## **SIEMENS**

product brand name

Data sheet 3RU1146-4HB0

SIRIUS



Overload relay 36...50 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 >>3RU2136-4GB0<<

product brand name	31103
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	15.3 W
• per pole	5.1 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	8g / 10 ms
type of protection	DMT 98 ATEX G 001
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	07/01/2006
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul><li>during operation</li></ul>	-20 +70 °C
<ul> <li>during storage</li> </ul>	-55 +80 °C
<ul> <li>during transport</li> </ul>	-55 +80 °C
relative humidity during operation	100 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	36 50 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	
● 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: 160 A		
with type of assignment 2 required	gG: 125 A		
<ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>	fuse gL/gG: 6 A, quick: 10 A		
required			
Installation/ mounting/ dimensions			
mounting position	with vertical mounting surface +/-135° rotatable, with surface +/- 45° tiltable to the front and back	th vertical mounting	
fastening method	Contactor mounting		
height	120 mm		
width	70 mm		
depth	140 mm		
required spacing			
<ul><li>with side-by-side mounting</li></ul>			
— forwards	0 mm		
— backwards	0 mm		
— upwards	0 mm		
— downwards	0 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— forwards	0 mm		
— backwards	0 mm		
— upwards	0 mm		
— at the side	6 mm		
— downwards	0 mm		
<ul><li>for live parts</li></ul>			
— 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		
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals		
type of connectable conductor cross-sections  • for main contacts			
— solid	2x (2.5 16 mm²)		
— stranded	2x (2.5 16 mm²) 2x (10 50 mm²), 10 70 mm²		
— stranded     — finely stranded with core end processing	2x (2.5 35 mm²), 2.5 50 mm²		
at AWG cables for main contacts	2x (2.3 33 mm ), 2.3 30 mm 2x (10 1/0), 1x (10 2/0)		
type of connectable conductor cross-sections	(10 110), 1x (10 210)		
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)		
at AWG cables for auxiliary contacts	2x (20 16), 2x (18 14)		
Safety related data	(		
touch protection against electrical shock	finger-safe		
Certificates/ approvals			
		For use in hazard-	
General Product Approval		ous locations	



Confirmation









For use in hazardous locations Declaration of Conformity

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report Special Test Certificate





Marine / Shipping

other

Railway



<u>Miscellaneous</u>

Confirmation

Special Test Certificate

## **Further information**

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=3RU1146-4HB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU1146-4HB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RU1146-4HB0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

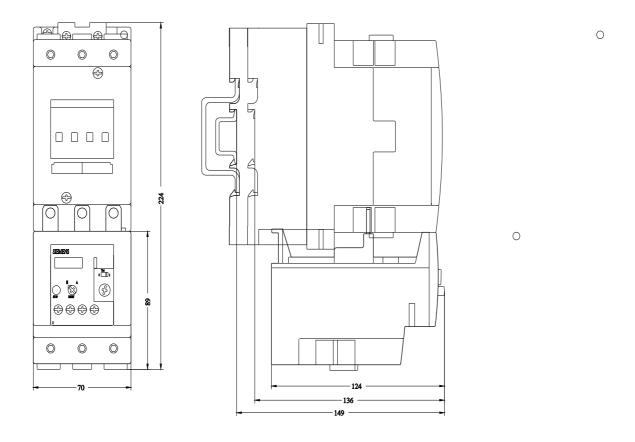
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU1146-4HB0&lang=en

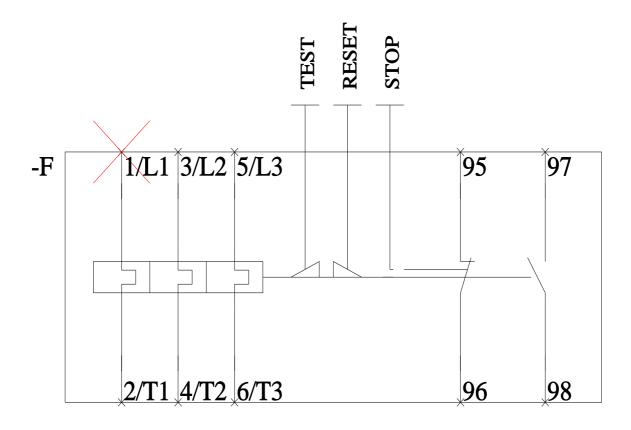
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RU1146-4HB0/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU1146-4HB0&objecttype=14&gridview=view1





last modified: 2/11/2021 **C**