SIEMENS

Data sheet



SENTRON, measuring device, 7KM PAC4200, LCD, L-L: 500 V, L-N: 289 V, 5 A, 3-phase, Modbus TCP, optional Modbus RTU / PROFINET / PROFIBUS / DI/DO, apparent/active/reactive energy / cos phi, harmonics: 2.-64., THD, class 0.2 acc. to IEC61557-12 or cl. 0.2S acc. to IEC62053-22, ext-low volt. pwr sup. unit DC, screw terminals

Model	
product brand name	SENTRON
design of the product	compact
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	22 65 V
Degree of protection protection class	
protection class IP on the front	IP65
operating resource protection class when installed	safety class 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
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 display contrast adjustable anstonal language on the display screen is supported unumber of keys (communication unumber of interfaces according to Fast Ethernet type of electrical connection of the digital inputs type of electrical connection at the digital output typ		
Instinctional language on the display screen is supported number of keys Communication number of interfaces according to Fast Ethernet RJA45 (8PBC) protocol at the Ethernet interface is supported transfer rate 1 for Ethernet Transfer rate 2 for Ethernet Transfer rate 2 for Ethernet Transfer rate 2 for Ethernet Transfer rate 1 for Ethernet Transfer rate 2		Yes
number of interfaces according to Fast Ethemet type of electrical connection of the fast Ethemet protocol at the Ethemet interface is supported transfer rate 1 for Ethemet Transfer rate 2 for Ethemet Transfer rate	display contrast adjustable	Yes
number of interfaces according to Fast Ethernet number of interfaces according to Fast Ethernet protocol at the Ethernet interface is supported transfer rate 1 for Ethernet transfer rate 1 for Ethernet transfer rate 1 for Ethernet transfer rate 2 for Ethernet to MoDBUS TCP transfer rate 2 for Ethernet transfer rate 2 for	national language on the display screen is supported	ger, en, fr, spa, ita, por, tur, rus, chi, pol
number of interfaces according to Fast Ethernet type of electrical connection of the fast Ethernet type of electrical connection of the fast Ethernet type of electrical connection of the fast Ethernet that standard rate 2 for Ethernet than Standard rate 1 for Ethernet than Standard rate 1 for Ethernet than Standard rate 1 for Ethernet to Mbbl/s transfer rate 2 for Ethernet to Mbbl/s transfer rate 2 for Ethernet to Mbbl/s treference condition for metering accuracy formula for relative total measurement naccuracy • for measured variable output factor • for measured variable current • for measured variable current • for measured variable current • for measured variable reactive energy • for measured variable reactive energy • for measured variable reactive energy • for measured variable reactive energy • for measured variable output factor • for measured variable reactive energy • for measured variable output seven • for measured variable reactive energy • for measured variable output seven • for measured variable output factor • for measured variable output factor • for measured variable output factor • for measured variable output seven • for measured variable output factor • for measured variable output factor • for measured variable output seven • gottput output outp	number of keys	4
type of electrical connection of the fast Ethernet interface protocol at the Ethernet interface is supported transfer rate 1 for Ethernet 10 Mobils transfer rate 2 for Ethernet 10 Mobils 100 Mobils	Communication	
protocol at the Ethernet interface is supported transfer rate 1 for Ethernet transfer rate 2 for Ethernet 100 Mbits Fault Imits reference condition for metering accuracy formula for relative total measurement inaccuracy • for measured variable current • for measured variable current • for measured variable active energy • for measured variable active energy • for measured variable active energy • for measured variable reactive energy class 0.2 according to IEC61557-12 and/or class 0.2 s according to IEC62053-22 inputs Outputs vpe of electrical connection at the digital inputs soperating conditions for digital input at DC maximum number of digital output supply solid state	number of interfaces according to Fast Ethernet	1
transfer rate 1 for Ethernet transfer rate 2 for Ethernet treference condition for metering accuracy • for measured variable voltage • for measured variable current • for measured variable output factor • for measured variable output factor • for measured variable active energy **To 2 % • for measured variable excive energy **Inputs Outputs number of digital inputs type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply supply to signal duptut version querity of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output with	type of electrical connection of the fast Ethernet interface	RJ45 (8P8C)
transfer rate 1 for Ethernet transfer rate 2 for Ethernet treference condition for metering accuracy • for measured variable voltage • for measured variable current • for measured variable output factor • for measured variable output factor • for measured variable active energy **To 2 % • for measured variable excive energy **Inputs Outputs number of digital inputs type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply supply to signal duptut version querity of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output with	protocol at the Ethernet interface is supported	MODBUS TCP
reference condition for metering accuracy formula for relative total measurement inaccuracy		10 Mbit/s
reference condition for metering accuracy formula for relative total measurement inaccuracy	transfer rate 2 for Ethernet	100 Mbit/s
formula for relative total measurement inaccuracy	Fault limits	
formula for relative total measurement inaccuracy	reference condition for metering accuracy	Acc. to IEC61557-12
• for measured variable voltage • for measured variable current • for measured variable cutry factor • for measured variable active energy • for measured variable active energy • for measured variable active energy • for measured variable reactive energy Inputs Outputs Tumber of digital inputs		
• for measured variable current • for measured variable output factor • for measured variable output factor • for measured variable output factor • for measured variable eactive energy • for measured variable reactive energy Inputs Tumber of digital inputs Tumber of digital inputs Operating conditions for digital inputs external voltage supply Input voltage at digital input at DC maximum Number of digital outputs 2 Yes Solid state 30 ∨ number of digital output version Operating voltage as output voltage at DC maximum exit digital output version operating voltage as output voltage at DC maximum at digital output with signal ≺0> maximum at digital output with signal ≺1> maximum at digital output with signal ≺1> maximum at digital output signal ≼1> maximum at digital output signal ≼1> maximum at digital output signal ≼1> maximum at digital output at DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof yes measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable voltage themes the minimum to to voltage transformers yes yes yes	-	+/- 0,2 %
• for measured variable output factor • for measured variable active energy for measured variable active energy Inputs Outputs number of digital inputs Type of electrical connection at the digital inputs operating conditions for digital input at DC maximum number of digital output s 1 yes of switching output digital output 1 yes of switching output digital output 2 yep of switching output digital output soutput digital output soutput digital output soutput digital output soutput sold set digital output soutput digital output soutput digital output soutput digital output wersion operating voltage as output voltage at DC maximum at the digital output with signal <0> maximum • at digital output for signal <1> maximum • at the digital output sat DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse entiter pulse duration • initial value • full-scale value south of the output short-circuit proof measurable supply voltage between (PE)N and L at AC maximum rated value • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • measurable supply voltage between the line conductors at AC maximum • maximum • measurable supply voltage between the line conductors at AC maximum • maximum • measurable supply voltage between the line conductors at AC maximum •	_	
• for measured variable active energy • for measured variable reactive energy • for measured variable reactive energy Inputs Outputs number of digital inputs type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply input voltage at digital input at DC maximum number of digital outputs 2 type of selectrical connection at the digital input at DC maximum number of digital outputs 2 type of switching output solid state digital output version operating voltage as output voltage at DC maximum operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs sorew-type terminals 2 2 2 2 30 V 2 2 30 V 2 30 V 40 Electrical connection at the digital outputs output current • at digital output for signal <1> maximum • at the digital output for signal <1> maximum internal resistance at the digital outputs • at digital output for signal <1> maximum internal resistance at the digital outputs • full-scale value • full-scale value • full-scale value switching frequency at digital output maximum property of the output short-circuit proof reasurable supply voltage between (PE)N and L at AC • minimum • maximum • maximum • maximum • massurable supply voltage between (PE)N and L at AC • minimum • maximum • maximum • maximum • massurable supply voltage between the line conductors at AC • minimum • maximum • massurable supply voltage between the line conductors at AC • minimum • maximum • massurable supply voltage between the line conductors at AC • minimum • maximum • maximu	 for measured variable output factor 	
• for measured variable reactive energy Class 2 according to IEC61557-12 and/or IEC62053-23 Inputs Outputs 2 number of digital inputs 2 type of electrical connection at the digital inputs xcrew-type terminals operating conditions for digital inputs external voltage supply 30 V number of digital outputs 2 type of switching output solid state digital output version switching or pulse output function operating voltage as output voltage at DC maximum 30 V permissible yes of electrical connection at the digital outputs stop of electrical connection at the digital outputs screw-type terminals output current • at digital output with signal <0> maximum 0.2 mA • at the digital output for signal <1> maximum 27 mA • at the digital output that be digital outputs 55 Ω standard for pulse emitter according to IEC62053-31 pulse duration • initial value 30 ms • full-scale value 30 ms adjustable time period minimum 10 ms switching frequency at digital signals QATI measurable supply v	·	Class 0.2 according to IEC61557-12 and/or class 0.2S according to
Inputs Outputs 2 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 number of digital outputs 2 type of switching output solid state digital output version switching or pulse output function operating voltage as output voltage at DC maximum 30 V operating voltage as output voltage at DC maximum 30 V operating voltage as output voltage at DC maximum 30 V operating voltage as output voltage at DC maximum 30 V operating voltage as output voltage at DC maximum 20 V operating voltage as output voltage at DC maximum 20 V operating voltage voltage between the line conductors at AC 9 minimum at digital output voltage as output voltage at DC maximum 20 MA at digital output voltage between the line conductors at AC 9 minimum initial value 30 ms standard for pulse emilter 20 V property of the output short-circuit proof Yes		
number of digital inputs 2 type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply Yes input voltage at digital input at DC maximum 30 V number of digital outputs 2 digital output version solid state operating voltage as output voltage at DC maximum switching or pulse output function operating voltage as output voltage at DC maximum switching or pulse output function operating voltage as output voltage at DC maximum switching or pulse output function operating voltage as output voltage at DC maximum 30 V operating voltage as output voltage at DC maximum switching or pulse output function output current • at digital output with signal <0> maximum 0.2 mA • at digital output for signal <1> maximum 27 mA • at digital output for signal <1> maximum 300 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 30 ms adjustable time period minimum 10 ms switching freque	 for measured variable reactive energy 	Class 2 according to IEC61557-12 and/or IEC62053-23
type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply input voltage at digital input at DC maximum number of digital outputs 2 type of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output twith signal <0> maximum • at the digital output tor signal <1> maximum • at the digital output so the digital outputs output current • at digital output with signal <0> maximum • at the digital output so the signal <1> maximum • at the digital output so the signal <1> maximum internal resistance at the digital outputs standard for pulse emitter pulse duration • initial value • full-scale value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof reasurable supply voltage between (PE)N and L at AC • minimum measurable supply voltage between the line conductors at AC • minimum measurable supply voltage between the line conductors at AC • minimum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum	Inputs Outputs	
type of electrical connection at the digital inputs operating conditions for digital inputs external voltage supply input voltage at digital input at DC maximum number of digital outputs 2 type of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output twith signal <0> maximum • at the digital output tor signal <1> maximum • at the digital output so the digital outputs output current • at digital output with signal <0> maximum • at the digital output so the signal <1> maximum • at the digital output so the signal <1> maximum internal resistance at the digital outputs standard for pulse emitter pulse duration • initial value • full-scale value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof reasurable supply voltage between (PE)N and L at AC • minimum measurable supply voltage between the line conductors at AC • minimum measurable supply voltage between the line conductors at AC • minimum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum		2
operating conditions for digital inputs external voltage supply input voltage at digital input at DC maximum number of digital outputs 2 type of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output for signal <1> maximum • at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs • full-scale value • full-scale value digital output maximum 10 ms switching frequency at digital output maximum 20 Hz property of the output short-circuit proof measuring languts measurable supply voltage between (PE)N and L at AC maximum measurable supply voltage between the line conductors at AC • minimum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum e maximum masurable supply voltage between the line conductors at AC • minimum • maximum • maximum voltage measuring range extension with external voltage transformers		screw-type terminals
number of digital outputs type of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output for signal <1> maximum • at the digital output for signal <1> maximum • at the digital output for signal <1> maximum • at the digital output for pulse emitter • at digital output sat DC limited to 100 ms maximum internal resistance at the digital outputs 55 Ω standard for pulse emitter pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals Measuring upputs measurable supply voltage between (PE)N and L at AC maximum • maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC • minimum • maximum • maximum measurable supply voltage between the line conductors at AC • minimum • maximum omaximum and value measurable supply voltage between the line conductors at AC • minimum • maximum and voltage measuring range extension with external voltage	operating conditions for digital inputs external voltage	Yes
type of switching output digital output version operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at the digital output for signal <1> maximum • at the digital output at DC limited to 100 ms maximum internal resistance at the digital outputs 55 Ω standard for pulse emitter pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum 20 Hz property of the output short-circuit proof measuring category for digital signals measurable supply voltage between (PE)N and L at AC • minimum • maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value	input voltage at digital input at DC maximum	30 V
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 the digital outputs at DC limited to 100 ms maximum 300 mA internal resistance at the digital outputs 55 Ω standard for pulse emitter according to IEC62053-31 pulse duration 30 ms • full-scale value 500 ms adjustable time period minimum 10 ms switching frequency at digital output maximum 20 Hz property of the output short-circuit proof Yes measuring category for digital signals CATI Measuring inputs 289 V measurable supply voltage between (PE)N and L at AC 289 V emaximum 11.5 V • maximum 36 V measurable supply voltage between the line conductors at AC maximum rated value 500 V • maximum 20 V • minimum 600 V • maximum 600 V	number of digital outputs	2
operating voltage as output voltage at DC maximum permissible type of electrical connection at the digital outputs output current • at digital output with signal <0> maximum • at digital output for signal <1> maximum • at the digital output at DC limited to 100 ms • at the digital output at DC limited to 100 ms maximum internal resistance at the digital outputs \$50 \Omega \text{according to IEC62053-31} pulse duration • initial value • full-scale value • full-scale value adjustable time period minimum switching frequency at digital output maximum 20 Hz property of the output short-circuit proof measuring category for digital signals Measuring inputs measurable supply voltage between (PE)N and L at AC • minimum • maximum • maximum • measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC eminimum • maximum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measurable supply voltage between the line conductors at AC eminimum • measuring range extension with external voltage transformers	type of switching output	solid state
type of electrical connection at the digital outputs output current • at digital output with signal <1> maximum • at the digital output sat DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals measurable supply voltage between (PE)N and L at AC • minimum • masurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC meximum range extension with external voltage transformers yes screw-type terminals 0.2 mA 0.3 mA 0.30 m	digital output version	switching or pulse output function
output current • at digital output with signal <0> maximum • at digital output for signal <1> maximum • at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at A		30 V
 at digital output with signal <0> maximum at digital output for signal <1> maximum at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs 55 Ω standard for pulse emitter pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum on the digital output succession with external voltage transformers 	type of electrical connection at the digital outputs	screw-type terminals
 at digital output for signal <1> maximum at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter according to IEC62053-31 pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum maximum maximum a46 V measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum minimum maximum 00 V voltage measuring range extension with external voltage transformers 	output current	
 at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum maximum maximum yes 	 at digital output with signal <0> maximum 	0.2 mA
 at the digital outputs at DC limited to 100 ms maximum internal resistance at the digital outputs standard for pulse emitter according to IEC62053-31 pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum groperty of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC maximum measurable supply voltage between the line conductors at AC maximum measurable supply voltage between the line conductors at AC minimum maximum woltage measuring range extension with external voltage transformers 	 at digital output for signal <1> maximum 	27 mA
standard for pulse emitter pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC • minimum • maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC waximum rated value • minimum • maximum voltage measuring range extension with external voltage transformers	at the digital outputs at DC limited to 100 ms	300 mA
standard for pulse emitter pulse duration initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum voltage measuring range extension with external voltage transformers	internal resistance at the digital outputs	55 Ω
pulse duration • initial value • full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC • minimum • maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum • minimum • maximum • woltage measuring range extension with external voltage transformers 30 ms 500 ms 30 ms 500 ms 30 ms 500 ms 40 Lat AC 11.5 V 500 V 500 V 500 V		according to IEC62053-31
initial value full-scale value adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC maximum 11.5 V measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC measurable suppl	· · · · · · · · · · · · · · · · · · ·	
adjustable time period minimum switching frequency at digital output maximum property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC maximum inputs 11.5 V maximum and to to to maximum and to to maximum and to to to maximum and to to to maximum and to to maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum and to to maximum rated value measurable supply voltage between the line conductors at AC minimum and to to maximum and t	• initial value	30 ms
switching frequency at digital output maximum 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 measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC maximum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC maximum measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductor	• full-scale value	500 ms
switching frequency at digital output maximum 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 measurable supply voltage between (PE)N and L at AC ininimum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at	adjustable time period minimum	10 ms
property of the output short-circuit proof measuring category for digital signals CATI Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between (PE)N and L at AC measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC measurable supply voltag		20 Hz
measuring category for digital signals Measuring inputs measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC		Yes
Measuring inputs measurable supply voltage between (PE)N and L at AC measurable supply voltage between (PE)N and L at AC • minimum 11.5 V • maximum 346 V measurable supply voltage between the line conductors at AC maximum rated value 500 V measurable supply voltage between the line conductors at AC • minimum • minimum 20 V • maximum 600 V voltage measuring range extension with external voltage transformers yes		CATI
measurable supply voltage between (PE)N and L at AC maximum rated value measurable supply voltage between (PE)N and L at AC minimum measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC measurable supply voltage between the line conductors at AC minimum measurable supply voltage between the line conductors at AC measurable supply voltage between the line c	Measuring inputs	
measurable supply voltage between (PE)N and L at AC • minimum • maximum 346 V measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC • minimum • maximum • maximum voltage measuring range extension with external voltage transformers 11.5 V 500 V 20 V yes	measurable supply voltage between (PE)N and L at AC	289 V
 minimum maximum measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC minimum maximum maximum maximum odo V voltage measuring range extension with external voltage transformers		
 ● maximum 346 V measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC ● minimum ● maximum 000 V voltage measuring range extension with external voltage transformers 		11.5 V
measurable supply voltage between the line conductors at AC maximum rated value measurable supply voltage between the line conductors at AC • minimum • maximum voltage measuring range extension with external voltage transformers 500 V 20 V 600 V		
measurable supply voltage between the line conductors at AC • minimum • maximum 600 V voltage measuring range extension with external voltage transformers yes	measurable supply voltage between the line conductors at	
● maximum 600 V voltage measuring range extension with external voltage transformers yes	measurable supply voltage between the line conductors at	
voltage measuring range extension with external voltage transformers	• minimum	20 V
transformers	• maximum	600 V
line conductors and neutral conductors internal resistance 1.05 MΩ		yes
for voltage measurement		1.05 ΜΩ

• minimum	1 %
• minimum	1 %
• maximum	_ 120 %
current measuring range extension with external current transformers	Yes
zero point suppression for current measurement	0 10 %
measuring category for current measurement	CATIII
Connections	
type of connectable conductor cross-sections	
 at the measurement inputs for voltage solid 	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
 at the measurement inputs for voltage finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
 at the measurement inputs for voltage at AWG cables solid 	2x 20 to 14
 at the measurement inputs for current solid 	1x (0.5 4 mm²), 2x (0.5 2.5 mm²)
 at the measurement inputs for current finely stranded with core end processing 	1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
at the measurement inputs for current at AWG cables solid	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	
fastening method standard rail mounting	No
size of Power Monitoring Device	size 96
height	96 mm
width	96 mm
depth	82 mm
installation depth	77 mm
net weight	_ 537 g
mounting position	vertical
Environmental conditions	
ambient temperature during operation	40.00
• minimum	-10 °C
• maximum	55 °C
ambient temperature during storage	25.00
• minimum	-25 °C
- mavimum	70 °C
maximum relative hymidity at 25 °C without condensation during	OF 0/
maximum relative humidity at 25 °C without condensation during operation maximum	95 %
relative humidity at 25 °C without condensation during	95 % 2 000 m
relative humidity at 25 °C without condensation during operation maximum	
relative humidity at 25 °C without condensation during operation maximum installation altitude at height above sea level maximum degree of pollution	2 000 m
relative humidity at 25 °C without condensation during operation maximum installation altitude at height above sea level maximum	2 000 m 2 IEC 61010-1: 2001 (2nd Ed.) with Corr. 1, EN 61010-1: 2001 (2nd Ed.)
relative humidity at 25 °C without condensation during operation maximum installation altitude at height above sea level maximum degree of pollution Certificates	2 000 m 2

Confirmation











other Dangerous Good

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=7KM4211-1BA00-3AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/7KM4211-1BA00-3AA0

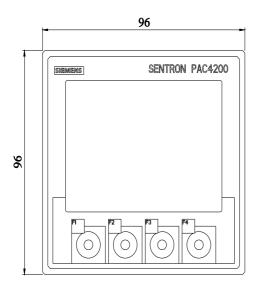
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=7KM4211-1BA00-3AA0

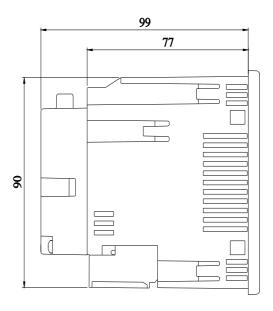
CAx-Online-Generator

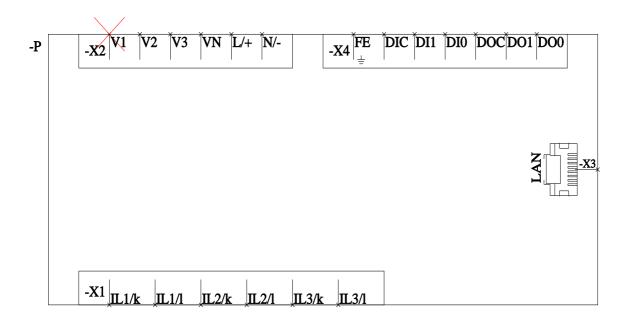
http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications







♂