

GIMA® Three Phase Digital Panel Meter



- **Four model types designed to fit a wide range of applications**
- **One meter to measure all your values**
- **Easy installation - software detection/correction of wiring errors**
- **Wide backlit LCD display for easy viewing**
- **Easy to use - four keys select all parameters**
- **Use for single or three-phase applications**

Specifications

INPUT

System	3-phase, 3 or 4 wire unbalanced load
Voltages	120/208, 120/240, 277/480, 63/110
Measurement range	0.5% to 120%
Current	5 amp from external CTs Fully Isolated
Measurement range	0.5% to 120%
Operating Frequency	45 to 65 Hz
Harmonics	Up to the 20th harmonic
Input Loading	
Voltage	Less than 0.1VA per phase
Current	Less than 0.1VA per phase
Overload	
Voltage	x2 for 2 seconds max.
Current	x40 for 1 second max.
Auxiliary Supply	
Standard	115V±15% 45-65Hz
Optional	230V±15% 45-65Hz
General Display	Custom backlit supertwist LCD 3 lines of .47" (12mm) digits plus .15" (3.8mm) legends

ENVIRONMENTAL

Temperature	14°F to 149°F (-10°C to 65°C) operating
Humidity	<75% RH non-condensing
Programming	
CT Primary	5amp to 6500 amp
VT Primary	60v to 50,000v
Pulse Outputs	2
Function	
Output No. 1	Wh (G200, G300 & G400 only)
Output No. 2	Total varh (G300 & G400 only)
Pulse Length	100ms
Isolation	2500V (50 Output No. 1 to Output No. 2)
Scaling	Settable 1, 10 or 100 pulse output rate

ACCURACY

	Per Phase	3 Phase
Current		
5% to 120%FS	±0.2%FS	N/A
Voltage LN	±1% Rdg*	
20% to 120%FS	±0.2%FS	N/A
Voltage LL	±1% Rdg*	
20% to 120%FS	±0.3%FS	N/A
Watts	±1% Rdg*	
5% to 120%FS	±0.4%FS	±0.6%FS
VA	±1% Rdg*	±1% Rdg*
5% to 120%FS	±0.6%FS	±1%FS
var	±1.5% Rdg*	±1.5% Rdg*
5 % to 120%FS	±0.8%FS	±1.5% FS
PF	±2% Rdg*	±2% Rdg
Frequency	±0.2°	±0.2°FS
Neutral Current		
5% to 120%FS		±0.05 Hz
Wh Register	N/A	±0.6% FS
		±2% Rdg
VAh Register	N/A	Class 1
Varh Register	N/A	EN 61036
	N/A	Class 2
	N/A	Class 2
		IEC 1268

Note:

All accuracies specified are ±1 digit
*Rdg = Reading

MECHANICAL

Bezel	2.77" x 3.79" (w/ .28" lip)
Depth	2.83"
Panel Cutout	3.62" x 3.62"
Weight	14 oz.
Height	3.79"

more >>



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Models & Parameters

	G100	G200	G300	G400
Phase Amps	X	X	X	X
Phase Volts	X	X	X	X
Line Volts	X	X	X	X
Per Phase PK	X	X	X	X
Per Phase kW	X	X	X	X
Per Phase kvar			X	X
Per Phase kVA				X
3 Phase PF	X	X	X	X
3 Phase kW	X	X	X	X
3 Phase kvar			X	X
3 Phase kVA				X
Frequency	X	X	X	X
KWh		X	X	X
Capacitive kvarh			X	X
Inductive kvarh			X	X
Total kvarh			X	X
Import kvarh				X
Current Demand	X	X	X	X
Voltage Demand	X	X	X	X
kW Demand			X	X
Peak Amps				X
Peak Phase Volts				X
Peak Current Demand	X	X	X	X
Peak Voltage Demand	X	X	X	X
Neutral Current				X

Accessories - Three-Phase Current Transformer

A three-phase terminal style current transformer must be used with GIMA® three phase meters.

The current transformer is equipped with terminals to permit easy connection to the GIMA units. These terminals are #8-32 brass studs and come with a flatwasher, lockwasher and a regular nut (leads are not provided).



Ordering Information

Catalog Number	Current Ratio	Accuracy @ 60Hz	Burden VA @ 60 Hz
37026	50:5	± 3%	2.0
37027	100:5	± 1%	2.0
37028	150:5	± 1%	4.0
37029	200:5	± 1%	5.0
37030	300:5	± 1%	10.0

Ordering Information

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Basic Unit Power Voltage Inputs Current Input Other

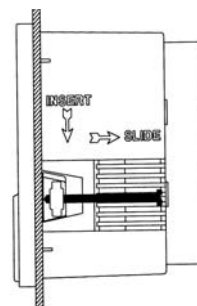
100	Basic Unit
200	GIMA 100 Meter
300	GIMA 200 Meter
400	GIMA 300 Meter
	GIMA 400 Meter
1	Power Supply
2	115 VAC @ 45-65Hz
	230 VAC @ 45-65 Hz
1	Voltage Input
2	120/208V
3	120/240V - Split Phase
4	277/480V
	63/110V
1	Current Input
	5 amp
0	Other
	None

For other Voltage and Current Inputs, contact Simpson Electric Company

Mounting Requirements

Panels should be .04 to .16 inches (1mm to 4mm) thick with a square cut-out of 3.62" x 3.62" (92mm x 92mm.) A minimum depth of 2.83" (72mm) should be allowed behind the panel for the meter. Remove the panel mounting clips and insert the meter into the cut-out from the front of the panel. Push the meter home. Ensure the screws in each panel mount clip are fully retracted and insert the clips as shown in the diagram below. Tighten the screws to secure the meter firmly in the panel.

Do not overtighten.



GIMA Options Quad Analog Output

The Quad Analog Output Options Module adds four analog 4-20 DCmA outputs to any standard GIMA Series Power Meter. All outputs are isolated from the metering elements to provide safe connection to external systems. The device uses a high-speed microprocessor to extract information from the meter and a precision digital to analog converter to produce the output signals.

The Options Module provides four DC current sinks with a common signal return which allows connection to PLCs and other equipment fitted with a suitable interface. 4-20mA systems are commonly used where signals require transmission over long distances.

Ordering Information

Cat. Number 47130

Specifications

Auxiliary Supply Option Module	230V AC or 115V AC 50/60Hz±15% Automatic voltage selection when inserted into GIMA® Power Meter MUST be rated to match Option Module rating
Load Isolation	4 VA Maximum 2.5 kV continuous (supply internally wired to GIMA® main inputs)
Mechanical (Options Module)	
Enclosure	Custom Options Enclosure
Material	Mablex, UL94-V-0
Dimensions	
Options Unit Unfitted	3.43" x 2.32" x 2.95" W=87mm x H=59mm x L=75mm 3.78" x 3.78" x 5.43" W=96mm x H=96mm x L=138mm
GIMA® Meter + Options	Approx. 200g
Weight	
Terminals	Modular screwdown contacts, .2" centers
4-20mA Output	Quad 4-20 DCmA Current Sink with common
Output	Nominal 24 DCV
Loop Supply	Max 28 DCV (at options module) Min 5 DCV (at options module) Unregulated 18 DCV
Internal Supply	Max 30 DCV Min 10 DCV
Load Impedance/Ext. Supply	600V per channel (maximum 950V) 24V supply
Internal (Unreg) Supply	250Ω per channel (maximum 500Ω) at nominal V _{aux}
Over Range	Max output 21mA
Resolution	10 Bit (830 levels from 4mA to 21mA)
Update Speed	Outputs updated every second (as GIMA® meter)
Output Accuracy	Test range 4mA to 20mA, load impedance = 250Ω I _{out} < 5.6mA ±0.5% reading + GIMA® meter errors <0.02% (0Ω to 250Ω)
Effect of Loop Impedance	<0.05% for V _{aux} ±15% (internal supply, 250V load)
Effect of Supply Voltage	

Accessories - Modbus Communications

The Modbus Communications Option Module for the GIMA Series adds multi-drop serial communications to any standard GIMA meter. The device uses a high speed microprocessor to extract information from the meter and interface to an industry standard Modbus system.

Use of a dedicated communications processor ensures optimum efficiency, allowing fast access to data on systems with multiple meters. At 19200 baud, it is possible to access and download the main instantaneous data tables (24 values) from 10 GIMA meters in one second.

The use of Modbus protocol ensures compatibility with existing systems and/or many readily available software packages. This Options Module may be configured as RS485 or RS422 providing 2 or 4-wire communications over distances up to 3,960 feet (3/4 mile). Data rates of 4800, 9600 or 19200 baud may be selected to suit system requirements.

The Communications Option Module is available in two formats:

Standard: Only parameters displayed on the GIMA meter can be accessed via Modbus (Cat. Number 46240)

All Value: The full set of GIMA G400 parameters can be accessed via Modbus from any GIMA (Cat. Number 46241)

