SIEMENS

Product data sheet 7KM2112-0BA00-3AA0

Similar to image

SENTRON PAC3200;
LCD;
96X96MM POWER MONITORING DEVICE PANEL MOUNT TYPE FOR MEASUREMENT OF ELECTR. VALUES VAUX: 110-340VDC / 95-240VAC VIN: MAX.690/400V;
45-65HZ AMPIN: X/1A OR X/5A AC COMPRESSION TYPE TERMINALS

General technical data:		
product designation		multimeter
product brand name		SENTRON
Product-type designation		PAC3200
Size of multimeter / company-specific		size 96
Design of the product		basic
Product function		
• voltage measurement		Yes
• current measurement		Yes
• active power measurement		Yes
• reactive power measurement		Yes
• pulse measurement		Yes
• frequency measurement		Yes
Mean time between failures (MTBF)	a	185.8
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		P
• according to DIN EN 61346-2		P

Measurement:

Measuring methode		
• for voltage measurement		RMS
• for current measurement		TRMS
Type of measured value detection		complete
Curve form of the voltage		Sinusoidal or distorted
Measurable line frequency	Hz	45 … 65
Operating mode for measured value detection		
• automatic line frequency detection		Yes
• set at 50 Hz		No
• set to 60 Hz		No

Measuring inputs for voltage:

Measurable supply voltage		
• between (PE)N and L / for AC / maximum nominal value	V	400
• between the outer conductors / for AC / maximum nominal value	V	690
• between (PE)N and L / for AC	V	40 … 480
• between the outer conductors / for AC	V	70 … 831
Supply voltage / between the outer conductors / for AC		
• maximum permissible	V	831
Measuring category / for voltage measurement		CATIII
Outer conductors and neutral conductors internal resistance		
• for voltage measurement	MΩ	1.05
Power consumption / for voltage measurement		
• per phase	mW	220
Measuring range extension for voltages		
• with external voltage transformers		Yes

Measuring inputs for current:

Measurable current		
• 1 / for AC / nominal value	A	1
• 2 / for AC / nominal value	A	5
Relative measurable current / for AC	%	1 … 120
Continuous current / for AC / maximum permissible	A	10
Short-time current resistance (Icw) / limited to 1 s / rated value	A	100
Zero-point suppression / for current measurement		0,1 ... 10 %
Measuring category / for current measurement		CATIII
Measuring range extension for currents		
• with external current transformers		Yes

Fault limits:

Reference condition / for metering precision		Acc. to IEC62053-22 and IEC62053-23

Formula for relative total measurement inaccuracy		
• for measured variable voltage		+/- 0,3 %
• for measured variable current		+/- 0,2 %
• for measured variable output		+/- 0,5 %
• 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

Supply voltage:		
Design of the power supply		Wide-range power supply
Type of voltage / of supply voltage		AC/DC
Relative symmetrical tolerance / of the supply voltage	%	10
Measuring category / supply voltage		CATIII
Supply voltage / 1 / at AC	V	95 … 240
Apparent power consumption		
• without expansion module(s) / typical	V·A	6
• with expansion module(s) / maximum	V·A	8
Supply voltage / 1 / for DC	/ V	340

Digital input:		
Number of digital inputs		1
Input voltage / at the digital input		
• for DC / rated value	V	24
• final value for signal<1>-recognition	V	8
• initial value for signal<1>-recognition	V	13
Input current / at the digital input		
• for signal <1>	mA	7
Initial delay time / at the digital input		
• for signal <1> after <0> / maximum	ms	5
• for signal <0> after <1> / maximum	ms	5

Digital output:		
Number of digital outputs		1
Design of digital outputs		switching or pulse output function
Norm / for impulse equipment		according to IEC62053-31
Pulse duration	ms	30 … 500
Adjustable time period / minimum	ms	10
Operating voltage / as output voltage / for DC / maximum permissible	V	30
Output current		
• at the digital output		

• for signal <1>	/ mA	27
• at signal <0> / maximum	mA	0.2
• at the digital outputs / for DC / maximum	mA	100
Output delay time / at the digital output		
• for signal <1> after <0> / maximum	ms	5
• for signal after <0> after <1> / maximum	ms	5
Internal resistance / at the digital outputs	Ω	55
Switching frequency / at the digital output / maximum	Hz	17
Characteristic feature of the output / short-circuit protected		Yes
Measuring category / for digital signals		CATII

Communication:

Number of interfaces / compliant with fast Ethernet		1
Design of the electrical connection		
• of the fast Ethernet interface		RJ45 (8P8C)
Design of cable / connectable		
• Twisted Pair		Yes
protocol / is supported		SEAbus TCP / MODBUS TCP (switchable)
Transfer rate	kbit/s	10,000 … 10,000
Updating time		
• at the interface	s	0.33 … 1

Indication and operation:

Number of keys		4
Design of the display		LCD, graphical, monochrome
Color / of the background of the display		white
National language / for the display / is supported		ger, en, fr, spa, ita, por, tur, chi
Horizontal image resolution		128
Vertical screen resolution		96
Width / of the display	mm	72
Height / of the display	mm	54
Updating time / on display	s	0.33 … 3

Connection elements and terminals:

Type of connectable conductor cross section / at the measurement inputs for voltage		
• solid		1x (0.5 ... 4 mm2), 2x (0.5 ... 2.5 mm2)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm2), 2x (0.5 ... 1.5 mm2)
• for AWG conductors / solid		2x 20 to 14
Type of connectable conductor cross section / at the measurement inputs for current		

• solid		1x (0.5 ... 4 mm2), 2x (0.5 ... 2.5 mm2)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm2), 2x (0.5 ... 1.5 mm2)
• for AWG conductors / solid		2x 20 to 14
Type of connectable conductor cross section		
• at the inputs for supply voltage		
• solid		1x (0.5 ... 4 mm2), 2x (0.5 ... 2.5 mm2)
• finely stranded / with wire end processing		1x (0.5 ... 2.5 mm2), 2 (0.5 ... 1.5 mm2)
• for AWG conductors / solid		2x 20 to 14
• at the digital inputs / solid		1x (0.2 ... 2.5 mm2), 2x (0.2 ... 1.0 mm2)
Type of connectable conductor cross section		
• at the digital inputs / finely stranded / with wire end processing		1x (0.25 ... 2.5 mm2), 2x (0.25 ... 1.0 mm2)
• at the digital inputs / for AWG conductors / solid		2x 24 ... 18
Type of connectable conductor cross section / at the digital outputs		
• solid		1x (0.2 ... 2.5 mm2), 2x (0.2 ... 1.0 mm2)
• finely stranded / with wire end processing		1x (0.25 ... 2.5 mm2), 2x (0.25 ... 1.0 mm2)
• for AWG conductors / solid		2x 24 ... 18

Dimensions and weights:

Suitability for installation		Installation in stationary control panels in closed rooms
Type of fixing/fixation / panel mounting		Yes
mounting position		vertical
Width	mm	96
Height	mm	96
Depth	mm	56
Mounting depth	mm	51
Cutout height	mm	92
Cutout width	mm	92

Degree of protection and safety class:

Operating resource protection class		
• when installed		II
Protection class IP		
• on the front		IP65
• rear side		IP20

Ambient conditions:

Ambient temperature		
• during operating	°C	-10 … +55
• during storage	°C	-25 … +70
Relative humidity / at 25 °C / without condensation		

• during the operating phase	%	5 … 95
Installation altitude / at a height over sea level / maximum	m	2,000
Norm		
• for environmental coldness check		IEC 60068-2-1
• for environmental dry heat check		IEC 60068-2-2
• for cyclic, environmental damp heat check		IEC 60068-2-30

Certificates/approvals:

Verification of suitability	
• as EC declaration of conformity	IEC 61010-1: 2001 (2nd Ed.) with Corr. 1, EN 61010-1: 2001 (2nd Ed.) and DIN EN 61010-1:2002 with "Berichtigung 1"
• as authorisation for USA	UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04
• as authorisation for Canada	UL 61010-1, 2nd Ed. CAN/CSA-C22.2 NO. 61010-1-04

Certificates/approvals:

General Product Approval		EMC	Declaration of Conformity
GOST	UL	C-TICK	EG-Konf.
other			
Confirmation	GOST	PROFINET-Certification	

Further information:

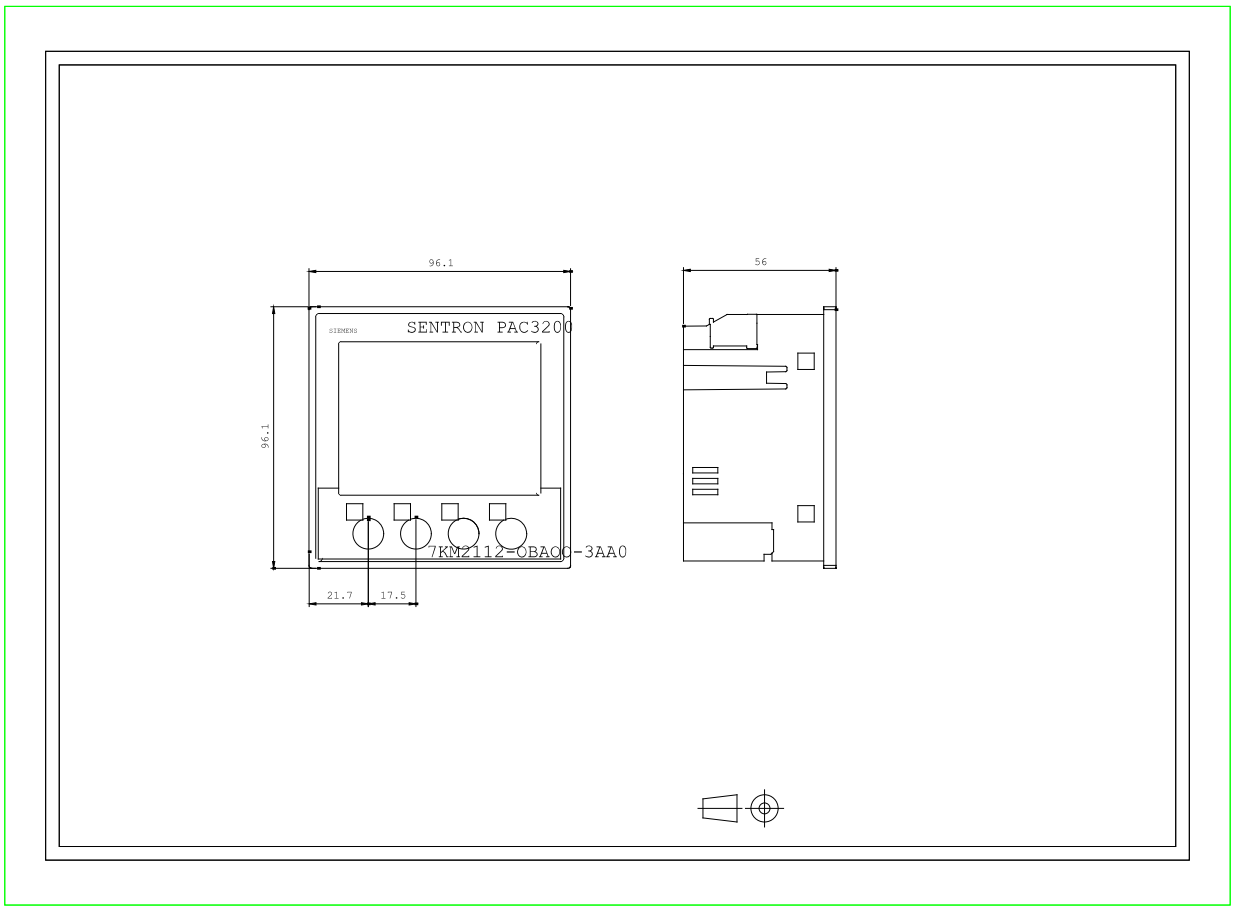
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)
http://www.siemens.com/lowvoltage/mall

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/7KM2112-0BA00-3AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2112-0BA00-3AA0

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



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