SIEMENS

Product data sheet

3RU2116-1BB0



OVERLOAD RELAY 1.4...2.0 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 / 11 ms
Impulse voltage resistance / rated value	kV	6
Active power loss / total / typical	W	5.1
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		\$00
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	А	2
Service power / at AC-3		
• at 400 V / rated value	kW	0.75
• at 500 V / rated value	kW	0.75
• at 690 V / rated value	kW	1.1
Adjustable response current		
• of the current-dependent overload release	А	1.4 2
Operating current / of the fuse link / rated value	А	6

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	А	3
• at 110 V	А	3
• at 120 V	А	3
• at 125 V	А	3
• at 230 V	А	2
• at 400 V	А	1
• at DC-13		
• at 24 V	А	1
• at 110 V	А	0.22
• at 125 V	А	0.22
• at 220 V	А	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	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), 2x 4 mm²
finely stranded	
with conductor end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG conductors / for main contacts 	2x (20 16), 2x (18 14), 2x 12
for auxiliary contacts	

solidfinely stranded				2x (0.5	1.5 mm²), 2x (0.1	75 2.5 mm²)
 with conductor 	or end processing			2x (0.5	1.5 mm²), 2x (0.	75 2.5 mm²)
• for AWG conductor	rs / for auxiliary conta	acts		2x (20 .	16), 2x (18 14))
Certificates/approv	als:					
Verification of suitabi	lity			CE / UL	/ CSA	
• ATEX				Yes		
General Product Ap	proval		For use in hazardous locations		Test Certificates	i
CSA	GOST		K ATEX		Special Test Certificate	Type Test Certificates/Test Report
Shipping Approval						
ABS		GL	Lloyd's Register LRS		PRS	RINA
Shipping Approval	other					
RMRS	Declaration of Conformity					
UL/CSA ratings:						

ntact rating designation / for auxiliary contacts / according to		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		50		
T1 value / for proof test interval or service life				
according to IEC 61508	а	20		
Protection against electrical shock		finger-safe		

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

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/3RU2116-1BB0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RU2116-1BB0

