## **SIEMENS**

Data sheet 3RU2126-1CB0



Overload relay 1.8...2.5 A Thermal For motor protection Size S0, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
General technical data	
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	5.7 W
• per pole	1.9 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 protective separation in networks with grounded star point	
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul> <li>between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul> <li>between main and auxiliary circuit</li> </ul>	440 V
between main and auxiliary circuit	440 V
shock resistance according 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 according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-40 +70 °C
<ul> <li>during storage</li> </ul>	-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 current response value current of the current- dependent overload release	1.8 2.5 A
operating voltage	
rated value	690 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	2.5 A
operational current at AC-3e at 400 V rated value	2.5 A
operating power	

at 200 V rated value	• at AC-3	
at 500 V rated value		0.75 kW
■ at AC-3e     ■ at AC-3e     ■ at 400 V rated value     ■ at 500 V rated value     ■ at 600 V r		
- at AC-3e		
		1.5 KVV
		0.75 k/M
Auxillary circuit  dosign of the auxillary switch number of NC contacts for auxillary contacts • note  number of NC contacts for auxillary contacts • note number of NC contacts for auxillary contacts • note number of NC contacts for auxillary contacts • note number of NC contacts for auxillary contacts • note number of NC contacts for auxillary contacts • at 24 V 3A • at 110 V 3A • at 120 V 3A • at 120 V 3A • at 125 V 3A • at 230 V 2A • at 4500 V 2A • at 60 V 3A • at 60 V 3A • at 125 V 3A • at 120 V 3A • at 800 V 3A • at 120 V 3A • at 800 V 3A • at 110 V 3A • at 800 V 3A • at 110 V 3A • at 800 V 3A • at 110 V 3A • at 800 V 3A • at 110 V 3A • at 800 V 3A • at 110 V 3A • at 800 V 3A • at 110 V 3A • at 125 V 3A • at 120 V 3A • at 110 V 3A • at 125 V 3A • at 125 V 3A • at 120 V 3A • at 110 V 3A • at 120 V 3A • at 10 V 3A • at 10 V 3A • at 10 V 3A • at 24 V 3A • at 80 V 3A • at 80 V 3A • at 80 V 3A • at 10 V 3A • at 60 V 3A • at 120 V 3A		
Auxiliary circuit design of the auxiliary switch number of NC contacts for auxiliary contacts • note number of NC contacts for auxiliary contacts • note number of NC contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts • note number of CO contacts for auxiliary contacts 0 operational current of auxiliary contacts at AC-15 • at 24 V • at 110 V • 3 A • at 110 V • 3 A • at 120 V • 3 A • at 120 V • at 125 V • at 400 V • at 400 V • at 400 V • at 400 V • at 4100 V • at 150 V • at 110 V • at 125 V • at 120 V • at 150 V • contact rating of auxiliary contacts at DC-13 • at 124 V • at 60 V • at 120		
design of the auxiliary switch number of NC contacts for auxiliary contacts		1.5 KVV
number of NC contacts for auxillary contacts • note • not		integrated
note     number of NO contacts for auxiliary contacts     note     number of CO contacts for auxiliary contacts     note number of CO contacts for auxiliary contacts     operational current of auxiliary contacts at AC-15     al 24 V     al 110 V     al 120 V     al 400 V     al 400 V     al 600 V     operational current of auxiliary contacts at DC-13     al 24 V     al 400 V     al 600 V     operational current of auxiliary contacts at DC-13     al 24 V     al 60 V     ol 3A     al 110 V     al 22 A     al 60 V     al 110 V     ol 22 A     al 100 V     ol 3A     al 110 V     ol 25 A     al 120 V     al 125 V     ol 25 A     al 120 V     ol 120 V     al 120 V     ol 25 A     al 120 V     ol 120 V     al 120 V     ol 120 V     al 120 V     ol 120 V     ol 120 V     al 120 V     ol 120 V		•
number of NO contacts for auxiliary contacts  • note  note  note for CO contacts for auxiliary contacts  operational current of auxiliary contacts at AC-15  • at 24 V 3A  • at 110 V 3A  • at 120 V 3A  • at 230 V 2A  • at 230 V 2A  • at 890 V 0,75 A  operational current of auxiliary contacts at DC-13  • at 24 V 2A  • at 100 V 3A  • at 125 V 3A  • at 25 V 3A  • at 26 V 3A  • at 26 V 3A  • at 100 V 3A  • at 100 V 3A  • at 110 V 3A  • at 110 V 3A  • at 125 V 3A  •	-	
number of CO contacts for auxiliary contacts		
number of CO contacts for auxiliary contacts	•	for message "Tripped"
operational current of auxiliary contacts at AC-15	number of CO contacts for auxiliary contacts	
	• at 24 V	3 A
at 125 V at 230 V at 400 V at 809 V 0.75 A  operational current of auxillary contacts at DC-13  at 24 V at 60 V 0.3 A at 110 V 0.22 A at 110 V 0.22 A at 125 V at 125 V 0.22 A at 125 V 0.22 A at 125 V 0.22 A be at 220 V contact rating of auxillary contacts according to UL B600 / R300  Protective and monitoring functions  trip class CLASS 10 design of the overload release thermal  ULICSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link of or short-circuit protection of the auxiliary switch required installation/ mounting/ dimensions  mounting position fastening method height as 5 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	• at 110 V	3 A
at 230 V at 400 V b at 690 V operational current of auxillary contacts at DC-13  at 24 V at 60 V otal at 60 V at 110 V at 125 V at 125 V at 125 V at 220 V contact rating of auxillary contacts according to UL endough of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value at 480 V rated value at 480 V rated value at 600 V rated value before the fuse link of or short-circuit protection of the auxiliary switch required fustallation/mounting/dimensions  mounting position fastening method height width depth Connections/Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	• at 120 V	3 A
at 400 V at 690 V operational current of auxiliary contacts at DC-13 at 24 V at 60 V at 60 V other strip class contact rating of auxiliary contacts according to UL contact rating of auxiliary contacts according to UL before rating of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 2.5 A Short-circuit protection design of the fuse link of or short-circuit protection of the auxiliary switch required fustallation/ mounting/ dimensions mounting position fastening method height depth 85 mm Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection	• at 125 V	3 A
at 690 V operational current of auxiliary contacts at DC-13 at 60 V at 60 V ot 110 V ot 22 A at 110 V ot 22 A at 125 V at 125 V ot 22 A ot 20 V ot 20	• at 230 V	2 A
operational current of auxiliary contacts at DC-13  • at 24 V • at 60 V • at 110 V • at 125 V • at 125 V • at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions  trip class CLASS 10 design of the overload release ULCSA ratings  full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value • at 600 V rated value  Short-circuit protection design of the fuse link • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A Installation/ mounting/ dimensions mounting position fastening method Contactor mounting width 45 mm depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	• at 400 V	1 A
at 24 V at 60 V at 110 V 0.22 A at 1125 V 0.22 A at 1220 V 0.11 A  contact rating of auxiliary contacts according to UL Protective and monitoring functions  trip class CLASS 10 design of the overload release UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 2.5 A at 600 V rated value 2.5 A Short-circuit protection design of the fuse link of or short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions mounting position fastening method Contactor mounting height 45 mm depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	• at 690 V	0.75 A
at 110 V at 115 V at 125 V at 125 V be at 220 V contact rating of auxiliary contacts according to UL before rotective and monitoring functions  trip class CLASS 10 design of the overload release thermal  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value 2.5 A short-circuit protection  design of the fuse link for short-circuit protection of the auxiliary switch required  installation/ mounting/ dimensions  mounting position fastening method height set miles of the set of the set of the set of the set of the miles of the set	operational current of auxiliary contacts at DC-13	
at 110 V at 125 V at 125 V at 125 V at 220 V  contact rating of auxiliary contacts according to UL B600 / R300  Protective and monitoring functions  trip class CLASS 10 design of the overload release thermal  ULCSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 V rated value before short-circuit protection of the auxiliary switch required  fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  mounting position fastening method contactor mounting height width depth S5 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	● at 24 V	2 A
at 125 V at 220 V contact rating of auxiliary contacts according to UL Protective and monitoring functions  trip class CLASS 10 design of the overload release tull-load current (FLA) for 3-phase AC motor at 480 V rated value at 480 V rated	● at 60 V	0.3 A
at 220 V     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 3-phase AC motor     • at 480 V rated value     • at 600 V rated value     • at 600 V rated value     • at 600 V rated value  Short-circuit protection  design of the fuse link     • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position     fastening method     height     #65 mm  width     45 mm  depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection	● at 110 V	0.22 A
contact rating of auxiliary contacts according to UL  Protective and monitoring functions  trip class  CLASS 10  design of the overload release  thermal  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  mounting position fastening method height width 45 mm depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	● at 125 V	0.22 A
trip class	• at 220 V	0.11 A
trip class  design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position fastening method height width depth  85 mm  width depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		B600 / R300
design of the overload release  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  mounting position fastening method Contactor mounting height 85 mm  width 45 mm depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	Protective and monitoring functions	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  mounting position fastening method Contactor mounting height 85 mm width 45 mm depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection	<u> </u>	
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions  mounting position fastening method Contactor mounting height 85 mm width 45 mm depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		thermal
at 480 V rated value at 600 V rated value 2.5 A  Short-circuit protection  design of the fuse link  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position fastening method Contactor mounting height 85 mm  width 45 mm  depth  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		
at 600 V rated value     Short-circuit protection  design of the fuse link     of r short-circuit protection of the auxiliary switch required fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  mounting position any fastening method Contactor mounting height 85 mm  width 45 mm  depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection  One of the fuse gG: 6 A, quick: 10 A  fuse gG: 6 A, quick: 10 A  fuse gG: 6 A, quick: 10 A  Installation/ mounting huse gas any fuse gG: 6 A, quick: 10 A  Installation/ mounting/ dimensions  Any fastening method Show mounting No		0.5.4
Short-circuit protection  design of the fuse link  • for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position fastening method Contactor mounting height 85 mm  width 45 mm  depth Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		
design of the fuse link  ● for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position any fastening method Contactor mounting height 85 mm width 45 mm depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		2.5 A
● for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions  mounting position any fastening method Contactor mounting height 85 mm width 45 mm depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		
Installation/ mounting/ dimensions mounting position fastening method Contactor mounting height 85 mm width 45 mm depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit type of electrical connection		fues aC: 6 A quiele 10 A
mounting position fastening method Contactor mounting height 85 mm width 45 mm depth 85 mm  Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection		iuse yo. U.A., quiuk. IU.A
fastening method  Contactor mounting  85 mm  width  45 mm  depth  85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		any
height 85 mm  width 45 mm  depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		·
width 45 mm  depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		-
depth 85 mm  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		
Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection		
product component removable terminal for auxiliary and control circuit  type of electrical connection	_ ·	
type of electrical connection	product component removable terminal for auxiliary and	No
• ror main current circuit screw-type terminals	for main current circuit	screw-type terminals
• for auxiliary and control circuit screw-type terminals	for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current circuit  Top and bottom		Top and bottom
type of connectable conductor cross-sections		<u> </u>
• for main contacts	circuit	
— solid or stranded 2x (1 2.5 mm²), 2x (2.5 10 mm²)	type of connectable conductor cross-sections	
— finely stranded with core end processing 2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²	type of connectable conductor cross-sections  • for main contacts	2x (1 2.5 mm²), 2x (2.5 10 mm²)
• for AWG cables for main contacts 2x (20 16), 2x (20 18), 2x 12	type of connectable conductor cross-sections  • for main contacts  — solid or stranded	
type of connectable conductor cross-sections	type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
for auxiliary contacts	type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  • for AWG cables for main contacts  type of connectable conductor cross-sections	2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²

— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 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>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)
tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	2 2.5 N·m
• for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw	
• for main contacts	M4
<ul> <li>of the auxiliary and control contacts</li> </ul>	M3
Safety related data	
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 a
T1 value for proof test interval or service life according to IEC 61508	20 a
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
Display	
display version for switching status	Slide switch
Certificates/ approvals	

Confirmation







For use in hazardous locations



**Declaration of Conformity** 

**General Product Approval** 

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

Special Test Certificate





Marine / Shipping





LRS







Confirmation

other

other

Railway



Vibration and Shock

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RU2126-1CB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2126-1CB0

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

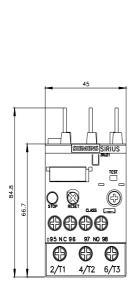
https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1CB0

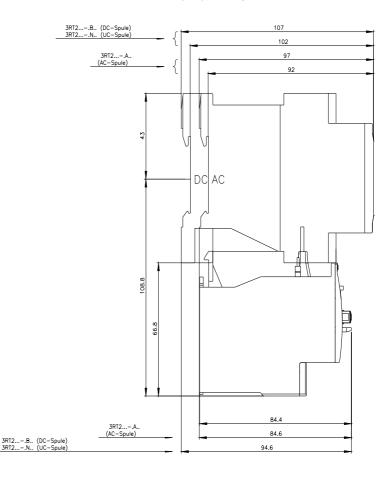
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RU2126-1CB0&lang=en

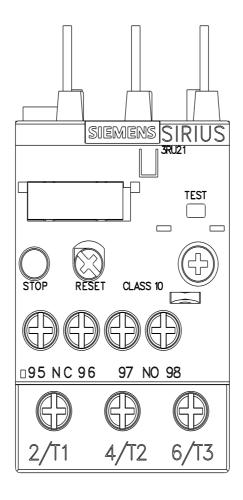
Characteristic: Tripping characteristics, I2t, Let-through current

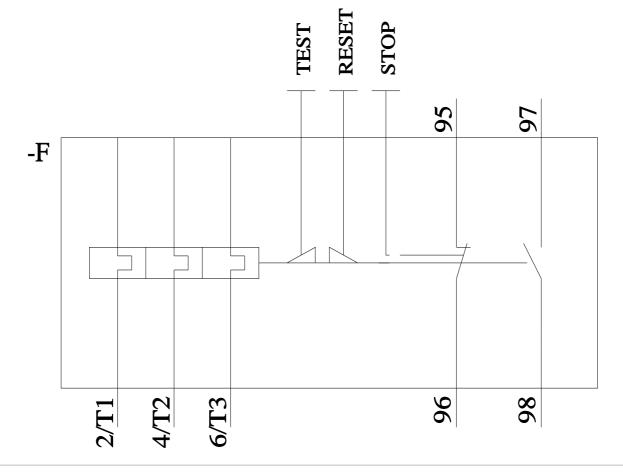
https://support.industry.siemens.com/cs/ww/en/ps/3RU2126-1CB0/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2126-1CB0&objecttype=14&gridview=view1









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