



SENTRON PAC3200;
 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 | | PAC3200 |
| Size of Power Monitoring Device / company-specific | | size 96 |
| Design of the product | | basic |
| Product function | | |
| • voltage measurement | | Yes |
| • Current measurement | | Yes |
| • active power measurement | | Yes |
| • reactive power measurement | | Yes |
| • pulse measurement | | Yes |
| • frequency measurement | | Yes |
| MTBF | a | 185.8 |
| Reference code | | |
| • acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 | | P |
| • acc. to DIN EN 61346-2 | | P |

Measurement:

| | | |
|--|----|-------------------------|
| Measuring procedure | | |
| <ul style="list-style-type: none"> • for voltage measurement • for current measurement | | RMS TRMS |
| Type of measured value detection | | complete |
| Voltage curve | | 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 / with AC / maximum rated value • between the outer conductors / with AC / maximum rated value • between (PE)N and L / with AC • between the outer conductors / with AC | V V V V | 289 500 40 ... 346 70 ... 600 |
| Supply voltage / between the outer conductors / with 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 |
| Active power consumption / for voltage measurement | | |
| <ul style="list-style-type: none"> • per phase | mW | 220 |

Measuring inputs for current:

| | | |
|--|--------|--------------|
| Measurable current | | |
| <ul style="list-style-type: none"> • 1 / with AC / Rated value • 2 / with AC / Rated value | A A | 1 5 |
| Relative measurable current / with AC | % | 1 ... 120 |
| Continuous current / with AC / maximum permissible | A | 10 |
| Short-time current resistance (I_{cw}) / limited to 1 s / Rated value | A | 100 |
| Zero-point suppression / for current measurement | | 0,1 ... 10 % |
| Measuring category / for current measurement | | CATIII |
| Current measuring range extension | | |
| <ul style="list-style-type: none"> • with external current transformers | | Yes |

Fault limits:

| | | |
|---|--|-------------------------------------|
| Reference condition / for metering accuracy | | Acc. to IEC62053-22 and IEC62053-23 |
| Formula for relative total measurement inaccuracy | | |
| <ul style="list-style-type: none"> • for measured variable voltage | | +/- 0,3 % |

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

+/- 0,2 %
 +/- 0,5 %
 +/- 0,5 %
 Cl. 0.5 acc. 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 voltage / of the supply voltage | | DC |
| Relative symmetrical tolerance / of the supply voltage | % | 10 |
| Measuring category / for supply voltage | | CATIII |
| Apparent power consumption | | |
| • without expansion module / typical | V·A | 6 |
| • with expansion module / maximum | V·A | 8 |
| Supply voltage / 1 / for DC | V | 22 ... 65 |

Digital input:

| | | |
|--|----|----|
| Number of digital inputs | | 1 |
| Input voltage / at digital input | | |
| • for DC / Rated value | V | 24 |
| • Full-scale value for signal<0> recognition | V | 8 |
| • initial value for signal<1>-recognition | V | 13 |
| Input current / at digital input | | |
| • for signal <1> | mA | 7 |
| Input delay time / at digital input | | |
| • for signal <1> to <0> / maximum | ms | 5 |
| • for signal <0> to <1> / maximum | ms | 5 |

Digital output:

| | | |
|---|----|------------------------------------|
| Number of digital outputs | | 1 |
| Digital output version | | switching or pulse output function |
| Standard / for pulse emitter | | 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 digital output | | |
| • for signal <1> | mA | 10 ... 27 |
| • with signal <0> / maximum | mA | 0.2 |
| • at the digital outputs / for DC / maximum | mA | 100 |

| | | |
|--|----|-------|
| Output delay / at digital output | | |
| • for signal <1> to <0> / maximum | ms | 5 |
| • for signal <0> to <1> / maximum | ms | 5 |
| Internal resistance / at the digital outputs | Ω | 55 |
| Switching frequency / at digital output / maximum | Hz | 17 |
| Property of the output / Short-circuit proof | | Yes |
| Measuring category / for digital signals | | CATII |

Communication:

| | | |
|--|--------|--------------------------------------|
| Number of interfaces / acc. to Fast Ethernet | | 1 |
| Design of cable / connectable | | |
| • Twisted pair | | Yes |
| Protocol / at the Ethernet interface / is supported | | MODBUS TCP |
| Protocol / is supported | | SEABus TCP / MODBUS TCP (switchable) |
| Transfer rate | kbit/s | 10,000 ... 10,000 |
| Refresh time | | |
| • at the interface | s | 0.33 ... 1 |

Indication and operation:

| | | |
|---|----|--------------------------------------|
| Number of keys | | 4 |
| Design of the display | | LCD, graphical, monochrome |
| Color / of the background of the display | | white |
| National language / on the display screen / is supported | | ger, en, fr, spa, ita, por, tur, chi |
| Horizontal image resolution | | 128 |
| Vertical screen resolution | | 96 |
| Width / of the display | mm | 72 |
| Height / of the display | mm | 54 |
| Refresh time / on display | s | 0.33 ... 3 |

Connection elements and terminals:

| | | |
|--|--|--|
| Type of connectable conductor cross-section / at the measurement inputs for voltage | | |
| • solid | | 1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) |
| • finely stranded / with core end processing | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) |
| • for AWG conductors / solid | | 2x 20 to 14 |
| Type of connectable conductor cross-section / at the measurement inputs for current | | |
| • solid | | 1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²) |
| • finely stranded / with core end processing | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) |
| • for AWG conductors / solid | | 2x 20 to 14 |
| 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 • finely stranded / with core end processing • for AWG conductors / solid • at the digital inputs / solid | <p>1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2 (0.5 ... 1.5 mm²)</p> <p>2x 20 to 14</p> <p>1x (0.2 ... 2.5 mm²), 2x (0.2 ... 1.0 mm²)</p> |
| Type of connectable conductor cross-section <ul style="list-style-type: none"> • at the digital inputs / finely stranded / with core end processing • at the digital inputs / for AWG conductors / solid | <p>1x (0.25 ... 2.5 mm²), 2x (0.25 ... 1.0 mm²)</p> <p>2x 24 ... 18</p> |
| Type of connectable conductor cross-section / at the digital outputs <ul style="list-style-type: none"> • solid • finely stranded / with core end processing • for AWG conductors / solid | <p>1x (0.2 ... 2.5 mm²), 2x (0.2 ... 1.0 mm²)</p> <p>1x (0.25 ... 2.5 mm²), 2x (0.25 ... 1.0 mm²)</p> <p>2x 24 ... 18</p> |

Dimensions and weights:

| | | |
|---------------------------------------|----|---|
| Suitability for use | | Installation in stationary control panels in closed rooms |
| Mounting type / panel mounting | | Yes |
| mounting position | | vertical |
| Width | mm | 96 |
| Height | mm | 96 |
| Depth | mm | 56 |
| Installation depth | mm | 51 |
| Cutout height | mm | 92 |
| Cutout width | mm | 92 |

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 operation • during storage | °C | -10 ... +55 |
| | °C | -25 ... +70 |
| Relative humidity / at 25 °C / without condensation <ul style="list-style-type: none"> • during operation | % | 5 ... 95 |
| Installation altitude / at height above sea level / maximum | m | 2,000 |
| Standard <ul style="list-style-type: none"> • for environmental coldness check | | IEC 60068-2-1 |

- for environmental dry heat check
- for cyclic, environmental damp heat check

IEC 60068-2-2

IEC 60068-2-30

Certificates/approvals:

Certificate of suitability

- as EC declaration of conformity
- as approval for USA
- as approval for Canada

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

Certificates/approvals:

General Product Approval

EMC

Declaration of Conformity



GOST



UL



C-TICK



EG-Konf.

other

[Confirmation](#)



GOST

[PROFINET-Certification](#)

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/7KM2111-1BA00-3AA0>

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

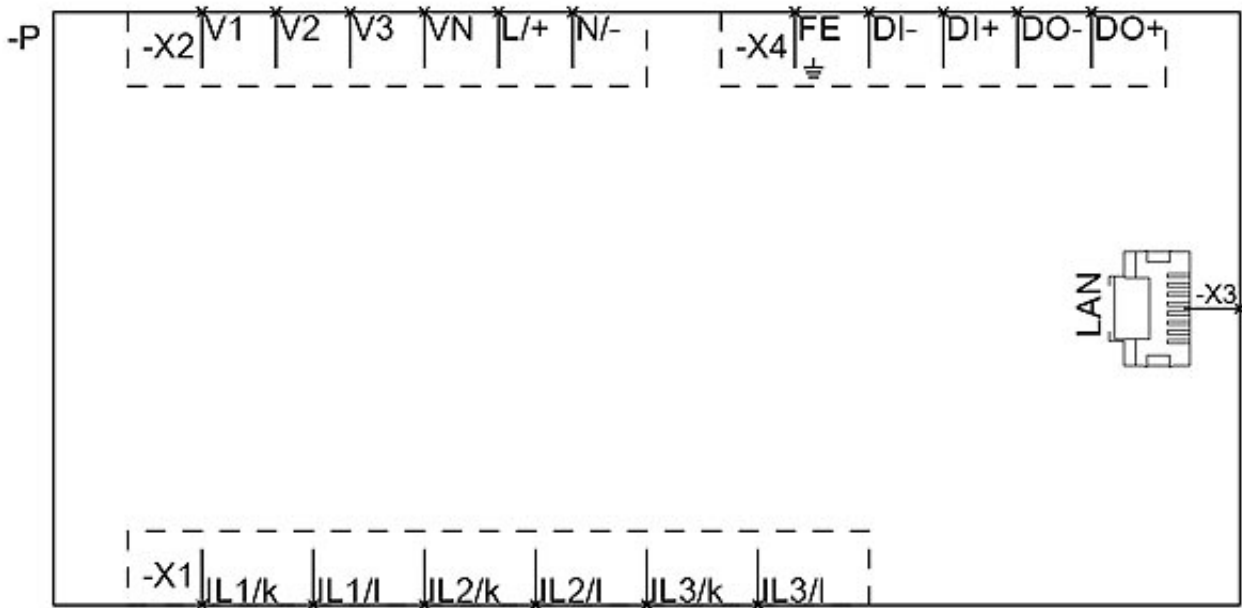
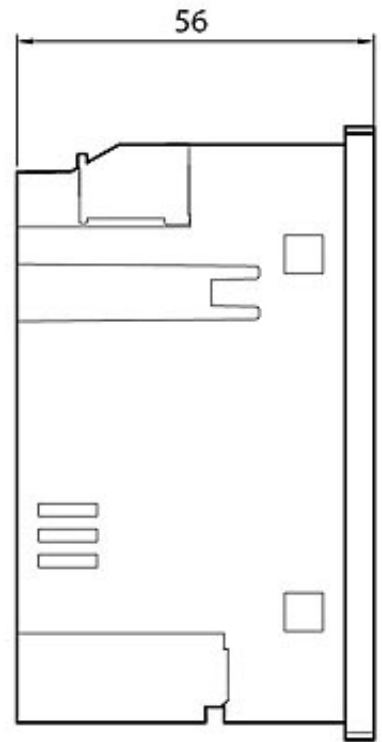
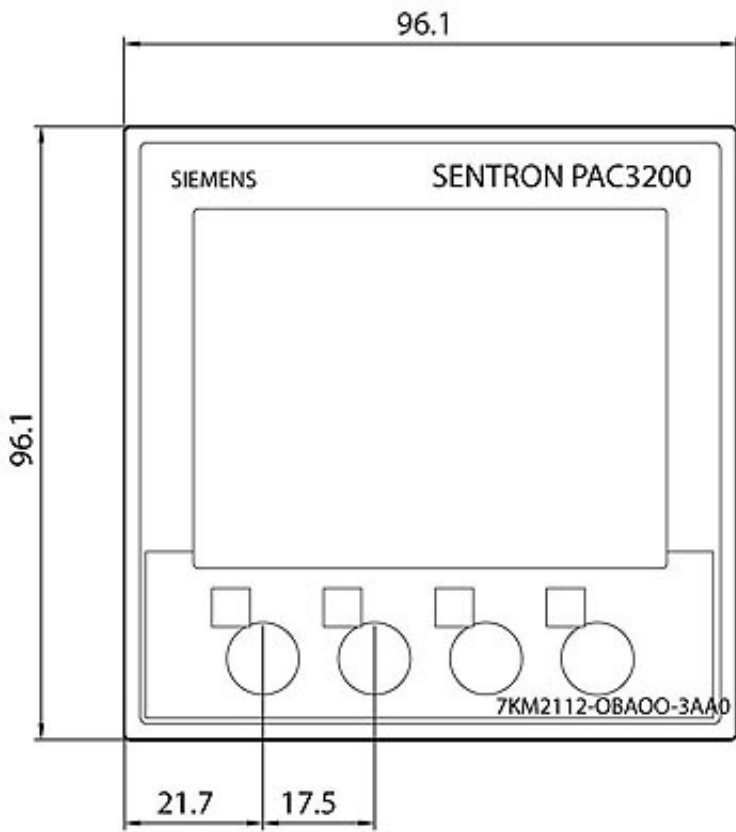
<http://support.automation.siemens.com/WW/view/en/7KM2111-1BA00-3AA0/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2111-1BA00-3AA0

CAX-Online-Generator

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



last change:

Nov 10,
2014