





















Overload relay 12.5...50 A Electronic For motor protection Size S2, Class 20E Contactor mounting Main circuit: Screw Auxiliary circuit: Screw Manual-Automatic-Reset

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB3
General technical data	
size of overload relay	S2
size of contactor can be combined company-specific	S2
power loss [W] for rated value of the current at AC in hot operating state	1.8 W
• per pole	0.6 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 in networks with grounded star point	
• between auxiliary and auxiliary circuit	300 V
• between auxiliary and auxiliary circuit	300 V
• between main and auxiliary circuit	600 V
• between main and auxiliary circuit	690 V
shock resistance	15g / 11 ms
• acc. to IEC 60068-2-27	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles
thermal current	50 A
recovery time after overload trip	
• with automatic reset typical	3 min
• with remote-reset	0 min
• with manual reset	0 min
type of protection according to ATEX directive 2014/34/EU	Ex II (2) G [Ex e] [Ex d] [Ex px] ; Ex II (2) D [Ex t] [Ex p]
certificate of suitability according to ATEX directive 2014/34/EU	PTB 09 ATEX 3001
reference code acc. to IEC 81346-2	F
Substance Prohibition (Date)	15.10.2014 00:00:00
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
temperature compensation	-25 ... +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	12.5 ... 50 A
operating voltage <ul style="list-style-type: none"> rated value at AC-3 rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	50 A
operating power <ul style="list-style-type: none"> for 3-phase motors at 400 V at 50 Hz for AC motors at 500 V at 50 Hz for AC motors at 690 V at 50 Hz 	7.5 ... 22 kW 11 ... 30 kW 11 ... 45 kW
Auxiliary circuit	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for contactor disconnection
number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for message "tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15 <ul style="list-style-type: none"> at 24 V at 110 V at 120 V at 125 V at 230 V 	4 A 4 A 4 A 4 A 3 A
operational current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> at 24 V at 60 V at 110 V at 125 V at 220 V 	2 A 0.55 A 0.3 A 0.3 A 0.11 A
Protective and monitoring functions	
trip class	CLASS 20E
design of the overload release	electronic
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor <ul style="list-style-type: none"> at 480 V rated value at 600 V rated value 	50 A 50 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
design of the fuse link <ul style="list-style-type: none"> for short-circuit protection of the main circuit <ul style="list-style-type: none"> with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	gG: 250 A gG: 200 A fuse gG: 6 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	Contactor mounting
height	99 mm
width	55 mm
depth	104 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	

<ul style="list-style-type: none">• for main current circuit• for auxiliary and control circuit	screw-type terminals												
arrangement of electrical connectors for main current circuit	screw-type terminals												
type of connectable conductor cross-sections	Top and bottom												
<ul style="list-style-type: none">• for main contacts<ul style="list-style-type: none">— solid— stranded— solid or stranded— finely stranded with core end processing• at AWG cables for main contacts	1x (1 ... 50 mm²), 2x (1 ... 35 mm²) 2x (10 ... 35 mm²), 1x 50 mm² 1x (1 ... 50 mm²), 2x (1 ... 35 mm²) 1x (1 ... 35 mm²), 2x (1 ... 25 mm²) 2x (18 ... 2), 1x (18 ... 1)												
type of connectable conductor cross-sections													
<ul style="list-style-type: none">• for auxiliary contacts<ul style="list-style-type: none">— solid— solid or stranded— finely stranded with core end processing• at AWG cables for auxiliary contacts	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) 1x (0,5 ... 4 mm²), 2x (0,5 ... 2,5 mm²) 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) 1x (20 ... 14), 2x (20 ... 14)												
tightening torque													
<ul style="list-style-type: none">• for main contacts with screw-type terminals• for auxiliary contacts with screw-type terminals	3 ... 4.5 N·m 0.8 ... 1.2 N·m												
design of screwdriver shaft	Diameter 5 to 6 mm												
size of the screwdriver tip	Pozidriv PZ 2												
design of the thread of the connection screw													
<ul style="list-style-type: none">• for main contacts• of the auxiliary and control contacts	M6 M3												
Safety related data													
protection class IP on the front acc. to IEC 60529	IP20												
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front												
Communication/ Protocol													
type of voltage supply via input/output link master	No												
Electromagnetic compatibility													
conducted interference													
<ul style="list-style-type: none">• due to burst acc. to IEC 61000-4-4	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3												
<ul style="list-style-type: none">• due to conductor-earth surge acc. to IEC 61000-4-5• due to conductor-conductor surge acc. to IEC 61000-4-5	2 kV (line to earth) corresponds to degree of severity 3 1 kV (line to line) corresponds to degree of severity 3												
<ul style="list-style-type: none">• due to high-frequency radiation acc. to IEC 61000-4-6	10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz												
field-based interference acc. to IEC 61000-4-3	10 V/m												
electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge												
Display													
display version for switching status	Slide switch												
Certificates/ approvals													
<table><tr><td>General Product Approval</td><td>EMC</td><td>For use in hazardous locations</td></tr></table>		General Product Approval	EMC	For use in hazardous locations									
General Product Approval	EMC	For use in hazardous locations											
<table><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CSA</td><td>CCC</td><td>UL</td><td></td><td>RCM</td><td>ATEX</td></tr></table>								CSA	CCC	UL		RCM	ATEX
													
CSA	CCC	UL		RCM	ATEX								
<table><tr><td>Declaration of Conformity</td><td>Test Certificates</td><td>Marine / Shipping</td></tr></table>		Declaration of Conformity	Test Certificates	Marine / Shipping									
Declaration of Conformity	Test Certificates	Marine / Shipping											



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)

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=3RB3036-2UB0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3036-2UB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3036-2UB0>

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

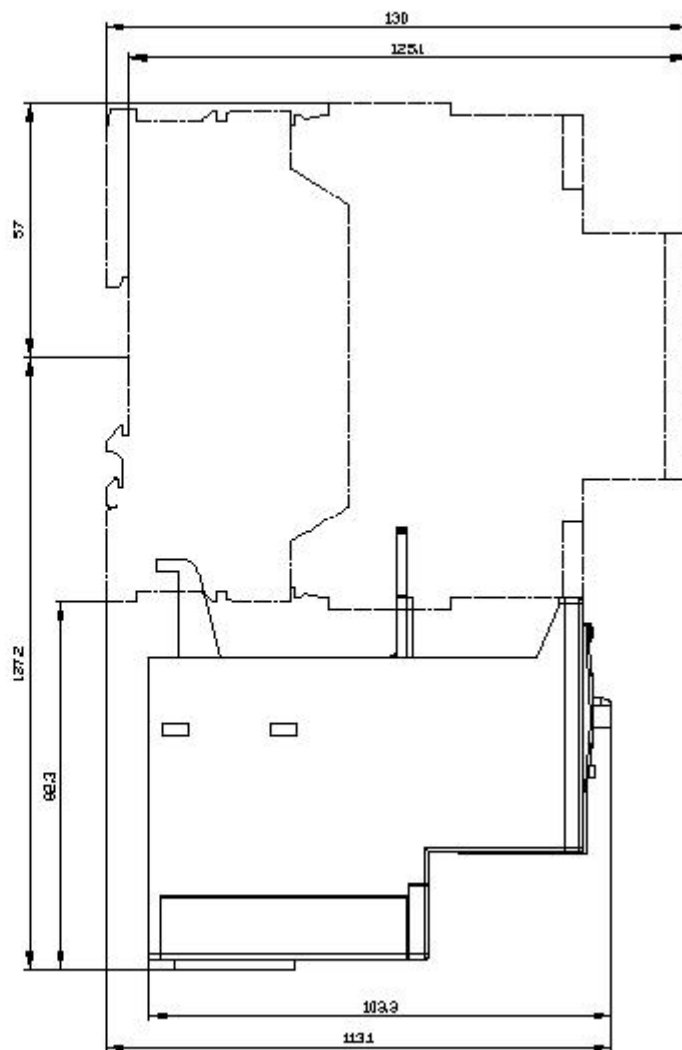
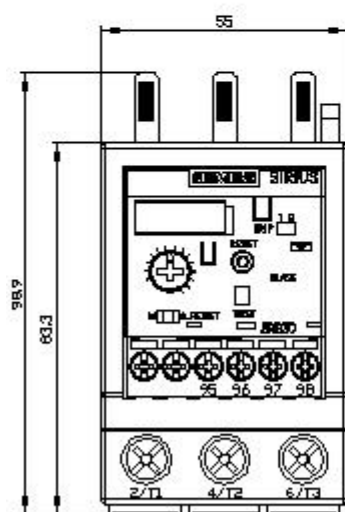
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3036-2UB0&lang=en

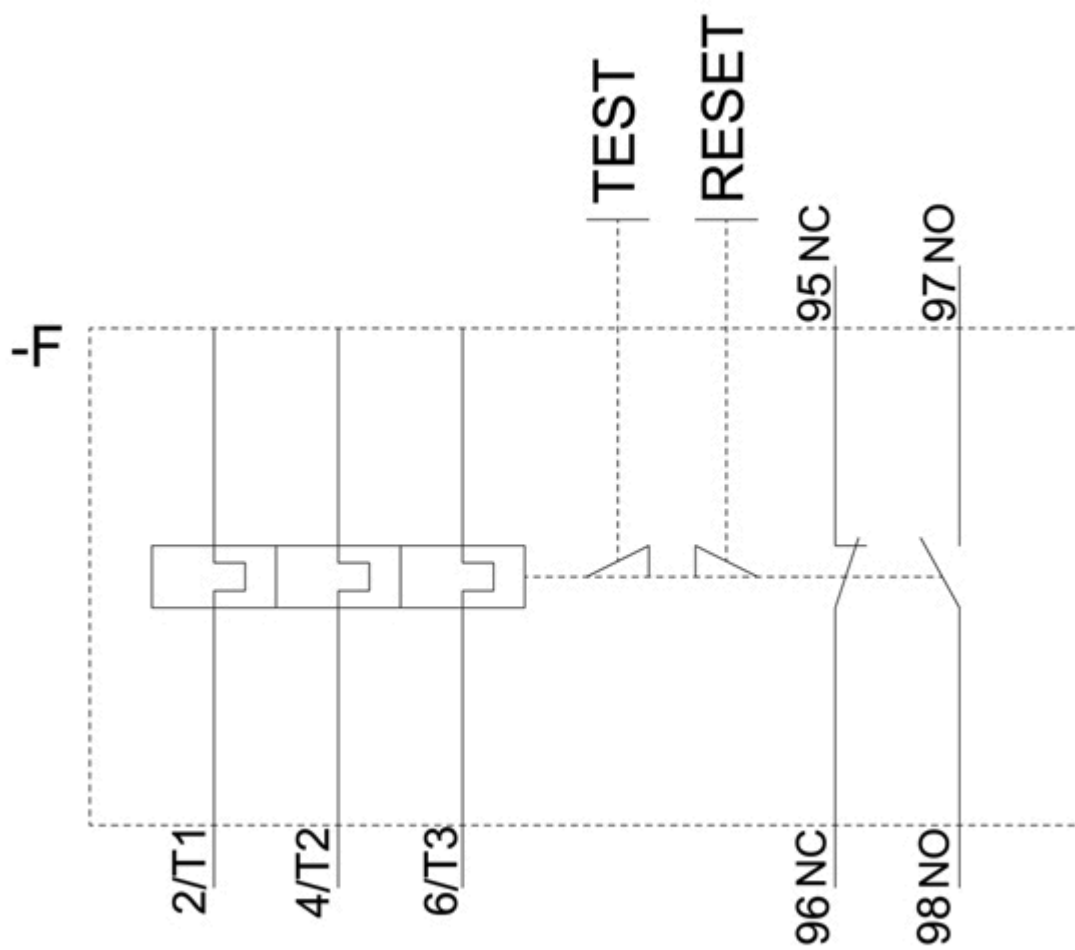
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3036-2UB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3036-2UB0&objecttype=14&gridview=view1>





last modified:

12/15/2020 