

SENTRON PAC3220 LCD 96X96 mm Power Monitoring Device
 Control panel instrument for electrical values protocol: Modbus TCP
 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



Figure similar

Model	
Product brand name	SENTRON
Design of the product	basic
Product type designation	Measuring instrument
Type of measured value detection	complete
Design of the power supply	Extra-low voltage power supply unit
General technical data	
Cutout width	92 mm
Cutout height	92 mm
Size of Power Monitoring Device / company-specific	size 96
Operating mode for measured value detection	
<ul style="list-style-type: none"> • automatic line frequency detection 	Yes
<ul style="list-style-type: none"> • set at 50 Hz 	No
<ul style="list-style-type: none"> • set to 60 Hz 	No
Pulse duration	
<ul style="list-style-type: none"> • initial value 	30 ms
<ul style="list-style-type: none"> • Full-scale value 	500 ms

Voltage curve	Sinusoidal or distorted
Measurable line frequency / initial value	45 Hz
Measurable line frequency / Full-scale value	65 Hz
Measuring procedure / for voltage measurement	TRMS

Supply voltage

Type of voltage / of the supply voltage	DC
Measuring category / for supply voltage	CATIII
Apparent power consumption	
<ul style="list-style-type: none"> without expansion module / typical 	4 V·A

Protection class

Protection class IP	
<ul style="list-style-type: none"> on the front 	IP65
<ul style="list-style-type: none"> Rear side 	IP20

Current

Measurable current	
<ul style="list-style-type: none"> 1 / at AC / Rated value 	1 A
<ul style="list-style-type: none"> 2 / at AC / Rated value 	5 A

Suitability

Suitability for operation	Installation in stationary control panels in closed rooms
Adjustable time period / minimum	10 ms

Product function

Product function	
<ul style="list-style-type: none"> Illuminance of display backlighting adjustable 	No
<ul style="list-style-type: none"> Time-controlled reduction of the illuminance of display backlighting possible 	Yes
<ul style="list-style-type: none"> reactive power measurement 	Yes
<ul style="list-style-type: none"> frequency measurement 	Yes
<ul style="list-style-type: none"> pulse measurement 	Yes
<ul style="list-style-type: none"> Display contrast adjustable 	Yes
<ul style="list-style-type: none"> voltage measurement 	Yes
<ul style="list-style-type: none"> Current measurement 	Yes
<ul style="list-style-type: none"> active power measurement 	Yes

Display and operation

Design of the display	LCD
Number of keys	4
Color / of the background of the display	white
Product function / Display can be inverted (positive <=> negative mode)	Yes
Horizontal image resolution	128
Vertical screen resolution	96

Communication	
Number of active connections / at the Ethernet interface	3
Number of interfaces / acc. to Fast Ethernet	2
Protocol <ul style="list-style-type: none"> • at the Ethernet interface / is supported • is supported 	MODBUS TCP Modbus TCP
Transfer rate <ul style="list-style-type: none"> • minimum • maximum 	10 000 kbit/s 100 000 kbit/s

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 reactive energy • for measured variable output • for measured variable output factor • for measured variable voltage • for measured variable current • for measured variable active energy 	Class 2 according to IEC61557-12 and/or IEC62053-23 +/- 0,5 % +/- 0,5 % +/- 0,2 % +/- 0,2 % Cl. 0.5 acc. to... IEC62053-22

Inputs Outputs	
Input voltage / at digital input <ul style="list-style-type: none"> • at DC / maximum 	30 V
Number of digital outputs	2
Number of digital inputs	2
Digital output version	switching or pulse output function
Type of switching output	bidirectional
Type of electrical connection <ul style="list-style-type: none"> • at the digital inputs • at the digital outputs 	screw-type terminals screw-type terminals
Input current / at digital input <ul style="list-style-type: none"> • initial value for signal<1>-recognition 	7 mA
Output current <ul style="list-style-type: none"> • at the digital outputs / at DC / limited to 100 ms / maximum 	130 mA
Operating conditions for digital inputs / external voltage supply	Yes
Operating voltage / as output voltage / at DC / maximum permissible	30 V
Property of the output / Short-circuit proof	Yes
Internal resistance / at the digital outputs	55 Ω
Switching frequency / at digital output / maximum	17 Hz

Measuring inputs

Outer conductors and neutral conductors internal resistance / for voltage measurement	1.5 MΩ
Measurable supply voltage	
<ul style="list-style-type: none"> • between (PE)N and L / at AC / minimum 	11.5 V
<ul style="list-style-type: none"> • between (PE)N and L / at AC / maximum 	480 V
<ul style="list-style-type: none"> • between (PE)N and L / at AC / maximum rated value 	400 V
<ul style="list-style-type: none"> • between the outer conductors / at AC / maximum rated value 	690 V
Voltage measuring range extension / with external voltage transformers	Yes
Current measuring range extension / with external current transformers	Yes
Measuring category / for voltage measurement	CATIII
Supply voltage / between the outer conductors / at AC / maximum permissible	831 V
Continuous current / at AC / maximum permissible	10 A
Measuring category / for current measurement	CATIII
Zero-point suppression / for current measurement	0 ... 10 %
Relative measurable current / at AC	
<ul style="list-style-type: none"> • minimum 	1 %
<ul style="list-style-type: none"> • maximum 	100 %
Apparent power consumption / for current measurement	
<ul style="list-style-type: none"> • with measuring range 5 A / per phase 	0.3 V·A
Measuring procedure / for current measurement	TRMS

Connections

Type of electrical connection

<ul style="list-style-type: none"> • at the inputs for supply voltage 	screw-type terminals
<ul style="list-style-type: none"> • at the measurement inputs for voltage 	screw-type terminals
<ul style="list-style-type: none"> • at the measurement inputs for current 	screw-type terminals

Mechanical Design

Height	96 mm
Height / of the display	54 mm
Width	96 mm
Width	
<ul style="list-style-type: none"> • of the display 	72 mm
Depth	56 mm
Installation depth	51 mm
Mounting type / panel mounting	Yes
Mounting position	vertical
Material thickness / of the control panel	
<ul style="list-style-type: none"> • maximum 	4 mm

Net weight	325 g
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Environmental conditions

Installation altitude / at height above sea level / maximum	2 000 m
Standard	
<ul style="list-style-type: none"> • for pulse emitter 	according to IEC62053-31
Ambient temperature / during operation	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 55 °C
Ambient temperature / during storage	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 70 °C

Certificates

Certificate of suitability	
<ul style="list-style-type: none"> • Approval Australia 	Yes

Declaration of Conformity	other
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EG-Konf.

[Manufacturer Declaration](#)

[PROFINET-Certification](#)

[Miscellaneous](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM3220-1BA01-1EA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7KM3220-1BA01-1EA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3220-1BA01-1EA0

CAX-Online-Generator

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

Tender specifications

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



