7KM3120-1BA01-1EA0

Data sheet



SENTRON PAC3120 LCD 96X96 mm Power Monitoring Device Controll panel instrument for electrical values protocol: Modbus RTU 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
product type designation	7KM PAC3120
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	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	
 voltage measurement 	Yes
 current measurement 	Yes
 active power measurement 	Yes
 reactive power measurement 	Yes
• frequency measurement	Yes
frequency measurement Display and operation	Yes
	Yes LCD
Display and operation	
Display and operation design of the display	LCD
Display and operation design of the display height of the display	LCD 54 mm

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
Fault limits	
reference condition for metering accuracy	In accordance with IEC61557-12, IEC62053-22 and IEC62053-23
formula for relative total measurement inaccuracy	·
for measured variable voltage	+/- 0,2 %
for measured variable current	+/- 0,2 %
for measured variable active power	+/- 0.5 %
for measured variable reactive power	+/- 1 %
for measured variable reactive power for measured variable output factor	+/- 0.5 %
for measured variable output factor for measured variable active energy	Cl. 0.5 acc. to IEC62053-22
for measured variable reactive energy	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	
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	
 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	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	400 V
maximum rated value	
measurable supply voltage between (PE)N and L at AC	44.5.\
• minimum	11.5 V
• maximum	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 ΜΩ
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 %
• maximum	100 %
current measuring range extension with external current transformers	Yes
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		
lechanical Design			
fastening method standard rail mounting	No		
size of Power Monitoring Device	size 96		
height	96 mm		
width	96 mm		
depth	56 mm		
installation depth	51 mm		
net weight	325 g		
mounting position	vertical		
invironmental 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 $^{\circ}\text{C}$ without condensation during operation maximum	75 %		
installation altitude at height above sea level maximum	2 000 m		
degree of pollution	2		
Certificates Certificates			
certificate of suitability as EC Declaration of Conformity	yes		
General Product Approval		ЕМС	Declaration of Con formity

Declaration of Conformity	other		Environment
CE	Confirmation	Miscellaneous	Environmental Confirmations

Further information

EG-Konf.

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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

 $\underline{\text{http://www.siemens.com/energy-automation}}$

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM3120-1BA01-1EA0

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

https://support.industry.siemens.com/cs/ww/en/ps/7KM3120-1BA01-1EA0

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

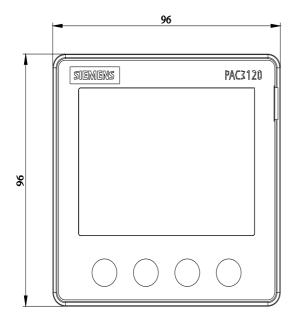
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3120-1BA01-1EA0

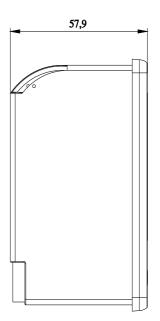
CAx-Online-Generator

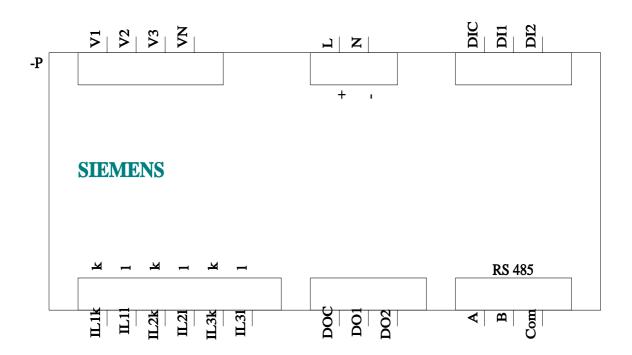
http://www.siemens.com/cax

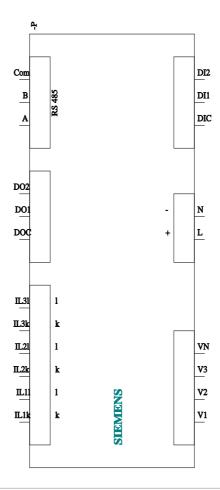
Tender specifications

http://www.siemens.com/specifications









last modified: 2/8/2023 🖸