SIEMENS

## Data sheet 7KM5212-6BA00-1EA2


SENTRON, measuring device, 7KM PAC5100, LCD, L-L: 690 V, L-N: 400 V, 10 A, 3-phase, Modbus TCP, apparent/active/ reactive energy / cos phi, harmonics: 2. - 40., THD, class 0.5 acc to IEC61557- 12 or cl. 0.5S acc. to IEC62053-22, wide-range pwr sup. unit AC/DC, screw terminals

| | |
|---|---|
| **Model** | |
| product brand name | SENTRON |
| product designation | Measuring device for power system quality measurement |
| design of the product | compact |
| product type designation | 7KM PAC5100 |
| **Measurements** | |
| measuring procedure | |
| ● for voltage measurement | TRMS |
| ● 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 | Wide-range power supply |
| type of voltage of the supply voltage | AC/DC |
| supply voltage at AC | 90 ... 270 V |
| supply voltage at DC | 20 ... 300 V |
| **Degree of protection protection class** | |
| protection class IP on the front | IP40 |
| 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 |
| illuminance of display backlight adjustable | Yes |
| time-controlled reduction of the illuminance of display backlight possible | Yes |
| display contrast adjustable | Yes |
| national language on the display screen is supported | de, en |
| number of keys | 4 |
| **Communication** | |
| number of interfaces according to Fast Ethernet | 1 |
| type of electrical connection of the fast Ethernet interface | RJ45 (8P8C) |
| **Fault limits** | |
| reference condition for metering accuracy | according to IEC 62053-22, IEC 62053-23, IEC 62586-1, Class S, IEC 61000-4-30, IEC 61000-4-7, IEC 61000-4-15 |
| formula for relative total measurement inaccuracy | |
| ● for measured variable voltage | +/- 0.2 % |
| ● 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 |
| ● for measured variable THD | +/- 0.5 % |
| **Inputs Outputs** | |
| number of digital inputs | 0 |
| number of digital outputs | 2 |
| type of switching output | solid state |
| digital output version | Continuous output, pulse output |
| operating voltage as output voltage at DC maximum permissible | 250 V |
| type of electrical connection at the digital outputs | screw-type terminals |
| output current | |
| ● at digital output for signal <1> maximum | 300 mA |
| internal resistance at the digital outputs | 35 Ω |
| pulse duration | |
| ● initial value | 50 ms |
| ● full-scale value | 3 600 000 ms |
| adjustable time period minimum | 50 ms |
| switching frequency at digital output maximum | 10 Hz |
| property of the output short-circuit proof | Yes |
| measuring category for digital signals | Cat. III |
| **Measuring inputs** | |
| measurable supply voltage between (PE)N and L at AC maximum rated value | 400 V |
| measurable supply voltage between the line conductors at AC maximum rated value | 690 V |
| measurable supply voltage between the line conductors at AC | |
| ● maximum | 831 V |
| voltage measuring range extension with external voltage transformers | yes |
| line conductors and neutral conductors internal resistance for voltage measurement | 6 MΩ |
| measuring category for voltage measurement | CAT III |
| measurable current | |
| ● 1 at AC rated value | 5 A |
| ● 2 at AC rated value | 5 A |
| relative measurable current at AC | |
| ● minimum | 1 % |
| ● maximum | 200 % |
| current measuring range extension with external current transformers | Yes |
| zero point suppression for current measurement | 0 ... 10 % |
| ● for neutral conductor current | 0.0 % to 10.0 % (from Vrated, Irated) |
| apparent power consumption for current measurement | |
| ● with measuring range 5 A per phase | 2 VA |
| measuring category for current measurement | CATIII |

| Connections | |
|---|---|
| type of connectable conductor cross-sections | |
| ● at the measurement inputs for voltage solid | 2.5 mm² |
| ● at the measurement inputs for voltage finely stranded with core end processing | 2.5 mm² |
| ● at the measurement inputs for voltage for AWG cables solid | Screw connection |
| ● at the measurement inputs for current solid | 2.5 mm² |
| ● at the measurement inputs for current finely stranded with core end processing | 2.5 mm² |
| ● at the measurement inputs for current for AWG cables solid | Screw connection |
| type of electrical connection | |
| ● at the measurement inputs for voltage | screw-type terminals |
| ● at the measurement inputs for current | screw-type terminals |
| **Mechanical Design** | |
| fastening method standard rail mounting | No |
| size of Power Monitoring Device | size 96 |
| height | 96 mm |
| width | 96 mm |
| depth | 147.9 mm |
| installation depth | 102.9 mm |
| net weight | 807 g |
| mounting position | vertical |
| **Environmental conditions** | |
| ambient temperature during operation | |
| ● minimum | -25 °C |
| ● maximum | 55 °C |
| ambient temperature during storage | |
| ● minimum | -40 °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 |
| degree of pollution | 2 |
| **Certificates** | |
| certificate of suitability as EC Declaration of Conformity | EN 61000-6-2 and EN 61000-6-4 for EMC guideline |

**Approvals Certificates**

| General Product Approval | Declaration of Conformity | other | | Dangerous Good |
|---|---|---|---|---|
| Confirmation | CE EG-Konf. UK CA | Miscellaneous | Confirmation | Dangerous Goods Information |

**Environment**

Environmental Confirmations

**Further information**

**Siemens has decided to exit the Russian market (see here).**
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business
**Siemens is working on the renewal of the current EAC certificates.**
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).
**Information on the packaging**
https://support.industry.siemens.com/cs/ww/en/view/109813875
**Information- and Downloadcenter (catalogues, leaflets,...)**
http://www.siemens.com/energy-automation
**Industry Mall (Online ordering system)**

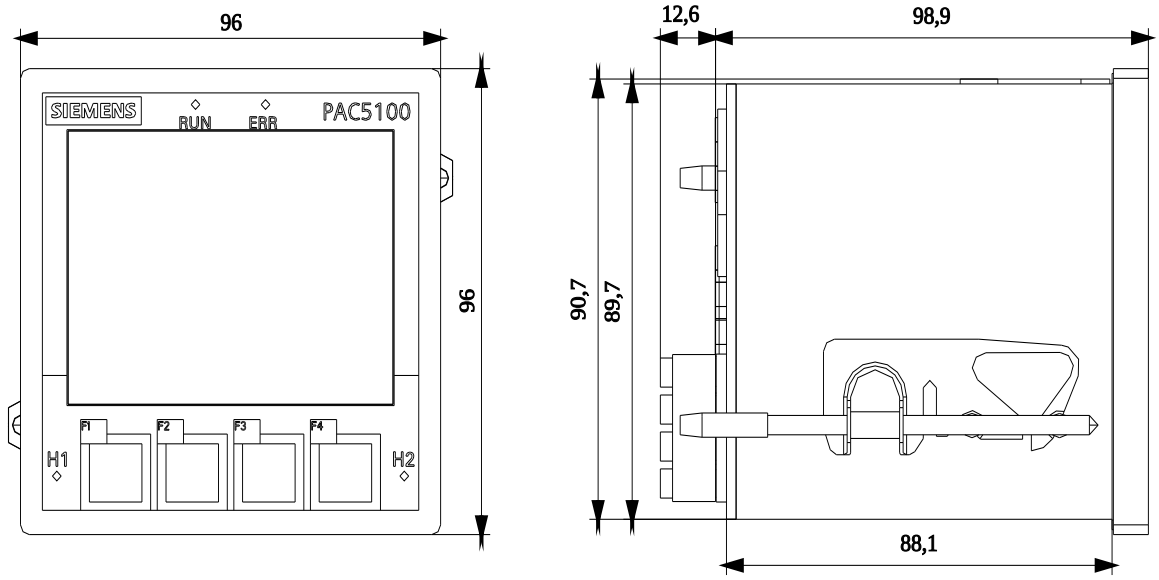
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM5212-6BA00-1EA2

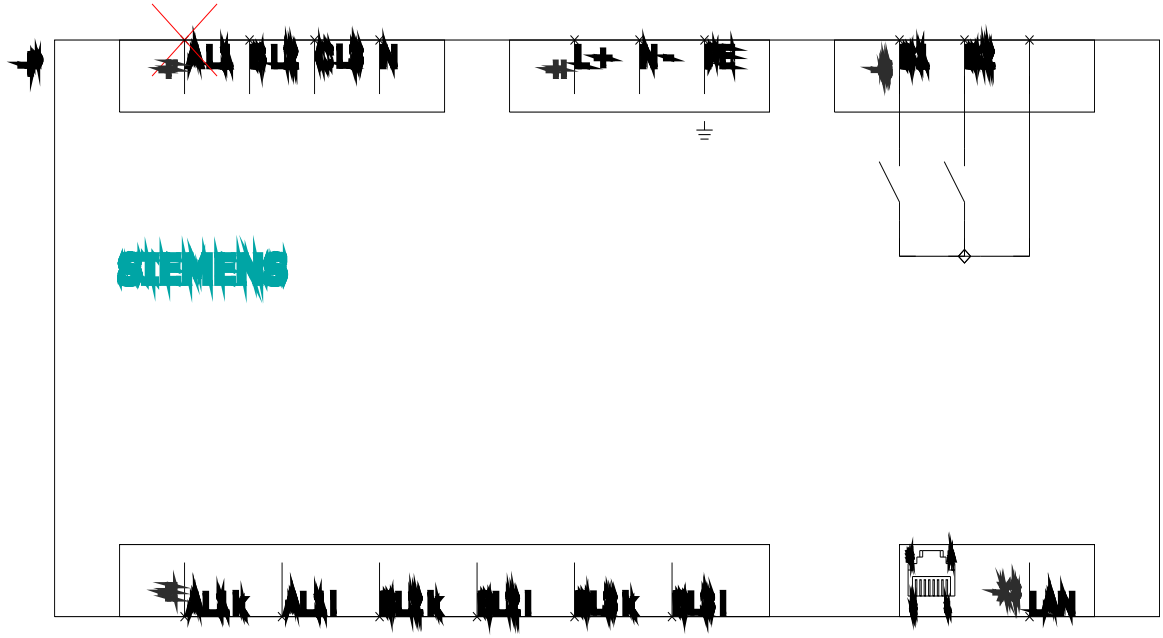
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/7KM5212-6BA00-1EA2

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM5212-6BA00-1EA2

**CAx-Online-Generator**
http://www.siemens.com/cax

**Tender specifications**
http://www.siemens.com/specifications





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