



SENTRON PAC3120 LCD 96X96 mm Power Monitoring Device Control panel instrument for electrical values protocol: Modbus RTU with graphics display U rated input: 690/400V 45-65Hz IE rated input: X/1A oder X/5A AC Power supply: 100 ... 250 V +/-10 % AC/DC screw connections

| Model   |   |
|---|---|
| product brand name  | SENTRON   |
| product designation   | 7KM PAC3120   |
| design of the product   | basic   |
| product type designation  | Measuring instrument                                      |
| Measurements  |   |
| measuring procedure   |   |
| <ul style="list-style-type: none"> <li>for voltage measurement</li> <li>for current measurement</li> </ul>  | TRMS<br>TRMS  |
| type of measured value detection  | complete  |
| voltage curve   | Sinusoidal or distorted                                   |
| measurable line frequency   |   |
| <ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>   | 45 Hz<br>65 Hz  |
| operating mode for measured value detection automatic line frequency detection  | Yes   |
| operating mode for measured value detection   |   |
| <ul style="list-style-type: none"> <li>set at 50 Hz</li> <li>set to 60 Hz</li> </ul>  | No<br>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  | IP65  |
| Suitability   |   |
| suitability for operation   | Installation in stationary control panels in closed rooms |
| Product Functions   |   |
| product function  |   |
| <ul style="list-style-type: none"> <li>voltage measurement</li> <li>current measurement</li> <li>active power measurement</li> <li>reactive power measurement</li> <li>frequency measurement</li> </ul> | Yes<br>Yes<br>Yes<br>Yes<br>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   | No   |
| 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, fr, spa, ita, por, tur, chi, pol   |
| number of keys  | 4  |
| <b>Fault limits</b>   |  |
| reference condition for metering accuracy   | In accordance with IEC61557-12, IEC62053-22 and IEC62053-23  |
| formula for relative total measurement inaccuracy   |  |
| <ul style="list-style-type: none"> <li>• for measured variable voltage</li> <li>• for measured variable current</li> <li>• for measured variable active power</li> <li>• for measured variable reactive power</li> <li>• for measured variable output factor</li> <li>• for measured variable active energy</li> <li>• for measured variable reactive energy</li> </ul> | <ul style="list-style-type: none"> <li>+/- 0,2 %</li> <li>+/- 0,2 %</li> <li>+/- 0.5 %</li> <li>+/- 1 %</li> <li>+/- 0,5 %</li> <li>Cl. 0.5 acc. to... IEC62053-22</li> <li>Class 2 according to IEC61557-12 and/or IEC62053-23</li> </ul> |
| <b>Inputs Outputs</b>   |  |
| number of digital inputs  | 2  |
| type of electrical connection at the digital inputs   | screw-type terminals   |
| operating conditions for digital inputs external voltage supply   | Yes  |
| input voltage at digital input at DC maximum  | 30 V   |
| input current at digital input  |  |
| <ul style="list-style-type: none"> <li>• initial value for signal&lt;1&gt;-recognition</li> </ul>   | 7 mA   |
| number of digital outputs   | 2  |
| type of switching output  | bidirectional  |
| digital output version  | switching or pulse output function   |
| operating voltage as output voltage at DC maximum permissible   | 30 V   |
| type of electrical connection at the digital outputs  | screw-type terminals   |
| output current  |  |
| <ul style="list-style-type: none"> <li>• at the digital outputs at DC limited to 100 ms maximum</li> </ul>  | 130 mA   |
| internal resistance at the digital outputs  | 55 Ω   |
| standard for pulse emitter  | according to IEC62053-31   |
| pulse duration  |  |
| <ul style="list-style-type: none"> <li>• initial value</li> <li>• full-scale value</li> </ul>   | <ul style="list-style-type: none"> <li>30 ms</li> <li>500 ms</li> </ul>  |
| adjustable time period minimum  | 10 ms  |
| switching frequency at digital output maximum   | 17 Hz  |
| property of the output short-circuit proof  | Yes  |
| <b>Measuring inputs</b>   |  |
| measurable supply voltage between (PE)N and L at AC maximum rated value   | 400 V  |
| measurable supply voltage between (PE)N and L at AC   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>  | <ul style="list-style-type: none"> <li>11.5 V</li> <li>480 V</li> </ul>  |
| measurable supply voltage between the line conductors at AC maximum rated value   | 690 V  |
| voltage measuring range extension with external voltage transformers  | yes  |
| line conductors and neutral conductors internal resistance for voltage measurement  | 1.5 MΩ   |
| measuring category for voltage measurement  | CATIII   |
| measurable current  |  |
| <ul style="list-style-type: none"> <li>• 1 at AC rated value</li> <li>• 2 at AC rated value</li> </ul>  | <ul style="list-style-type: none"> <li>1 A</li> <li>5 A</li> </ul>   |
| relative measurable current at AC   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> </ul>   | 1 %  |

|  |            |
|--|------------|
| • maximum  | 100 %      |
| current measuring range extension with external current transformers | yes        |
| zero point suppression for current measurement                       | 0 ... 10 % |
| measuring category for current measurement                           | CATIII     |

### Connections

|   |                      |
|---|----------------------|
| 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                                   | 56 mm    |
| installation depth                      | 51 mm    |
| net weight                              | 325 g    |
| mounting position                       | vertical |

### Environmental conditions

|  |         |
|--|---------|
| ambient temperature during operation                                     |         |
| • minimum  | -25 °C  |
| • maximum  | 55 °C   |
| ambient temperature during storage                                       |         |
| • minimum  | -25 °C  |
| • maximum  | 70 °C   |
| relative humidity at 25 °C without condensation during operation maximum | 75 %    |
| installation altitude at height above sea level maximum                  | 2 000 m |
| degree of pollution  | 2       |

### Certificates

|  |     |
|--|-----|
| certificate of suitability as EC Declaration of Conformity | yes |
|--|-----|

|                                 |            |                                  |              |
|---------------------------------|------------|----------------------------------|--------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> | <b>other</b> |
|---------------------------------|------------|----------------------------------|--------------|



[KC](#)



[Miscellaneous](#)

### 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=7KM3120-0BA01-1DA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM3120-0BA01-1DA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7KM3120-0BA01-1DA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3120-0BA01-1DA0)

**CAX-Online-Generator**

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

**Tender specifications**

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