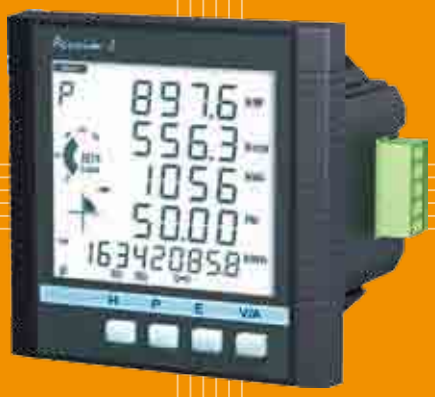
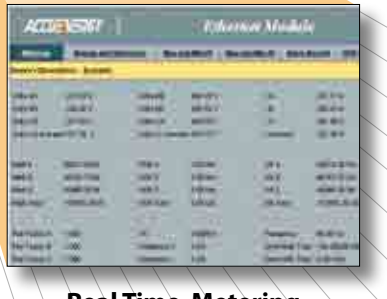
Acuvim II
Intelligent Power Meter
(Web Accessible)





ISO9001 Certified

ACCUENERGY

DESCRIPTION

The Acuvim II is a high-end multifunction power meter manufactured by Accuenergy. It is the ideal choice for monitoring and controlling of power distribution systems. Some of the features and electric power parameters available on the ultra-compact Acuvim II are:

- True-RMS Measuring Parameter
- 4-Quadrant Energy
- Power Quality Analysis
- Over Limit Alarm
- Multi Communication Ports (Eg: Ethernet, Modbus)
- Web Server and Email Sending
- Switch Status Monitoring
- Remote Switch Controlling
- Module Design (E-Module® Technique)

Acuvim II may be used as a data gathering device for an intelligent Power Distribution System or Plant Automation System. All monitored data is available via a digital RS485 communication port running Modbus™ Protocol. Ethernet and Profibus DP communication are also options and with new wireless technologies and protocols currently under development, the applications for the Acuvim II meter are limitless.

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Acuvim II Meter

CATEGORY		ITEM	PARAMETER
METERING	REAL TIME METERING	Phase Voltage	V1, V2, V3, Vlnavg
		Line Voltage	V12, V23, V31, Vllavg
		Current	I1, I2, I3, In, Iavg
		Power	P1, P2, P3, Psum
		Reactive Power	Q1, Q2, Q3, Qsum
		Apparent Power	S1, S2, S3, Ssum
		Power Factor	PF1, PF2, PF3, PF
		Frequency	F
	ENERGY & DEMAND	Energy	Ep_imp, Ep_exp, Ep_total, Ep_net
		Reactive Energy	Eq_imp, Eq_exp, Eq_total, Eq_net
		Apparent Energy	Es
		Demand	Dmd_P, Dmd_Q, Dmd_S
MONITORING	POWER QUALITY	Voltage Imbalance Factor	U_unbl
		Current Imbalance Factor	I_unbl
		Voltage THD	THD_V1,THD_V2,THD_V3, THD_Vavg
		Current THD	THD_I1, THD_I2, THD_I, THD_Iavg
		Harmonics, Individual	Harmonics 2nd to 31st
		Voltage Crest Factor	Crest Factor
		TIF	THFF
		Current K factor	K Factor
	STATISTICS	MAX with Time Stamp MIN with Time Stamp	
OTHERS	ALARM	Over/Under Limit Alarm	
	COMMUNICATION	RS485 Port	Modbus™ Protocol
	TIME	Real Time Clock	Year, Month, date, Hour, minute, Second
OPTION MODULE	I/O OPTION	Switch Status (DI)	Digital Input (Wet)
		Power Supply for DI	24 Vdc
		Relay Output (RO)	NO, Form A
		Digital Output (DO)	Photo-MOS
		Pulse Output (PO)	By using DO
		Analog Input (AI)	0(4)~20mA, 0(1)~5V
		Analog Output (AO)	0(4)~20mA, 0(1)~5V
	COMMUNICATION	Ethernet	10M/100M, Modbus-TCP, HTTP Webpage, Email
		Profibus-DP	Profibus-DP/V0

I/O Module (Option)

Module Name	Digital Input (DI)	Power Supply For DI (24V)	Digital Output (DO)	Relay Output (RO)	Analog Input (AI)	Analog Output (AO)
AXM-IO1	6	1		2		
AXM-IO2	4		2			2
AXM-IO3	4			2	2	

Communication Module (Option)

Module Name	Spec
Ethernet	10M/100M self-adaptable, RJ45 Jack Modbus-TCP/IP Protocol HTTP Web page browse Email sending on time interval or on event
Profibus	Profibus-DP/V0 Input Byte (typical): 32 byte Output Byte (typical): 32 Byte EN50170 vol.2 compliance Profibus slave mode, baud rate self-adaptable up to 12M

APPLICATIONS

- Metering of distribution feeders, transformers, generators, capacitor banks and motors
- Medium and low voltage systems
- Commercial, industrial, utility
- Power quality analysis

FEATURES

Metering

- Voltage V1, V2, V3, Vlnavg, V12, V23, V31, Vllavg
- Current I1, I2, I3, In, Iavg
- Power P1, P2, P3, Psum
- Reactive Power Q1, Q2, Q3, Qsum
- Apparent Power S1, S2, S3, Ssum
- Frequency F
- Power Factor PF1, PF2, PF3, PF
- Energy Ep_imp, Ep_exp, Ep_total, Ep_net
- Reactive Energy Eq_imp, Eq_exp, Eq_total, Eq_net
- Apparent Energy Es
- Demand Dmd_P, Dmd_Q, Dmd_S

Monitoring

- Power Quality
- Voltage Harmonics 2nd to 31st and THD
- Current Harmonics 2nd to 31st and THD
- Voltage Crest Factor
- THFF (TIF)
- Current K Factor
- Voltage Unbalance Factor U_unbl
- Current Unbalance Factor I_unbl
- Max/Min Statistics with Time Stamps

Alarms

Limits can be set for up to 16 indicated parameters and can be set with a specified time interval. If any input of the indicated parameters is over or under its setting limit and persists over the specified time interval, the event will be recorded with time stamps and trigger the Alarm DO output. The 16 indicated parameters can be selected from any of the 44 parameters available.

I/O option module

The E-module® technique was adopted for its flexibility and easy expansion of the I/O function of Acuvim II. A maximum of 3 modules can be used for one meter. Digital input, digital output, pulse output, relay output, analog input and analog output are provided by I/O option module.

Communication

RS485, Industry standard Modbus™ protocol
Module Option: Ethernet module, Profbus-DP module
Dual communication ports

Display

Clear and large character LCD Screen display with white back light
Wide environmental temperature endurance
Display Load percentage, 4 quadrants power and load nature

Outline

Small Size 96×96 DIN or 4" ANSI Round

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Typical Web Page From Acuvim II

Max & Min Record

SOE Record

Alarm Record

Energy & Harmonics