

Siemens  
EcoTech



Miniature Circuit Breaker Measuring RCM / EM Communication AC 230V 6kA, 1+N pole, B, 13A Please consider Radio approval! List of countries: see Certificates

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
design of the product	Miniature circuit breaker COM compact
product version	Notice! This is NOT a device with a residual-current protection function. This device must never be used instead of an RCD.
type of measured value detection	completely
General technical data	
design of pole	1P+N
apparent power consumption of the power supply	1.4 VA
tripping characteristic class	B
mechanical service life (operating cycles) typical	10 000
electrical endurance (operating cycles) at AC load in the mean value	7 500
measurable line frequency initial value	45 Hz
measurable line frequency full-scale value	65 Hz
overvoltage category	3
degree of pollution	2
frequency with radio transmission minimum	2 400 MHz
frequency with radio transmission maximum	2 483.5 MHz
status display of the measured data	voltage, current, residual current, active power, apparent power, reactive power, active energy, line frequency, power factor, temperature, switching cycles, operating hours, tripping, warnings
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui) at AC rated value	285 V
supply voltage with single-phase operation at AC rated value	230 V
<ul style="list-style-type: none"> <li>● operational current                             <ul style="list-style-type: none"> <li>— at 30 °C rated value</li> <li>— at 40 °C rated value</li> <li>— at 50 °C rated value</li> <li>— at 55 °C rated value</li> <li>— at 60 °C rated value</li> </ul> </li> <li>● operational current at AC rated value</li> </ul>	<ul style="list-style-type: none"> <li>13 A</li> <li>12.04 A</li> <li>10.42 A</li> <li>10.99 A</li> <li>9.83 A</li> <li>13 A</li> </ul>
measurable current at AC	

<ul style="list-style-type: none"> <li>initial value</li> </ul>	0.04 A
<ul style="list-style-type: none"> <li>full-scale value</li> </ul>	33 A
<b>reference current (Iref) 1 at AC rated value</b>	13 A
<b>Supply voltage</b>	
<b>supply voltage</b>	
<ul style="list-style-type: none"> <li>at AC</li> </ul>	230 V
<b>value range of the supply voltage frequency</b>	50/60 Hz
<b>operating voltage</b>	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	120 V
<ul style="list-style-type: none"> <li>with single-phase operation at AC maximum</li> </ul>	400 V
<b>Protection class</b>	
<b>protection class IP</b>	IP20, with connected conductors
<b>protection class IP</b>	
<ul style="list-style-type: none"> <li>on the front</li> </ul>	IP40
<ul style="list-style-type: none"> <li>rear side</li> </ul>	IP20
<b>Breaking Capacity</b>	
<b>switching capacity current</b>	
<ul style="list-style-type: none"> <li>according to EN 60898 rated value</li> </ul>	6 kA
<b>grid spacing</b>	35 mm
<b>energy limitation class</b>	3
<b>Dissipation</b>	
<b>power loss [W] for rated value of the current</b>	
<ul style="list-style-type: none"> <li>at AC in hot operating state per pole</li> </ul>	1.7 W
<b>Residual current</b>	
monitoring function of residual currents according to standard	DIN EN IEC 62020-1 (VDE 0663-1)
type of residual current monitoring	Type F
measuring channels with residual current	Base Frequency, Harmonics, Lowpass AC, Lowpass RMS, Bandpass, Highpass
measuring precision of the residual current	3mA...5mA: +/-30%; 5mA...1000mA: +/-15%
residual current at measuring range lower limit	0.003 A
residual current at measuring range upper limit	1 A
prewarning threshold of the residual current in factory setting	50 %
prewarning threshold of the residual current at setting range lower limit	50 %
prewarning threshold of the residual current at setting range upper limit	100 %
residual current alarm threshold in factory setting	0.015 A
residual current alarm threshold at setting range upper limit	0.3 A
residual current alarm threshold at setting range lower limit	0.007 A
frequency measuring range with residual current	<= 100kHz
<b>Suitability</b>	
<b>suitability for use ammeter</b>	Yes
<b>suitability for use reactive power meter</b>	Yes
<b>suitability for use frequency meter</b>	Yes
<b>suitability for use voltmeter</b>	Yes
<b>suitability for use wattmeter</b>	Yes
<b>Product details</b>	
<b>product feature touch protection</b>	Yes
<b>product component</b>	
<ul style="list-style-type: none"> <li>combined terminal top</li> </ul>	No
<ul style="list-style-type: none"> <li>combined terminal bottom</li> </ul>	No
<ul style="list-style-type: none"> <li>neutral conductor switching</li> </ul>	Yes
<b>product feature properties for main switches in accordance with EN 60204-1</b>	No
<b>product feature halogen-free</b>	Yes
<b>product feature sealable</b>	Yes
<b>product feature silicon-free</b>	Yes
<b>product extension installable supplementary devices</b>	Yes
<b>Product function</b>	
<b>product function</b>	

• communication function	Yes
• other measurement function	Yes
<b>Communication</b>	
<b>guideline via radio-controlled system</b>	2014/53/EU
protocol is supported	Wireless protocol
<b>Fault limits</b>	
<b>standards for error limits</b>	based on IEC61557-12, IEC62053-22, IEC62053-23
<b>relative symmetrical measurement uncertainty [%]</b>	
• for measured variable current	0.5 %
• for measured variable electrical energy	1 %
<b>Measuring inputs</b>	
measurable supply voltage between (PE)N and L at AC	
• minimum	100 V
• maximum	400 V
measuring category for voltage measurement	CATIII according IEC 61010-2-030
measuring procedure for current measurement	TRMS
measuring procedure for voltage measurement	TRMS
<b>Connections</b>	
<b>connectable conductor cross-section solid</b>	
• minimum	0.75 mm <sup>2</sup>
• maximum	16 mm <sup>2</sup>
<b>connectable conductor cross-section stranded</b>	
• minimum	0.75 mm <sup>2</sup>
• maximum	16 mm <sup>2</sup>
<b>connectable conductor cross-section finely stranded with core end processing</b>	
• minimum	0.75 mm <sup>2</sup>
• maximum	10 mm <sup>2</sup>
<b>tightening torque [lbf·in] with screw-type terminals</b>	
• minimum	10.6 lbf·in
• maximum	17.7 lbf·in
<b>tightening torque with screw-type terminals</b>	
• minimum	1.2 N·m
• maximum	2 N·m
<b>position of power supply cord</b>	Any
<b>Mechanical Design</b>	
<b>height</b>	90 mm
<b>width</b>	18 mm
<b>depth</b>	76 mm
<b>installation depth</b>	70 mm
<b>number of modular width units</b>	1
<b>fastening method</b>	DIN rail
<b>mounting position</b>	any
<b>Net Weight</b>	138 g
<b>Environmental conditions</b>	
<b>standard</b>	IEC/EN60898-1, GB/T10963.1
<b>standard for shocks</b>	IEC 61373
<b>standard for environmental sinusoidal oscillation check</b>	IEC 60068-2-6
<b>vibration resistance according to IEC 60068-2-6</b>	Yes
<b>ambient temperature during operation</b>	
• minimum	-40 °C
• maximum	70 °C
<b>ambient temperature during storage</b>	
• minimum	-40 °C
• maximum	75 °C
<b>number of test cycles for environmental testing according to IEC 60068-2-30</b>	28
<b>Environmental footprint</b>	
Environmental Product Declaration (EPD)	Yes

global warming potential [CO2 eq] total	11.7 kg
global warming potential [CO2 eq] during manufacturing	0.916 kg
global warming potential [CO2 eq] during operation	10.8 kg
global warming potential [CO2 eq] after end of life	-0.102 kg
Siemens Eco Profile (SEP)	Siemens EcoTech

### Approvals Certificates

General Product Approval	Radio Equipment Type Approval Certificate	Test Certificates	other
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[Confirmation](#)



[Miscellaneous](#)

[Miscellaneous](#)

[Miscellaneous](#)

### other Environment

[Confirmation](#)



[Environmental Confirmations](#)



Siemens EcoTech



[Environmental Confirmations](#)

### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SL6013-6MF>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SL6013-6MF>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SL6013-6MF](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SL6013-6MF)

CAX-Online-Generator

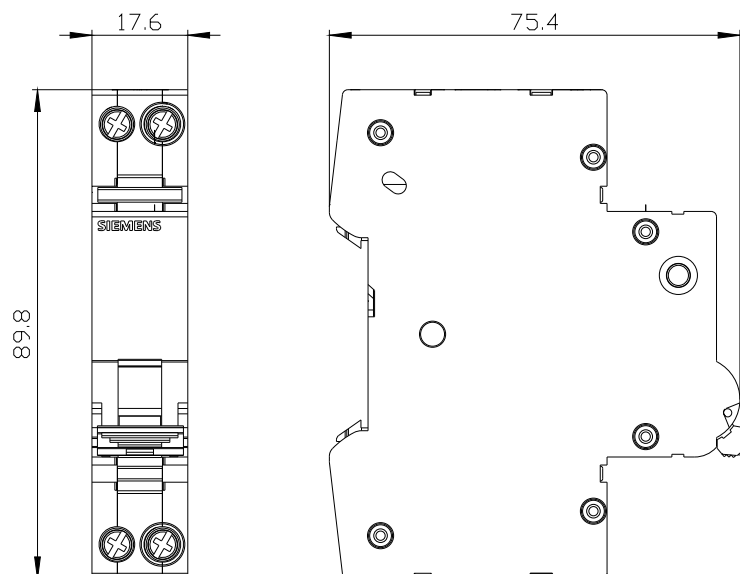
<https://www.siemens.com/cax>

Tender specifications

<https://www.siemens.com/specifications>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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