SIEMENS

Data sheet 3RB2066-1GC2



Overload relay 55...250 A for motor protection Size S10/S12, Class 10E Contactor mounting/stand-alone installation Main circuit: busbar connection Auxiliary circuit: Screw terminal Manual-Automatic-Reset

product brand name	SIRIUS
product designation	solid-state overload relay
product type designation	3RB2
General technical data	
size of overload relay	S10, S12
size of contactor can be combined company-specific	S10, S12
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 protective separation 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
• according to IEC 60068-2-27	15g / 11 ms; Signaling contact 97 / 98 in position "Tripped": 8g / 11 ms
thermal current	250 A
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	07/01/2006
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
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-	55 250 A
dependent overload release	55 250 A
dependent overload release operating voltage	55 250 A
•	1 000 V
operating voltage	
operating voltage • rated value	1 000 V
 operating voltage rated value at AC-3e rated value maximum 	1 000 V 1 000 V
operating voltage • rated value • at AC-3e rated value maximum operating frequency rated value	1 000 V 1 000 V 50 60 Hz
operating voltage	1 000 V 1 000 V 50 60 Hz 250 A

e for AC motors at EOO V at EO Ha	45 160 kW
 for AC motors at 500 V at 50 Hz for AC motors at 690 V at 50 Hz 	45 160 kW 55 250 kW
Auxiliary circuit	00 200 RVV
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	050.4
at 480 V rated value at 600 V rated value	250 A
• at 600 V rated value	250 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: 500 A, Class L: 700 A
with type of coordination 1 required - with type of assignment 2 required	gG: 500 A, Class L: 700 A
with type of assignment 2 required for short-circuit protection of the auxiliary switch required	fuse gG: 6 A
Installation/ mounting/ dimensions	30. 07.
mounting position	any
fastening method	Contactor mounting/stand-alone installation
height	119 mm
width	120 mm
depth	155 mm
Connections/ Terminals	
product component removable terminal for auxiliary and	Yes
control circuit	
type of electrical connection	
for main current circuit	busbar connection
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 auxiliary contacts	
— solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
— solid or stranded	1x (0,5 4 mm²), 2x (0,5 2,5 mm²)
— finely stranded with core end processing	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
for AWG cables for auxiliary contacts	2x (20 14)
tightening torque	20 22 N m
for main contacts with screw-type terminals for auxiliary contacts with screw type terminals	20 22 N·m
for auxiliary contacts with screw-type terminals design of the thread of the connection screw.	0.8 1.2 N·m
design of the thread of the connection screw • for main contacts	M10
of the auxiliary and control contacts	M3
■ OF THE AUXILIARY AND CONTROL CONTROLS	IVIO

Electrical Safety	
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover
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









General Product Approval

EMV

For use in hazardous locations

Test Certificates





<u>KC</u>



Special Test Certificate

Type Test Certificates/Test Report

Marine / Shipping









other

Confirmation

Miscellaneous

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=3RB2066-1GC2

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2066-1GC2

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

https://support.industry.siemens.com/cs/ww/en/ps/3RB2066-1GC2

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

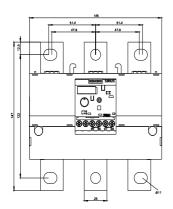
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB2066-1GC2\&lang=en}}$

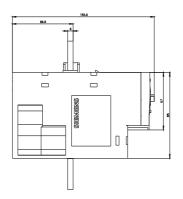
Characteristic: Tripping characteristics, I²t, Let-through current

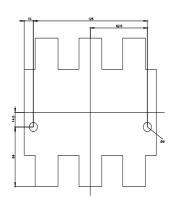
https://support.industry.siemens.com/cs/ww/en/ps/3RB2066-1GC2/char

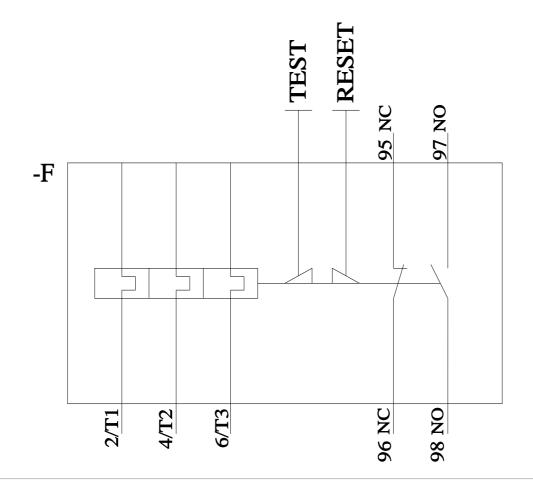
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2066-1GC2&objecttype=14&gridview=view1









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