SIEMENS

Data sheet 3RU2116-1DB0



OVERLOAD RELAY 2.2...3.2 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL 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] total typical	5.2 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
 in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
 in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
 in networks with grounded star point between main and auxiliary circuit 	440 V
 in networks with grounded star point between main and auxiliary circuit 	440 V
Protection class IP	

• on the front	IP20
• of the terminal	IP20
Type of protection	Ex e
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions	
Ambient temperature	
during operation	-40 +70 °C
during storage	-55 +80 °C
 during transport 	-55 +80 °C
Temperature compensation	-40 +60 °C

Main circuit	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current-	2.2 3.2 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	3.2 A
Operating power at AC-3	
• at 400 V rated value	1.1 kW
• at 500 V rated value	1.5 kW
• at 690 V rated value	2.2 kW

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 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 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
Contact rating of auxiliary contacts according to UL	B600 / R300

Protective and monitoring functions	
Trip class	CLASS 10
Design of the overload release	thermal

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	3.2 A
• at 600 V rated value	3.2 A

at 555 V Tatou Value	
nstallation/ mounting/ dimensions	
Mounting position	any
Mounting type	direct mounting
Height	76 mm
Width	45 mm
Depth	70 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	screw-type terminals
 for auxiliary and control current circuit 	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
 single or multi-stranded 	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG conductors for main contacts 	2x (20 16), 2x (18 14), 2x 12
Type of connectable conductor cross-sections	
• for auxiliary contacts	
 single or multi-stranded 	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG conductors 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
Safety related data	
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















IECEx

Declaration of	
Conformity	

Test Certificates

Marine / Shipping











Railway



Marine / Shipping

other

Vibration and Shock





Environmental Confirmations

Confirmation

Further information

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

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

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1DB0

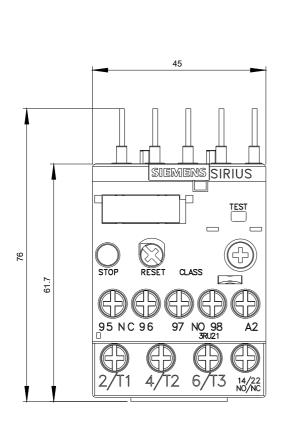
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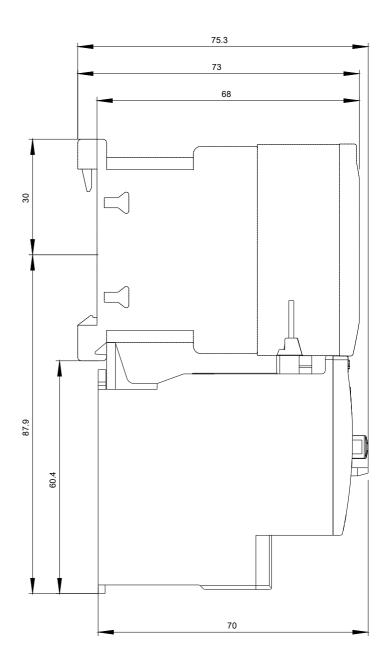
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1DB0

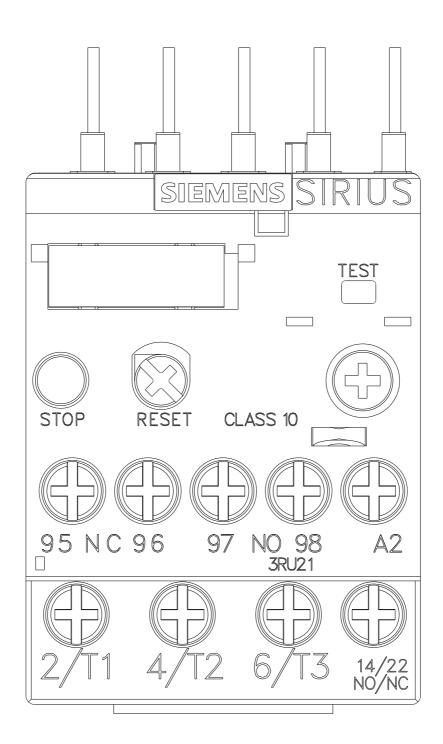
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DB0}}$

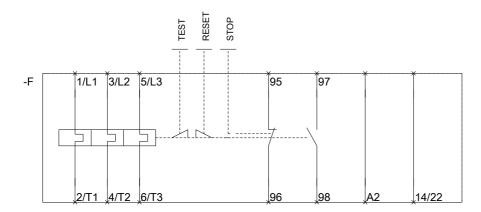
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1DB0&lang=en







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