SIEMENS

Data sheet



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

7KM1020-0BA01-1DA0

Model			
product brand name	SENTRON		
product designation	multimeter		
design of the product	basic		
product type designation	7KM PAC1020		
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	IP40		
operating resource protection class when installed	II		
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		
	Yes Yes		
active power measurement			
 active power measurement reactive power measurement	Yes		
 active power measurement reactive power measurement frequency measurement	Yes		
active power measurement reactive power measurement frequency measurement Display and operation	Yes Yes		

color of the background of the display	white	
illuminance of display backlight adjustable	Yes	
display contrast adjustable	Yes	
national language on the display screen is supported	sp, en, cn, pt	
number of keys	4	
Communication		
transfer rate minimum	4 800 kbit/s	
transfer rate maximum	115 200 kbit/s	
number of interfaces according to Fast Ethernet	1	
Fault limits		
reference condition for metering accuracy	according to IEC62053-21	
formula for relative total measurement inaccuracy		
 for measured variable voltage 	0.50%	
 for measured variable current 	+/- 0,5 %	
 for measured variable active power 	1%	
 for measured variable reactive power 	2%	
 for measured variable output factor 	0.50%	
 for measured variable active energy 	class 1 according to IEC62053-21	
for measured variable reactive energy	2%	
Inputs Outputs		
number of digital inputs	1	
design of the switching input	electronic, passive	
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	
type of switching output	electronic, passive	
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 AC maximum rated value	230 V	
measurable supply voltage between (PE)N and L at AC		
• minimum	11.5 V	
• maximum	280 V	
measurable supply voltage between the line conductors at AC maximum rated value	400 V	
voltage measuring range extension with external voltage transformers	yes	
line conductors and neutral conductors internal resistance for voltage measurement	1.5 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	10 %	
maximum	120 %	
current measuring range extension with external current transformers	Yes	
zero point suppression for current measurement	0 10 %	

measuring category for current measurement	CATIII			
Connections	O, (, , , , , , , , , , , , , , , , , ,			
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	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 $^{\circ}\text{C}$ 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		other		





Confirmation



Confirmation

Miscellaneous

Environment



Environmental Confirmations

Environmental Confirmations

Further information

Information on the packaging

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

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

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

Industry Mall (Online ordering system)

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, ...)

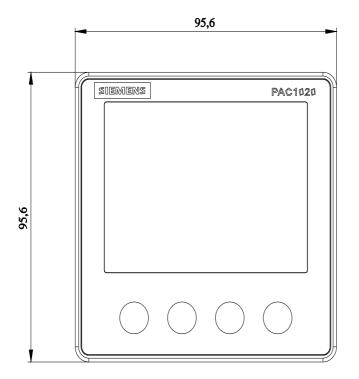
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM1020-0BA01-1DA0

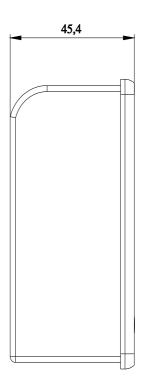
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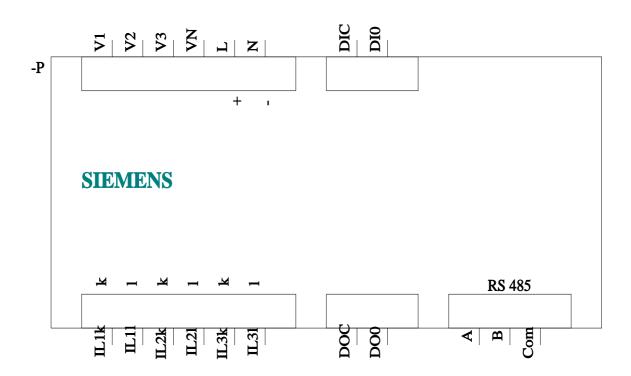
http://www.siemens.com/cax

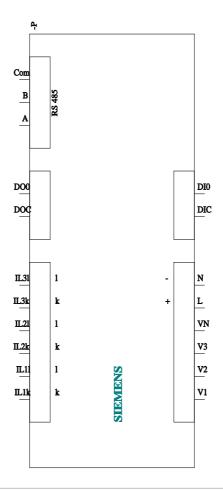
Tender specifications

http://www.siemens.com/specifications









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