# **SIEMENS**

Data sheet 3RU2126-4BC1

Overload relay 14...20 A Thermal For motor protection Size S0, Class 10 Stand-alone installation Main circuit: Spring-type terminal Auxiliary circuit: spring-type terminal Manual-Automatic-Reset



product brand name	SIRIUS
Product designation	thermal overload relay
Product type designation	3RU2

Size of overload relay	S0
Size of contactor can be combined company-specific	S0
Power loss [W] for rated value of the current	
• at AC in hot operating state	8.1 W
• at AC in hot operating state per pole	2.7 W
Insulation voltage with degree of pollution 3 at AC rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V

<ul> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V
protection class IP on the front	IP20
Protection class IP of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	8g / 11 ms
Type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
Reference code acc. to DIN EN 81346-2	F
Ambient conditions	
Installation altitude at height above sea level	
• maximum	2 000 m
Ambient temperature	
<ul><li>during operation</li></ul>	-40 +70 °C
during storage	-55 +80 °C
during transport	-55 +80 °C
Temperature compensation	-40 +60 °C
Relative humidity during operation	10 95 %
Main circuit	
Number of poles for main current circuit	3
adjustable pick-up value current of the current-	14 20 A
dependent overload release	
Operating voltage	
• rated value	690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
Operating frequency rated value	50 60 Hz
Operating current rated value	20 A
Operating power at AC-3	
● at 400 V rated value	7.5 kW
• at 500 V rated value	11 kW
● at 690 V rated value	15 kW
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

<ul> <li>operating current of auxiliary contacts at AC-15 at 24 V</li> </ul>	3 A
<ul> <li>Operating current of auxiliary contacts at AC-15 at 110 V</li> </ul>	3 A
<ul> <li>Operating current of auxiliary contacts at AC-15 at 120 V</li> </ul>	3 A
<ul> <li>Operating current of auxiliary contacts at AC-15 at 125 V</li> </ul>	3 A
<ul> <li>Operating current of auxiliary contacts at AC-15 at 230 V</li> </ul>	2 A
<ul> <li>operating current of auxiliary contacts at AC-15 at 400 V</li> </ul>	1 A
<ul> <li>operating current of auxiliary contacts at DC-13 at 24 V</li> </ul>	2 A
<ul> <li>Operating current of auxiliary contacts at DC-13 at 60 V</li> </ul>	0.3 A
<ul> <li>Operating current of auxiliary contacts at DC-13 at 110 V</li> </ul>	0.22 A
<ul> <li>operating current of auxiliary contacts at DC-13 at 125 V</li> </ul>	0.22 A
<ul> <li>Operating current of auxiliary contacts at DC-13 at 220 V</li> </ul>	0.11 A
Contact rating of auxiliary contacts according to UL	B600 / R300
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	20 A
• at 600 V rated value	20 A
Short-circuit protection	
Design of the fuse link	
<ul> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions	

Installation/ mounting/ dimensions	
<ul><li>mounting position</li></ul>	any
Mounting type	stand-alone installation
Height	114 mm
Width	45 mm
Depth	95 mm

Connections/ Terminals	
Product function	

<ul> <li>removable terminal for auxiliary and control circuit</li> </ul>	No
<ul> <li>Type of electrical connection for main current circuit</li> </ul>	spring-loaded terminals
<ul> <li>Type of electrical connection for auxiliary and control current circuit</li> </ul>	spring-loaded terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
<ul> <li>single or multi-stranded</li> </ul>	1x (1 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	1x (1 6 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	1x (1 6 mm²)
<ul> <li>at AWG conductors for main contacts</li> </ul>	1x (18 8)
Type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>single or multi-stranded</li> </ul>	2x (0,5 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
<ul> <li>finely stranded without core end processing</li> </ul>	2x (0.5 1.5 mm²)
<ul> <li>at AWG conductors for auxiliary contacts</li> </ul>	2x (20 14)
Design of screwdriver shaft	Diameter 3 mm
Size of the screwdriver tip	3,0 x 0,5 mm
Safety related data	
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Display	
Display version	
<ul><li>for switching status</li></ul>	Slide switch
Certificates/ approvals	

#### **General Product Approval**















**IECE**x

#### **Declaration of Conformity**

**Test Certificates** 

Marine / Shipping



Miscellaneous

Type Test Certificates/Test Report

Special Test Certificate





## Marine / Shipping

other



LRS









Confirmation

## Railway

Vibration and Shock

## 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=3RU2126-4BC1

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2126-4BC1

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

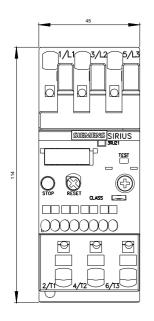
https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-4BC1

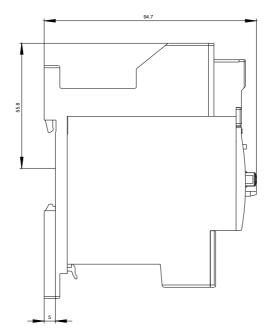
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)  $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2126-4BC1\&lang=en}}$ 

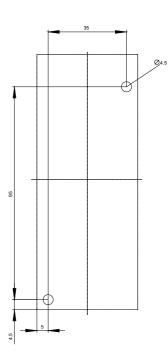
Characteristic: Tripping characteristics, I2t, Let-through current

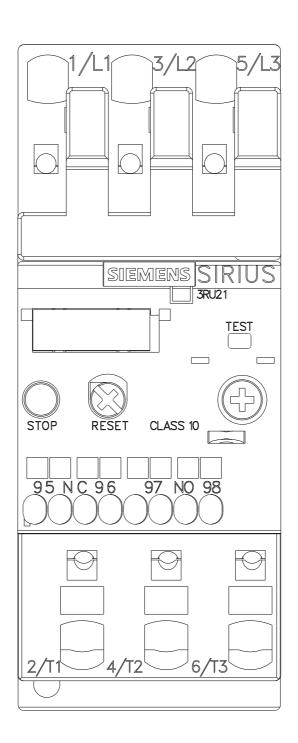
https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-4BC1/char

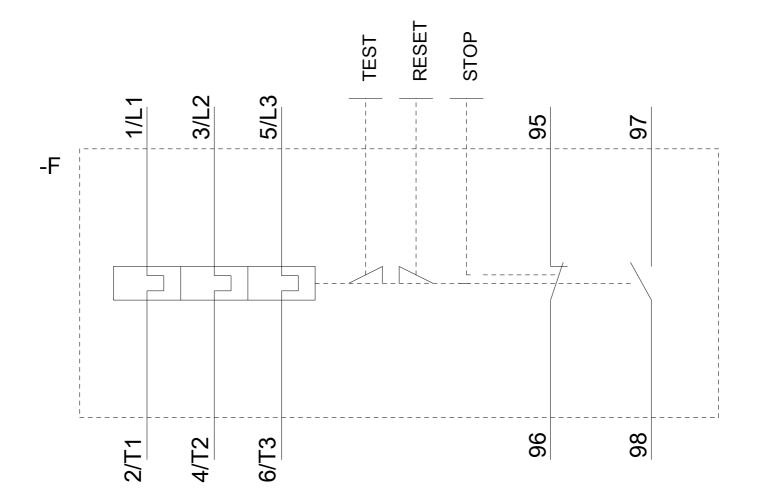
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2126-4BC1&objecttype=14&gridview=view1











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