SIEMENS

Data sheet

3RB3046-2XX1



Overload relay 32...115 A Electronic For motor protection Size S3, Class 20E Stand-alone installation Main circuit: Straight-through transformer Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB3
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	0.6 W
• per pole	0.2 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 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	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	115 A
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 according to IEC 81346-2	F
Substance Prohibitance (Date)	03/01/2017
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	32 115 A
operating voltage	
 rated value 	1 000 V
 at AC-3e rated value maximum 	

operating frequency rated value	50 60 Hz
operational current rated value operational current at AC-3e at 400 V rated value	115 A 115 A
operating power	115 A
 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 ● at 220 V	0.3 A 0.11 A
Protective and monitoring functions	0.11A
trip class	CLASS 20E
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 124 mm
depth Connections/ Terminals	127 1101
product component removable terminal for auxiliary	Yes
and control circuit	
type of electrical connection	
for main current circuit	straight-through transformers
 for auxiliary and control circuit 	spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid	2x (0.25 1.5 mm²)
— solid or stranded	2x (0,25 1,5 mm ²)
- finely stranded with core end processing	2x (0.25 1.5 mm ²)
- finely stranded without core end processing	2x (0.25 1.5 mm ²)
 at AWG cables for auxiliary contacts 	2x (24 16)
design of screwdriver shaft	Diameter 5 to 6 mm

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	EMC	
For use in hazard- ous locations Declaration of Conformity	Test Certificates Marine / Shipping	
EG-Konf.	Image: Special Test Certific- ates/Test Report Special Test Certific- ate Hovds Register Image: Special Test Certific- ates/Test Report Image: Special Test Certific- ate Image: Special Test Certific- ate	
Marine / Shipping	other	
	Confirmation	
Further information Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/1098 Information- and Downloadcenter (Catalogs, Brochur https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/prod	res,)	
Cax online generator http://support.automation.siemens.com/WW/CAXorder/de Service&Support (Manuals, Certificates, Characteristi		
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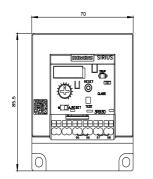
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

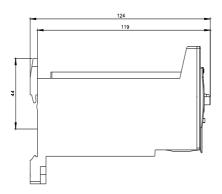
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3046-2XX1&lang=en

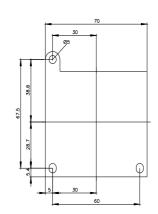
Characteristic: Tripping characteristics, I²t, Let-through current

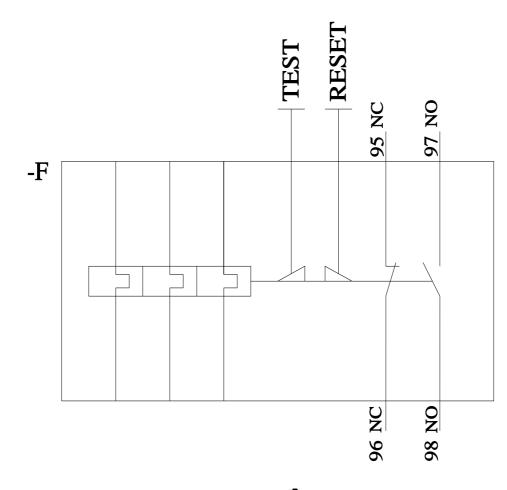
https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-2XX1/char Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3046-2XX1&objecttype=14&gridview=view1









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