

SENTRON, measuring device, 7KM PAC2200, LCD, L-L: 400 V, L-N: 230 V, 65 A, strd rail instr., 3-phase, Modbus TCP, 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"> • automatic line frequency detection 	Yes
<ul style="list-style-type: none"> • set at 50 Hz 	No
<ul style="list-style-type: none"> • set to 60 Hz 	No
Pulse duration	
<ul style="list-style-type: none"> • initial value 	30 ms
<ul style="list-style-type: none"> • Full-scale value 	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
Supply voltage	
Type of voltage / of the supply voltage	AC
Protection class	
<ul style="list-style-type: none"> • protection class IP / on the front 	IP40
<ul style="list-style-type: none"> • Protection class IP / Rear side 	IP20
Operating resource protection class / when installed	II
adjustable time period / minimum	10 ms
Product function	
<ul style="list-style-type: none"> • Product function / illuminance of display backlighting adjustable 	Yes
<ul style="list-style-type: none"> • Product function / Time-controlled reduction of the illuminance of display backlighting possible 	Yes
<ul style="list-style-type: none"> • product function / reactive power measurement 	Yes
<ul style="list-style-type: none"> • Product function / display contrast adjustable 	Yes
<ul style="list-style-type: none"> • product function / voltage measurement 	Yes
<ul style="list-style-type: none"> • product function / current measurement 	Yes
<ul style="list-style-type: none"> • product function / active power measurement 	Yes
Display and operation	
design of the display	LCD
number of keys	4
Color / of the background of the display	white
Communication	
Number of interfaces / acc. to Fast Ethernet	1
Protocol	
<ul style="list-style-type: none"> • at the Ethernet interface / is supported 	MODBUS TCP
<ul style="list-style-type: none"> • is supported 	Modbus TCP
Transfer rate	
<ul style="list-style-type: none"> • 1 / for Ethernet 	10 Mbit/s
<ul style="list-style-type: none"> • 2 / for Ethernet 	100 Mbit/s
Fault limits	
Reference condition / for metering accuracy	In accordance with IEC61557-12, IEC62053-22 and IEC62053-23
<ul style="list-style-type: none"> • Formula for relative total measurement inaccuracy / for measured variable reactive energy 	Class 2 acc. to IEC61553-23
<ul style="list-style-type: none"> • formula for relative total measurement inaccuracy / for measured variable reactive power 	+/- 1 %
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at the digital inputs • at the digital outputs 	screw-type terminals screw-type terminals
Input current / at digital input	
<ul style="list-style-type: none"> • initial value for signal<1>-recognition • Full-scale value for signal<0> recognition 	2.5 mA 0.5 mA
Output current	
<ul style="list-style-type: none"> • at digital output / with signal <0> / maximum • at digital output / for signal <1> / maximum • at the digital outputs / at DC / limited to 100 ms / maximum 	0.2 mA 50 mA 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	
<ul style="list-style-type: none"> • between (PE)N and L / at AC / minimum • between (PE)N and L / at AC / maximum • between (PE)N and L / at AC / maximum rated value • between the outer conductors / at AC / minimum • between the outer conductors / at AC / maximum • between the outer conductors / at AC / maximum rated value 	46 V 276 V 230 V 34.6 V 480 V 400 V
Voltage measuring range extension / with external voltage transformers	No

Current measuring range extension / with external current transformers	No
Measuring category / for voltage measurement	CATIII
Supply voltage / between the outer conductors / at AC / maximum permissible	480 V
Continuous current / at AC / maximum permissible	65 A
Measuring category / for current measurement	CATIII
Measuring procedure / for current measurement	TRMS

Connections

Type of electrical connection	
<ul style="list-style-type: none"> at the measurement inputs for voltage 	screw-type terminals
<ul style="list-style-type: none"> at the measurement inputs for current 	screw-type terminals

Mechanical Design

Height	97 mm
Height / of the display	27 mm
Width	108 mm
<ul style="list-style-type: none"> Width / of the display 	45 mm
Depth	71 mm
installation depth	64 mm
Mounting type / panel mounting	No
mounting position	any
net weight	415 g

Environmental conditions

Installation altitude / at height above sea level / maximum	2 000 m
Standard	
<ul style="list-style-type: none"> for pulse emitter 	according to IEC62053-31
Relative humidity / at 25 °C / without condensation / during operation	
<ul style="list-style-type: none"> maximum 	75 %
Ambient temperature / during operation	
<ul style="list-style-type: none"> minimum 	-25 °C
<ul style="list-style-type: none"> maximum 	55 °C
Ambient temperature / during storage	
<ul style="list-style-type: none"> minimum 	-25 °C
<ul style="list-style-type: none"> maximum 	70 °C

Certificates

<ul style="list-style-type: none"> Certificate of suitability / as approval for Canada 	Yes
<ul style="list-style-type: none"> Certificate of suitability / as approval for USA 	Yes
<ul style="list-style-type: none"> Certificate of suitability / Approval Australia 	Yes
<ul style="list-style-type: none"> Certificate of suitability / Approval Russia 	Yes



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=7KM2200-2EA40-1EA1>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/7KM2200-2EA40-1EA1>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2200-2EA40-1EA1**CAX-Online-Generator**<http://www.siemens.com/cax>**Tender specifications**<http://www.siemens.com/specifications>



