

2008

Electric Equipment General Catalog



GIMAC-i



Digital Power Meter



Various measurement functions
High accuracy (0.3%)



Compact size (144 × 144 × 85mm)
- DIN 96 & ANSI"4 cutout size



Wide voltage range
- AC 10 ~ 452V



MODBUS/RS-485



Control voltage AC/DC 88~264V



Protecting mis-wiring





R₁



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Digital Power Meter

Technical specifications

Rating

Model	GIMAC-i	
Wirings	1P2W, 1P3W, 3P3W, 3P4W	
Input	Frequency	50Hz / 60Hz
	Voltage	PT AC 10~452V
	Current	CT 0.05~6A
	Control voltage	AC/DC 88~264V (Free voltage)
	Power consumption	Max. 2W
	Burden	PT Max. 0.5VA CT Max. 0.5VA
Insulation Resistance	Over DC 500V 100M Ω	
Insulation Voltage	AC 2kV (1kV) / 1min	
Impulse Voltage	AC 5kV (3kV) / 1.2 \times 50 μ s	
Overload withstand	Current circuit	2 In for 3 hours 20 In for 2 seconds
	Voltage circuit	1.15 Vn for 3 hours
Fast Transient Disturbance	Power Input 4kV	
ESD(Electrostatic Discharge)	Air 8kV	
	Contact 6kV	
Operation temperature	-10°C ~ 55°C	
Storage temperature	-25°C ~ 70°C	
Humidity Average	30 ~ 80%	
Altitude	1000m and below	
Others	Non-impact place Non-air pollution place	
Standard	IEC 60255, IEC61000-4	
Communication	MODBUS/RS-485	
Dimension(W x H x D)	144 x 144 x 85 (mm)	
Weight	0.52 kg	

Self-diagnosis

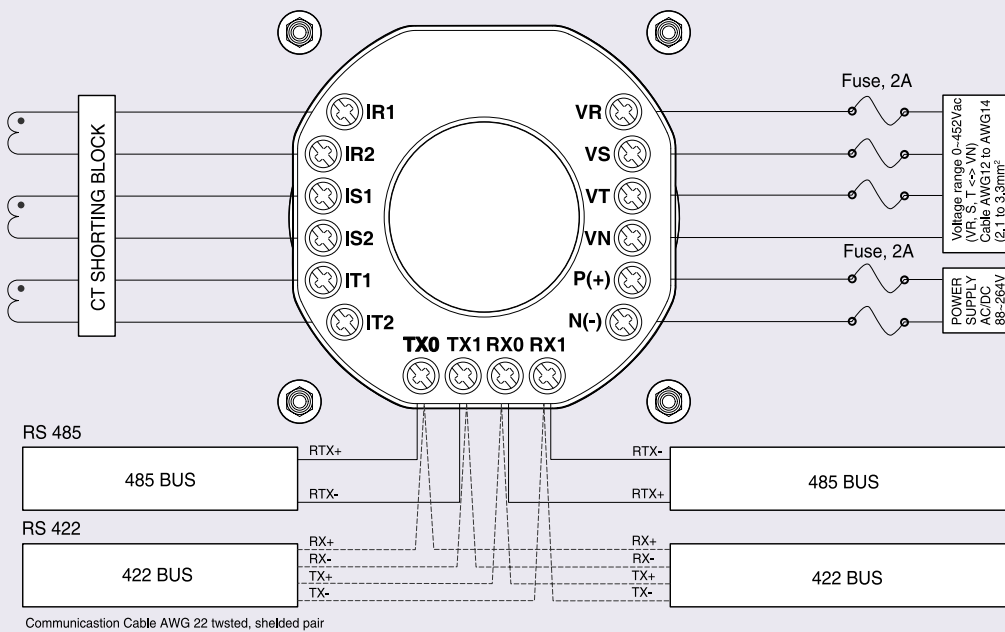
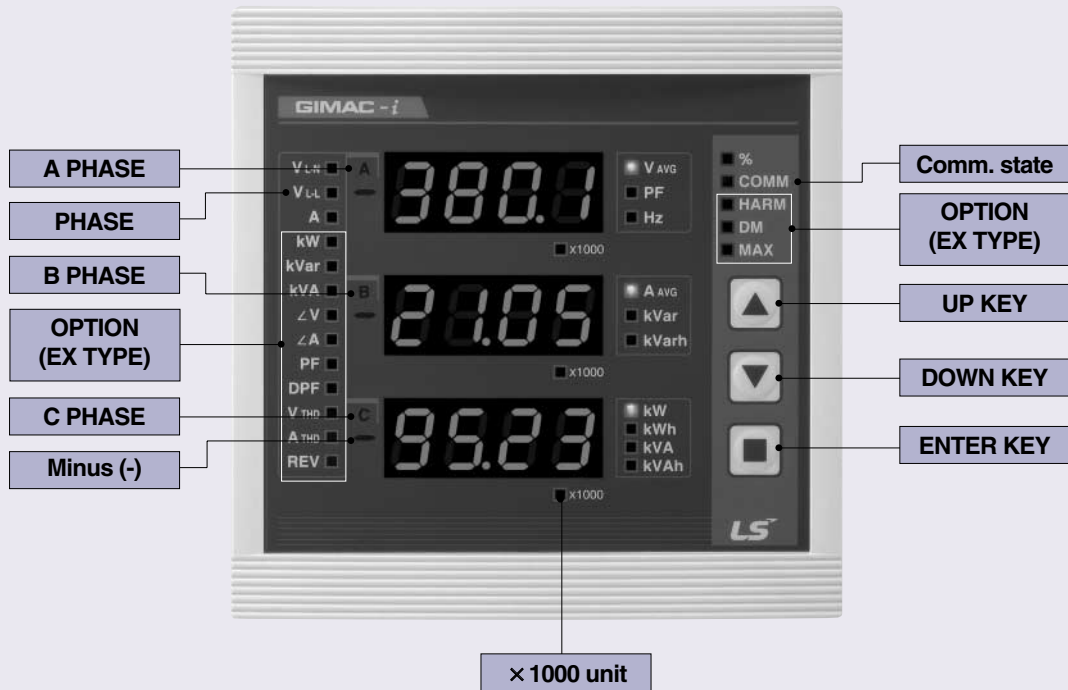
Item	LCD display
Mis-wiring	Conn Chc (connection check)
Memory error	ERROR 1
Power fail	ERROR 2
Option error	ERROE 3
Setting error	ERROR 4
Calibration error	ERROR 5

Measurement functions

Parameters		NO	EX	Accuracy(%)	Remarks
Voltage	Vavg	■	■	±0.3%	-
	Vab, Vbc, Vca	■	■	±0.3%	-
	Va, Vb, Vc	■	■	±0.3%	-
Current	Iavg	■	■	±0.3%	-
	Ia, Ib, Ic	■	■	±0.3%	-
	Load factor Ia, Ib, Ic	■	■	-	-
Phase	∠VabVbc, ∠VabVca	-	■	±0.5°	3P3W
	∠VabIa, ∠VabIb, ∠VabIc	-	■	±0.5°	3P3W
	∠VaVb, ∠VaVc	-	■	±0.5°	3P4W
	∠VaIa, ∠VbIb, ∠VcIc	-	■	±0.5°	3P4W
Power	P	■	■	±0.5%	IEC 1036
	Pa, Pb, Pc	-	■	±0.5%	IEC 1036
	Q	■	■	±0.5%	IEC 1036
	Qa, Qb, Qc	-	■	±0.5%	IEC 1036
	S	■	■	±0.5%	IEC 1036
	Sa, Sb, Sc	-	■	±0.5%	IEC 1036
Energy	Wh	■	■	±0.5%	IEC 1036
	Varh	■	■	±0.5%	IEC 1036
	rWh	-	■	±0.5%	IEC 1036
	rVarh	-	■	±0.5%	IEC 1036
	VAh	■	■	±0.5%	IEC 1036
Frequency	F(Hz)	■	■	0.05Hz	-
Power factor	PF	■	■		+ : Lag - : Lead
	PFa, PFb, PFc	-	■		
	DPFa, DPFB, DPFC	-	■		
THD	THD(V)	-	■	-	Va(ab), Vb(bc), Vc(ca)
	THD(I)	-	■	-	Ia, Ib, Ic
Harmonics	1 st ~ 15 th Harmonics (V)	-	■	-	Va(ab), Vb(bc), Vc(ca)
	1 st ~ 15 th Harmonics (I)	-	■	-	Ia, Ib, Ic
Demand	Demand W	-	■	-	
	Demand Ia, Ib, Ic, Iavg	-	■	-	-
MAX	max Ia, max Ib, max Ic, max Iavg max Va(ab) THD, max Vb(bc) THD	-	■	-	-
	max Vc(ca) THD max Ia THD, max Ib THD,	-	■	-	-
	max Ic THD	-	■	-	-
	max W	-	■	-	-
	max VAR	-	■	-	-
	max VA	-	■	-	-
	max Demand Iavg, Ia, Ib, Ic	-	■	-	-
	max Demand W	-	■	-	-

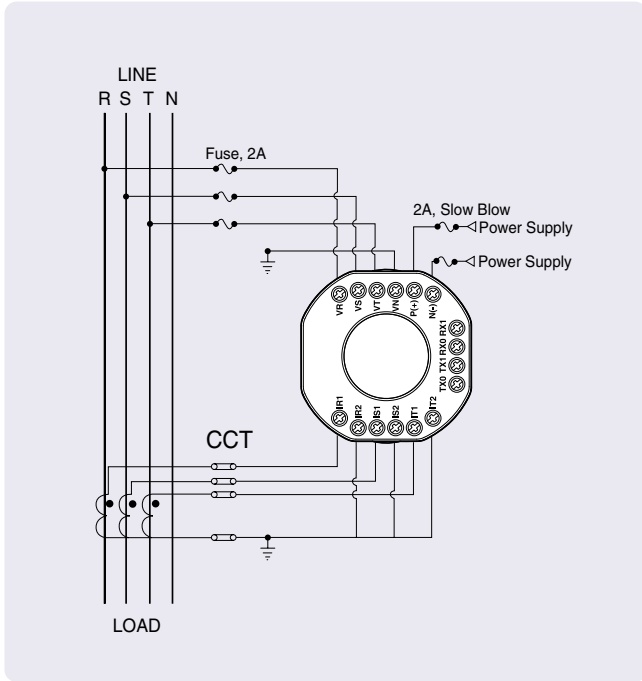
Digital Power Meter

External

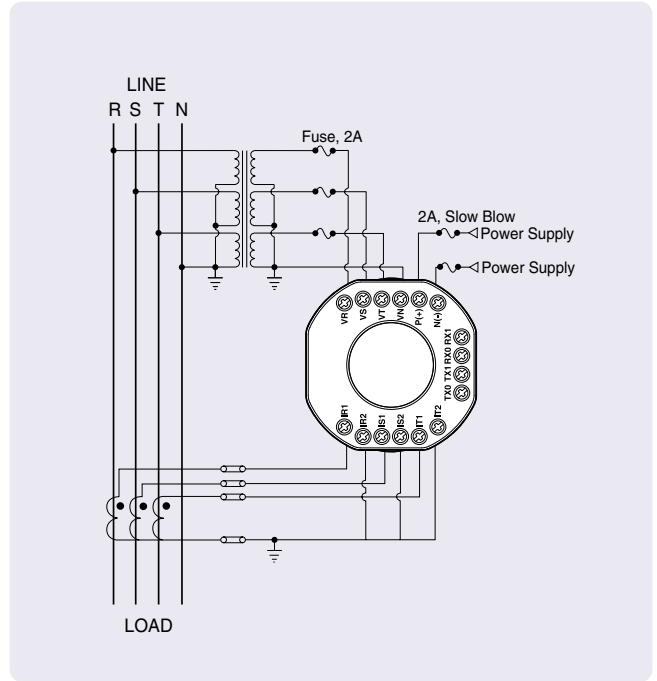


Wirings

3P4W

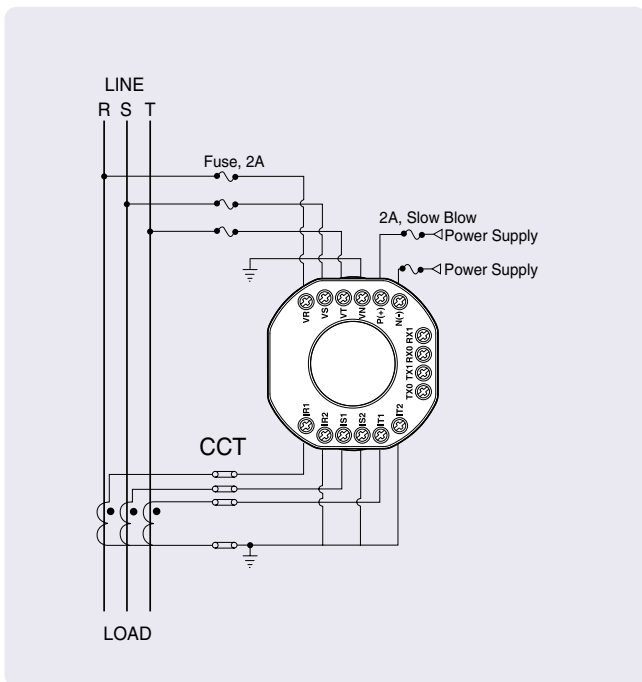


Direct wiring

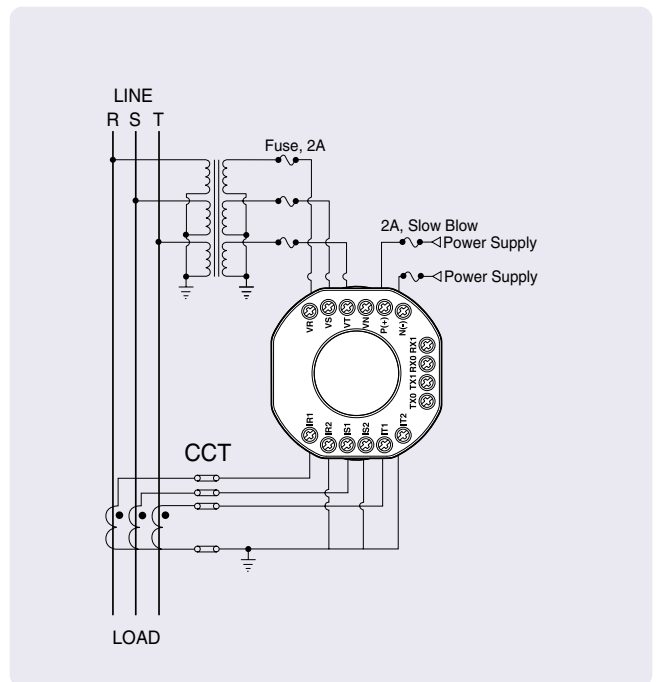


PT application

3P3W



Direct wiring

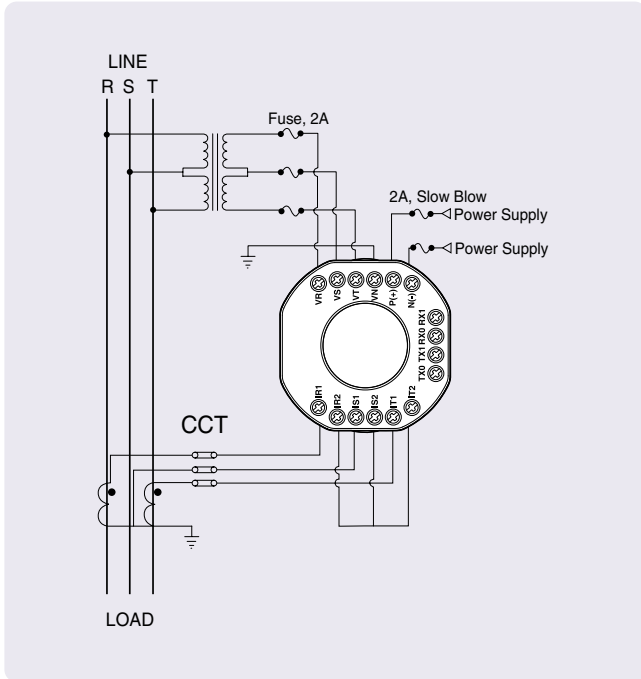


PT application

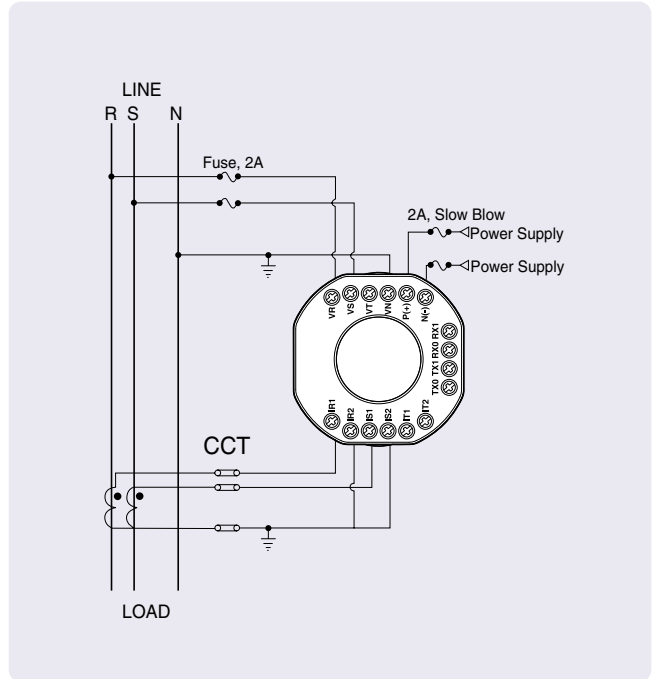
Digital Power Meter

Wirings

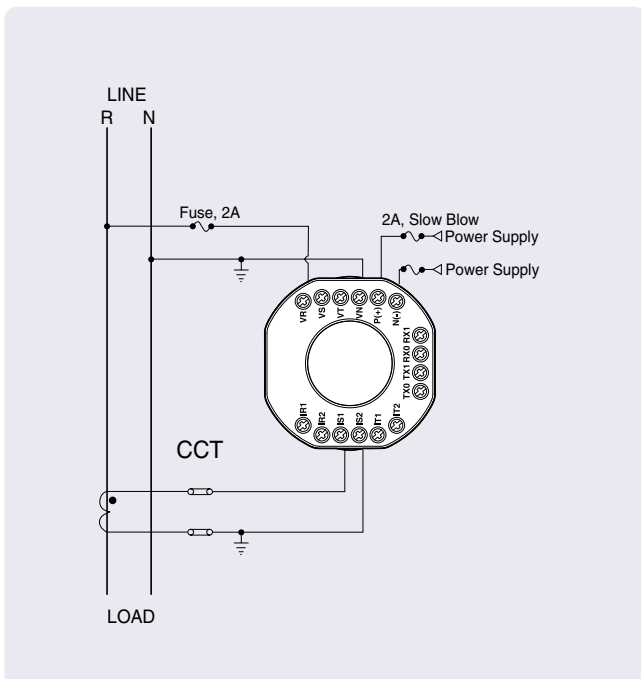
3P3W (Open Delta)



1P 3W

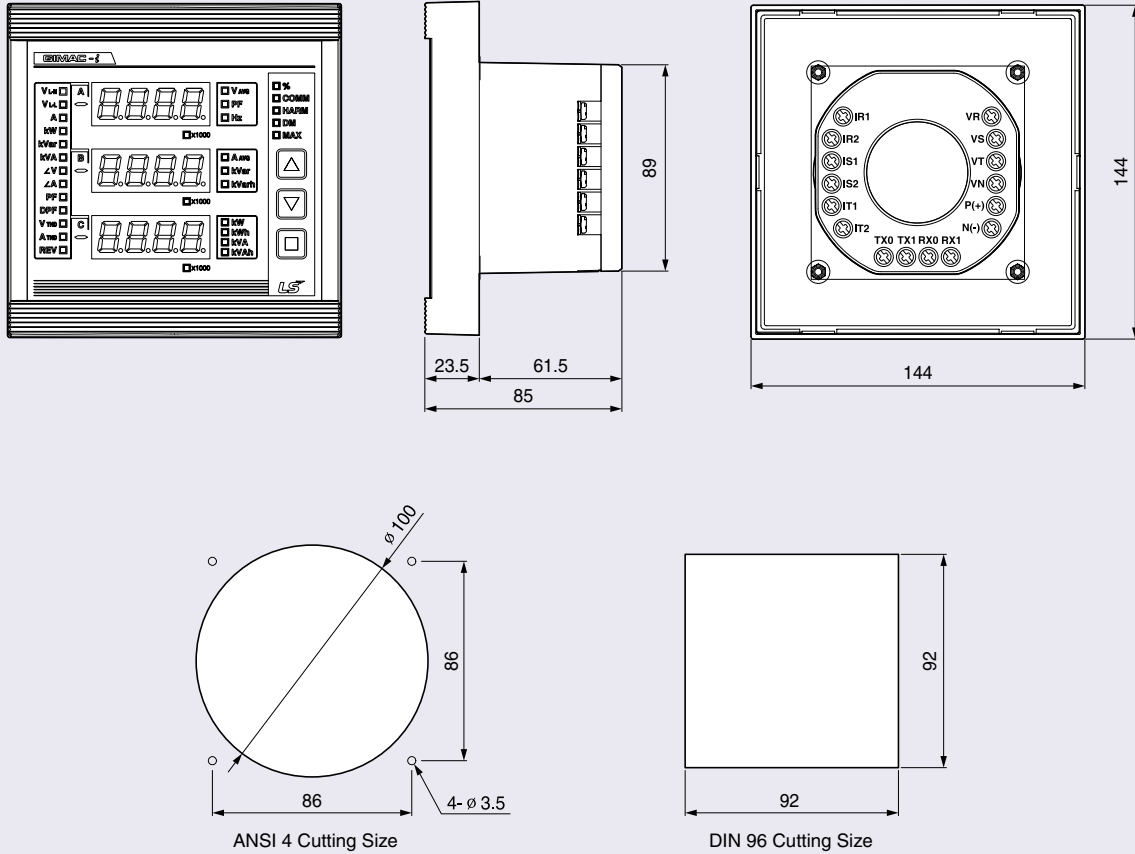


1P 2W



Dimension & Ordering

Dimension



Ordering

GIMAC-i

Digital Power Meter

NO

Model

NO	Normal
EX	Expansion

M485

Communication

-	Without Comm.
M485	Modbus/RS-485
M422	Modbus/RS-422

AC/DC 88~264V

Control voltage

AC/DC 88~264V

60Hz

Frequency

60Hz

50Hz