SIEMENS

Data sheet

3RB3046-1UX1



Overload relay 12.5...50 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

product brand nameSIRIUSproduct designationsolid-state overload relayproduct type designation3RB3General technical dataSize of overload relaysize of overload relayS3size of contactor can be combined company-specificS3power loss [W] for rated value of the current at AC in hot operating state0.2 W• per pole0.07 Winsulation voltage with degree of pollution 3 at AC rated value1 000 Vsurge voltage resistance rated value maximum permissible voltage for safe isolation in networks with grounded star point8 kV		
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maximum permissible voltage for safe isolation in networks with grounded star point		
networks with grounded star point		
 botwoon ouviliany and ouviliany aircuit 200 V 		
• 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 / 1	1 ms	
vibration resistance 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles		
thermal current 50 A		
type of protection according to ATEX directiveEx 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		
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 release12.5 50 A		
operating voltage		
rated value 1 000 V		
at AC-3e rated value maximum 1 000 V		

	50 00 U
operating frequency rated value	50 60 Hz
operational current rated value	50 A
operational current at AC-3e at 400 V rated value	50 A
 operating power for 3-phase motors at 400 V at 50 Hz 	7.5 22 kW
 for S-phase motors at 400 V at 50 Hz for AC motors at 500 V at 50 Hz 	1.5 22 KW 11 30 kW
• for AC motors at 690 V at 50 Hz	11 30 kW
	11
Auxiliary circuit	integrated
design of the auxiliary switch number of NC contacts for auxiliary contacts	integrated 1
note	for contactor disconnection
number of NO contacts for auxiliary contacts	
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 	50 A
 at 600 V rated value 	50 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: 200 A
 — with type of assignment 2 required 	gG: 200 A
 for short-circuit protection of the auxiliary switch required 	fuse gG: 6 A
required	
Installation/ mounting/ dimensions	
mounting position	any stand-alone installation
fastening method height	106 mm
width	70 mm
depth	124 mm
doptil	
Connections/ Terminals	
Connections/ Terminals product component removable terminal for auxiliary and control circuit	Yes
product component removable terminal for auxiliary and control circuit	Yes
product component removable terminal for auxiliary	
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit	straight-through transformers
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current	
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit	straight-through transformers spring-loaded terminals
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	straight-through transformers spring-loaded terminals
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for auxiliary contacts	straight-through transformers spring-loaded terminals Top and bottom
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for auxiliary contacts — solid	straight-through transformers spring-loaded terminals Top and bottom 2x (0.25 1.5 mm ²)
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded	straight-through transformers spring-loaded terminals Top and bottom 2x (0.25 1.5 mm²) 2x (0,25 1,5 mm²)
product component removable terminal for auxiliary and control circuit type of electrical connection • for main current circuit • for auxiliary and control circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for auxiliary contacts — solid — solid or stranded — finely stranded with core end processing	straight-through transformers spring-loaded terminals Top and bottom 2x (0.25 1.5 mm ²) 2x (0.25 1.5 mm ²) 2x (0.25 1.5 mm ²)
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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 severit 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 / Shippin
EG-Konf.	Type Test Certific- ates/Test Report Special Test Certific- ate Lloyd's uss Uss
Marine / Shipping	other
PRS RINA DAVISE	Confirmation
Eurther information	
Further information Information on the packaging	
https://support.industry.siemens.com/cs/ww/en/view/10981	<u>13875</u>
Information- and Downloadcenter (Catalogs, Brochures https://www.siemens.com/ic10 Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/produ	
Cax online generator http://support.automation.siemens.com/WW/CAXorder/defa	
Service&Support (Manuals, Certificates, Characteristic: https://support.industry.siemens.com/cs/ww/en/ps/3RB3044	

https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1UX1

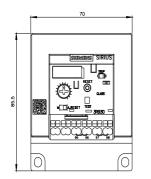
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

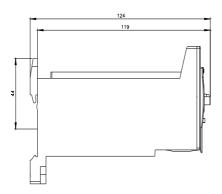
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3046-1UX1&lang=en

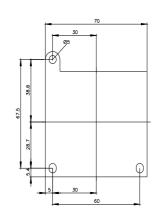
Characteristic: Tripping characteristics, I²t, Let-through current

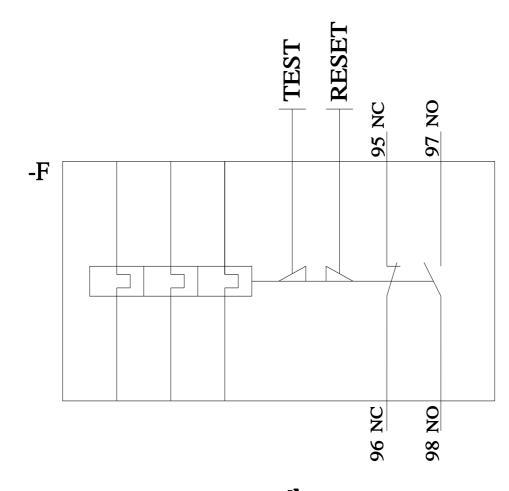
https://support.industry.siemens.com/cs/ww/en/ps/3RB3046-1UX1/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3046-1UX1&objecttype=14&gridview=view1









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