

Reference: 3RU1146-4LB0

OVERLOAD RELAY, 70...90 A, 1NO+1NC,  
SIZE S3, CLASS 10, FOR CONTACTOR  
MOUNTING

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product brand name	SIRIUS
Product designation	thermal overload relay
General technical data:	
Size of overload relay	S3
Size of contactor can be combined company-specific	S3
Power loss [W] total typical	16.5 W
Insulation voltage with degree of pollution 3 rated value	1 000 V
Surge voltage resistance rated value	8 kV
Protection class IP	
on the front	IP20
Shock resistance	8g / 10 ms
Type of protection	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe
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	-20 ... +70 °C
during storage	-55 ... +80 °C
during transport	-55 ... +80 °C
Relative humidity during operation	100 %

Main circuit:	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	70 ... 90 A
Operating voltage	
at AC-3 rated value maximum	1 000 V
Auxiliary circuit:	
Number of NC contacts	
for auxiliary contacts	1
Number of NO contacts	
for auxiliary contacts	1
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	1 A
at 110 V	0.22 A
at 125 V	0.22 A
at 220 V	0.11 A
Protective and monitoring functions:	
Trip class	CLASS 10
Short-circuit protection	
Design of the fuse link	
for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 250 A
— with type of assignment 2 required	gG: 160 A
for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions:	
Mounting position	with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back
Mounting type	direct mounting
Height	120 mm

Witd>	70 mm
Depth	140 mm
Required spacing	
with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 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
Type of connectable conductor cross-sections	
for main contacts	
— solid	2x (2.5 ... 16 mm <sup>2</sup> )
— stranded	2x (10 ... 50 mm <sup>2</sup> ), 10 ... 70 mm <sup>2</sup>
— finely stranded with core end processing	2x (2.5 ... 35 mm <sup>2</sup> ), 2.5 ... 50 mm <sup>2</sup>
at AWG conductors for main contacts	2x (10 ... 1/0), 1x (10 ... 2/0)
Type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)

