SIEMENS

Data sheet 3RB3046-1XX1



Overload relay 32...115 A Electronic For motor protection Size S3, Class 10E Stand-alone installation Main circuit: Straight-through transformer Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset

SIRIUS product brand name product designation solid-state overload relay product type designation **3RB3** General technical data S3 size of overload relay S3 size of contactor can be combined company-specific power loss [W] for rated value of the current at AC in hot 0.6 W operating state 0.2 W per pole 1 000 V insulation voltage with degree of pollution 3 at AC rated surge voltage resistance rated value 8 kV maximum permissible voltage for safe isolation in networks with grounded star point 300 V • between auxiliary and auxiliary circuit • between auxiliary and auxiliary circuit 300 V 600 V between main and auxiliary circuit • between main and auxiliary circuit 690 V shock resistance 8g / 11 ms • according 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/s2; 10 cycles thermal current type of protection according to ATEX directive Ex II (2) G [Ex e] [Ex d] [Ex px]; Ex II (2) D [Ex t] [Ex p] 2014/34/EU certificate of suitability according to ATEX directive PTB 09 ATEX 3001 2014/34/EU F reference code according to IEC 81346-2 **Substance Prohibitance (Date)** 03/01/2017 **Ambient conditions** installation altitude at height above sea level maximum 2 000 m ambient temperature -25 ... +60 °C · during operation -40 ... +80 °C · during storage during transport -40 ... +80 °C temperature compensation -25 ... +60 °C relative humidity during operation 10 ... 95 % number of poles for main current circuit 3 adjustable current response value current of the 32 ... 115 A current-dependent overload release operating voltage 1 000 V rated value

• at AC-3e rated value maximum

1 000 V

operating frequency rated value	50 60 Hz
operational current rated value	115 A
operational current at AC-3e at 400 V rated value	115 A
operating power	
 for 3-phase motors at 400 V at 50 Hz 	18.5 55 kW
 for AC motors at 500 V at 50 Hz 	22 75 kW
for AC motors at 690 V at 50 Hz	30 90 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
operational current of auxiliary contacts at AC-15	
• at 24 V	4 A
● at 110 V	4 A
• at 120 V	4 A
• at 125 V	4 A
• at 230 V	3 A
operational current of auxiliary contacts at DC-13	
● at 24 V	2 A
● at 60 V	0.55 A
● at 110 V	0.3 A
● at 125 V	0.3 A
• at 220 V	0.11 A
Protective and monitoring functions	
trip class	CLASS 10E
design of the overload release	electronic
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	115 A
 at 600 V rated value 	115 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
design of the fuse link	
for short-circuit protection of the main circuit	
 — with type of coordination 1 required 	gG: 315 A
 — with type of assignment 2 required 	gG: 315 A
 for short-circuit protection of the auxiliary switch 	fuse gG: 6 A
required	
Installation/ mounting/ dimensions	
mounting position	any
fastening method	stand-alone installation
height	106 mm
width	70 mm
depth	124 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	straight-through transformers
 for auxiliary and control circuit 	
arrangement of electrical connectors for main current	spring-loaded terminals
•	spring-loaded terminals Top and bottom
circuit	
circuit type of connectable conductor cross-sections	
circuit	Top and bottom
circuit type of connectable conductor cross-sections • for auxiliary contacts	Top and bottom 2x (0.25 1.5 mm²)
circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded	Top and bottom 2x (0.25 1.5 mm²) 2x (0,25 1,5 mm²)
circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded — finely stranded with core end processing	Top and bottom 2x (0.25 1.5 mm²) 2x (0,25 1,5 mm²) 2x (0.25 1.5 mm²)
circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded	Top and bottom 2x (0.25 1.5 mm²) 2x (0,25 1,5 mm²)
circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing	Top and bottom 2x (0.25 1.5 mm²) 2x (0,25 1,5 mm²) 2x (0.25 1.5 mm²) 2x (0.25 1.5 mm²)

size of the screwdriver tip	Pozidriv PZ 2
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
Communication/ Protocol	
type of voltage supply via input/output link master	No
Electromagnetic compatibility	
conducted interference	
 due to burst according to IEC 61000-4-4 	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
 due to conductor-earth surge according to IEC 61000-4-5 	2 kV (line to earth) corresponds to degree of severity 3
 due to conductor-conductor surge according to IEC 61000-4-5 	1 kV (line to line) corresponds to degree of severity 3
 due to high-frequency radiation according to IEC 61000-4-6 	10 V in frequency range 0.15 to 80 MHz, modulation 80 $\%$ AM with 1 kHz
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Display	
display version for switching status	Slide switch
Certificates/ approvals	



General Product Approval



Confirmation







EMC

For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping







Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping

other







Confirmation

Further information

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=3RB3046-1XX1

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3046-1XX1

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1XX1

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

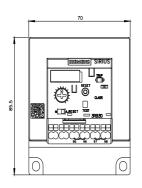
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3046-1XX1&lang=en

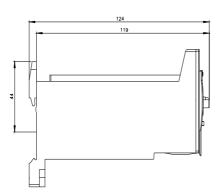
Characteristic: Tripping characteristics, I2t, Let-through current

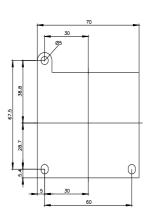
https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1XX1/char

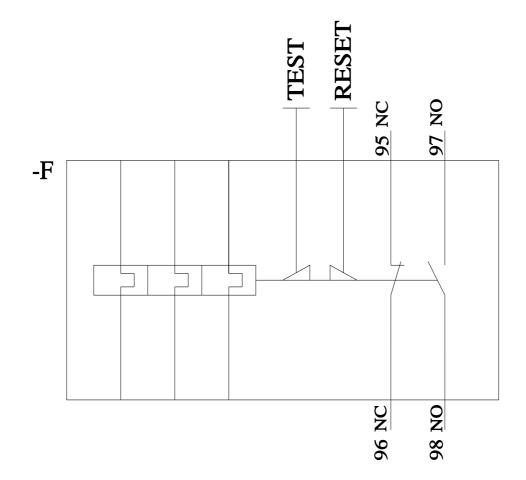
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3046-1XX1&objecttype=14&gridview=view1









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2/9/2022