## SIEMENS

## Data sheet

## 7KM3220-1BA01-1EA0



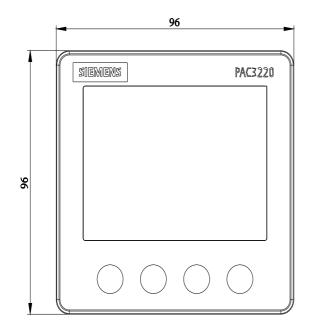
SENTRON PAC3220 LCD 96X96 mm Power Monitoring Device Controll panel instrument for electrical values protocol: Modbus TCP with graphics display U rated input: 690/400V 45-65Hz IE rated input: X/1A oder X/5A AC Power supply: 24 ... 60 V -20/+10 % DC screw connections

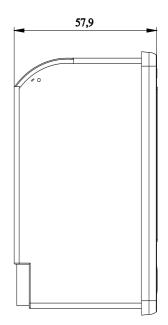
Model				
product brand name	SENTRON			
product designation	multimeter			
design of the product	basic			
Measurements				
measuring procedure				
<ul> <li>for voltage measurement</li> </ul>	TRMS			
<ul> <li>for current measurement</li> </ul>	TRMS			
type of measured value detection	complete			
voltage 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			
supply voltage at DC	24 60 V			
Degree of protection protection class				
protection class IP on the front	IP65			
Suitability				
suitability for operation	Installation in stationary panels in closed rooms			
Product Functions				
product function				
<ul> <li>voltage measurement</li> </ul>	Yes			
<ul> <li>current measurement</li> </ul>	Yes			
<ul> <li>active power measurement</li> </ul>	Yes			
<ul> <li>reactive power measurement</li> </ul>	Yes			
<ul> <li>frequency measurement</li> </ul>	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			

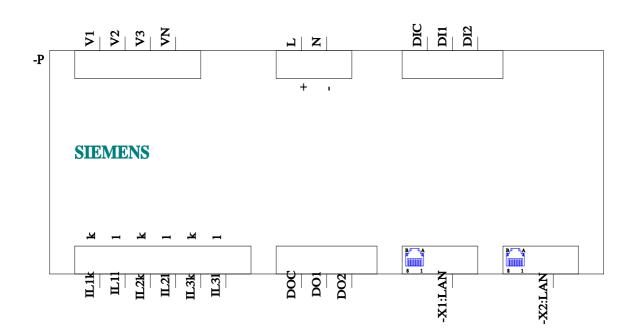
time controlled reduction of the illuminance of display	Vac		
time-controlled reduction of the illuminance of display backlight possible	Yes		
display contrast adjustable	Yes		
national language on the display screen is supported	de, en, fr, spa, ita, por, tur, chi, pol		
number of keys	4		
Communication			
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> <li>for measured variable voltage</li> </ul>	+/- 0,2 %		
<ul> <li>for measured variable current</li> </ul>	+/- 0,2 %		
<ul> <li>for measured variable active power</li> </ul>	+/- 0.5 %		
<ul> <li>for measured variable reactive power</li> </ul>	+/- 1 %		
<ul> <li>for measured variable output factor</li> </ul>	+/- 0,5 %		
<ul> <li>for measured variable active energy</li> </ul>	Cl. 0.5 acc. to IEC62053-22		
<ul> <li>for measured variable reactive energy</li> </ul>	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	Yes		
supply			
input voltage at digital input at DC maximum	30 V		
input current at digital input			
<ul> <li>initial value for signal&lt;1&gt;-recognition</li> </ul>	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> <li>at the digital outputs at DC limited to 100 ms maximum</li> </ul>	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	690 V		
AC maximum rated value			
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			

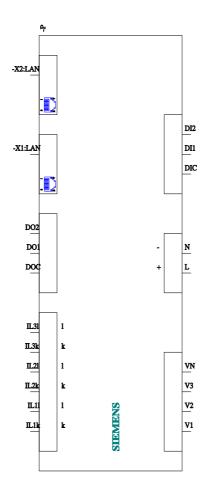
• minimum			1 %		
<ul> <li>maximum</li> </ul>			100 %		
	ange extension with exte	rnal current	Yes		
zero point suppression	on for current measurem	ent	0 10 %		
	for current measuremen		CATIII		
Connections		-			
type of electrical con	nection				
	ement inputs for voltage		screw-type terminals		
	ement inputs for current		screw-type terminals		
			screw-type terminals		
Mechanical Design			Ne		
fastening method sta			No		
size of Power Monito	bring Device		size 96		
height			96 mm		
width			96 mm		
depth			56 mm		
installation depth			51 mm		
net weight			325 g		
mounting position			vertical		
Environmental condi	itions				
ambient temperature	e during operation				
• minimum			-25 °C		
<ul> <li>maximum</li> </ul>			55 °C		
ambient temperature	e durina storage				
• minimum	5 5 5		-25 °C		
<ul> <li>maximum</li> </ul>			70 °C		
	25 °C without condensati	on during	75 %		
operation maximum		ading	10 //		
installation altitude a	t height above sea level	maximum	2 000 m		
degree of pollution	-		2		
Certificates					
certificate of suitabili	ty as EC Declaration of	Conformity	yes		
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General Product A	pproval			EMC	Conformity
<b>Confirmation</b>	~	<u>KC</u>		^	
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	UL			RCM	EG-Konf.
Declaration of					
Conformity	other				
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	<b>Miscellaneous</b>	Miscellaneo	Dus PROFINET-Certific	2	
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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=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









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