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**
- **DIN (96 x 96 mm) Case Needing only 2.83" (72 mm) Behind the Panel**
- **Easy Installation - Software Detection/Correction of Wiring Errors**
- **Wide Backlit LCD Display for Easy Viweing**
- **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.

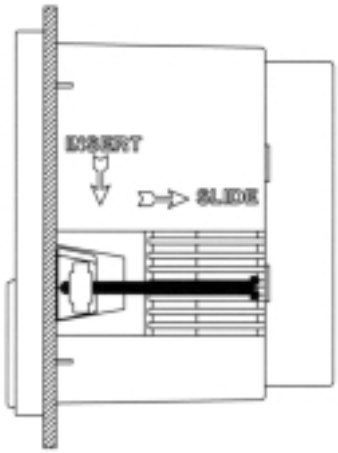
These meters feature "Auto-commissioning" to ensure that a reverse current transformer connection will not cause reading errors. Per-Phase kW and Power Factor allow a cross-phase connection error to be quickly and easily detected.

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

System: 3-phase, 3 or 4-wire unbalanced load

Voltage: 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 6500amp

VT Primary: 60v to 50,000v

Pulse Outputs: 2

Function: N°1 Wh (G200, G300 & G400 only) N°2 Total varh (G300 & G400 only)

Pulse Length: 100ms

Isolation: 2500V (50 N°1 to N°2)

Scaling: User programmable

Accuracy

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

	Per Phase	3 Phase
Watts: 5% to120% FS	±0.4% FS ±1% Rdg	±0.6% FS ±1% Rdg*
VA: 5% to120% FS	±0.6% FS ±1.5% Rdg	±1% FS ±1.5% Rdg
var: 5% to120% FS	±0.8%FS ±2% Rdg	±1.5% FS ±2% Rdg
PF:	±0.2°	±0.2° FS
Frequency		±0.05 Hz
Neutral Current: 5% to 120%FS	N/A	±0.6% FS ±2% Rdg
Wh Register:	N/A	Class 1 EN 61036
VAh Register:	N/A	Class 2
varh Register:	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"

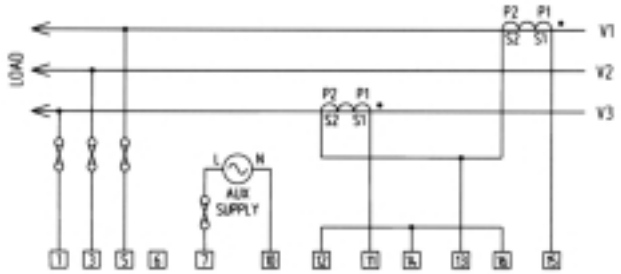
Weight: 14oz.

Height: 3.79"

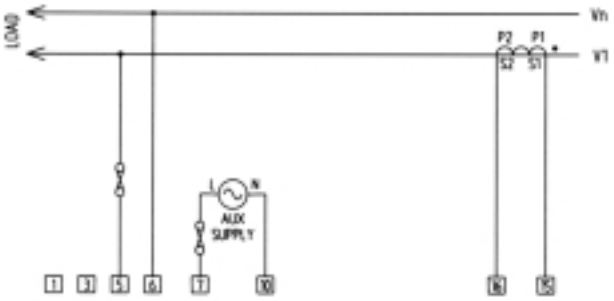
GIMA Series Models & Parameters

	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				●

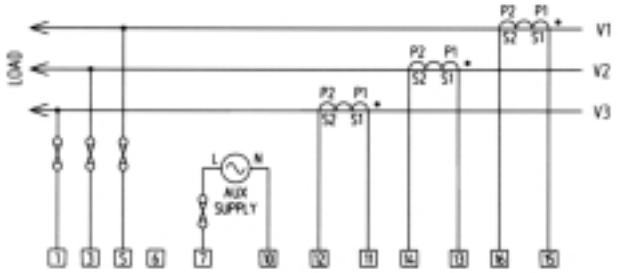
Wiring Diagrams



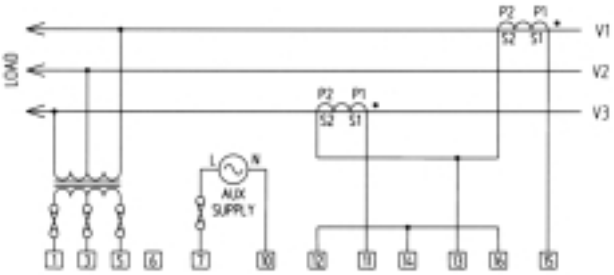
3-Phase 3-Wire 2CTs (Not Suitable For Neutral Current Measurements)



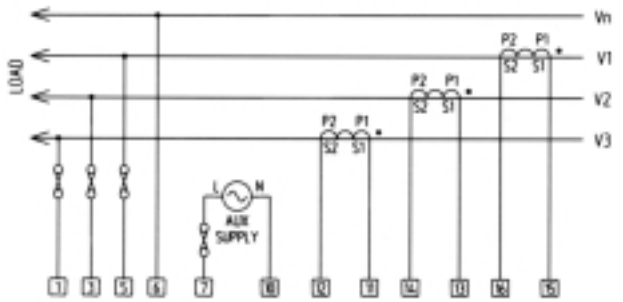
Single Phase



3-Phase 3-Wire 3CTs



3-Phase 3-Wire Using Potential Transformers



3-Phase 4-Wire

Engineer's Notes

Ordering Information

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Basic Unit
- 100
- 200
- 300
- 400

Power
- 110 VAC 1
- 230 VAC 2

Voltage Inputs *
- 120/208V 1
- 120/240V 2
- 277/480V 3
- 63/110V 4

Current Input *
- 5 Amp 1

Other
- None 0

* For Other Voltage and Current Inputs Contact Simpson Electric.

Use the above chart to configue 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 instanteous 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.

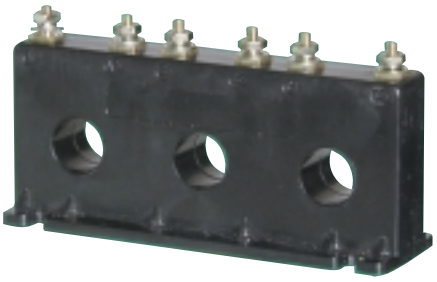
The Communications Option Module will be available in two formats:

- **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 to 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

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