SIEMENS

Data sheet 7KM5412-6BA00-1EA2



SENTRON, measuring instrument and power quality recorder, 7KM PAC5200, LCD, L-L: 690 V, L-N: 400 V, 10 A, 3-phase, Modbus TCP, apparent / active / reactive energy / cos phi, harmonics: 2nd - 40th, THD, Class 0.5 acc. to IEC 61557-12 or Class 0.5 s acc. to IEC 62053-22, wide-range power supply, AC/DC, screw terminals

Model	
product brand name	SENTRON
product designation	Measuring device for power system quality measurement
design of the product	Advanced
product type designation	7KM PAC5200
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	90 ... 270 V
supply voltage at DC	20 ... 300 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
● reactive power measurement	Yes
● frequency measurement	Yes
Display and operation	
design of the display	LCD
height of the display	54 mm

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width of the display	72 mm
color of the background of the display	white
illuminance of display backlight adjustable	Yes
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
number of keys	4
Communication	
number of interfaces according to Fast Ethernet	1
type of electrical connection of the fast Ethernet interface	RJ45 (8P8C)
Fault limits	
reference condition for metering accuracy	according to IEC 62053-22, IEC 62053-23, IEC 62586-1, Class S, IEC 61000-4-30, IEC 61000-4-7, IEC 61000-4-23
formula for relative total measurement inaccuracy	
● for measured variable voltage	+/- 0.2 %
● for measured variable current	+/- 0.2 %
● 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
● for measured variable THD	+/- 0.5 %
Inputs Outputs	
number of digital inputs	0
number of digital outputs	2
type of switching output	solid state
digital output version	Continuous output, pulse output
operating voltage as output voltage at DC maximum permissible	250 V
type of electrical connection at the digital outputs	screw-type terminals
output current	
● at digital output for signal <1> maximum	300 mA
internal resistance at the digital outputs	35 Ω
pulse duration	
● initial value	50 ms
● full-scale value	3 600 000 ms
adjustable time period minimum	50 ms
switching frequency at digital output maximum	10 Hz
property of the output short-circuit proof	Yes
measuring category for digital signals	Cat. III
Measuring inputs	
measurable supply voltage between (PE)N and L at AC maximum rated value	400 V
measurable supply voltage between the line conductors at AC maximum rated value	690 V
measurable supply voltage between the line conductors at AC	
● maximum	831 V
voltage measuring range extension with external voltage transformers	yes
line conductors and neutral conductors internal resistance for voltage measurement	6 MΩ
measuring category for voltage measurement	CAT III
measurable current	
● 1 at AC rated value	5 A
● 2 at AC rated value	5 A
relative measurable current at AC	
● minimum	1 %
● maximum	200 %
current measuring range extension with external current transformers	Yes
zero point suppression for current measurement	0 ... 10 %

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● for neutral conductor current	0.0 % to 10.0 % (from Vrated, Irated)
apparent power consumption for current measurement	
● with measuring range 5 A per phase	2 V·A
measuring category for current measurement	CATIII
Connections	
type of connectable conductor cross-sections	
● at the measurement inputs for voltage solid	2.5 mm²
● at the measurement inputs for voltage finely stranded with core end processing	2.5 mm²
● at the measurement inputs for voltage for AWG cables solid	Screw connection
● at the measurement inputs for current solid	2.5 mm²
● at the measurement inputs for current finely stranded with core end processing	2.5 mm²
● at the measurement inputs for current for AWG cables solid	Screw connection
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	147.9 mm
installation depth	102.9 mm
mounting position	vertical
Environmental conditions	
ambient temperature during operation	
● minimum	-25 °C
● maximum	55 °C
ambient temperature during storage	
● minimum	-40 °C
● maximum	70 °C
relative humidity at 25 °C without condensation during operation maximum	95 %
installation altitude at height above sea level maximum	2 000 m
degree of pollution	2
Certificates	
certificate of suitability as EC Declaration of Conformity	EN 61000-6-2 and EN 61000-6-4 for EMC guideline

Approvals Certificates

General Product Approval		other		Dangerous goods
EAC	Confirmation	CE EG-Konf.	Confirmation	产品合格 QC PASS	Dangerous goods information

Environment

Environmental Confirmations	Environmental Confirmations

Siemens EcoTech

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (catalogues, leaflets,...)

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

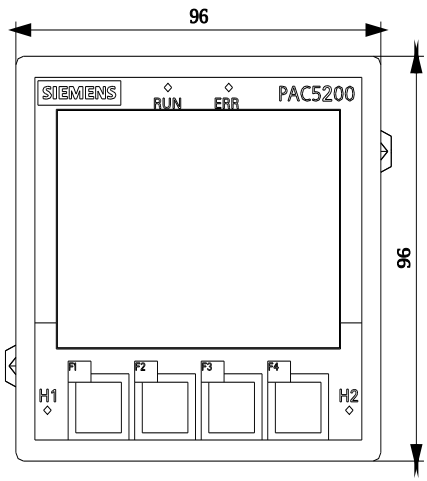
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7KM5412-6BA00-1EA2

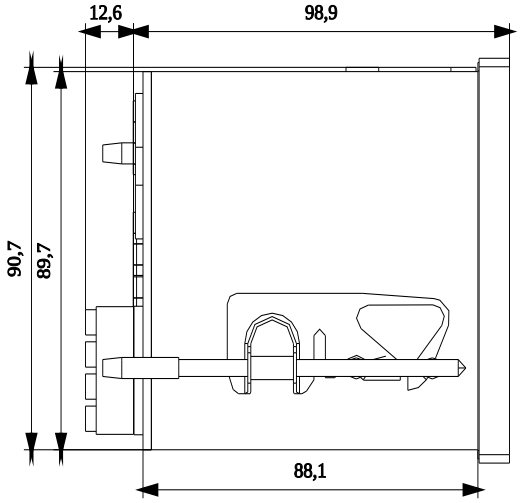
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/7KM5412-6BA00-1EA2

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM5412-6BA00-1EA2

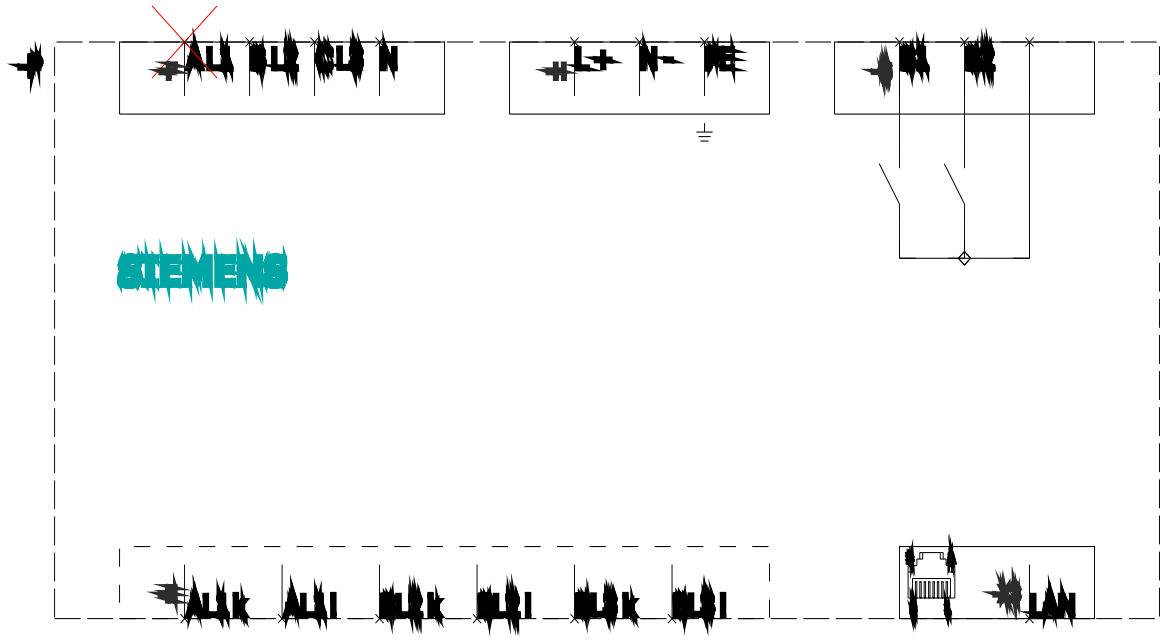
CAx-Online-Generator
https://www.siemens.com/cax

Tender specifications
https://www.siemens.com/specifications





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