SIEMENS

Data sheet 7KM3120-1BA01-1EA0



SENTRON PAC3120, LCD 96 x 96 mm Power Monitoring Device, control panel instrument with measurement of electrical variables, protocol: Modbus RTU, with graphical display, Ue rated: 690/400 V, 45-65 Hz, Ie rated: X/1 A or X/5 A AC, auxiliary power: 24 ... 60 V -20/+10% DC, screw terminal connection

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
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

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illuminance of display backlight adjustable	No
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	
transfer rate minimum	4.8 kbit/s
transfer rate maximum	115.2 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	
● 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 output factor	+/- 0,5 %
● 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 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 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 MΩ
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 at energy and power measurement	

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● minimum	1 %
● maximum	120 %
relative measurable current at AC	
● minimum	10 %
● maximum	100 %
current measuring range extension with external current transformers	Yes
zero point suppression for current measurement	0 ... 10 %
apparent power consumption for current measurement	
● with measuring range 5 A per phase	0.3 V·A
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

fastening method DIN-rail mounting	No
size of Power Monitoring Device	size 96
height	96 mm
width	96 mm
depth	56 mm
installation depth	51 mm
mounting position	vertical

Environmental 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 °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

Confirmation

EMV

RCM

Test Certificates

Type Examination Certificate

Type Test Certificates/Test Report

other

Confirmation

Environment

Environmental Confirmations

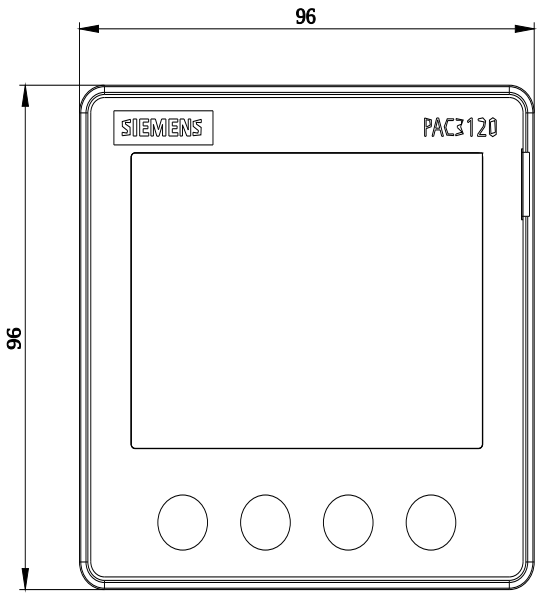
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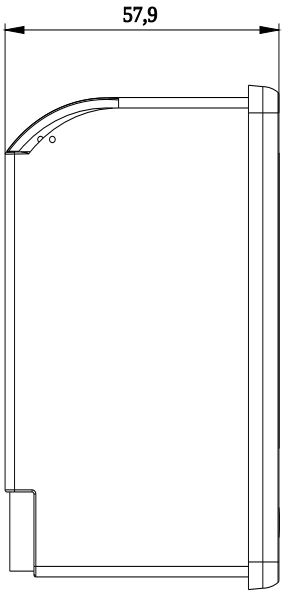
Environmental Confirmations

Further information

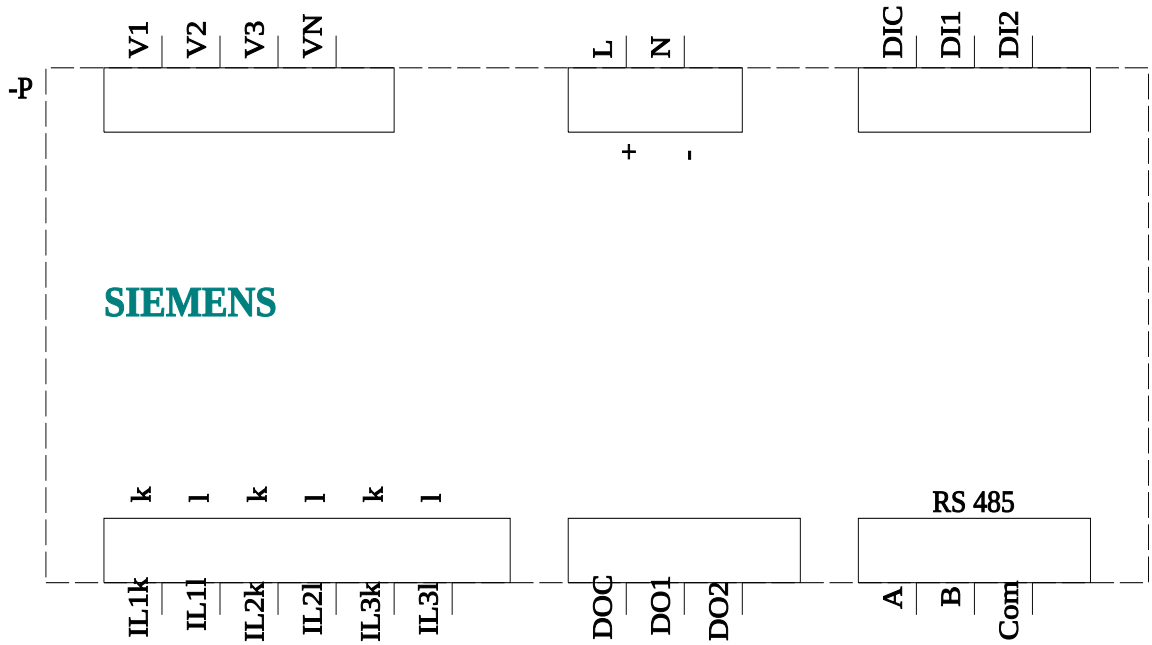
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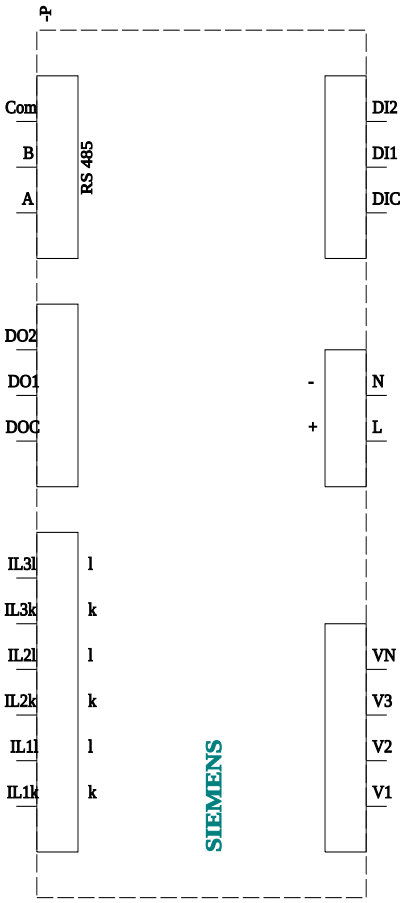
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