SIEMENS

## Data sheet 7KM3120-1BA01-1EA0


SENTRON PAC3120 LCD 96X96 mm Power Monitoring Device Controll 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: 24 ... 60 V -20/+10 % DC screw connections

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| **Model** | |
| product brand name | SENTRON |
| product designation | 7KM PAC3120 |
| 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** | |
| design of the power supply | Extra-low voltage power supply unit |
| type of voltage of the supply voltage | 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 | |
| ● 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 | 54 mm |
| width of the display | 72 mm |
| color of the background of the display | white |

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| 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 |
| **Fault limits** | |
| reference condition for metering accuracy | In accordance with IEC61557-12, IEC62053-22 and IEC62053-23 |
| formula for relative total measurement inaccuracy | |
| ● for measured variable voltage | +/- 0,2 % |
| ● for measured variable current | +/- 0,2 % |
| ● for measured variable active power | +/- 0.5 % |
| ● for measured variable reactive power | +/- 1 % |
| ● 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 |
| **Inputs Outputs** | |
| 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 | |
| ● initial value for signal<1>-recognition | 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 | |
| ● 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 | 30 ms |
| ● full-scale value | 500 ms |
| adjustable time period minimum | 10 ms |
| switching frequency at digital output maximum | 17 Hz |
| property of the output short-circuit proof | Yes |
| **Measuring inputs** | |
| 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 | |
| ● minimum | 11.5 V |
| ● maximum | 480 V |
| 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 | |
| ● 1 at AC rated value | 1 A |
| ● 2 at AC rated value | 5 A |
| relative measurable current at AC | |
| ● minimum | 1 % |
| ● maximum | 100 % |

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| 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 |

| General Product Approval | | EMC | Declaration of Conformity | other |
|---|---|---|---|---|
| UL | KC | EAC RCM | CE EG-Konf. | 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=7KM3120-1BA01-1EA0
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/7KM3120-1BA01-1EA0
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3120-1BA01-1EA0
**Tender specifications**
http://www.siemens.com/specifications