



Overload relay 1...4 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 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/s ² ; 10 cycles
thermal current	4 A
recovery time after overload trip	
• with automatic reset typical	3 min
• with remote-reset	0 min
• with manual reset	0 min
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 Prohibition (Date)	01.10.2009 00:00:00
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	1 ... 4 A
operating voltage <ul style="list-style-type: none"> rated value at AC-3 rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	4 A
operating power <ul style="list-style-type: none"> for 3-phase motors at 400 V at 50 Hz for AC motors at 500 V at 50 Hz for AC motors at 690 V at 50 Hz 	0.37 ... 1.5 kW 0.37 ... 2.2 kW 0.55 ... 3 kW
Auxiliary circuit	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for contactor disconnection
number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for message "tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15 <ul style="list-style-type: none"> at 24 V at 110 V at 120 V at 125 V at 230 V 	4 A 4 A 4 A 4 A 3 A
operational current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> at 24 V at 60 V at 110 V at 125 V at 220 V 	2 A 0.55 A 0.3 A 0.3 A 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 <ul style="list-style-type: none"> at 480 V rated value at 600 V rated value 	4 A 4 A
contact rating of auxiliary contacts according to UL	B600 / R300
Short-circuit protection	
design of the fuse link <ul style="list-style-type: none"> for short-circuit protection of the main circuit <ul style="list-style-type: none"> with type of coordination 1 required with type of assignment 2 required for short-circuit protection of the auxiliary switch required 	gG: 35 A, RK5: 15 A gG: 20 A fuse gG: 6 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	Contactor mounting
height	72 mm
width	45 mm
depth	90 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	

<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit 	spring-loaded terminals
arrangement of electrical connectors for main current circuit	spring-loaded terminals
type of connectable conductor cross-sections	Top and bottom
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for main contacts 	1x (0.5 ... 4 mm ²) 1x (0,5 ... 4 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (20 ... 12)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG cables for auxiliary contacts 	2x (0.25 ... 1.5 mm ²) 2x (0,25 ... 1,5 mm ²) 2x (0.25 ... 1.5 mm ²) 2x (0.25 ... 1.5 mm ²) 1x (24 ... 16), 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 acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front

Communication/ Protocol

type of voltage supply via input/output link master	No
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Electromagnetic compatibility

conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV (line to earth) corresponds to degree of severity 3
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV (line to line) corresponds to degree of severity 3
<ul style="list-style-type: none"> • due to high-frequency radiation acc. to IEC 61000-4-6 	10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Display

display version for switching status	Slide switch
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Certificates/ approvals

General Product Approval	EMC	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other
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[Confirmation](#)

Further information

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=3RB3016-1PE0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3016-1PE0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1PE0>

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

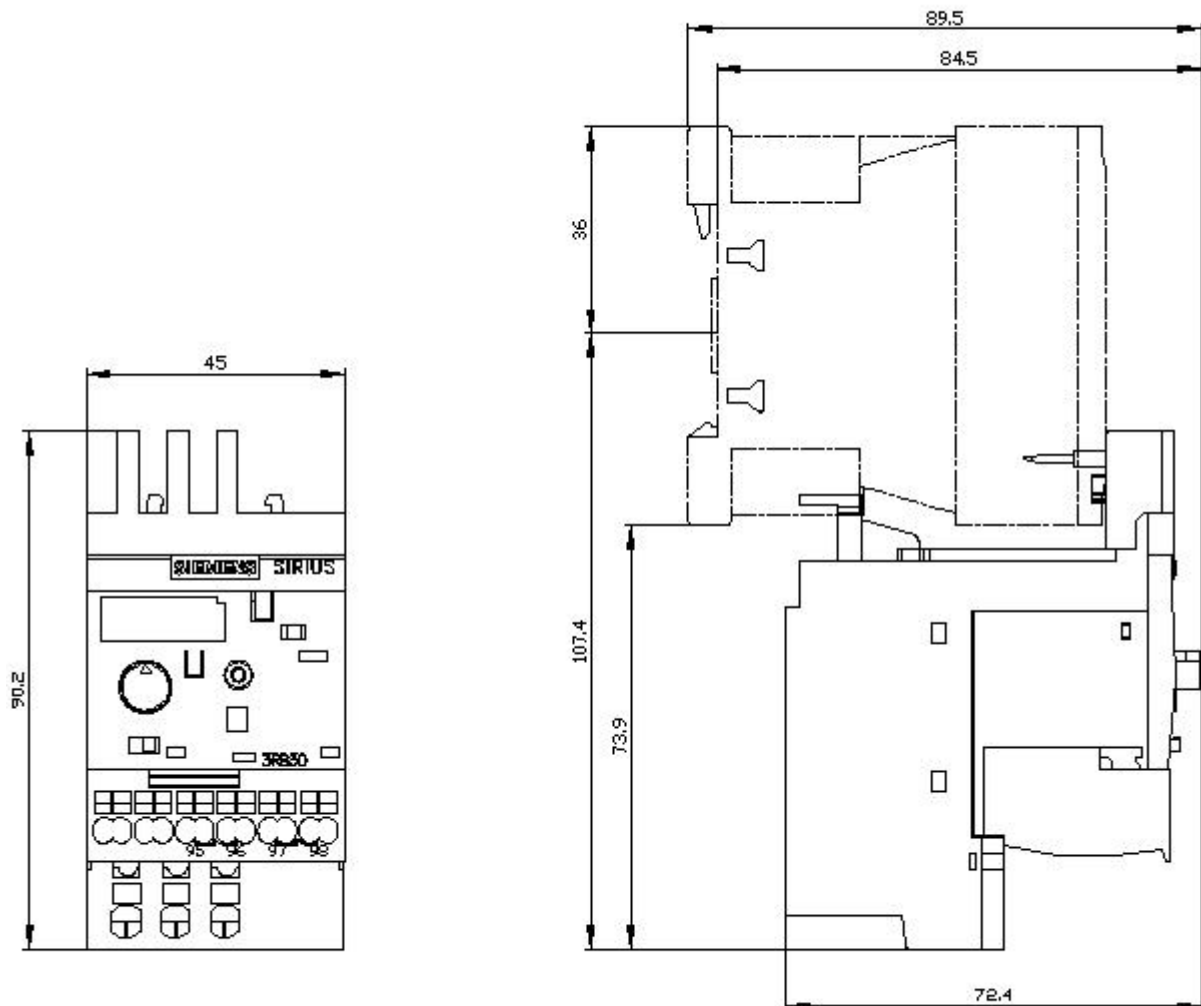
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3016-1PE0&lang=en

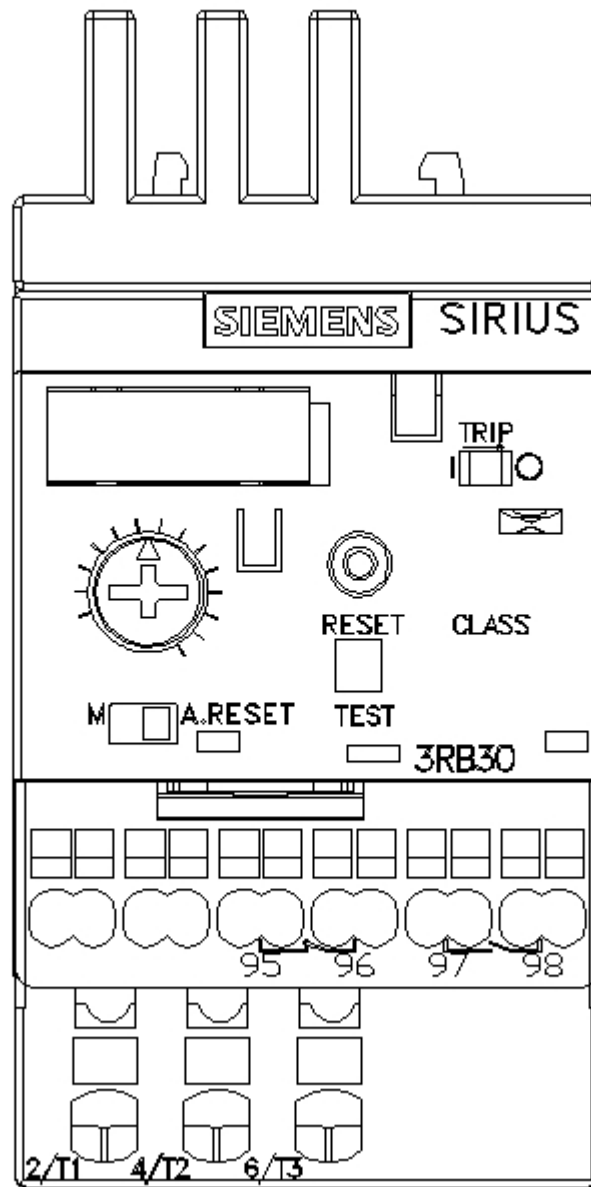
Characteristic: Tripping characteristics, I_t, Let-through current

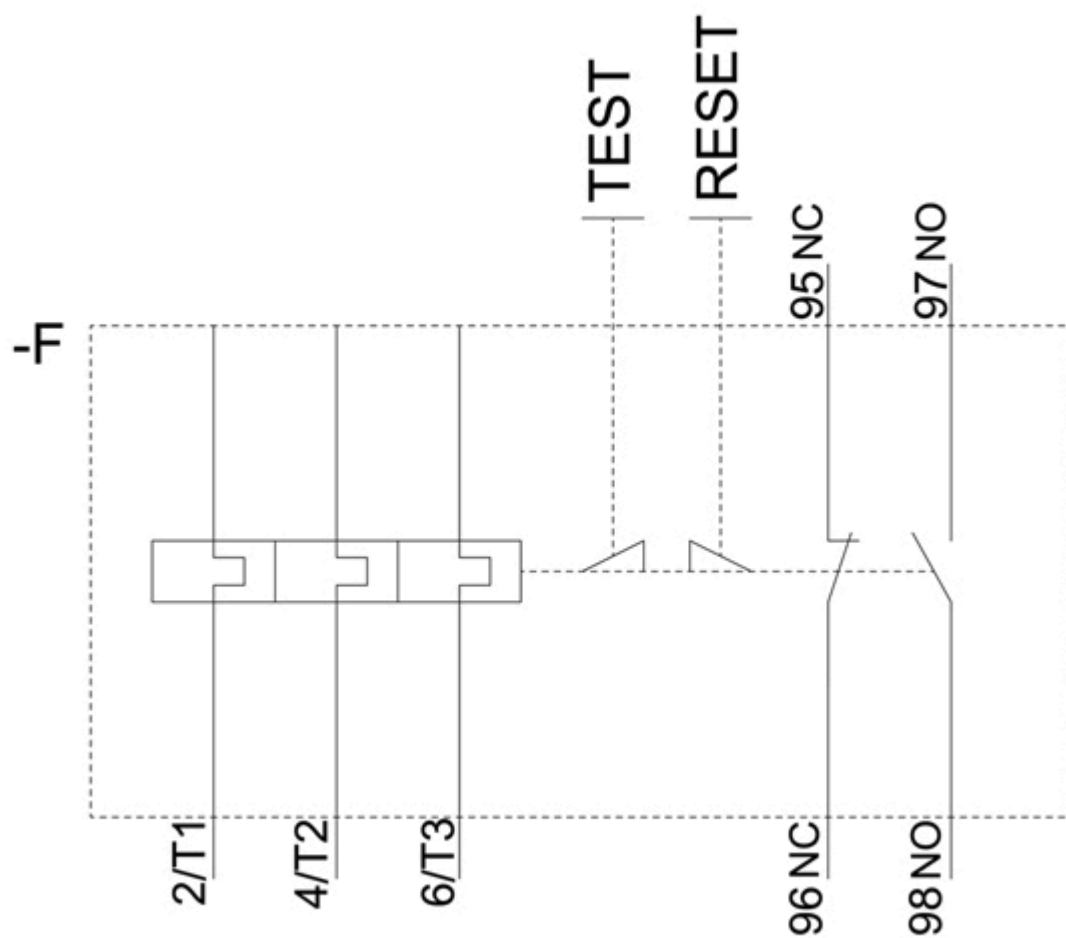
<https://support.industry.siemens.com/cs/ww/en/ps/3RB3016-1PE0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB3016-1PE0&objecttype=14&gridview=view1>







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