SIEMENS

Data sheet



SENTRON, measuring device, 7KM PAC3100, LCD, L-L: 480 V, L-N: 277 V, 3-phase, Modbus RTU, active/reactive energy, class 1 acc. to IEC 61557-12 & 62053- 21, wide-range power sup. unit AC/DC, screw terminals

product brand name				
	SENTRON			
product designation	7KM PAC3100			
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				
design of the power supply	Wide-range power supply			
type of voltage of the supply voltage	AC/DC			
Degree of protection protection class				
Degree of protection protection class protection class IP on the front	IP65			
	IP65 safety class II			
protection class IP on the front				
protection class IP on the front operating resource protection class when installed				
protection class IP on the front operating resource protection class when installed Suitability	safety class II			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation	safety class II			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions	safety class II			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function	Installation in stationary control panels in closed rooms			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function • voltage measurement	Installation in stationary control panels in closed rooms Yes			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function • voltage measurement • current measurement	Installation in stationary control panels in closed rooms Yes Yes			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function • voltage measurement • current measurement • active power measurement	Installation in stationary control panels in closed rooms Yes Yes Yes			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function • voltage measurement • current measurement • active power measurement • reactive power measurement	Installation in stationary control panels in closed rooms Yes Yes Yes Yes Yes			
protection class IP on the front operating resource protection class when installed Suitability suitability for operation Product Functions product function • voltage measurement • current measurement • active power measurement • reactive power measurement • frequency measurement	Installation in stationary control panels in closed rooms Yes Yes Yes Yes Yes			

	=0			
width of the display	72 mm			
color of the background of the display	white			
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	ger, en, fr, spa, ita, por, tur, chi			
number of keys	4			
Fault limits				
reference condition for metering accuracy	according to IEC61557-12 (K55)			
formula for relative total measurement inaccuracy				
for measured variable voltage	+/- 1.0 %			
for measured variable current	+/- 1.0 %			
 for measured variable active power 	+/- 1 %			
 for measured variable reactive power 	+/- 3 %			
for measured variable output factor	+/- 1 %			
 for measured variable active energy 	Class 1 according to IEC 61557-12 and IEC62053-21			
for measured variable reactive energy	Class 3 according to IEC61557-12 and IEC62053-23			
Inputs Outputs	,			
number of digital inputs	2			
design of the switching input	Self-supplied			
type of electrical connection at the digital inputs	screw-type terminals			
operating conditions for digital inputs external voltage	No			
supply				
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	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 digital output with signal <0> maximum	0.2 mA			
 at digital output for signal <1> maximum 	27 mA			
 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 category for digital signals	CATI			
Measuring inputs				
measurable supply voltage between (PE)N and L at AC maximum rated value	277 V			
measurable supply voltage between (PE)N and L at AC				
minimum	11.5 V			
minimum maximum	11.5 V 277 V			
	480 V			
measurable supply voltage between the line conductors at AC maximum rated value	+00 V			
measurable supply voltage between the line conductors at AC				
• minimum	20 V			
• maximum	480 V			

voltage measuring range extension with extension	rnal voltage	yes				
transformers line conductors and neutral conductors intern	al resistance	0.84 ΜΩ				
for voltage measurement						
measuring category for voltage measuremen	t	CATIII				
measurable current						
1 at AC rated value		5 A				
relative measurable current at AC						
• minimum		0.2 %				
maximum		120 %				
current measuring range extension with exter transformers	rnal current	yes				
zero point suppression for current measurem	ent	10 m	A			
 for neutral conductor current 		45 mA				
measuring category for current measurement	t	CATI	II			
Connections						
type of connectable conductor cross-sections						
at the measurement inputs for voltage:		1x (0	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)			
at the measurement inputs for voltage stranded with core end processing		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)				
at the measurement inputs for voltage a cables solid	at AWG	2x 20 to 14				
 at the measurement inputs for current s 	solid	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)				
 at the measurement inputs for current f stranded with core end processing 		1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)				
 at the measurement inputs for current a cables solid 	at AWG	2x 20 to 14				
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		size 9	96			
height		96 mm				
width		96 mm				
depth		56 mm				
installation depth		51 mm				
net weight		469 g				
mounting position		vertical				
Environmental conditions						
ambient temperature during operation						
minimum		-10 °(?			
maximum			55 °C			
ambient temperature during storage		33 0				
minimum		-25 °	-25 °C			
maximum			-25 °C 70 °C			
relative humidity at 25 °C without condensation operation maximum	on during		95 %			
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			IEC 61010-1: 2001 (2nd Ed.) with Corr. 1, EN 61010-1: 2001 (2nd Ed.) and DIN EN 61010-1:2002 with "Berichtigung 1"			
reference code acc. to DIN EN 61346-2		P		with Denorthyung 1		
General Product Approval	EMC		Declaration of Conformity	other		









Confirmation

Miscellaneous

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=7KM3133-0BA00-3AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/7KM3133-0BA00-3AA0

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

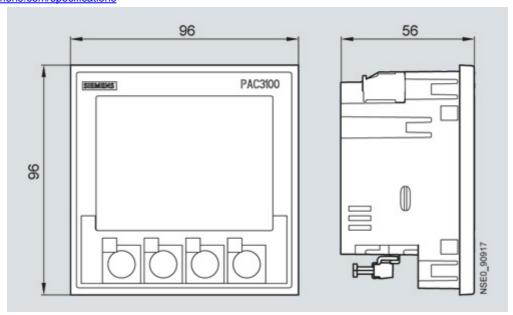
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM3133-0BA00-3AA0

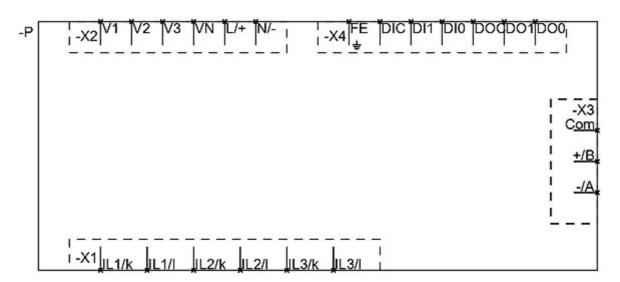
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





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