



# Three Phase GIMA® Series Three Phase Digital Panel Meter

- Four Model Types Designed to Fit a Wide Range of Applications
- One Meter to Measure all your Values
- 1/4 DIN (96 x 96 mm Bezel, 92 x 92 mm Cutout) 2.8" (71 mm) Behind Panel
- Easy Installation - Software Detection/Correction of Wiring Errors
- Wide Backlit LCD Display for Easy Viewing
- Easy to Use - Four Keys Select all Parameters



The GIMA® series of digital panel meters measures values by replacing ammeters, voltmeters, switches, Power Factor & kW indicators, kWh meters, etc. The Simpson GIMA® series provides a single source of instrumentation for all measurement and metering requirements.

The GIMA® series offers accurate, high-speed, continuous measurements irrespective of harmonics and waveform interruptions. Each GIMA® Series unit can be used as a single-phase or a three-phase meter.

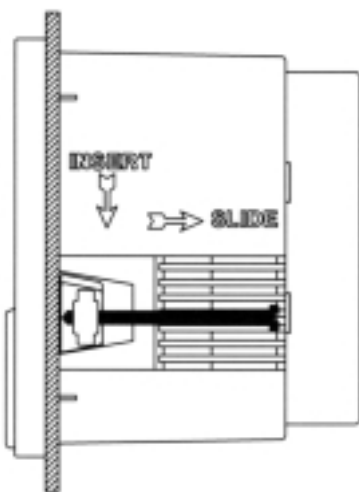
These meters feature "Auto-commissioning" to ensure that a reverse current transformer connection will not cause reading errors. Per-Phase kW and Power Factor allow a cross-phase connection error to be quickly and easily detected.

The GIMA® Series can also be tested at minimal loads. This is possible by the full four-digit resolution of single-phase values and five-digit resolution of three-phase values.

The GIMA® series meters offer maximum visibility with a custom backlit LCD display. The display is fully visible under most conditions and from most angles. Clear display legends ensure simple readings with no multipliers required.

To provide more value to this series, Simpson is offering a range of accessories such as serial communications, analog outputs and three-phase current transformers. Some of these accessories are retro-fit options. With the addition of these accessories, the GIMA® series is able to fit within most applications.

## Installation and Mounting



### Mounting Requirements

Panels should be of thickness 1mm to 4mm with a square cut-out of 3.62" x 3.62". A minimum depth of 2.83" 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 clip are fully retracted and insert the clips as shown in the diagram. Tighten the screws to secure the meter firmly in the panel.

**DO NOT OVERTIGHTEN**

## Specifications

### Inputs

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

### Environmental

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

### Accuracy

	<b>Per Phase</b>	<b>3 Phase</b>
<b>Current</b>	±0.2%FS	N/A
5% to 120%FS	±1% Rdg*	
<b>Voltage LN</b>	±0.2%FS	N/A
20% to 120%FS	±1% Rdg*	
<b>Voltage LL</b>	±0.3%FS	N/A
20% to 120%FS	±1% Rdg*	

<b>Watts:</b>	5% to 120% FS	<b>Per Phase</b>	±0.4% FS	<b>3 Phase</b>	±0.6% FS
<b>VA:</b>	5% to 120% FS		±1% Rdg		±1% Rdg*
<b>var:</b>	5% to 120% FS		±0.6% FS		±1% FS
<b>PF:</b>			±1.5% Rdg		±1.5% Rdg
<b>Frequency</b>			±0.8%FS		±1.5% FS
<b>Neutral Current:</b>	5% to 120%FS		±2% Rdg		±2% Rdg
<b>Wh Register:</b>			±0.2°		±0.2° FS
<b>VAh Register:</b>					±0.05 Hz
<b>varh Register:</b>					±0.6% FS
<b>Note:</b>	All accuracies specified are ±1 digit				
	* Rdg = Reading				

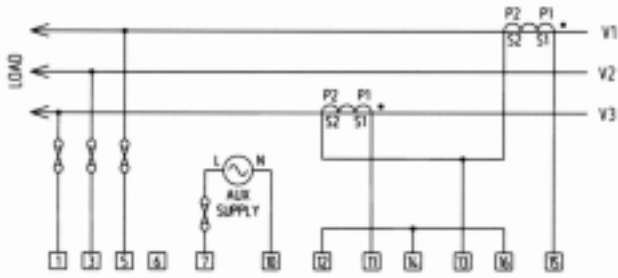
### Mechanical

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

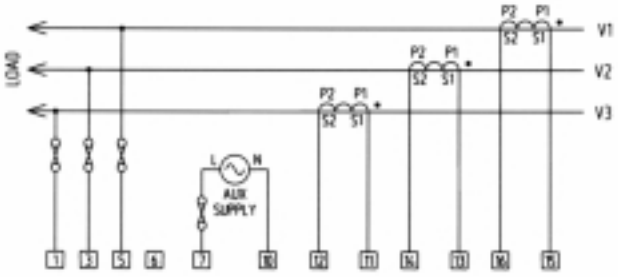
## GIMA® Series Models & Parameters

	G100	G200	G300	G400
Phase Amps	●	●	●	●
Phase Volts	●	●	●	●
Line Volts	●	●	●	●
Per phase PF	●	●	●	●
Per phase kW	●	●	●	●
Per phase kvar			●	●
Per phase kVA				●
3 Phase PF	●	●	●	●
3 Phase kW	●	●	●	●
3 Phase kvar			●	●
3 Phase kva				●
Frequency	●	●	●	●
kWh		●	●	●
Capacitive kvarh			●	●
Inductive kvarh			●	●
Total kvarh			●	●
Import kVah				●
Current Demand	●	●	●	●
Voltage Demand	●	●	●	●
kW Demand			●	●
Peak Amps				●
Peak Phase Volts				●
Peak Current Demand	●	●	●	●
Peak Voltage Demand	●	●	●	●
Neutral Current				●

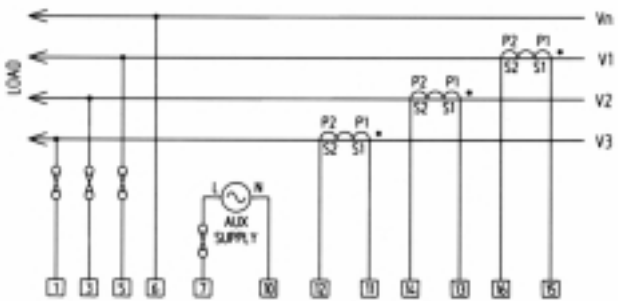
# Wiring Diagrams



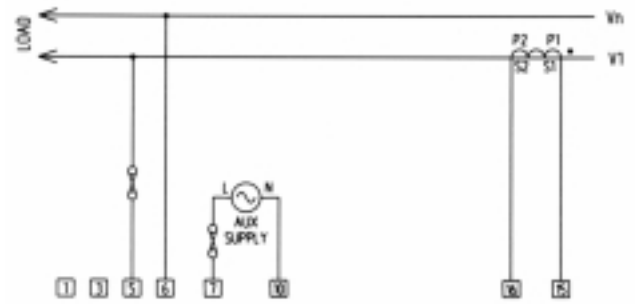
3-Phase 3-Wire 2CTs (Not Suitable For Neutral Current Measurements)



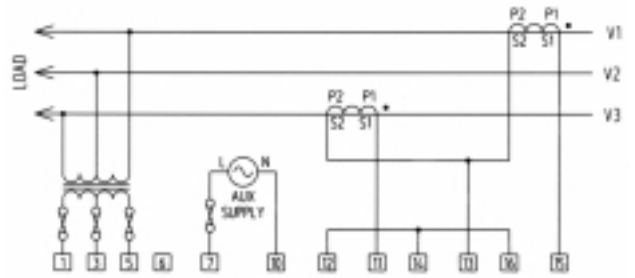
3-Phase 3-Wire 3CTs



3-Phase 4-Wire



Single Phase



3-Phase 3-Wire Using Potential Transformers

## Engineer's Notes

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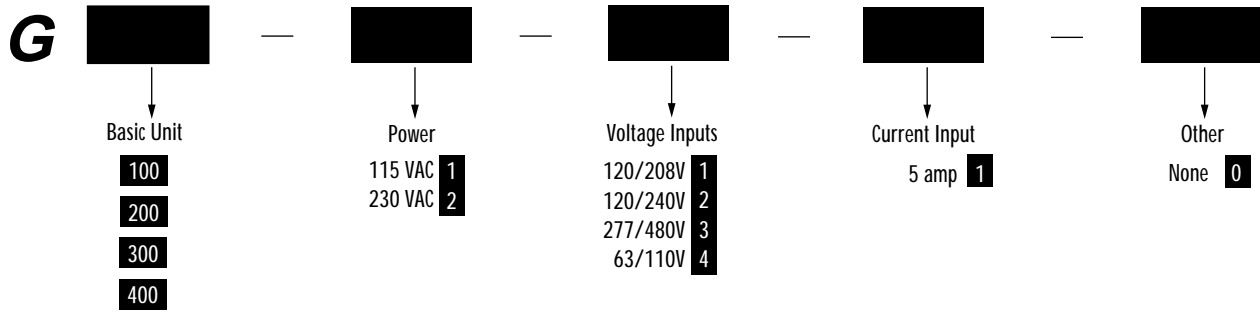


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## Ordering Information



\* For Other Voltage and Current Inputs, Contact Simpson Electric Company

Use the above chart to configure a GIMA® meter for ordering.

## Accessories - GIMA® 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 3.94 feet. Data rates of 4800, 9600 or 19200 baud may be selected to suit system requirements.

The Communications Option Module will be available in two formats:

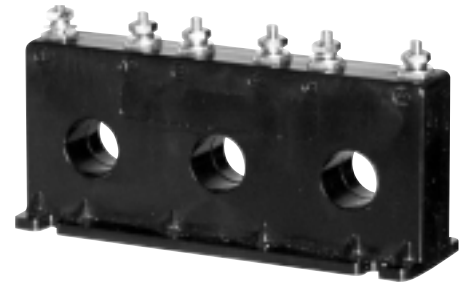
- **Standard** Only parameters displayed on the GIMA® meter can be accessed via Modbus® (Cat. Number 46240)
- **All Value** The full set of GIMA® G400 parameters can be accessed via Modbus® from any GIMA® (Cat. Number 46241)



## Accessories - Three-Phase Current Transformers

A three-phase terminal style current transformer can be used with all the GIMA® three phase meters. Simpson's three phase current transformer can be used to monitor AC current when the current level is too high for the meter.

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).



Catalog Number	Current Ratio	Accuracy @ 60Hz	Burden VA 60Hz
37026	50:5	± 3%	2.0
37027	100:5	± 2%	2.0
37028	150:5	± 1%	4.0
37029	200:5	± 1%	5.0
37030	300:5	± 1%	10.0