

Datasheet CLM1000

Power measurement instrument



CLM1000 variants and measurement functions

CLM1000	H=Home	S=Standard	P=Professional (Plus)	H	S	P
Operating modes	Range	Solution				
Active power	0,0 - 4224 W	0,1 W / 1 W		•	•	•
Active power (min/max)	0,0 - 4224 W	0,1 W / 1 W			•	•
Apparent power	0,0 - 4224 VA	0,1 VA / 1 VA				•
Reactive power	0,0 - 4224 var	0,1 var / 1 var				•
Active energy (Consumption)	0,0000 - 99999,99 kWh	0,0001 - 0,01 kWh		•	•	•
Active energy/24h (Consumption/24h)	0,0000 - 108,0000 kWh	0,0001 kWh		•	•	
Apparent energy	0,0000 - 99999,99 kVAh	0,0001 - 0,01 kVAh				•
Reactive energy	0,0000 - 99999,99 kvarh	0,0001 - 0,01 kvarh				•
Payment of energy	0,00 - 99999,99 €	0,01 €			•	
Payment of energy /24h	0,00 - 99999,99 €	0,01 €			•	
Tariff	0,000 - 99,999 €	0,001 €			•	
Duration of test	00:00 - 9999:59 h	00:01		•	•	•
% ON (Threshold measurement)	0,0 - 100,0 %	0,1 %			•	•
Voltage	100,0 - 264,0 V	0,1 V			•	•
Voltage (min/max)	100,0 - 264,0 V	0,1 V			•	•
Current	0,000 - 16,00 A	0,001 A / 0,01 A			•	•
Current (min/max)	0,000 - 16,00 A	0,001 A / 0,01 A			•	•
Type of resistance	Ohm-Ind-Cap resistance					•
Power factor	0,000 - 1,000	0,001				•
Data logging (Plus-Version)	At a save rate of 1 second: 24h data Maximum 60 days at 60 seconds save rate					•
USB Interface (Plus-Version)	Maximum data transfer speed: 115200 baud					•

Display und Handling

Display	128*64 display with different backlight colours
Operating elements	3 Buttons

Method of Measurement and Accuracy

Method of Measurement	Voltage directly measured at the consumer, current measured by precision shunt
Measuring rate	Approx. 1 second
Sampling rate	Approx. 2000 Hz
Zero load detection	If $I < 0,002$ Ampere current and power values are set to zero. If $P < 0,2$ Watt power values and current are set to zero. In this case the power factor is set to 1,00. The type of resistance is set to ohm-resistance.
EEPROM-Memory	All settings and consumption values are stored at line interrupt /power off
Accuracy	$\pm 0,3\% \pm 3$ digit of Display reading (PF > 0,3)

Voltage supply

Connector	Interconnect socket, permanent current load 16A
Supply voltage	100 - 264 V _{AC} , 47 - 63 Hz
Power consumption	< 4VA

Dimensions and Environment

Size	ABS plastic approx. 95*35*200 [mm] (W*H*L)
Weight	approx. 490 g
Cable	approx. 1,2m
Operating temperatur	0°C - 50°C, no dew allowed
Protection	IP 50 (DIN EN 60529) (USB- Interface IP40) Protective class II (prot. Isolation) DIN EN 61140
Measurement category	CAT II

Changes may occur without notice!