

GPM-8213 Specifications

The specifications apply when it warmed up for at least 30 minutes and operates in the slow rate.

Operating Environment: 18~28 °C (64.4~82.4°F)



Input

Item	Spec.	
Input voltage	600 Vrms	
Input current	20 Arms	
Input impedance(50/60 Hz)	Voltage	2.4MΩ
	Current	5mA - 200mA 500mΩ 0.5A - 20A 5mΩ
Maximum display voltage	700 Vrms	
Maximum display current	25 Arms	
Maximum allowable isolation voltage	300 V	
Low frequency filter	Cut-off frequency	500 Hz

Display

Synchronization frequency	45Hz~ 6kHz
Average	1, 2, 4, 8, 16, 32, 64
Displayed items(Standard mode)	8 items simultaneously.
Displayed items(Simple mode)	4 items simultaneously.
Displayed digits	5
Voltage converter (PT ratio)	1 to 9999.999
Current converter (CT ratio)	1 to 9999.999
Measurement items	Voltage, current, active power, apparent power, reactive power, power factor, phase angle, frequency, integrated current, integrated power, positive integrated power, negative integrated power, integration time, voltage crest factor, current crest factor, voltage peak, current peak, Thd
Displayed measurement parameters	Vdc, Vrms, V+pk, V-pk, Idc, Irms, I+pk, I-pk, P, P+pk, P-pk, VA, VAR, PF, CFV, CFI, DEG, VHz, IHz, THDV, THDI

Voltage Measurement

Measurement range	CF=3 :	15V, 30V, 60V, 150V, 300V, 600V
	CF=6 :	7.5V, 15V, 30V, 75V, 150V, 300V
Crest factor	3, 6	
Accuracy	Effective range	1 % to 105 % of range
	DC	±(0.2 % reading + 0.2 % range)
	45 Hz ≤ f ≤ 66 Hz	±(0.1 % reading + 0.1 % range)
	66 Hz < f ≤ 1kHz	±(0.1 % reading + 0.2 % range)
	1 kHz < f ≤ 6kHz	± 3 % of range
The filter is turned on	Increase 0.3 % reading@ 45Hz to 66Hz	
Temperature effect	5-18 °C / 28-40 °C	Increase ±0.03% reading / °C
Residual noise	0.5 % of range	

Current Measurement

Measurement range	CF=3 :	5mA, 10mA, 20mA, 50mA, 100mA, 200mA, 500mA, 1A, 2A, 5A, 10A, 20A
	CF=6 :	2.5mA, 5mA, 10mA, 25mA, 50mA, 100mA, 250mA, 0.5A, 1A, 2.5A, 5A, 10A
Crest factor		3, 6
Accuracy	Effective range	1 % to 105 % of range
	DC	±(0.2 % reading + 0.2 % range)
	45 Hz ≤ f ≤ 66 Hz	±(0.1 % reading + 0.1 % range)
	66 Hz < f ≤ 1kHz	±(0.1 % reading + 0.2 % range)
	1 kHz < f ≤ 6kHz	± 3 % of range
The filter is turned on	Increase 0.3 % reading@ 45Hz to 66Hz	
Temperature effect	5-18 °C / 28-40 °C	Increase ±0.03% reading / °C
Residual noise		0.5 % of range

Power Measurement

Accuracy	Effective range	1 % to 110 % of range
	DC	±(0.2 % reading + 0.2 % range)
	45 Hz ≤ f ≤ 66 Hz	±(0.1 % reading + 0.1 % range)
	66 Hz < f ≤ 1kHz	±(0.1 % reading + 0.3 % range)
	1 kHz < f ≤ 6kHz	± 3 % of range
The filter is turned on	Increase 0.3 % reading@ 45Hz to 66Hz	
Temperature effect	5-18 °C / 28-40 °C	Increase ±0.03% reading / °C

Frequency Measurement

Measurement range	The filter is turned on	30.000Hz to 499.99Hz
	The filter is turned off	30.000Hz to 9.9999kHz
Measurement items		Voltage, Current
Effective input range		10% to 105% of voltage input range
Accuracy		±(0.06 % reading)

Integrator Measurement

Integrator	Accuracy	±(Accuracy of voltage or current+ 0.1 % reading)
Time	Range	0 hour 0 minute to 9999 hours 59 minutes
	Accuracy	±0.01% ±1second

Cosinus Messtechnik GmbH * Rotwandweg 4 * D-82024 Taufkirchen
 Tel.: 089-665594-0 * Fax: 089-665594-30 * Web: www.cosinus.de * eMail: office@cosinus.de