# **SIEMENS**

Product data sheet 3RB2133-4QW1

OVERLOAD RELAY 6...25 A FOR MOTOR PROTECTION SIZE S2,

CLASS 5...30 STAND-ALONE INSTALLATION MAIN CIRCUIT: THROUGH TRANSF. AUX. CIRCUIT: SCREW CONNECTION MANUAL-AUTOMATIC-RESET INT. EARTH FAULT DETECTION

product brand name  Product designation  Size of overload relay  Size overload  Size overload relay  Size overload relay  Size overload re	General technical data:		
Size of overload relay  Number of poles / for main current circuit  Product function / removable terminal for auxiliary and control circuit  Impulse voltage resistance / rated value  Protection class IP  Protection class IP / IP20  Protection class IP / On the front  Protection against electrical shock  Installation altitude / at a height over sea level / maximum  Resistance against shock  Ambient temperature  • during transport  • during storage  • during operating  Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling BURST / according to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	product brand name		SIRIUS
Number of poles / for main current circuit  Product function / removable terminal for auxiliary and control circuit  Impulse voltage resistance / rated value  RV 6  Protection class IP  Protection class IP / on the front  Protection against electrical shock  Installation altitude / at a height over sea level / maximum  Resistance against shock  Ambient temperature  during transport  during storage  during operating  Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling According to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Product designation		solid-state overload relay
Product function / removable terminal for auxiliary and control circuit  Impulse voltage resistance / rated value  Protection class IP  Protection class IP / on the front  Protection against electrical shock  Installation altitude / at a height over sea level / maximum  Resistance against shock  Ambient temperature  • during transport  • during storage  • during operating  Relative humidity / during operating phase / maximum  Reletcrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling According to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Size of overload relay		S2
circuit  Impulse voltage resistance / rated value  Protection class IP  Protection class IP / on the front  Protection against electrical shock  Installation altitude / at a height over sea level / maximum  Resistance against shock  Ambient temperature  • during transport  • during storage  • during operating  Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Number of poles / for main current circuit		3
Protection class IP Protection class IP / on the front Protection against electrical shock Installation altitude / at a height over sea level / maximum  Resistance against shock Ambient temperature  • during transport • during storage • during operating • during operating Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2 Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  IP20  IP20  IP20  IP20  IP20  IP20  IP20  Inger-safe  It sy, 000  It sy	•		Yes
Protection class IP / on the front Protection against electrical shock Installation altitude / at a height over sea level / maximum  Resistance against shock Ambient temperature • during transport • during storage • during operating  Relative humidity / during operating phase / maximum  Relectrostatic discharge / according to IEC 61000-4-2 Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Impulse voltage resistance / rated value	kV	6
Protection against electrical shock Installation altitude / at a height over sea level / maximum  Resistance against shock Ambient temperature  • during transport  • during storage • during operating  Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Protection class IP		IP20
Installation altitude / at a height over sea level / maximum  Resistance against shock  Ambient temperature  • during transport  • during storage  • during operating  Relative humidity / during operating phase / maximum  Relative humidity / during operating to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Protection class IP / on the front		IP20
Resistance against shock  Ambient temperature  • during transport  • during storage  • during operating  Relative humidity / during operating phase / maximum  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Protection against electrical shock		finger-safe
Ambient temperature  • during transport  • during storage  • during operating  • during operating  • C  -40 +80  • during operating  • C  -25 +60  Relative humidity / during operating phase / maximum  %  100  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5	Installation altitude / at a height over sea level / maximum	m	2,000
<ul> <li>during transport</li> <li>during storage</li> <li>during operating</li> <li>C -40 +80</li> <li>during operating</li> <li>C -25 +60</li> <li>Relative humidity / during operating phase / maximum</li> <li>100</li> <li>Electrostatic discharge / according to IEC 61000-4-2</li> <li>Field-bound parasitic coupling / according to IEC 61000-4-3</li> <li>Conductor-bound parasitic coupling BURST / according to IEC 61000-4-3</li> <li>Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5</li> <li>Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5</li> <li>1 kV (line to line) corresponds to degree of severity 3</li> <li>1 kV (line to line) corresponds to degree of severity 3</li> </ul>	Resistance against shock		15g / 11 ms
• during storage • during operating  c	Ambient temperature		
• during operating  • during operating  • during operating  • during operating  Relative humidity / during operating phase / maximum  \$\text{\$\text{\$\frac{100}{4}}\$}\$  \$\text{\$\frac{100}{4}\$}\$  \$\text	during transport	°C	-40 +80
Relative humidity / during operating phase / maximum  % 100  Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  A 100  6 kV contact discharge / 8 kV air discharge  10 V/m  2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3  2 kV (line to earth) corresponds to degree of severity 3  1 kV (line to line) corresponds to degree of severity 3  SURGE / according to IEC 61000-4-5	during storage	°C	-40 +80
Electrostatic discharge / according to IEC 61000-4-2  Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  6 kV contact discharge / 8 kV air discharge  10 V/m  2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3  2 kV (line to earth) corresponds to degree of severity 3  1 kV (line to line) corresponds to degree of severity 3  SURGE / according to IEC 61000-4-5	during operating	°C	-25 +60
Field-bound parasitic coupling / according to IEC 61000-4-3  Conductor-bound parasitic coupling BURST / according to IEC 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  1 kV (line to line) corresponds to degree of severity 3  1 kV (line to line) corresponds to degree of severity 3	Relative humidity / during operating phase / maximum	%	100
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3  2 kV (line to earth) corresponds to degree of severity 3  1 kV (line to line) corresponds to degree of severity 3	Electrostatic discharge / according to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
degree of severity 3  Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  degree of severity 3  2 kV (line to earth) corresponds to degree of severity 3  1 kV (line to line) corresponds to degree of severity 3	Field-bound parasitic coupling / according to IEC 61000-4-3		10 V/m
according to IEC 61000-4-5  Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5  1 kV (line to line) corresponds to degree of severity 3			
SURGE / according to IEC 61000-4-5			2 kV (line to earth) corresponds to degree of severity 3
Type of protection PTB 06 ATEX 3001 Ex II (2) GD	, , ,		1 kV (line to line) corresponds to degree of severity 3
Short Land	Type of protection		PTB 06 ATEX 3001 Ex II (2) GD
Active power loss / total / typical W 0.05	Active power loss / total / typical	W	0.05
Size of the contactor / can be combined / company-specific S2	Size of the contactor / can be combined / company-specific		S2

## Main circuit:

Operating current / of the fuse link / rated value	Α	63
Type of assignement		2

Auxiliary circuit:		
Number of NC contacts / for auxiliary contacts		1
Number of NO contacts / for auxiliary contacts		1
Number of changeover contacts / for auxiliary contacts		0
Design of the fuse link / for short-circuit protection of the auxiliary switch / required		fuse gL/gG: 6 A
Operating current / of the auxiliary contacts		
• at AC-15		
• at 24 V	Α	4
• at 110 V	Α	4
• at 120 V	Α	4
• at 125 V	Α	4
• at 230 V	Α	3
• at DC-13		
• at 24 V	Α	2
• at 60 V	Α	0.55
• at 110 V	Α	0.3
• at 125 V	Α	0.3
• at 220 V	Α	0.11

Protective and monitoring functions:		
Trip class		CLASS 5, 10, 20 and 30 adjustable
Adjustable response current / of the current-dependent overload release	А	6 25

Installation/ mounting/ dimensions:		
Mounting type		stand-alone installation
mounting position		any
Depth	mm	109
Height	mm	92
Width	mm	55

Connections/ terminals:	
Design of the electrical connection	
for main current circuit	straight-through transformers
for auxiliary and control current circuit	screw-type terminals
Type of the connectable conductor cross-section	
for auxiliary contacts	

• solid

· finely stranded

• with conductor end processing

• for AWG conductors / for auxiliary contacts

0.5 ... 4 mm<sup>2</sup>, 2x (0.5 ... 2.5 mm<sup>2</sup>)

0.5 ... 2.5 mm<sup>2</sup>, 2x (0.5 ... 1.5 mm<sup>2</sup>)

For use in hazardous locations

2x (20 ... 14)

## Certificates/ approvals:

#### **General Product Approval**







**EMC** 



## **Test Certificates**

Special Test Certificate Type Test
Certificates/Test
Report

### **Shipping Approval**











other

Declaration of Conformity

other

Environmental Confirmations

## **Further information:**

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrial-controls/mall

Cax online generator

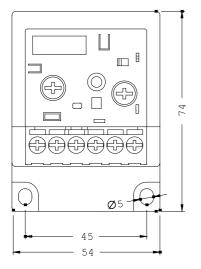
http://www.siemens.com/cax

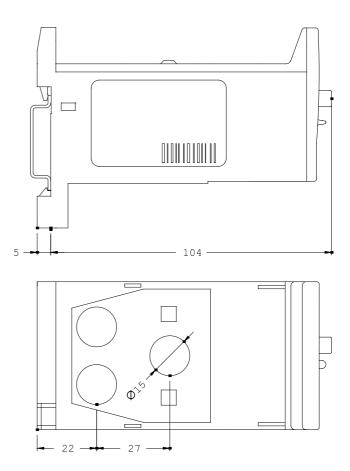
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

http://support.automation.siemens.com/WW/view/en/3RB2133-4QW1/all

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RB2133-4QW1





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