SIEMENS

## Data sheet 7KM2111-1BA00-3AA0

SENTRON, measuring device, 7KM PAC3200, LCD, L-L: 500 V, L-N: 289 V, 5 A, 3-phase, Modbus TCP, optional Modbus RTU / PROFINET / PROFIBUS, apparent/ active/reactive energy, class 0.5 acc. to IEC61557-12 or class 0.5s acc. to IEC62053-22, ext-low volt. pwr sup. unit DC, DC 22 ... 65 V +/- 10%, screw terminals

| | |
|---|---|
| **Model** | |
| **product brand name** | SENTRON |
| **Measurements** | |
| **measuring procedure** | |
| ● for voltage measurement | RMS |
| ● for current measurement | TRMS |
| **type of measured value detection** | complete |
| **voltage curve** | Sinusoidal or distorted |
| **measurable line frequency** | |
| ● initial value | 45 Hz |
| ● full-scale value | 65 Hz |
| **operating mode for measured value detection automatic line frequency detection** | Yes |
| **operating mode for measured value detection** | |
| ● set at 50 Hz | No |
| ● set to 60 Hz | No |
| **Supply voltage** | |
| **design of the power supply** | Extra-low voltage power supply unit |
| **type of voltage of the supply voltage** | DC |
| **supply voltage at DC** | 22 ... 65 V |
| **Degree of protection protection class** | |
| **protection class IP on the front** | IP65 |
| **operating resource protection class when installed** | II |
| **Suitability** | |
| **suitability for operation** | Installation in stationary panels in closed rooms |
| **Product Functions** | |
| **product function** | |
| ● voltage measurement | Yes |
| ● current measurement | Yes |
| ● active power measurement | Yes |
| ● reactive power measurement | Yes |
| ● frequency measurement | Yes |
| **Display and operation** | |
| **design of the display** | LCD |
| **height of the display** | 54 mm |
| **width of the display** | 72 mm |
| **color of the background of the display** | white |
| **national language on the display screen is supported** | ger, en, fr, spa, ita, por, tur, chi |
| **number of keys** | 4 |
| **Communication** | |
| **transfer rate minimum** | 10 000 kbit/s |
| **transfer rate maximum** | 10 000 kbit/s |
| **number of interfaces according to Fast Ethernet** | 1 |
| **protocol at the Ethernet interface is supported** | MODBUS TCP |
| **Fault limits** | |
| **reference condition for metering accuracy** | according to IEC62053-22 and IEC62053-23 |
| **formula for relative total measurement inaccuracy** | |


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|---|---|
| ● for measured variable voltage | +/- 0.3 % |
| ● for measured variable current | +/- 0.2 % |
| ● for measured variable output factor | +/- 0,5 % |
| ● for measured variable active energy | Cl. 0.5 acc. to... IEC62053-22 |
| ● for measured variable reactive energy | Class 2 according to IEC61557-12 and/or IEC62053-23 |
| **Inputs Outputs** | |
| **number of digital inputs** | 1 |
| **number of digital outputs** | 1 |
| **digital output version** | switching or pulse output function |
| **operating voltage as output voltage at DC maximum permissible** | 30 V |
| **output current** | |
| ● at digital output with signal <0> maximum | 0.2 mA |
| ● at digital output for signal <1> maximum | 27 mA |
| **internal resistance at the digital outputs** | 55 Ω |
| **standard for pulse emitter** | according to IEC62053-31 |
| **pulse duration** | |
| ● initial value | 30 ms |
| ● full-scale value | 500 ms |
| **adjustable time period minimum** | 10 ms |
| **switching frequency at digital output maximum** | 17 Hz |
| **property of the output short-circuit proof** | Yes |
| **measuring category for digital signals** | CATII |
| **Measuring inputs** | |
| **measurable supply voltage between (PE)N and L at AC maximum rated value** | 289 V |
| **measurable supply voltage between (PE)N and L at AC** | |
| ● minimum | 40 V |
| ● maximum | 346 V |
| **measurable supply voltage between the line conductors at AC maximum rated value** | 500 V |
| **measurable supply voltage between the line conductors at AC** | |
| ● minimum | 70 V |
| ● maximum | 600 V |
| **line conductors and neutral conductors internal resistance for voltage measurement** | 1.05 MΩ |
| **measuring category for voltage measurement** | CAT III |
| **measurable current** | |
| ● 1 at AC rated value | 1 A |
| ● 2 at AC rated value | 5 A |
| **relative measurable current at AC** | |
| ● minimum | 10 % |
| ● maximum | 120 % |
| **current measuring range extension with external current transformers** | Yes |
| **zero point suppression for current measurement** | 0.1 ... 10 % |
| **measuring category for current measurement** | CATIII |
| **Connections** | |
| **type of connectable conductor cross-sections** | |
| ● at the measurement inputs for voltage solid | 1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) |
| ● at the measurement inputs for voltage finely stranded with core end processing | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) |
| ● at the measurement inputs for voltage for AWG cables solid | 2x 20 to 14 |
| ● at the measurement inputs for current solid | 1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²) |
| ● at the measurement inputs for current finely stranded with core end processing | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²) |
| ● at the measurement inputs for current for AWG cables solid | 2x 20 to 14 |
| **type of electrical connection** | |
| ● at the measurement inputs for voltage | screw-type terminals |


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| Mechanical Design | |
|---|---|
| **size of Power Monitoring Device** | size 96 |
| **height** | 96 mm |
| **width** | 96 mm |
| **depth** | 56 mm |
| **installation depth** | 51 mm |
| **mounting position** | vertical |
| **Environmental conditions** | |
| **ambient temperature during operation** | |
| ● minimum | -10 °C |
| ● maximum | 55 °C |
| **ambient temperature during storage** | |
| ● minimum | -25 °C |
| ● maximum | 70 °C |
| **relative humidity at 25 °C without condensation during operation maximum** | 95 % |
| **installation altitude at height above sea level maximum** | 2 000 m |
| **Certificates** | |
| certificate 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" |

**Approvals Certificates**

| General Product Approval | | | | EMV |
|---|---|---|---|---|
| Metrological Approval | | | Confirmation | |

| other | | Environment | | |
|---|---|---|---|---|
| Confirmation | | Environmental Con-firmations | Environmental Con-firmations | |

**Further information**

**Information on the packaging**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Information for data generation and storage**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Information- and Downloadcenter (catalogues, leaflets,...)**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Industry Mall (Online ordering system)**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**CAx-Online-Generator**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

**Tender specifications**
https://www.plcbin.com/?s=7KM2111-1BA00-3AA0

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