SIEMENS

Data sheet

3RB3016-1SB0



Overload relay 3...12 A Electronic For motor protection Size S00, Class 10E 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	S00	
size of contactor can be combined company-specific	S00	
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	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": 9g / 11 ms	
vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s²; 10 cycles	
thermal current	12 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 acc. to IEC 81346-2	F	
Substance Prohibitance (Date)	01.10.2009	
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	3 12 A	
operating voltage		

 rated value 	690 V
operating frequency rated value	50 60 Hz
operational current rated value	12 A
operating power	
• for 3-phase motors at 400 V at 50 Hz	1.5 5.5 kW
• for AC motors at 500 V at 50 Hz	1.5 5.5 kW
 for AC motors at 690 V at 50 Hz 	2.2 7.5 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 	12 A
• at 600 V rated value	12 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: 50 A, RK5: 45 A
 — with type of assignment 2 required 	gG: 50 A, J: 45 A
 for short-circuit protection of the auxiliary switch required 	fuse gG: 6 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	Contactor mounting
height	79 mm
width	45 mm
depth	73 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	
for main current circuit	screw-type terminals
 for auxiliary and control circuit 	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid	1x (0.5 4 mm²), 2x (0.5 1.5 mm²), 2x (0.75 4 mm²)
— solid or stranded	1x (0,5 4 mm ²), 2x (0,5 1,5 mm ²), 2x (0,75 4 mm ²)
- finely stranded with core end processing	1x (0.5 2.5 mm ²), 2x (0.5 2.5 mm ²)

	s for main contacts		1x (20 12), 2x (20 12)				
	e conductor cross-sect	ions					
 for auxiliary co 							
— solid			1x (0.5 4 mm²), 2x (0.5	2.5 mm ²)			
— solid or st	randed			x (0,5 4 mm ²), 2x (0,5 2,5 mm ²)			
	 finely stranded with core end processing 						
-	AWG cables for auxiliary contacts		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 14)				
tightening torque			17 (20 14), 27 (20 14)				
	ata with aarow type tormi	inclo	0.8 1.2 N·m				
	cts with screw-type termi		0.8 1.2 N·m				
	for auxiliary contacts with screw-type terminals design of screwdriver shaft						
			Diameter 5 to 6 mm				
size of the screwdr	· ·		Pozidriv PZ 2				
-	d of the connection scr	ew	140				
for main contact			M3				
	and control contacts		M3				
Safety related data							
	on the front acc. to IEC		IP20				
touch protection or	the front acc. to IEC 6	0529	finger-safe, for vertical cont	act from the front			
Communication/ Pro	tocol						
type of voltage sup	ply via input/output lin	k master	No				
Electromagnetic com							
conducted interfere							
	cc. to IEC 61000-4-4		2 kV (power ports), 1 kV (si	gnal ports) correspond	Is to degree of severity		
 due to conduct 	tor-earth surge acc. to IE	C 61000-4-5	3 2 kV (line to earth) correspo	onds to degree of seve	erity 3		
 due to conduct 61000-4-5 	tor-conductor surge acc.	to IEC	1 kV (line to line) correspon	ds to degree of severi	ty 3		
 due to high-fre 4-6 	quency radiation acc. to	IEC 61000-	10 V in frequency range 0.7 kHz	15 to 80 MHz, modulat	ion 80 % AM with 1		
field-based interfere	ence acc. to IEC 61000-	-4-3	10 V/m				
electrostatic discha	arge acc. to IEC 61000-4	4-2	6 kV contact discharge / 8 k	V air discharge			
Display			Ŭ	5			
display version for sv	witching status						
			Slide switch				
Certificates/ approva			Slide switch	_			
Certificates/ approva			Slide switch				
Certificates/ approva General Product A	ls		Slide switch	EMC	For use in hazard- ous locations		
	ls	0		EMC			
	ls	(h		ЕМС			
	ls	(U) UL		EMC EMC RCM			
	ls	(U) u		EMC RCM			
General Product A	ls	U	EAC	EMC ECM			
General Product A	ls pproval	U		EMC ECM			
General Product A	ls pproval	Type Test Cer ates/Test Re	ERE Marine / Shipping	EMC ECM			
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	EMC ECM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		ERE Marine / Shipping	RCM			
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	EMC ECM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	RCM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	RCM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	RCM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	RCM	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	Image: Constraint of the constraint	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific- ate	ates/Test Re	tific- port	Image: Constraint of the constraint	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific-		tific- port	Image: Constraint of the constraint	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific- ate	ates/Test Re	tific- port	Image: Constraint of the constraint	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific- ate	ates/Test Re	tific- port	Image: Constraint of the constraint	ous locations		
General Product A	Is pproval CCC Test Certificates Special Test Certific- ate	ates/Test Re	tific- port	Image: Constraint of the constraint	ous locations		

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=3RB3016-1SB0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-1SB0

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1SB0

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

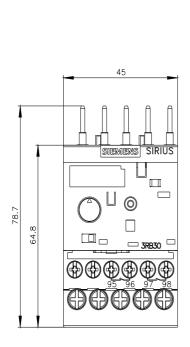
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-1SB0&lang=en

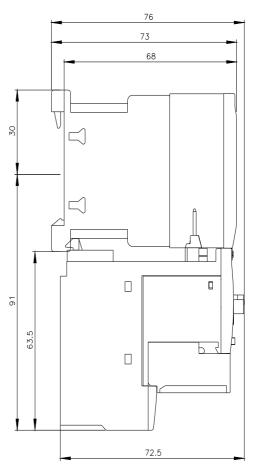
Characteristic: Tripping characteristics, I²t, Let-through current

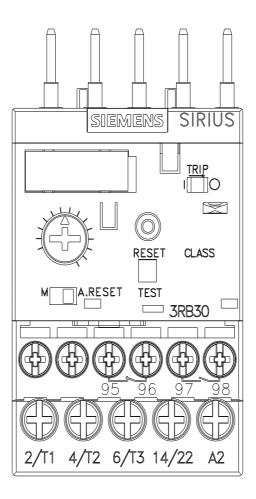
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1SB0/char

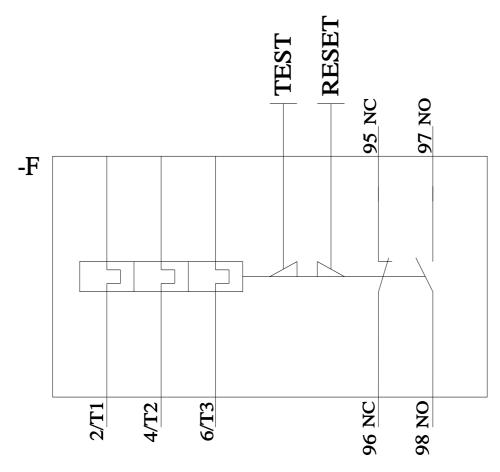
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3016-1SB0&objecttype=14&gridview=view1









last modified:

12/15/2020 🖸