SIEMENS

Data sheet 7KM2200-2EA30-1JA1

SENTRON, measuring device, 7KM PAC2200, LCD, L-L: 400 V, L-N: 230 V, 5 A, strd rail instr., 3-phase, Modbus TCP + MID, apparent/active/ reactive energy, self-powered, screw terminals

Model	
product brand name	SENTRON
product designation	7KM PAC2200
design of the product	basic
product type designation	Measuring instrument
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	
type of voltage of the supply voltage	AC
Degree of protection protection class	
protection class IP on the front	IP40
operating resource protection class when installed	II
Product Functions	
product function	
● voltage measurement	Yes
● current measurement	Yes
● active power measurement	Yes
● reactive power measurement	Yes
Display and operation	
design of the display	LCD
height of the display	27 mm
width of the display	45 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
number of keys	4
Communication	
number of interfaces acc. to Fast Ethernet	1
protocol at the Ethernet interface is supported	MODBUS TCP
transfer rate 1 for Ethernet	10 Mbit/s
transfer rate 2 for Ethernet	100 Mbit/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 current	+/- 0,5 %
● for measured variable active power	+/- 1 %
● for measured variable reactive power	+/- 1 %
● for measured variable output factor	+/- 0,5 %
● for measured variable reactive energy	Class 2 acc. to IEC61553-23
Inputs Outputs	
number of digital inputs	1
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	2.5 mA
● full-scale value for signal<0> recognition	0.5 mA
number of digital outputs	1
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 digital output with signal <0> maximum	0.2 mA
● at digital output for signal <1> maximum	50 mA
● at the digital outputs at DC limited to 100 ms maximum	130 mA
internal resistance at the digital outputs	30 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	230 V
measurable supply voltage between (PE)N and L at AC	
● minimum	46 V
● maximum	276 V
measurable supply voltage between the line conductors at AC maximum rated value	400 V
measurable supply voltage between the line conductors at AC	
● minimum	34.6 V
● maximum	480 V
voltage measuring range extension with external voltage transformers	No
line conductors and neutral conductors internal resistance for voltage measurement	1 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 %
● maximum	120 %
current measuring range extension with external current transformers	Yes
zero point suppression for current measurement	10 mA
● for neutral conductor current	45 mA
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	
size of Power Monitoring Device	6MW
height	97 mm
width	108 mm
depth	71 mm
installation depth	64 mm
net weight	310 g
mounting position	any
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

General Product Approval	Declaration of Conformity	Test Certificates	other
EAC	CE EG-Konf.	Special Test Certificate	Manufacturer Declaration

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=7KM2200-2EA30-1JA1
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/7KM2200-2EA30-1JA1
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM2200-2EA30-1JA1
Tender specifications
http://www.siemens.com/specifications