SIEMENS

Data sheet 3RB3016-1NE0



Overload relay 0.32...1.25 A Electronic For motor protection Size S00, Class 10E Contactor mounting Main circuit: Spring-type terminal 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	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	0.1 W
• per pole	0.03 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 protective separation	
 in networks with ungrounded star point between auxiliary and auxiliary circuit 	300 V
 in networks with grounded star point between auxiliary and auxiliary circuit 	300 V
 in networks with ungrounded star point between main and auxiliary circuit 	600 V
 in networks with grounded star point between main and auxiliary circuit 	690 V
shock resistance	15g / 11 ms
• according 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/s ² ; 10 cycles
thermal current	1.25 A
recovery time after overload trip	
 with automatic reset typical 	3 min
with remote-reset	0 min
with manual reset	0 min
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead monoxide (lead oxide) - 1317-36-8
Weight	0.206 kg
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-	0.32 1.25 A
dependent overload release	0.02 1.20 / (
operating voltage	
rated value	690 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	1.25 A
operational current at AC-3e at 400 V rated value	1.25 A
operating power	
 for 3-phase motors at 400 V at 50 Hz 	0.12 0.37 kW
 for AC motors at 500 V at 50 Hz 	0.12 0.55 kW
 for AC motors at 690 V at 50 Hz 	0.18 0.75 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	
Protective and monitoring functions trip class	CLASS 10E
	CLASS 10E electronic
trip class	
trip class design of the overload release	
trip class design of the overload release UL/CSA ratings	
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	electronic
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	electronic 1.25 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value	1.25 A 1.25 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL	1.25 A 1.25 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection	1.25 A 1.25 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link	1.25 A 1.25 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit	1.25 A 1.25 A B600 / R300
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required	1.25 A 1.25 A 1.25 A B600 / R300
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	electronic 1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection design of the fuse link • for short-circuit protection of the main circuit — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required Installation/ mounting/ dimensions	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A
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trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm 45 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm 45 mm 90 mm
trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	1.25 A 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm 45 mm 90 mm
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trip class design of the overload release UL/CSA ratings full-load current (FLA) for 3-phase AC motor	electronic 1.25 A 1.25 A B600 / R300 gG: 35 A, RK5: 6 A gG: 6 A fuse gG: 6 A any Contactor mounting 72 mm 45 mm 90 mm Yes spring-loaded terminals spring-loaded terminals

 solid or stranded 	1x (0,5 4 mm²)
 finely stranded with core end processing 	1x (0.5 2.5 mm²)
finely stranded without core end processing	1x (0.5 2.5 mm²)
type of connectable conductor cross-sections	
 for auxiliary contacts 	
— solid	2x (0.25 1.5 mm²)
— solid or stranded	2x (0,25 1,5 mm²)
 finely stranded with core end processing 	2x (0.25 1.5 mm²)
 finely stranded without core end processing 	2x (0.25 1.5 mm²)
for AWG cables for auxiliary contacts	1x (24 16), 2x (24 16)
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv PZ 2
Electrical Safety	
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
Approvals Certificates	
General Product Approval	







Confirmation





EMV For use in hazardous locations Test Certificates Marine / Shipping



<u>KC</u>



Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping other











Confirmation

Environment

Environmental Confirmations

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=3RB3016-1NE0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-1NE0

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

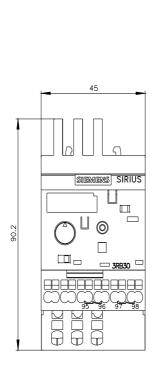
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-1NE0&lang=en

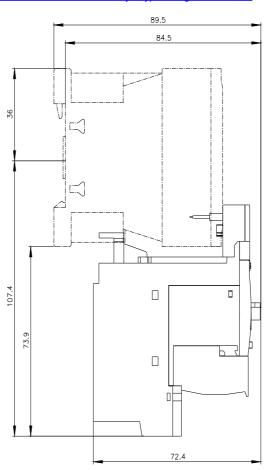
Characteristic: Tripping characteristics, I2t, Let-through current

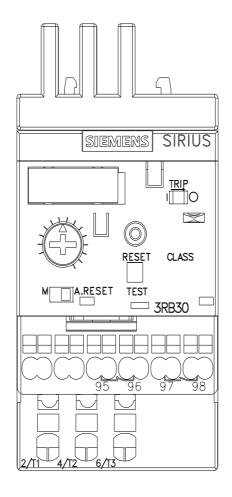
https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1NE0/char

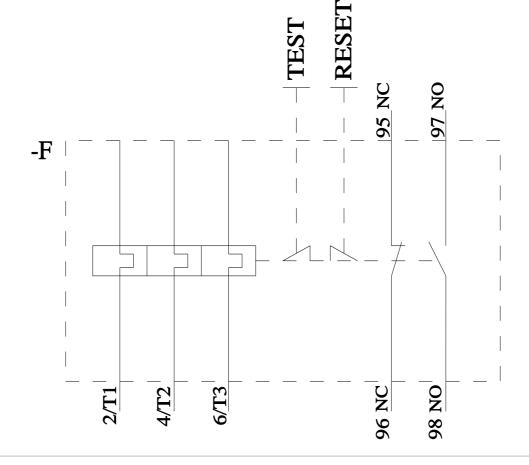
Further characteristics (e.g. electrical endurance, switching frequency)

earch&mlfb=3RB3016-1NE0&objecttype=14&gridview=view1 http://www.automation.siemens.com/bilddb/index.aspx?view=S









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