SIEMENS

Data sheet 3RU2116-1JC1

OVERLOAD RELAY 7.0...10 A FOR MOTOR PROTECTION SZ S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-AUTOMATIC-RESET

product brand name		SIRIUS
Product designation		3RU2 thermal overload relay

General technical data:		
Active power loss total typical	W	6.1
Insulation voltage		
• with degree of pollution 3 Rated value	V	690
Shock resistance		
• acc. to IEC 60068-2-27		8g / 11 ms
Surge voltage resistance Rated value	kV	6
Temperature compensation	°C	-40 ... +60
Size of contactor can be combined company-specific		S00
Type of assignment		2
Protection class IP		
• on the front		IP20
• of the terminal		IP20
Equipment marking		
• acc. to DIN EN 81346-2		F

Main circuit:		
Number of poles for main current circuit		3
Adjustable response value current of the current-dependent overload release	A	7 ... 10
Operating voltage		
• Rated value	V	690
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 ... 60

Operating current Rated value	A	10
Operating current		
• at AC-3		
— at 400 V Rated value	A	10
Auxiliary circuit:		
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
Design of the auxiliary switch		integrated
Operating current of the auxiliary contacts at AC-15		
• at 24 V	A	3
• at 110 V	A	3
• at 120 V	A	3
• at 125 V	A	3
• at 230 V	A	2
• at 400 V	A	1
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	2
• at 110 V	A	0.22
• at 125 V	A	0.22
• at 220 V	A	0.11
Protective and monitoring functions:		
Trip class		CLASS 10
Design of the overload circuit breaker		thermal
UL/CSA ratings:		
Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	A	10
• at 600 V Rated value	A	10
Contact rating of the auxiliary contacts acc. to UL		B600 / R300
Installation/ mounting/ dimensions:		
mounting position		any
Mounting type		stand-alone installation
Height	mm	102
Width	mm	45
Depth	mm	79
Required spacing		

• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— at the side	mm	6
— downwards	mm	6
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6

Connections/ Terminals:		
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
Product function		
• removable terminal for auxiliary and control circuit		No
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)
• 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	FIT	50
MTTF with high demand rate	y	2 280
T1 value for proof test interval or service life acc. to IEC 61508	y	20
Protection against electrical shock		finger-safe

Mechanical data:		
Size of overload relay		S00

Ambient conditions:		
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-40 ... +70
• during storage	°C	-55 ... +80
• during transport	°C	-55 ... +80
Relative humidity during operation	%	0 ... 90

Display:		
Display version		
• for switching status		Slide switch

Certificates/ approvals:

General Product Approval				For use in hazardous locations	Declaration of Conformity
CCC	CSA		UL	ATEX	EG-Konf.

Test Certificates		Shipping Approval			
Type Test Certificates/Test Report	Special Test Certificate	ABS	BUREAU VERITAS	DNV	GL

Shipping Approval				other
LRS	PRS	RINA	RMRS	Environmental Confirmations

Further information

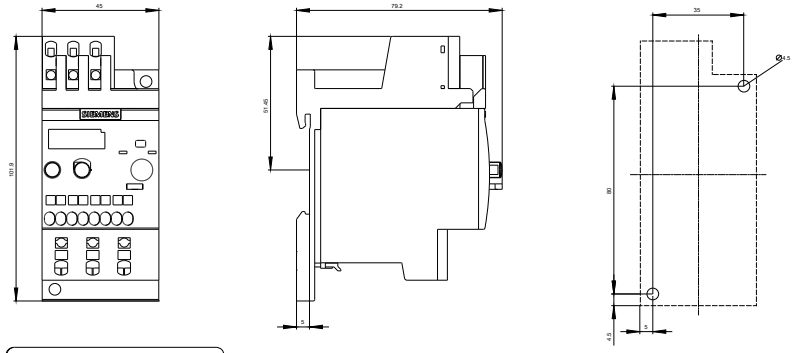
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

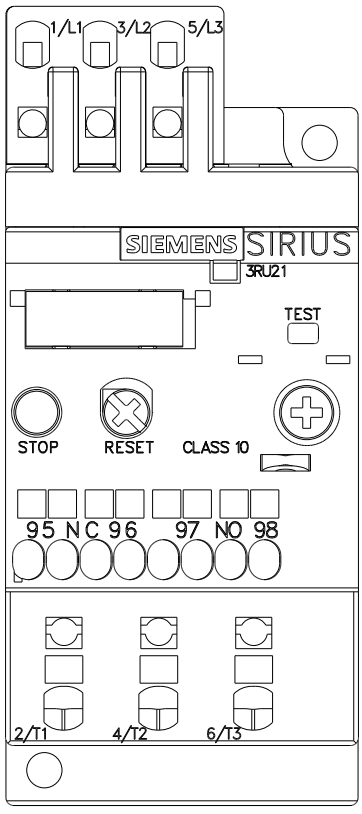
Industry Mall (Online ordering system)
http://www.siemens.com/industrymall

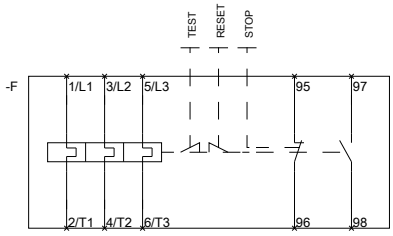
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21161JC1

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3RU21161JC1/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21161JC1&lang=en







last modified: 11.03.2015