



Similar to image

SETRON PAC4200;
LCD;
96X96MM POWER MONITORING DEVICE PANEL MOUNT
TYPE FOR MEASUREMENT OF ELECTR. VALUES VAUX:
110-340VDC / 95-240VAC VIN: MAX.690/400V;
45-65HZ AMPIN: X/1A OR X/5A AC COMPRESSION TYPE
TERMINALS

General technical data:		
Product designation		multimeter
product brand name		SETRON
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		
• for voltage measurement		TRMS
• 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		
• automatic line frequency detection		Yes
• set at 50 Hz		No
• set to 60 Hz		No

Measuring inputs for voltage:

Measurable supply voltage		
• between (PE)N and L / for AC / maximum nominal value	V	400
• between the outer conductors / for AC / maximum nominal value	V	690
• between (PE)N and L / for AC	V	11.5 ... 480
• between the outer conductors / for AC	V	20 ... 828
Supply voltage / between the outer conductors / for AC		
• maximum permissible	V	831
Measuring category / for voltage measurement		CATIII
Outer conductors and neutral conductors internal resistance		
• for voltage measurement	MΩ	1.05
Power consumption / for voltage measurement		
• per phase	mW	220
Measuring range extension for voltages		
• with external voltage transformers		Yes

Measuring inputs for current:

Measurable current		
• 1 / for AC / nominal value	A	1
• 2 / for AC / nominal value	A	5
Relative measurable current / for AC	%	1 ... 120
Continuous current / for AC / maximum permissible	A	10
Apparent power consumption / for current measurement		
• with measuring range 1 A / per phase	mVA	4
• with measuring range 5 A / per phase	mVA	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

Wide-range power supply

Type of / supply voltage

AC/DC

Relative symmetrical tolerance / of the supply voltage

%

10

Measuring category / supply voltage

CATIII

Supply voltage / 1 / with AC

V

95 ... 240

Supply voltage frequency

- 1 / rated value

Hz

50

- 2 / rated value

Hz

60

Apparent power consumption

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

V·A

11

V·A

32

Supply voltage / 1 / for DC

V

110 ... 340

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	ms	5
• for signal <0> after <1> / maximum	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		CAT I

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		
• 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		
• display contrast adjustable		Yes
• display can be inverted (positive <=> negative mode)		Yes
• illuminance of the display background lighting adjustable		Yes
• 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		
• at the measurement inputs for voltage		screw-type terminals
Type of connectable conductor cross section / at the measurement inputs for voltage		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• for AWG conductors / solid		2x 20 to 14
Design of the electrical connection		
• at the measurement inputs for current		screw-type terminals
Type of connectable conductor cross section / at the measurement inputs for current		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)

• for AWG conductors / solid		2x 20 to 14
Design of the electrical connection		
• at the inputs for supply voltage		screw-type terminals
Type of connectable conductor cross section		
• at the inputs for supply voltage		
• solid		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm ²), 2 (0.5 ... 1.5 mm ²)
• for AWG conductors / solid		2x 20 to 14
• at the digital inputs / solid		1x (0.2 ... 2.5 mm ²), 2x (0.2 ... 1.0 mm ²)
Design of the electrical connection		
• at the digital inputs		screw-type terminals
Type of connectable conductor cross section		
• at the digital inputs / finely stranded / with wire end processing		1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²)
• at the digital inputs / for AWG conductors / solid		1x 24 ... 12
Design of the electrical connection		
• at the digital outputs		screw-type terminals
Type of connectable conductor cross section / at the digital outputs		
• solid		1x (0.2 ... 2.5 mm ²), 2x (0.2 ... 1.0 mm ²)
• finely stranded / with wire end processing		1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²)
• for AWG conductors / solid		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		
• of the control panel	/ mm	4

Degree of protection and safety class:

Operating resource protection class		
• when installed		II
Protection class IP		
• on the front		IP65

- rear side

IP20

Ambient conditions:

Ambient temperature

- during operating
- during storage

°C

-10 ... +55

°C

-25 ... +70

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
- as authorisation for USA
- as authorisation for Canada
- authorization for Australia
- authorization for Russia

IEC 61010-1: 2001 (2nd Ed.) with Corr. 1, EN 61010-1: 2001 (2nd Ed.) and DIN EN 61010-1:2002 with "Berichtigung 1"

UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04

UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04

Yes

Yes

Certificates/approvals:

General Product Approval

EMC

Declaration of Conformity



GOST



UL



C-TICK



EG-Konf.

other

[Confirmation](#)



Profibus

[PROFINET-Certification](#)

[other](#)

Further information:

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

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

Industry Mall (Online ordering system)

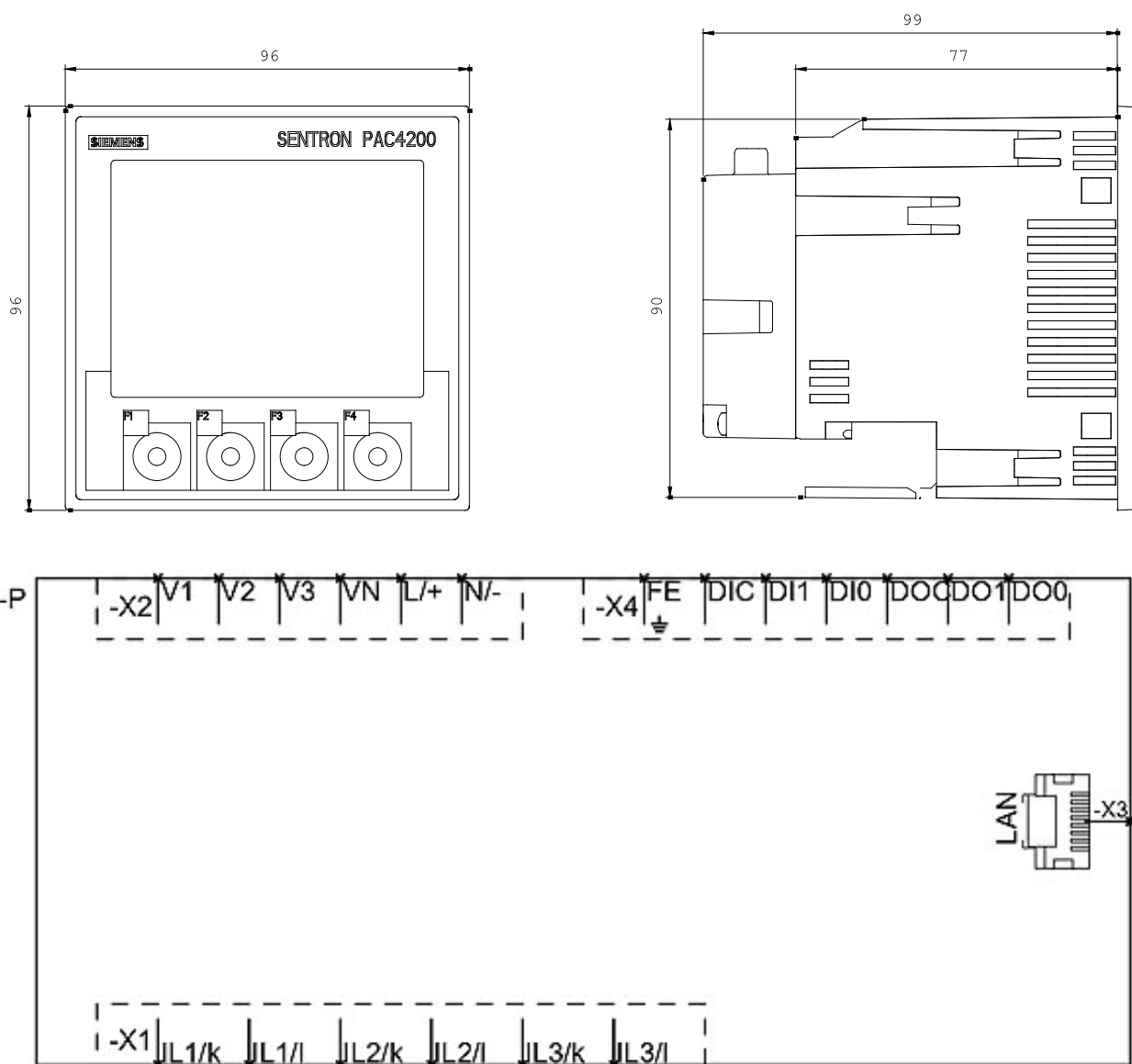
<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/7KM4212-0BA00-3AA0>

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

<http://support.automation.siemens.com/WW/view/en/7KM4212-0BA00-3AA0/all>

Tender specifications

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



last change:

Jul 21,
2014