SIEMENS

Data sheet

7KM1020-0BA01-1DA0

SENTRON PAC1020 96X96 mm Power Monitoring Device Panel mount type for measurement of electr. values Protocol: Modbus RTU With graphical display Un max: 400/230V 45-65Hz Input current 5A AC Power Supply 85V - 276V AC Terminal blocks



Model	
product brand name	SENTRON
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	Yes
automatic line frequency detection	
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
Degree of protection/protection class	
protection class IP on the front	IP40
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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	56 mm
width of the display	74 mm
color of the background of the display	white
illuminance of display backlight adjustable	Yes
display contrast adjustable	Yes
number of keys	4
Communication	
number of interfaces acc. to Fast Ethernet	1
Fault limits	
formula for relative total measurement inaccuracy	
 for measured variable current 	+/- 0,5 %
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
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	
 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	500 ms
• full-scale value	30 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	230 V
AC maximum rated value	
measurable supply voltage between (PE)N and L at	
AC	
• minimum	11.5 V
• maximum	280 V
measurable supply voltage between the line	400 V
conductors at AC maximum rated value	
line conductors and neutral conductors internal	1.5 MΩ
resistance for voltage measurement	
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	10 %
• maximum	120 %
continuous current at AC maximum permissible	10 A
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	
size of Power Monitoring Device	size 96
height	96 mm
width	96 mm
depth	42 mm
installation depth	42 mm
net weight	240 g
mounting position	vertical
Environmental conditions	

ambient temperature during operation	
• minimum	-10 °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

Declaration of Conformity



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=7KM1020-0BA01-1DA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/7KM1020-0BA01-1DA0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM1020-0BA01-1DA0

CAx-Online-Generator http://www.siemens.com/cax

Tender specifications http://www.siemens.com/specifications



