



SETRON PAC3220, LCD 96 x 96 mm Power Monitoring Device, control panel instrument with measurement of electrical variables, protocol: Modbus TCP, with graphical display, U_e rated: 690/400 V, 45-65 Hz, I_e rated: X/1 A or X/5 A AC, auxiliary power: 100 ... 250 V +-10% AC/DC, screw terminal connection

| Model | |
|--|---|
| product brand name | SETRON |
| product designation | multimeter |
| design of the product | basic |
| product type designation | 7KM PAC3220 |
| 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 | Wide-range power supply |
| type of voltage of the supply voltage | AC/DC |
| supply voltage at AC | 100 ... 250 V |
| supply voltage at DC | 100 ... 250 V |
| Degree of protection protection class | |
| protection class IP on the front | IP65 |
| degree of protection NEMA rating of the enclosure | NEMA Type 5 |
| protection class of the enclosure according to UL 50/UL 50E | Type 5 |
| 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 |
| • frequency 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 |
| 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 |
| Communication | |
| transfer rate minimum | 10 000 kbit/s |
| transfer rate maximum | 100 000 kbit/s |
| number of interfaces according to Fast Ethernet | 2 |
| type of electrical connection of the fast Ethernet interface | 2 x RJ45 |
| protocol at the Ethernet interface is supported | MODBUS TCP |
| Fault limits | |
| 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"> • for measured variable voltage • for measured variable current • for measured variable active power • for measured variable reactive power • for measured variable output factor • for measured variable active energy • for measured variable reactive energy | <ul style="list-style-type: none"> +/- 0.2 % +/- 0.2 % +/- 0.5 % +/- 1 % +/- 0,5 % Cl. 0.5 acc. to... IEC62053-22 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 | |
| <ul style="list-style-type: none"> • 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 | |
| <ul style="list-style-type: none"> • 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 | |
| <ul style="list-style-type: none"> • initial value • full-scale value | <ul style="list-style-type: none"> 30 ms 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 | |
| <ul style="list-style-type: none"> • minimum • maximum | <ul style="list-style-type: none"> 11.5 V 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 | CAT III |
| measurable current | |
| • 1 at AC rated value | 1 A |
| • 2 at AC rated value | 5 A |
| relative measurable current at AC at energy and power measurement | |
| • minimum | 1 % |
| • maximum | 120 % |
| relative measurable current at AC | |
| • minimum | 10 % |
| • maximum | 100 % |
| current measuring range extension with external current transformers | Yes |
| zero point suppression for current measurement | 0 ... 10 % |
| apparent power consumption for current measurement | |
| • with measuring range 5 A per phase | 0.3 VA |
| 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 DIN-rail mounting | No |
| size of Power Monitoring Device | size 96 |
| height | 96 mm |
| width | 96 mm |
| depth | 56 mm |
| installation depth | 51 mm |
| 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 |
|--|-----|

Approvals Certificates

General Product Approval



[Confirmation](#)



| | | | |
|-----|-------------------|-------|-------------|
| EMV | Test Certificates | other | Environment |
|-----|-------------------|-------|-------------|



[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Environmental Confirmations](#)



Environment

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/energy-automation>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM3220-0BA01-1DA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM3220-0BA01-1DA0>

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

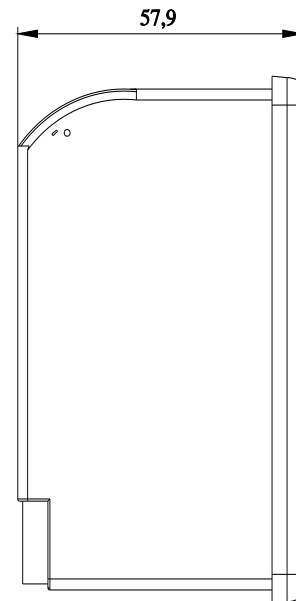
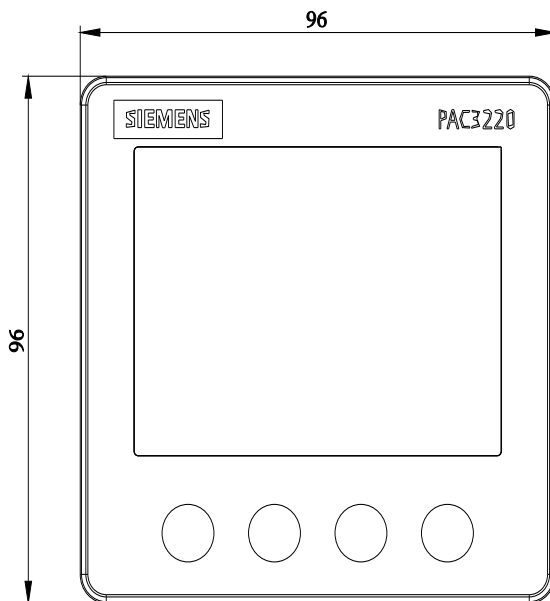
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3220-0BA01-1DA0

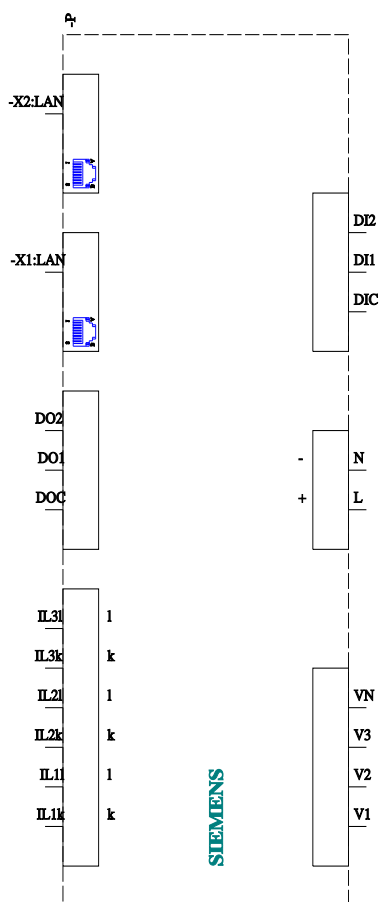
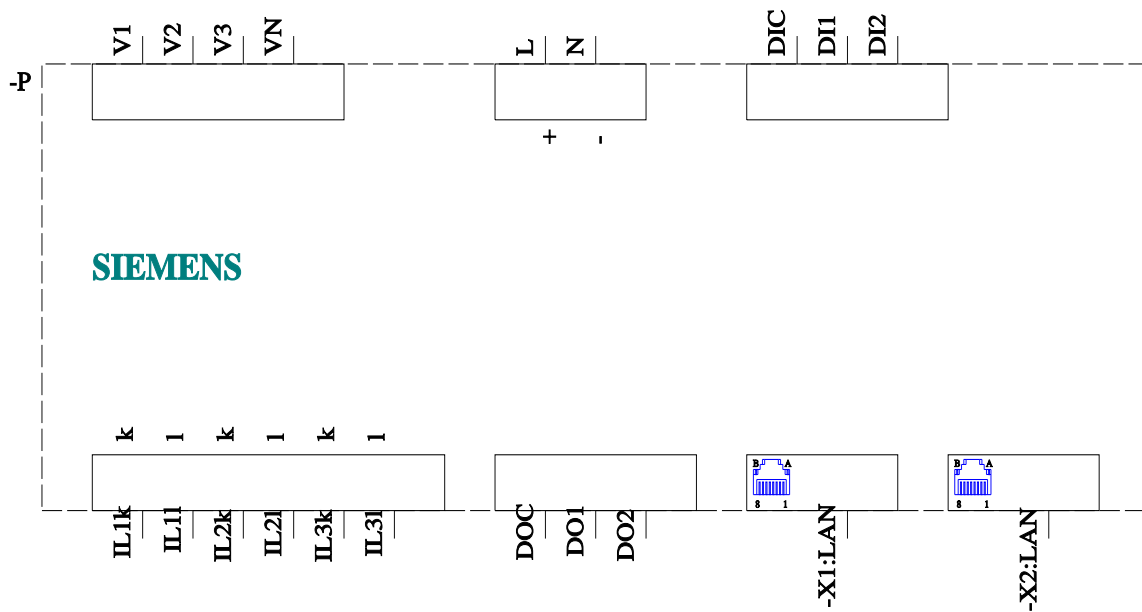
CAX-Online-Generator

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

Tender specifications

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





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