



SETRON, measuring device, 7KM PAC2200, LCD, L-L: 400 V, L-N: 230 V, 5 A, strd rail instr., 3-phase, Modbus RTU + MID, apparent/active/reactive energy, self-powered, screw terminals

| Model                                                                          |                         |
|--------------------------------------------------------------------------------|-------------------------|
| product brand name                                                             | SETRON                  |
| product designation                                                            | 7KM PAC2200             |
| design of the product                                                          | basic                   |
| product type designation                                                       | Measuring instrument    |
| 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                                                                 |                         |
| type of voltage of the supply voltage                                          | AC                      |
| Degree of protection protection class                                          |                         |
| protection class IP on the front                                               | IP40                    |
| operating resource protection class when installed                             | II                      |
| Product Functions                                                              |                         |
| product function                                                               |                         |
| • voltage measurement                                                          | Yes                     |
| • current measurement                                                          | Yes                     |
| • active power measurement                                                     | Yes                     |
| • reactive power measurement                                                   | Yes                     |
| Display and operation                                                          |                         |
| design of the display                                                          | LCD                     |
| height of the display                                                          | 27 mm                   |
| width of the display                                                           | 45 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                                                                         |
| 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 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 reactive energy</li> </ul> | +/- 0,5 %<br>+/- 1 %<br>+/- 1 %<br>+/- 0,5 %<br>Class 2 acc. to IEC61553-23 |
| <b>Inputs Outputs</b>                                                                                                                                                                                                                                                           |                                                                             |
| number of digital inputs                                                                                                                                                                                                                                                        | 1                                                                           |
| 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> <li>• full-scale value for signal&lt;0&gt; recognition</li> </ul>                                                                                                                   | 2.5 mA<br>0.5 mA                                                            |
| number of digital outputs                                                                                                                                                                                                                                                       | 1                                                                           |
| 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 digital output with signal &lt;0&gt; maximum</li> <li>• at digital output for signal &lt;1&gt; maximum</li> <li>• at the digital outputs at DC limited to 100 ms maximum</li> </ul>                                                 | 0.2 mA<br>50 mA<br>130 mA                                                   |
| internal resistance at the digital outputs                                                                                                                                                                                                                                      | 30 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>                                                                                                                                                                                   | 30 ms<br>500 ms                                                             |
| 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                                                                                                                                                                                                         | 230 V                                                                       |
| measurable supply voltage between (PE)N and L at AC                                                                                                                                                                                                                             |                                                                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                                                                                                                  | 46 V<br>276 V                                                               |
| measurable supply voltage between the line conductors at AC maximum rated value                                                                                                                                                                                                 | 400 V                                                                       |
| measurable supply voltage between the line conductors at AC                                                                                                                                                                                                                     |                                                                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                                                                                                                  | 34.6 V<br>480 V                                                             |
| voltage measuring range extension with external voltage transformers                                                                                                                                                                                                            | No                                                                          |
| line conductors and neutral conductors internal resistance for voltage measurement                                                                                                                                                                                              | 1 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>                                                                                                                                                                          | 1 A<br>5 A                                                                  |
| relative measurable current at AC                                                                                                                                                                                                                                               |                                                                             |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                                                                                                                  | 1 %<br>120 %                                                                |

|                                                                          |                           |                      |       |
|--------------------------------------------------------------------------|---------------------------|----------------------|-------|
| current measuring range extension with external current transformers     |                           | Yes                  |       |
| zero point suppression for current measurement                           |                           | 10 mA                |       |
| • for neutral conductor current                                          |                           | 45 mA                |       |
| 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                                                        |                           |                      |       |
| size of Power Monitoring Device                                          |                           | 6MW                  |       |
| height                                                                   |                           | 97 mm                |       |
| width                                                                    |                           | 108 mm               |       |
| depth                                                                    |                           | 71 mm                |       |
| installation depth                                                       |                           | 64 mm                |       |
| net weight                                                               |                           | 310 g                |       |
| mounting position                                                        |                           | any                  |       |
| 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                    |       |
| General Product Approval                                                 | Declaration of Conformity | Test Certificates    | other |



[Special Test Certificate](#)

[Manufacturer Declaration](#)

#### 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=7KM2200-2EA30-1HA1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM2200-2EA30-1HA1>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=7KM2200-2EA30-1HA1](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2200-2EA30-1HA1)

**Tender specifications**

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

