

SENTRON, measuring device, 7KM PAC2200, LCD, L-L: 400 V, L-N: 230 V, 5 A, strd rail instr., 3-phase, Modbus RTU, apparent /active/reactive energy, self-powered, screw terminals



Model	
product brand name	SENTRON
Product designation	7KM PAC2200
Design of the product	basic
Product type designation	Measuring instrument
Type of measured value detection	complete
General technical data	
Size of Power Monitoring Device / company-specific	6MW
Operating mode for measured value detection	
<ul style="list-style-type: none"> <li>• automatic line frequency detection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• set at 50 Hz</li> </ul>	No
<ul style="list-style-type: none"> <li>• set to 60 Hz</li> </ul>	No
Pulse duration	
<ul style="list-style-type: none"> <li>• initial value</li> </ul>	30 ms
<ul style="list-style-type: none"> <li>• Full-scale value</li> </ul>	500 ms
Voltage curve	Sinusoidal or distorted
Measurable line frequency / initial value	45 Hz
Measurable line frequency / Full-scale value	65 Hz

Measuring procedure / for voltage measurement	TRMS
<b>Supply voltage</b>	
Type of voltage / of the supply voltage	AC
<b>Protection class</b>	
• protection class IP / on the front	IP40
• Protection class IP / Rear side	IP20
Operating resource protection class / when installed	II
<b>Current</b>	
Measurable current	
• 1 / at AC / Rated value	1 A
• 2 / at AC / Rated value	5 A
adjustable time period / minimum	10 ms
<b>Product function</b>	
• Product function / illuminance of display backlighting adjustable	Yes
• Product function / Time-controlled reduction of the illuminance of display backlighting possible	Yes
• product function / reactive power measurement	Yes
• Product function / display contrast adjustable	Yes
• product function / voltage measurement	Yes
• product function / current measurement	Yes
• product function / active power measurement	Yes
<b>Display and operation</b>	
design of the display	LCD
number of keys	4
Color / of the background of the display	white
<b>Communication</b>	
Protocol	
• is supported	Modbus RTU
<b>Fault limits</b>	
Reference condition / for metering accuracy	In accordance with IEC61557-12, IEC62053-22 and IEC62053-23
• Formula for relative total measurement inaccuracy / for measured variable reactive energy	Class 2 acc. to IEC61553-23
• formula for relative total measurement inaccuracy / for measured variable reactive power	+/- 1 %
• Formula for relative total measurement inaccuracy / for measured variable output factor	+/- 0,5 %
• formula for relative total measurement inaccuracy / for measured variable active power	+/- 1 %

Inputs Outputs	
Input voltage / at digital input	
• at DC / maximum	30 V
number of digital outputs	1
number of digital inputs	1
Digital output version	switching or pulse output function
Type of electrical connection	
• at the digital inputs	screw-type terminals
• at the digital outputs	screw-type terminals
Input current / at digital input	
• initial value for signal<1>-recognition	2.5 mA
• Full-scale value for signal<0> recognition	0.5 mA
Output current	
• at digital output / with signal <0> / maximum	0.2 mA
• at digital output / for signal <1> / maximum	50 mA
• at the digital outputs / at DC / limited to 100 ms / maximum	130 mA
Operating conditions for digital inputs / external voltage supply	Yes
Operating voltage / as output voltage / at DC / maximum permissible	30 V
property of the output / short-circuit proof	Yes
Internal resistance / at the digital outputs	30 Ω
Switching frequency / at digital output / maximum	17 Hz
Measuring inputs	
Outer conductors and neutral conductors internal resistance / for voltage measurement	1 MΩ
Measurable supply voltage	
• between (PE)N and L / at AC / minimum	46 V
• between (PE)N and L / at AC / maximum	276 V
• between (PE)N and L / at AC / maximum rated value	230 V
• between the outer conductors / at AC / minimum	34.6 V
• between the outer conductors / at AC / maximum	480 V
• between the outer conductors / at AC / maximum rated value	400 V
Voltage measuring range extension / with external voltage transformers	No
Current measuring range extension / with external current transformers	Yes
Measuring category / for voltage measurement	CATIII

Supply voltage / between the outer conductors / at AC / maximum permissible	480 V
Continuous current / at AC / maximum permissible	10 A
Zero-point suppression / for current measurement	10 mA
<ul style="list-style-type: none"> <li>• for neutral conductor current</li> </ul>	45 mA
Relative measurable current / at AC	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	1 %
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	120 %
<ul style="list-style-type: none"> <li>• apparent power consumption / for current measurement / with measuring range 5 A / per phase</li> </ul>	0.5 V·A
Measuring procedure / for current measurement	TRMS

## Connections

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

Height	97 mm
Height / of the display	27 mm
Width	108 mm
<ul style="list-style-type: none"> <li>• Width / of the display</li> </ul>	45 mm
Depth	71 mm
installation depth	64 mm
Mounting type / panel mounting	No
mounting position	any
net weight	310 g

## Environmental conditions

Installation altitude / at height above sea level / maximum	2 000 m
<b>Standard</b>	
<ul style="list-style-type: none"> <li>• for pulse emitter</li> </ul>	according to IEC62053-31
Relative humidity / at 25 °C / without condensation / during operation	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	75 %
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>	-25 °C
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	70 °C

## Certificates

- |   |     |
|---|-----|
| • Certificate of suitability / as approval for Canada | Yes |
| • Certificate of suitability / as approval for USA    | Yes |
| • Certificate of suitability / Approval Australia     | Yes |
| • Certificate of suitability / Approval Russia        | Yes |

## Declaration of Conformity

other



EG-Konf.

[Manufacturer Declaration](#)

## Further information

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

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

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM2200-2EA30-1DA1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM2200-2EA30-1DA1>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7KM2200-2EA30-1DA1](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2200-2EA30-1DA1)

### CAX-Online-Generator

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

### Tender specifications

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



