

AcuVim 72 Series

COMPACT 3-PHASE POWER METER



ISO9001 Certified



DESCRIPTION



Acuvim72 is a newly designed and compact 3-phase power meter. It can measure voltage, current, power and energy parameters. The RS-485 communication interface and Modbus-RTU are supported, and Acuvim72 is mounted with a large, high clarity character LCD screen.

APPLICATION

- Energy Management Systems
- Power Distribution Automation
- Building Automation
- Intelligent Electric Switch Gear
- Industry Automation
- Intelligent Building
- Substation Automation

FEATURES

- Measuring 3-phase Voltage, Current, Power, Energy, Frequency
- Energy Pulse Output
- Multiple parameter over/under limit alarming
- Total Harmonic Distortion (THD), 2nd~31st Individual Harmonics
- Analog Output
- Small size 72 x 72 DIN
- Display primary side data, PT/CT ratio can be set
- Large, high clarity display
- Communication with configuration software
- Easy installation

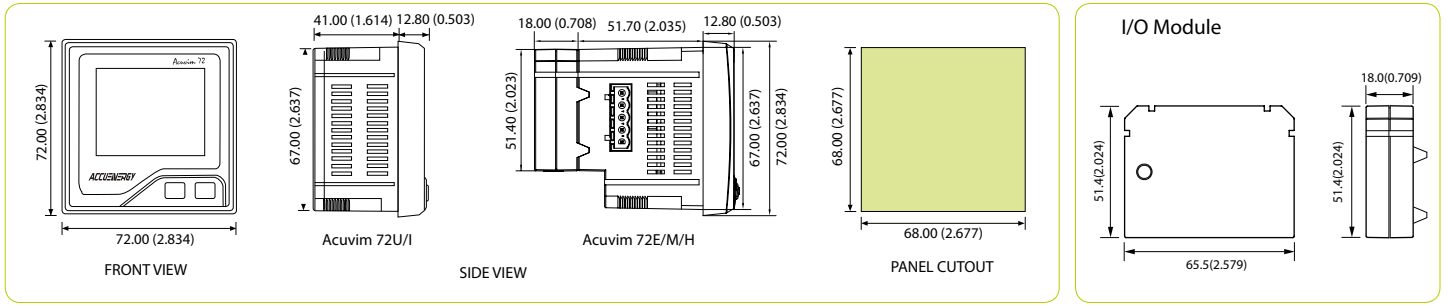
FUNCTIONS

Function		Parameter	Acuvim 72U	Acuvim 72I	Acuvim 72E	Acuvim 72M	Acuvim 72H
Measuring	Voltage	V	●		●	●	●
	Current	I		●	●	●	●
	Frequency	f	●		●	●	●
	Power	P, Q, S, PF				●	●
	Energy				●	●	●
Power Quality	Voltage THD						●
	Current THD						●
	Voltage, Current individual harmonics	2nd~31st individual harmonics					●
I/O Functions	2DI+2AO				○	○	○
	2DI+2RO				○	○	○
	2DI+2DO				○	○	○
Communication	RS485	Modbus-RTU	○	○	○	○	○
Display Type	Liquid Crystal Display		●	●	●	●	●
Dimensions	Panel Cutout 68×68mm		72×72×55mm		72×72×64.5mm		

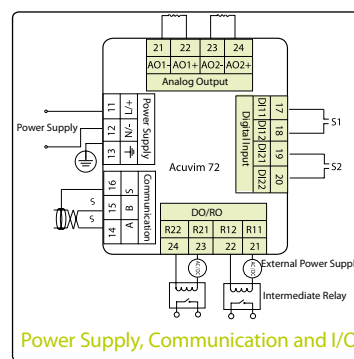
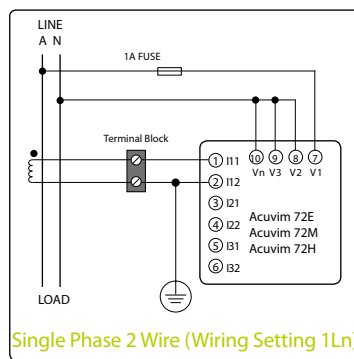
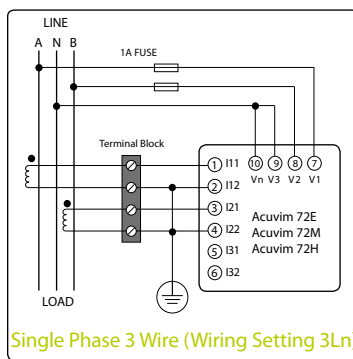
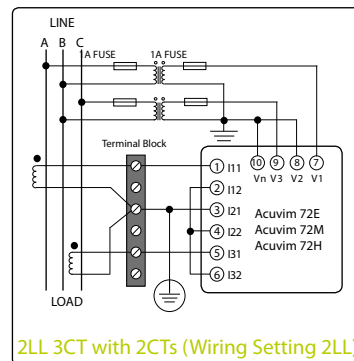
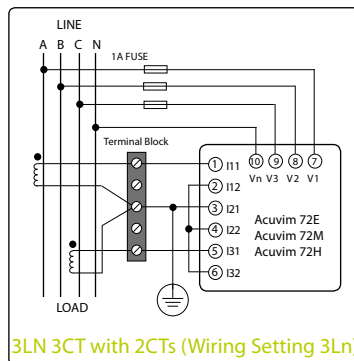
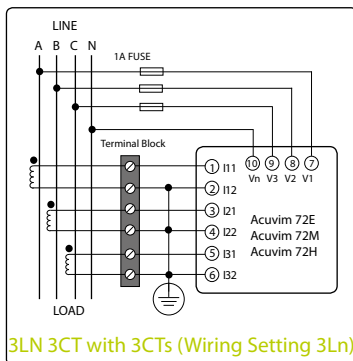
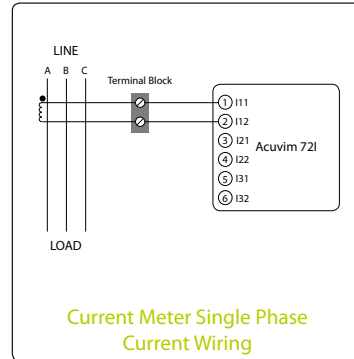
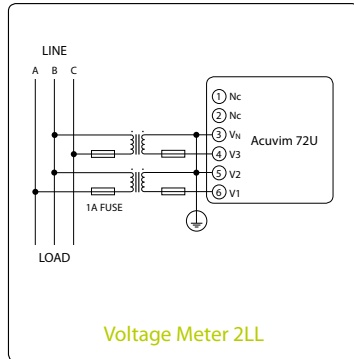
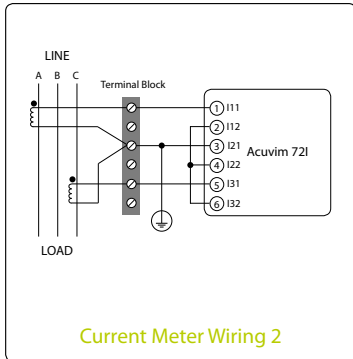
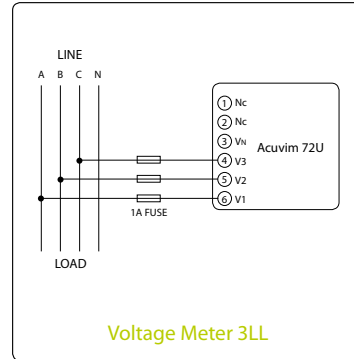
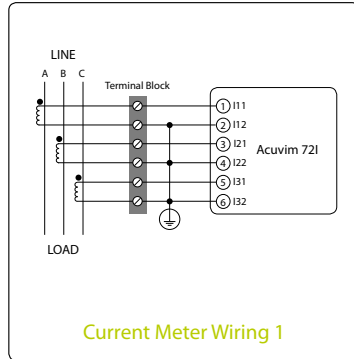
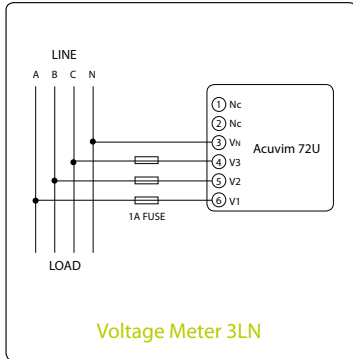
Note: ● standard ○ Optional Blank Not Available

DIMENSIONS

Unit: mm(inch)



TYPICAL WIRING



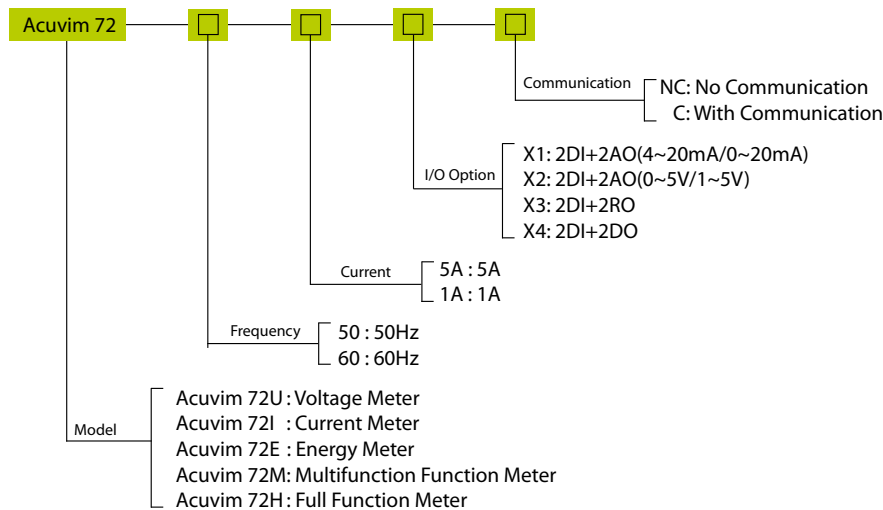
TECHNICAL SPECIFICATIONS

Accuracy and Range			
Parameter	Accuracy	Resolution	Range
Voltage	0.5%	0.1V	10V~500kV
Current	0.5%	0.001A	0~50000A
Energy	Energy	1%	0.1kWh
	Reactive Energy	2%	0.1kvarh
	Apparent Energy	2%	0.1kVAh
Power	Power	1%	0.001kW
	Reactive Power	1%	0.001kvar
	Apparent Energy	1%	0.001kVA
Frequency	0.2%	0.01Hz	45~65Hz
Harmonics	1%	0.01%	0~100%
Temperature Drift	<100ppm/°C		
Stability	0.1%/year		

Input	
Voltage Input	
Rated Full Range	400Vac L-N, 690Vac L-L(+20%)
Overload	2 times(continuously), 2500VAC/1s(no recurrence)
Input Impedance	2MΩ/phase
Frequency	45~65Hz
Current Input	
Current Rating	5A ac
Measuring Range	0~6A ac
Overload	2 times (continuously), 100A/1s (no recurrence)
Digital Input	
Type	Dry Contact
Isolation Voltage	2500Vac

Standard Compliance	
Measurement Standard	IEC 62053-22, GB/T 1725.322-2008
Environment Standard	IEC 60068-2
Safety Standard	IEC 61010-1
EMC Standard	IEC61000-4/-2-3-4-5-6-8-11
Outlines Standard	DIN43700

ORDERING INFORMATION



Example: Acuvim 72E - 50 - 5A - X1 - C

Output	
Relay Output(RO)	
Type	Mechanical, Form A
Max Switching Voltage	250Vac/30Vdc
Max Load Current	3A
Contact Resistance	100mΩ (Max)
Isolation Voltage	4000Vac
Mechanical Life	5 × 10 ⁶

Digital Output (Photo-Mos)	
Voltage Range	0~250Vac/dc
Load Current	100mA (Max)
Max Output Frequency	25Hz, 50% Duty Ratio
Isolation Voltage	2500Vac

Analog Output (AO)	
Range	4~20mA/0~20mA;0~5V/1~5V
Accuracy	0.5%
Load Capacity	Current Type: Max Resistance 5000Ohm Voltage Type: Max Output Current 20mA

Communication (Optional)	
Type	2 wire, half duplex, Optical isolated
Protocol	Modbus-RTU
Baud Rate	1200~38400bps

Power Supply	
Operating Range	100~240Vac, 50/60Hz 100~300Vdc
Consumption	3W

Operating Environment	
Dimensions	72×72×55mm(Acuvim 72U/I) 72×72×64.5mm(Acuvim 72E/M/H)
IP Rating	IP54 (Front), IP30 (Case)
Operating Temperature	-25°C~70°C
Storage Temperature	-40°C~85°C
Relative Humidity	5%~95%(Non-condensing)

Meter Power Supply: 100~240Vac (±10%), 50~60Hz
100~300Vdc

Note: Acuvim 72E/M/H Support expansion



AYA Instruments Inc.

5001 Baum Blvd.

Pittsburgh, PA 15213

P: (412)-622-5500

F: (412)-68-3773

Email: contact@ayainstruments.com

www.ayainstruments.com