



EA Electric Automation

Automation specialists

Reference: 3RU2136-4HB0

OVERLOAD RELAY 40... 50 A FOR MOTOR PROTECTION SIZE S2, CLASS 10 FOR MOUNTING ONTO CONTACTORS MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET.

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product brand name	SIRIUS	
Product designation	3RU2 thermal overload relay	
General technical data:		
Size of overload relay	S2	
Size of contactor can be combined company-specific	52	
Power loss [W] total typical	11 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	415 V	
in networks with grounded star point between auxiliary and auxiliary circuit	415 V	
in networks with grounded star point between main and auxiliary circuit	690 V	
in networks with grounded star point between main and auxiliary circuit	690 V	
Protection class IP		
on the front	IP20	
of the terminal	IPOO	
Shock resistance		
acc. to IEC 60068-2-27	8g / 11 ms	

Recovery time	
	10
after overload trip with automatic reset typical	10 min
after overload trip with remote-reset	10 min
after overload trip with manual reset	10 min
Type of protection	Ex e
Certificate of suitability relating to ATEX	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Equipment marking acc. to DIN EN 81346-2	F
Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
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- dependent overload release	40 50 A
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	50 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 auxiliary contacts at AC-15	
at 24 V	3 A
at 110 V	3 A
at 120 V	3 A
	20

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
Design of the miniature circuit breaker	
for short-circuit protection of the auxiliary switch required	6A (SCC less than equal to 0.5 kA; U less than equal to 260V)
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	50 A
at 600 V rated value	50 A
Contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
Design of the fuse link	
for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions:	
Mounting position	any
Mounting type	direct mounting
Height	90 mm
Witd>	55 mm
Depth	105 mm
Required spacing	
with side-by-side mounting	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm
for grounded parts	
— forwards	10 mm
— Backwards	0 mm

— upwards	10 mm
— at the side	10 mm
- downwards	10 mm
for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 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 (1 35 mm²), 1x (1 50 mm²)
- finely stranded with core end processing	2x (1 25 mm²), 1x (1 35 mm²)
at AWG conductors for main contacts	2x (18 2), 1x (18 1)
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	3 4.5 N·m
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
Design of screwdriver shaft	5 6 mm diameter
Design of the thread of the connection screw	
for main contacts	M6
of the auxiliary and control contacts	M3
Safety related data:	
T1 value for proof test interval or service life acc. to IEC 61508	20 у
Display:	
Display version	

for switching status

Slide switch