SIEMENS

Data sheet 7KT0311



Power Monitoring Device Panel instrument for std electrical values Protocol: Modbus RTU LCD display Vaux: 95V to 240V AC x/1 or 5 A, Class 0.5

| Management | |
|--|---|
| Measurements | |
| measuring procedure | T. DVO |
| for voltage measurement | True RMS |
| for current measurement | True RMS |
| 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 |
| Supply voltage | |
| design of the power supply | SMPS power supply |
| type of voltage of the supply voltage | AC |
| Degree of protection protection class | |
| protection class IP on the front | IP65 |
| protection class IP of the terminal | IP20 |
| 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 |
| power factor measurement | Yes |
| frequency measurement | Yes |
| apparent energy/active energy/reactive energy | Yes |
| Display and operation | |
| design of the display | LCD |
| height of the display | 60 mm |
| width of the display | 60 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 | No |
| | |
| national language on the display screen is supported | EN |
| national language on the display screen is supported number of keys | EN 4 |

| transfer rate minimum | 0.3 kbit/s | |
|---|--|--|
| transfer rate maximum | 19.2 kbit/s | |
| Fault limits | | |
| | according to IEC615E7 12 IEC620E2 21 IEC620E2 22 | |
| reference condition for metering accuracy formula for relative total measurement inaccuracy | according to IEC61557-12, IEC62053-21, IEC62053-23 | |
| • | Class 0.5 acc. to IEC 61557-12 | |
| for measured variable voltage for measured variable current | Class 0.5 acc. to IEC 61557-12 | |
| | | |
| for measured variable apparent power | Class 1 as per IEC 61557-12 | |
| for measured variable active power | Class 1 acc. to IEC 61557-12 | |
| for measured variable reactive power | Class 2 as per IEC 61557-12 | |
| for measured variable output factor | Class 1 as per IEC 61557-12 | |
| for measured variable active energy | Class 0.5 acc. to IEC 61557-12 and IEC 62053-21 | |
| for measured variable reactive energy | Class 2 as per IEC 61557-12 and IEC 62053-23 | |
| for measured variable THD | Class 3 as per IEC 61557-12 | |
| Inputs Outputs | | |
| 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 initial value for signal<1>-recognition | 10 mA | |
| number of digital outputs | 1 | |
| type of switching output | Unidirectional | |
| 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 at the digital outputs at DC limited to 100 ms maximum | 130 mA | |
| internal resistance at the digital outputs | 55 Ω | |
| standard for pulse emitter | according to IEC62053-31 | |
| pulse duration | | |
| • initial value | 100 ms | |
| • full-scale value | 2 000 ms | |
| adjustable time period minimum | 100 ms | |
| switching frequency at digital output maximum | 17 Hz | |
| Measuring inputs | | |
| measurable supply voltage between (PE)N and L at AC maximum rated value | 240 V | |
| measurable supply voltage between (PE)N and L at AC | | |
| • minimum | 11 V | |
| • maximum | 300 V | |
| measurable supply voltage between the line conductors at AC | 415 V | |
| maximum rated value | | |
| measurable supply voltage between the line conductors at AC | | |
| • minimum | 19 V | |
| • maximum | 519 V | |
| voltage measuring range extension with external voltage transformers | Yes | |
| line conductors and neutral conductors internal resistance for voltage measurement | 1.12 ΜΩ | |
| 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 | 1 % | |
| • maximum | 120 % | |
| current measuring range extension with external current transformers | Yes | |
| apparent power consumption for current measurement with measuring range 5 A per phase | 3 VA | |
| measuring category for current measurement | CAT III | |
| Connections | | |
| | | |

| 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 | | 57 mm | |
| installation depth | | 52.3 mm | |
| cutout height | | 92 mm | |
| cutout width | | 92 mm | |
| net weight | | 3 250 g | |
| mounting position | | Vertical | |
| Environmental conditions | | | |
| ambient temperature during operation | | | |
| • minimum | | -10 °C | |
| maximum | | 55 °C | |
| ambient temperature during storage | | | |
| • minimum | | -20 °C | |
| • maximum | | 75 °C | |
| relative humidity at 25 °C without condensation d maximum | uring operation | 85 % | |
| installation altitude at height above sea level maximum | | 2 000 m | |
| degree of pollution | | 2 | |
| Approvals Certificates | | | |
| General Product Approval | other | | Environment |
| Contract / Todate Approval | O.IIIOI | | 2 |

Confirmation

Environmental Con-

firmations

Further information

Confirmation

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

EAC

Information- and Downloadcenter (catalogues, leaflets,...)

http://www.siemens.com/energy-automation

Industry Mall (Online ordering system)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KT0311}$

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

https://support.industry.siemens.com/cs/ww/en/ps/7KT0311

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

Miscellaneous

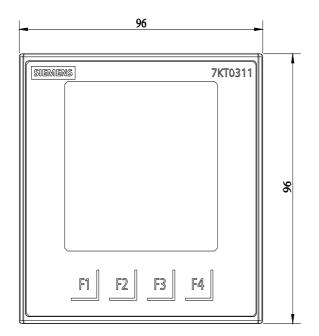
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KT0311

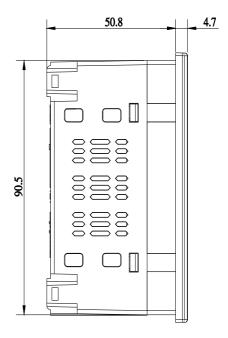
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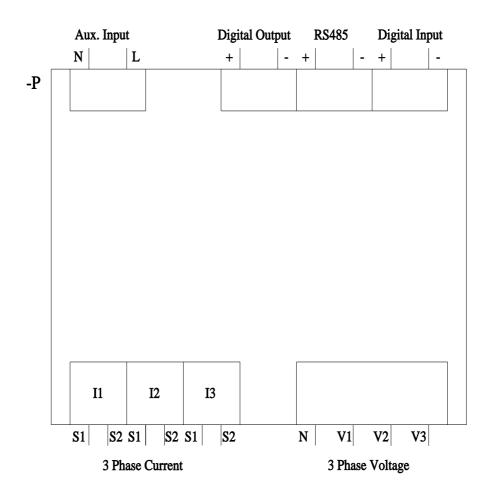
http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications







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