SIEMENS

Product data sheet 3RU2116-1GB0



OVERLOAD RELAY 4.5...6.3 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL

MANUAL-AUTOMATIC-RESET

General technical data:		
Product brand name		SIRIUS
product designation		3RU2 thermal overload relay
Protection class IP / on the front		IP20
Insulation voltage / with degree of pollution 3		
• rated value	V	690
Installation altitude / at a height over sea level / maximum	m	2,000
Ambient temperature		
during transport	°C	-55 80
during storage	°C	-55 80
during operating	°C	-40 70
Relative humidity		
during operating phase	/ %	90
Resistance against shock		8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	5.7
Item designation		
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		F
according to DIN EN 61346-2		F

Trip class	CLASS 10
Type of assignement	2
Size of overload relay	S00
Size of the contactor / can be combined	
• company-specific	S00

Main circuit:		
Number of poles / for main current circuit		3
Operating voltage / at AC-3 / rated value		
• maximum	V	690
Operating current / at AC-3 / at 400 V		
rated value	Α	6.3
Service power / at AC-3		
• at 400 V / rated value	kW	2.2
at 500 V / rated value	kW	3
at 690 V / rated value	kW	4
Adjustable response current		
of the current-dependent overload release	Α	4.5 6.3
Operating current / of the fuse link / rated value	Α	20

Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of change-over switches / for auxiliary contacts		0
Operating current / of the auxiliary contacts		
• at AC-15		
• at 24 V	Α	3
• at 110 V	Α	3
• at 120 V	Α	3
• at 125 V	Α	3
• at 230 V	Α	2
• at 400 V	Α	1
• at DC-13		
• at 24 V	Α	1
• at 110 V	Α	0.22
• at 125 V	Α	0.22
• at 220 V	Α	0.11

Short-circuit:

Design of the fuse link / for short-circuit protection of the	
auxiliary switch / required	

fuse gG: 10 A

Installation/mounting/dimensions:			
Built in orientation		vertical	
Type of mounting		direct mounting	
Width	mm	45	
Height	mm	87	
Depth	mm	73	
Distance, to be maintained, to the ranks assembly			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	6	
• downwards	mm	6	
• sidewards	mm	6	
Distance, to be maintained, to earthed part			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	6	
• downwards	mm	6	
• sidewards	mm	6	
Distance, to be maintained, conductive elements			
• forwards	mm	0	
• backwards	mm	0	
• upwards	mm	6	
• downwards	mm	6	
• sidewards	mm	6	
Connections:			
Design of the electrical connection			
• for main current circuit		screw-type terminals	
for auxiliary and control current circuit		screw-type terminals	
Product function / removable terminal for auxiliary and control circuit		No	
Type of the connectable conductor cross-section			
• for main contacts			
• solid		2 x (0.5 1.5 mm²), 2 x (0.75 2.5 mm²), 2 x (0.5 4 mm²)	

stranded

• finely stranded

• with conductor end processing

 $2x\ (0.5\ ...\ 1.5\ mm2),\ 2x\ (0.75\ ...\ 2.5\ mm2),\ 2x\ 0.5$

 $2x\ (0.5\ ...\ 1.5\ mm^2),\ 2x\ (0.75\ ...\ 2.5\ mm^2)$

mm2 ... 2x 4 mm2

• for AWG conductors / for main contacts	2x (20 16), 2x (18 14)
• for auxiliary contacts	
• solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• finely stranded	
with conductor end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG conductors / for auxiliary contacts	2x (20 16), 2x (18 14)

Certificates/approvals:				
Verification of suitability		CE / UL / CSA		
• ATEX		No		

General Product	Approval		For use in hazardous locations	Test Certificates	
		ROSTEST	DEKRA EXAM,	Manufacturer	











DMT



Shipping Approval

other



Manufacturer

UL/CSA ratings:		
Contact rating designation / for auxiliary contacts / according to UL		B600 / R300
Reliability figures:		
Mean time to failure (MTTF) / with high demand rate	а	2,280
Proportion of dangerous failures		
• with low demand rate / according to SN 31920	%	50
• with high demand rate / according to SN 31920	%	50
Failure rate (FIT value) / with low demand rate		
according to SN 31920	FIT	50
T1 value / for proof test interval or service life		
• according to IEC 61508	а	20

Further information:

Protection against electrical shock

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

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

finger-safe

Industry Mall (Online ordering system)

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

Cax online generator:

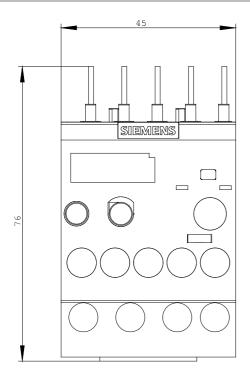
http://www.siemens.com/cax

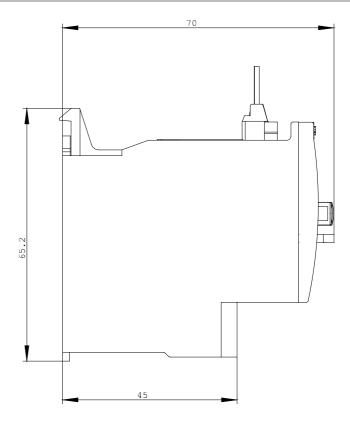
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

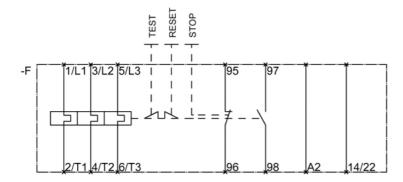
http://support.automation.siemens.com/WW/view/en/3RU2116-1GB0/all

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

 $\underline{http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1GB0}$







last change: Oct 24, 2011