SIEMENS

Data sheet 3RU1146-4MB0



Overload relay 80...100 A For motor protection Size S3, Class 10 Contactor mounting Main circuit: Screw terminal Auxiliary circuit: Screw terminal Manual-Automatic-Reset !!! Phased-out product !!! Successor is SIRIUS 3RU2 Preferred successor type is >>3RU2146-4MB0<<

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] for rated value of the current at AC in hot operating state	21 W
● per pole	7 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
protection class IP on the front	IP20
shock resistance	8 g / 10 ms
type of protection	DMT 98 ATEX G 001
reference code according to IEC 81346-2	F
Substance Prohibitance (day/month/year)	07/01/2006
Net Weight	0.543 kg
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 maximum	100 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	80 ... 100 A
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
operational 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
operational current of auxiliary contacts at DC-13	

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● 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 coordination 2 required	gG: 200 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
fastening method	Contactor mounting
height	120 mm
width	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 component removable terminal for auxiliary and control circuit	No
type of electrical connection	
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections for main contacts	
● solid	2x (2.5 ... 16 mm²)
● stranded	2x (10 ... 50 mm²), 10 ... 70 mm²
● finely stranded with core end processing	2x (2.5 ... 35 mm²), 2.5 ... 50 mm²
type of connectable conductor cross-sections	
● for auxiliary contacts	
— solid	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)
● for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
Electrical Safety	
touch protection against electrical shock	finger-safe
Approvals Certificates	

Environment	General Product Approval	For use in hazard-ous locations

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Environmental Confirmations

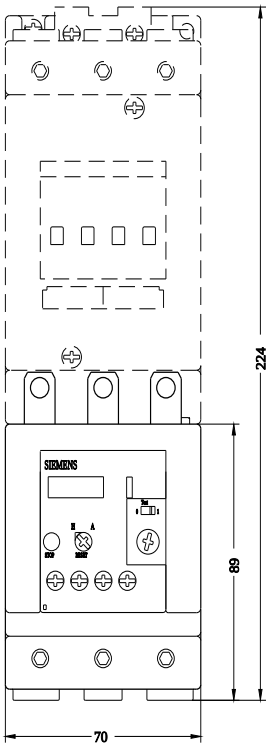
For use in hazardous locations	Test Certificates		other		
ATEX	Type Test Certificates/Test Report	Special Test Certificate	Confirmation	Miscellaneous	产品合格 QC PASS

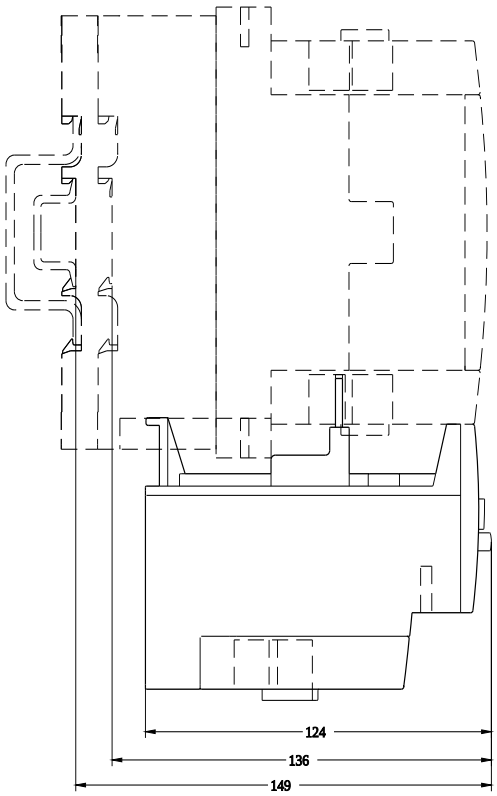
Railway
Special Test Certificate

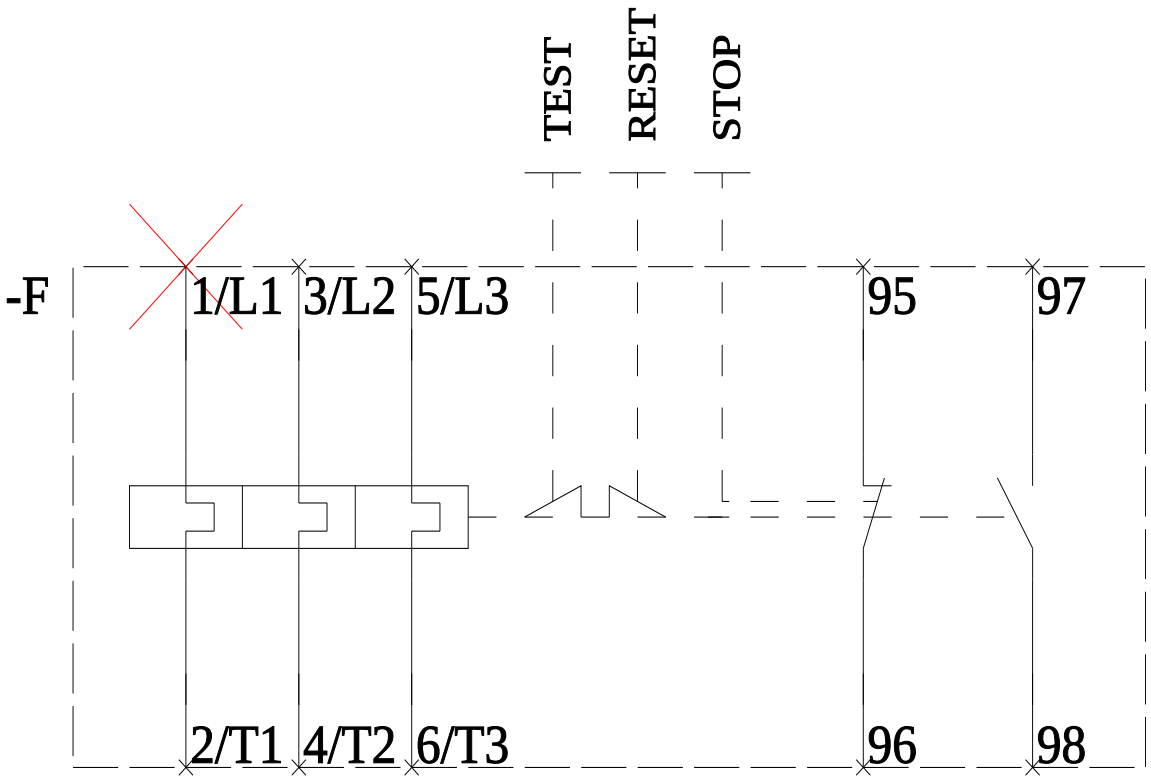
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU1146-4MB0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RU1146-4MB0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU1146-4MB0&lang=en
Cax online generator
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