## 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  | 7KM PAC5100   |  |  |
| design of the product  | compact   |  |  |
| product type designation   | Measuring instrument                                      |  |  |
| Measurements   |   |  |  |
| measuring procedure  |   |  |  |
| <ul> <li>for voltage measurement</li> </ul>                                    | TRMS  |  |  |
| <ul> <li>for current measurement</li> </ul>                                    | TRMS  |  |  |
| type of measured value detection   | complete  |  |  |
| voltage curve  | Sinusoidal or distorted                                   |  |  |
| measurable line frequency  |   |  |  |
| <ul> <li>initial value</li> </ul>  | 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   |  |  |
| Degree of protection protection class  |   |  |  |
| protection class IP on the front   | IP40  |  |  |
| operating resource protection class when installed                             | safety class II   |  |  |
| Suitability  |   |  |  |
| suitability for operation  | Installation in stationary control panels in closed rooms |  |  |
| Product Functions  |   |  |  |
| product function   |   |  |  |
| <ul> <li>voltage measurement</li> </ul>  | Yes   |  |  |
| <ul> <li>current measurement</li> </ul>  | Yes   |  |  |
| <ul> <li>active power measurement</li> </ul>                                   | Yes   |  |  |
| <ul> <li>reactive power measurement</li> </ul>                                 | Yes   |  |  |
| <ul> <li>frequency measurement</li> </ul>                                      | 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<br>backlight possible      | Yes  |
| display contrast adjustable  | Yes  |
| national language on the display screen is supported                               | de, en   |
| number of keys   | 4  |
| Communication  |  |
|  | 1  |
| number of interfaces according to Fast Ethernet                                    |  |
| 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                                  |  |
| <ul> <li>for measured variable voltage</li> </ul>                                  | +/- 0,2 %  |
| <ul> <li>for measured variable current</li> </ul>                                  | +/- 0,2 %  |
| <ul> <li>for measured variable output factor</li> </ul>                            | +/- 0,5 %  |
| <ul> <li>for measured variable active energy</li> </ul>                            | Cl. 0.5 acc. to IEC62053-22  |
| <ul> <li>for measured variable reactive energy</li> </ul>                          | Class 2 according to IEC61557-12 and/or IEC62053-23  |
| Inputs Outputs   |  |
|  | 0  |
| 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<br>permissible                   | 250 V  |
| type of electrical connection at the digital outputs                               | screw-type terminals   |
| output current   |  |
| <ul> <li>at digital output for signal &lt;1&gt; maximum</li> </ul>                 | 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   | 400.14   |
| measurable supply voltage between (PE)N and L at AC maximum rated value            | 400 V  |
| measurable supply voltage between the line conductors at<br>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 ΜΩ   |
| measuring category for voltage measurement   | CATIII   |
| 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 %   |
| <ul> <li>for neutral conductor current</li> </ul>                                  | 0.0 % to 10.0 % (from Vrated, Irated)  |
| measuring category for current measurement   | CATIII   |
| Connections  |  |
| type of connectable conductor cross-sections                                       |  |
|  |  |

| <ul> <li>at the measurement inputs for voltage s</li> </ul>  | olid                | 2.5 mm <sup>2</sup>                           |                         |                                |  |
|--|---------------------|---|-------------------------|--------------------------------|--|
| <ul> <li>at the measurement inputs for voltage fister stranded with core end processing</li> </ul> | nely                | 2.5 mm <sup>2</sup>                           |                         |                                |  |
| <ul> <li>at the measurement inputs for voltage a<br/>cables solid</li> </ul>                       | t AWG               | Screw connection                              |                         |                                |  |
| <ul> <li>at the measurement inputs for current a<br/>cables solid</li> </ul>                       | t AWG               | Screw connection                              |                         |                                |  |
| type of electrical connection  |                     |   |                         |                                |  |
| <ul> <li>at the measurement inputs for voltage</li> </ul>  |                     | screw-type terminals                          |                         |                                |  |
| <ul> <li>at the measurement inputs for current</li> </ul>  |                     | 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  | g 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  | degree of pollution |   | 2                       |                                |  |
| Certificates   |                     |   |                         |                                |  |
| certificate of suitability as EC Declaration of C  | onformity           | EN 61000-6-2 and EN 6100                      | 0-6-4 for EMC guideline | )                              |  |
| General Product Approval   | Declaration of      | of Conformity                                 | other                   | Dangerous Good                 |  |
| <u>Confirmation</u>  | CE<br>EG-Konf.      | <u>UK Declaration of</u><br><u>Conformity</u> | <u>Miscellaneous</u>    | Dangerous Goods<br>Information |  |

## Further information

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, ...)

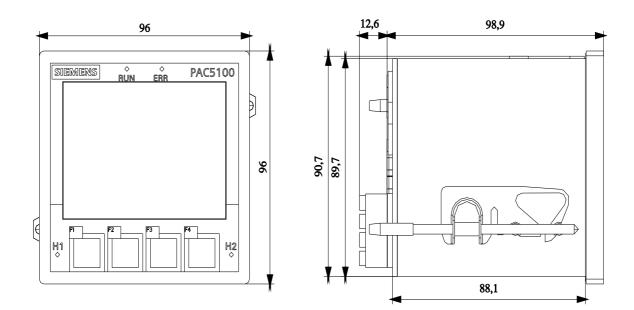
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=7KM5212-6BA00-1EA2

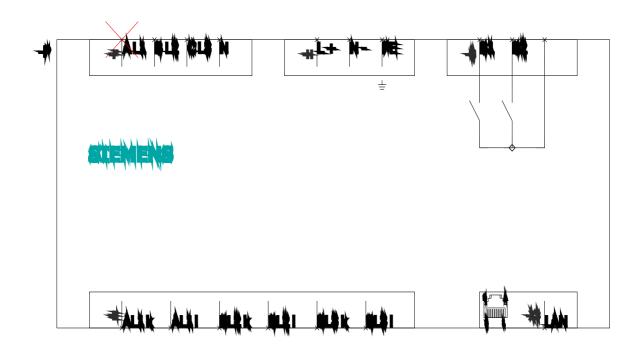
**CAx-Online-Generator** 

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





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