 V	2 A
● at 110 V	0.22 A
● at 125 V	0.22 A
● at 220 V	0.11 A
Protective and monitoring functions:	

Trip class	CLASS 10		
Design of the overload release	thermal		
UL/CSA ratings:	II /CSA ratings:		
Full-load current (FLA) for three-phase AC motor			
• at 480 V Rated value	6.3 A		
• at 600 V Rated value	6.3 A		
Contact rating of the auxiliary contacts acc. to UL	B600 / R300		
nstallation/ mounting/ dimensions:			
mounting position	any		
Mounting type	stand-alone installation		
Height	102 mm		
Width	45 mm		
Depth	79 mm		
Required spacing			
 with side-by-side mounting 			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	6 mm		
— downwards	6 mm		
— at the side	6 mm		
• for grounded parts			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	6 mm		
— at the side	6 mm		
— downwards	6 mm		
• for live parts			
— forwards	0 mm		
— Backwards	0 mm		
— upwards	6 mm		
— downwards	6 mm		
— at the side	6 mm		
Connections/ Terminals:			
Product function			
 removable terminal for auxiliary and control circuit 	No		
Type of electrical connection			
• for main current circuit	spring-loaded terminals		
for auxiliary and control current circuit	spring-loaded terminals		
Arrangement of electrical connectors for main current circuit	Top and bottom		

Type of connectable conductor cross-section	
• for main contacts	
 single or multi-stranded 	1x (0,5 4 mm²)
— finely stranded with core end processing	1x (0.5 2.5 mm²)
 finely stranded without core end processing 	1x (0.5 2.5 mm²)
 for AWG conductors for main contacts 	1x (20 12)
Type of connectable conductor cross-section	
 for auxiliary contacts 	
— single or multi-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 conductors for auxiliary contacts 	2x (20 14)
Design of screwdriver shaft	5 to 6 mm diameter

Safety related data:	
Proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	50 %
 with high demand rate acc. to SN 31920 	50 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life acc. to IEC 61508	20 y

Display:	
Display version	
• for switching status	Slide switch

Certificates/ approvals:

General Product Approval For use in hazardous Conformity locations













Test Certificates

Shipping Approval

Typprüfbescheinigu ng/Werkszeugnis

<u>spezielle</u> <u>Prüfbescheinigunge</u> n







other



GL

Shipping Approval











Umweltbestätigung

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

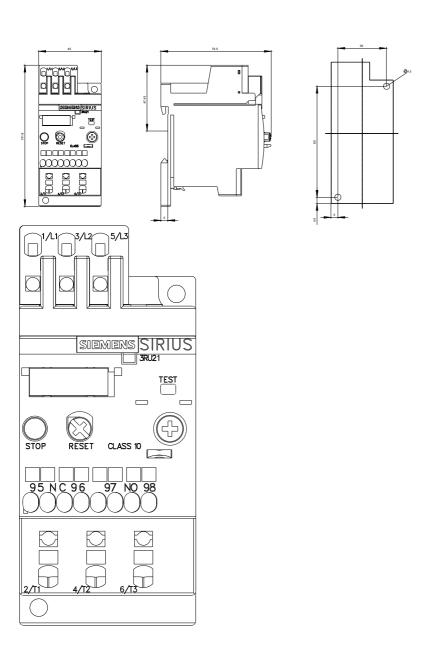
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21161GC1

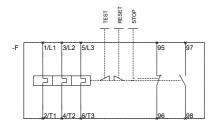
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RU21161GC1

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21161GC1&lang=en



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last modified:

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