



SENTRON PAC4200, LCD,
96X96MM POWER MONITORING DEVICE PANEL MOUNT
TYPE FOR MEASUREMENT OF ELECTR. VALUES VAUX:
22-65VDC VIN: MAX.500/289V,
45-65HZ AMPIN: X/1A OR X/5A AC COMPRESSION TYPE
TERMINALS

Similar to image

General technical data:

Product designation		multimeter
product brand name		SENTRON
Product-type designation		PAC4200
Size of multimeter / company-specific		size 96
Design of the product		compact
Product function		
• voltage measurement		Yes
• current measurement		Yes
• active power measurement		Yes
• reactive power measurement		Yes
• pulse measurement		Yes
• frequency measurement		Yes
MTBF	a	169.7
Reference code		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		P
• according to DIN EN 61346-2		P

Measurement:

Measuring method		TRMS
<ul style="list-style-type: none"> • for voltage measurement • for current measurement 		TRMS
Type of measured value detection		complete
Curve form of the voltage		Sinusoidal or distorted
Measurable line frequency	Hz	45 ... 65
Operating mode for measured value detection		
<ul style="list-style-type: none"> • automatic line frequency detection • set at 50 Hz • set to 60 Hz 		Yes No No

Measuring inputs for voltage:

Measurable supply voltage		
<ul style="list-style-type: none"> • between (PE)N and L / for AC / maximum nominal value • between the outer conductors / for AC / maximum nominal value • between (PE)N and L / for AC • between the outer conductors / for AC 	V V V V	289 500 11.5 ... 346 20 ... 600
Supply voltage / between the outer conductors / for AC		
<ul style="list-style-type: none"> • maximum permissible 	V	600
Measuring category / for voltage measurement		CATIII
Outer conductors and neutral conductors internal resistance		
<ul style="list-style-type: none"> • for voltage measurement 	MΩ	1.05
Power consumption / for voltage measurement		
<ul style="list-style-type: none"> • per phase 	mW	220
Measuring range extension for voltages		
<ul style="list-style-type: none"> • with external voltage transformers 		Yes

Measuring inputs for current:

Measurable current		
<ul style="list-style-type: none"> • 1 / for AC / nominal value • 2 / for AC / nominal value 	A A	1 5
Relative measurable current / for AC	%	1 ... 120
Continuous current / for AC / maximum permissible	A	10
Apparent power consumption / for current measurement		
<ul style="list-style-type: none"> • with measuring range 1 A / per phase • with measuring range 5 A / per phase 	mVA mVA	4 115
Short-time current resistance (I_{cw}) / limited to 1 s / rated value	A	100
Zero-point suppression / for current measurement		0 ... 10 %
Measuring category / for current measurement		CATIII
Measuring range extension for currents		

- with external current transformers

Yes

Fault limits:

Reference condition / for metering precision

Acc. to IEC61557-12

Formula for relative total measurement inaccuracy

- for measured variable voltage
- for measured variable current
- for measured variable output
- for measured variable output factor
- for measured variable THD
- for measured variable active energy
- for measured variable reactive energy

+/- 0,2 %

+/- 0,2 %

+/- 0,5 %

+/- 2 %

+/- 2 %

Class 0.2 according to IEC61557-12 and/or class 0.2S according to IEC62053-22

Class 2 according to IEC61557-12 and/or IEC62053-23

Supply voltage:

Design of the power supply

Extra-low voltage power supply unit

Type of / supply voltage

DC

Relative symmetrical tolerance / of the supply voltage

% 10

Measuring category / supply voltage

CATIII

Supply voltage / 1 / for DC

V 22 ... 65

Active power consumed

- without expansion module(s) / typical
- with expansion module(s) / typical

W 5.5

W 11

Digital input:

Number of digital inputs

2

Operating conditions for digital inputs / external voltage supply

Yes

Input voltage / at the digital input

- for DC / rated value
- for DC / max.
- final value for signal<1>-recognition
- initial value for signal<1>-recognition

V 24

V 30

V 10

V 19

Input current / at the digital input

- for signal <1>

mA 4

Initial delay time / at the digital input

- for signal <1> after <0> / maximum
- for signal <0> after <1> / maximum

ms 5

ms 5

Digital output:

Number of digital outputs

2

Design of the switching output

solid state

Design of digital outputs		switching or pulse output function
Norm / for impulse equipment		according to IEC62053-31
Pulse duration	ms	30 ... 500
Adjustable time period / minimum	ms	10
Operating voltage / as output voltage / for DC / maximum permissible	V	30
Output current		
• at the digital output		
• for signal <1>	mA	10 ... 27
• at signal <0> / maximum	mA	0.2
• at the digital outputs / for DC / maximum	mA	100
Output current / at the digital outputs / for DC / limited to 100 ms / max.	mA	300
Output delay time / at the digital output		
• for signal <1> after <0> / maximum	ms	5
• for signal after <0> after <1> / maximum	ms	5
Internal resistance / at the digital outputs	Ω	55
Switching frequency / at the digital output / maximum	Hz	20
Characteristic feature of the output / short-circuit protected		Yes
Measuring category / for digital signals		CATI

Communication:

Number of interfaces / compliant with fast Ethernet		1
Design of the electrical connection		
• of the fast Ethernet interface		RJ45 (8P8C)
Design of cable / connectable		
• Twisted Pair		Yes
Protocol / at the Ethernet interface / is supported		MODBUS TCP
Transfer rate		
• 1 / for Ethernet	Mbit/s	10
• 2 / for Ethernet	Mbit/s	100
Number of active connections		
• at the Ethernet interface		3
Number of ports logical / at the Ethernet interface		
• being supported		2
Product function / at the Ethernet interface		
• autonegotiation		Yes
• auto-MDI(X)		Yes
• serial gateway		Yes
protocol / is supported		MODBUS TCP
Transfer rate	kbit/s	10,000 ... 100,000

Updating time		
<ul style="list-style-type: none"> at the interface / for instantaneous values / typical 	ms	200

Indication and operation:

Number of keys		4
Design of the display		LCD, graphical, monochrome
Color / of the background of the display		white
National language / for the display / is supported		ger, en, fr, spa, ita, por, tur, rus, chi, pol
Horizontal image resolution		128
Vertical screen resolution		96
Width / of the display	mm	72
Height / of the display	mm	54
Updating time / on display	s	0.33 ... 3
Product function		
<ul style="list-style-type: none"> display contrast adjustable 		Yes
<ul style="list-style-type: none"> display can be inverted (positive <=> negative mode) 		Yes
<ul style="list-style-type: none"> illuminance of the display background lighting adjustable 		Yes
<ul style="list-style-type: none"> time controlled reduction of the illuminance of the display background lighting possible 		Yes
Standby time / for dim out of the display background lighting	min	1 ... 99

Connection elements and terminals:

Design of the electrical connection		
<ul style="list-style-type: none"> at the measurement inputs for voltage 		screw-type terminals
Type of connectable conductor cross section / at the measurement inputs for voltage		
<ul style="list-style-type: none"> solid 		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> finely stranded / with wire end processing 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> for AWG conductors / solid 		2x 20 to 14
Design of the electrical connection		
<ul style="list-style-type: none"> at the measurement inputs for current 		screw-type terminals
Type of connectable conductor cross section / at the measurement inputs for current		
<ul style="list-style-type: none"> solid 		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> finely stranded / with wire end processing 		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> for AWG conductors / solid 		2x 20 to 14
Design of the electrical connection		
<ul style="list-style-type: none"> at the inputs for supply voltage 		screw-type terminals
Type of connectable conductor cross section		
<ul style="list-style-type: none"> at the inputs for supply voltage 		
<ul style="list-style-type: none"> solid 		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)

<ul style="list-style-type: none"> finely stranded / with wire end processing for AWG conductors / solid at the digital inputs / solid 	1x (0.5 ... 2.5 mm ²), 2 (0.5 ... 1.5 mm ²) 2x 20 to 14 1x (0.2 ... 2.5 mm ²), 2x (0.2 ... 1.0 mm ²)
Design of the electrical connection <ul style="list-style-type: none"> at the digital inputs 	screw-type terminals
Type of connectable conductor cross section <ul style="list-style-type: none"> at the digital inputs / finely stranded / with wire end processing at the digital inputs / for AWG conductors / solid 	1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²) 1x 24 ... 12
Design of the electrical connection <ul style="list-style-type: none"> at the digital outputs 	screw-type terminals
Type of connectable conductor cross section / at the digital outputs <ul style="list-style-type: none"> solid finely stranded / with wire end processing for AWG conductors / solid 	1x (0.2 ... 2.5 mm ²), 2x (0.2 ... 1.0 mm ²) 1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²) 1x 24 ... 12

Dimensions and weights:

Suitability for installation		Installation in stationary control panels in closed rooms
Mounting type / panel mounting		Yes
mounting position		vertical
Width	mm	96
Height	mm	96
Depth	mm	82
Mounting depth	mm	77
Mounting depth / with expansion module(s) / max.	mm	99
Cutout height	mm	92
Cutout width	mm	92
Material thickness <ul style="list-style-type: none"> of the control panel 	/ mm	4

Degree of protection and safety class:

Operating resource protection class <ul style="list-style-type: none"> when installed 		II
Protection class IP <ul style="list-style-type: none"> on the front rear side 		IP65 IP20

Ambient conditions:

Ambient temperature <ul style="list-style-type: none"> during operating during storage 	°C °C	-10 ... +55 -25 ... +70
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Relative humidity / at 25 °C / without condensation • during the operating phase	%	5 ... 95
Installation altitude / at a height over sea level / maximum	m	2,000
Degree of pollution		2
Norm • for environmental coldness check • for environmental dry heat check • for cyclic, environmental damp heat check		IEC 60068-2-1 IEC 60068-2-2 IEC 60068-2-30

Certificates/approvals:

Verification of suitability

• as EC declaration of conformity	IEC 61010-1: 2001 (2nd Ed.) with Corr. 1, EN 61010-1: 2001 (2nd Ed.) and DIN EN 61010-1:2002 with "Berichtigung 1"
• as authorisation for USA	UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04
• as authorisation for Canada	UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04
• authorization for Australia	Yes
• authorization for Russia	Yes

Certificates/approvals:

General Product Approval



other

[Confirmation](#)



Profibus

[PROFINET-Certification](#)

[other](#)

Further information:

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

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

Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/7KM4211-1BA00-3AA0>

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

<http://support.automation.siemens.com/WW/view/en/7KM4211-1BA00-3AA0/all>

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

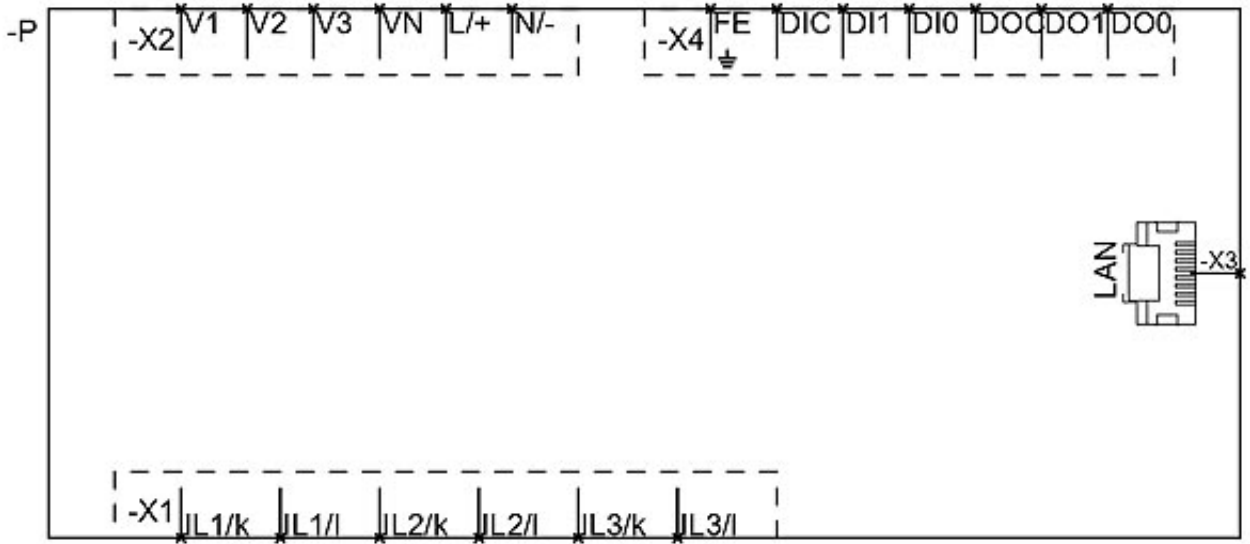
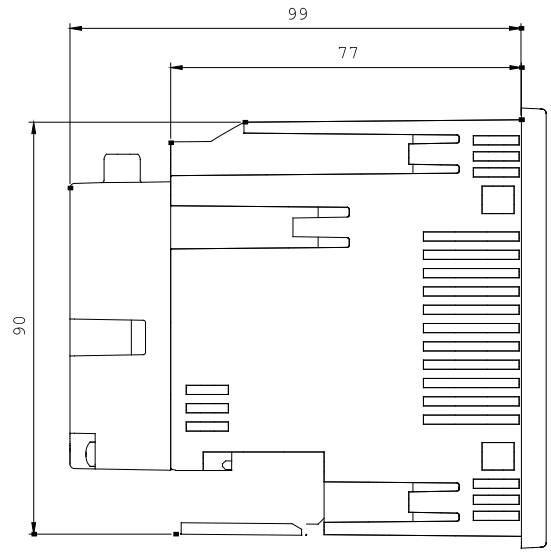
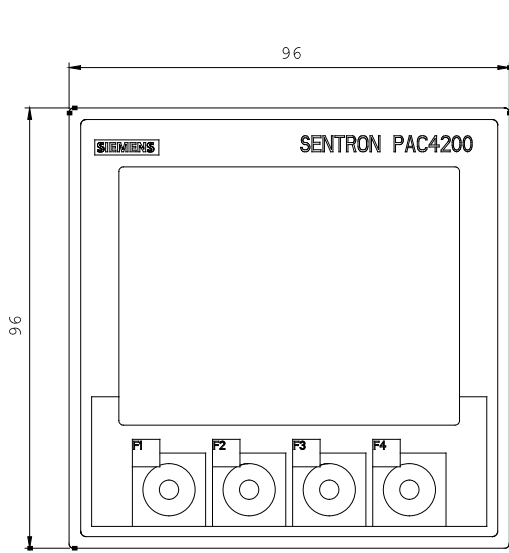
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM4211-1BA00-3AA0

CAX-Online-Generator

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

Tender specifications

[Datanorm GAEB81](#) [GAEB83](#) [RTF](#) [TXT](#)



last change:

Jul 21,
2014