



SENTRON, measuring device, 7KM PAC5100, strd mount. rail encl. w/o display, L-L: 690 V, L-N: 400 V, 10 A, strd rail instr., 3-phase, Modbus TCP, apparent /active/reactive energy / cos phi, harmonics: 2. - 40., THD, class 0.5 acc. to IEC61557-12 or cl. 0.5S acc. to IEC62053-22, wide-range pwr sup. unit AC/DC, screw terminals

Model	
product brand name	SENTRON
product designation	7KM PAC5100
design of the product	compact
product type designation	Measuring instrument
Measurements	
measuring procedure	
• for voltage measurement	TRMS
• for current measurement	TRMS
type of measured value detection	complete
voltage curve	Sinusoidal or distorted
measurable line frequency	
• initial value	45 Hz
• full-scale value	65 Hz
operating mode for measured value detection automatic line frequency detection	Yes
operating mode for measured value detection	
• set at 50 Hz	No
• set to 60 Hz	No
Supply voltage	
design of the power supply	Wide-range power supply
type of voltage of the supply voltage	AC/DC
Degree of protection protection class	
protection class IP on the front	IP20
operating resource protection class when installed	safety class II
Suitability	
suitability for operation	Standard mounting rail device
Product Functions	
product function	
• voltage measurement	Yes
• current measurement	Yes
• active power measurement	Yes
• reactive power measurement	Yes
• frequency measurement	Yes
Display and operation	
design of the display	Standard mounting rail enclosure without display
color of the background of the display	white
illuminance of display backlight adjustable	No
time-controlled reduction of the illuminance of display	No

backlight possible	
display contrast adjustable	No
national language on the display screen is supported	de, en
number of keys	4
<b>Communication</b>	
number of interfaces according to Fast Ethernet	1
type of electrical connection of the fast Ethernet interface	RJ45 (8P8C)
<b>Fault limits</b>	
reference condition for metering accuracy	according to IEC 62053-22, IEC 62053-23, IEC 62586-1, Class S, IEC 61000-4-30, IEC 61000-4-7, IEC 61000-4-15
formula for relative total measurement inaccuracy	
<ul style="list-style-type: none"> <li>• for measured variable voltage</li> <li>• for measured variable current</li> <li>• for measured variable output factor</li> <li>• for measured variable active energy</li> <li>• for measured variable reactive energy</li> </ul>	<ul style="list-style-type: none"> <li>+/- 0,2 %</li> <li>+/- 0,2 %</li> <li>+/- 0,5 %</li> <li>Cl. 0.5 acc. to... IEC62053-22</li> <li>Class 2 according to IEC61557-12 and/or IEC62053-23</li> </ul>
<b>Inputs Outputs</b>	
number of digital inputs	0
number of digital outputs	2
type of switching output	solid state
digital output version	Continuous output, pulse output
operating voltage as output voltage at DC maximum permissible	250 V
type of electrical connection at the digital outputs	screw-type terminals
output current	
<ul style="list-style-type: none"> <li>• at digital output for signal &lt;1&gt; maximum</li> </ul>	300 mA
internal resistance at the digital outputs	35 Ω
pulse duration	
<ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>	<ul style="list-style-type: none"> <li>50 ms</li> <li>3 600 000 ms</li> </ul>
adjustable time period minimum	50 ms
switching frequency at digital output maximum	10 Hz
property of the output short-circuit proof	Yes
measuring category for digital signals	Cat. III
<b>Measuring inputs</b>	
measurable supply voltage between (PE)N and L at AC maximum rated value	400 V
measurable supply voltage between the line conductors at AC maximum rated value	690 V
measurable supply voltage between the line conductors at AC	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	831 V
voltage measuring range extension with external voltage transformers	yes
line conductors and neutral conductors internal resistance for voltage measurement	6 MΩ
measuring category for voltage measurement	CATIII
measurable current	
<ul style="list-style-type: none"> <li>• 1 at AC rated value</li> <li>• 2 at AC rated value</li> </ul>	<ul style="list-style-type: none"> <li>5 A</li> <li>5 A</li> </ul>
relative measurable current at AC	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	<ul style="list-style-type: none"> <li>1 %</li> <li>200 %</li> </ul>
current measuring range extension with external current transformers	yes
zero point suppression for current measurement	0 ... 10 %
<ul style="list-style-type: none"> <li>• for neutral conductor current</li> </ul>	0.0 % to 10.0 % (from Vrated, Irated)
measuring category for current measurement	CATIII
<b>Connections</b>	
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> <li>• at the measurement inputs for voltage solid</li> </ul>	2.5 mm <sup>2</sup>

<ul style="list-style-type: none"> <li>• at the measurement inputs for voltage finely stranded with core end processing</li> </ul>	2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• at the measurement inputs for voltage at AWG cables solid</li> </ul>	Screw connection
<ul style="list-style-type: none"> <li>• at the measurement inputs for current at AWG cables solid</li> </ul>	Screw connection
type of electrical connection	
<ul style="list-style-type: none"> <li>• at the measurement inputs for voltage</li> </ul>	screw-type terminals
<ul style="list-style-type: none"> <li>• at the measurement inputs for current</li> </ul>	screw-type terminals

### Mechanical Design

fastening method standard rail mounting	Yes
size of Power Monitoring Device	DIN rail
net weight	753 g
mounting position	vertical

### Environmental conditions

ambient temperature during operation	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-25 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	70 °C
relative humidity at 25 °C without condensation during operation maximum	95 %
installation altitude at height above sea level maximum	2 000 m
degree of pollution	2

### Certificates

certificate of suitability as EC Declaration of Conformity	EN 61000-6-2 and EN 61000-6-4 for EMC guideline		
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General Product Approval	Declaration of Conformity	other	Dangerous Good
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[Confirmation](#)



[UK Declaration of Conformity](#)

[Miscellaneous](#)

[Dangerous Goods Information](#)

### Further information

**Information- and Downloadcenter (catalogues, leaflets,...)**

<http://www.siemens.com/energy-automation>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM5212-6CA00-1EA8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM5212-6CA00-1EA8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7KM5212-6CA00-1EA8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM5212-6CA00-1EA8)

**CAx-Online-Generator**

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

**Tender specifications**

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





