SIEMENS

Data sheet 3RU5146-4LB1

Overload relay 70...90 A size S3, class 10 for motor protection for individual mounting main circuit: screw connection AUX. circuit: screw connection manual automatic reset

product brand name	SIRIUS
product designation	Thermal overload relay
product type designation	3RU5
General technical data	
size of contactor can be combined company-specific	S3
power loss [W] total typical	16.5 W
power loss [W] for rated value of the current at AC in hot operating state	21 W
● per pole	7 W
type of calculation of power loss depending on pole	quadratic
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	8g / 10 ms
Substance Prohibitance (Date)	07/01/2006
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	-20 ... +70 °C
● during transport	-55 ... +80 °C
relative humidity during operation	0 ... 100 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	70 ... 90 A
operating voltage rated value	1 000 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	90 A
Auxiliary circuit	
operational current of auxiliary contacts at AC-15	
● at 24 V	3 A
● at 230 V	2 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 110 V	0.22 A
Protective and monitoring functions	
trip class	CLASS 10
design of the overload release	thermal
Short-circuit protection	
design of the fuse link	
● for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A, quick: 10 A

Subject to change without notice
© Copyright Siemens

Installation/ mounting/ dimensions	
mounting position	with vertical mounting surface +/-135° rotatable, with vertical mounting surface +/- 45° tiltable to the front and back
fastening method	stand-alone installation
height	120 mm
width	70 mm
depth	140 mm
required spacing for grounded parts at the side	6 mm
Connections/ Terminals	
type of electrical connection	
● for main current circuit	screw-type terminals
● for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections for main contacts	
● solid or stranded	2x (2.5 ... 16 mm²), 2x (10 ... 50 mm²), 1x (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 or 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)
● for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
tightening torque for main contacts with screw-type terminals	4 ... 6 N·m
Safety related data	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

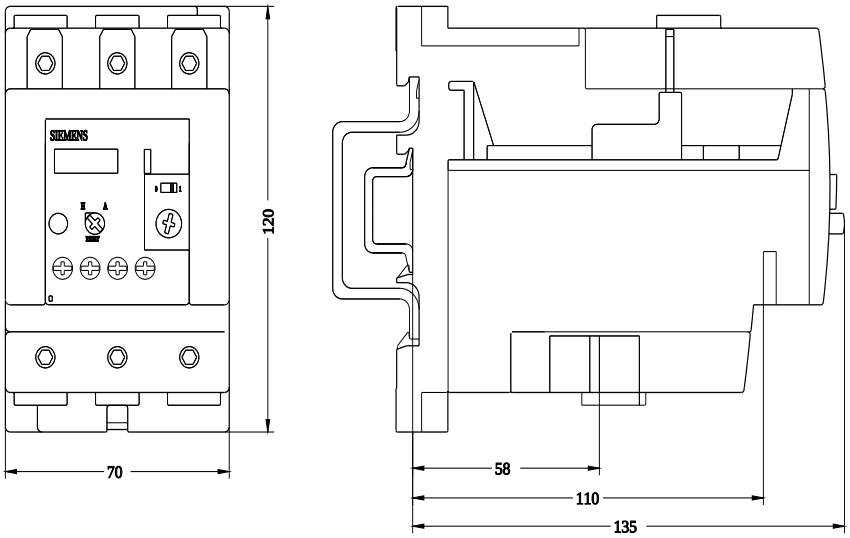
Certificates/ approvals

General Product Approval				Declaration of Conformity	other
Confirmation	CCC	UL	EAC	CE EG-Konf.	Confirmation

Further information

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN

Subject to change without notice
© Copyright Siemens



last modified: 7/20/2023

Subject to change without notice
© Copyright Siemens