

Power Quality and Energy Management

Bulletin Numbers 1400, 1408, 1411, 1420, 1426, 1606, 1608, 4983, 9307

Allen-Bradley
by ROCKWELL AUTOMATION

Selection Guide

Feature		1426-M5E-xxx	1426-M6E-xxx	1426-M8E-xxx
Communication	EtherNet/IP	✓	✓	✓
	ControlNet	Optional	Optional	Optional
	DeviceNet	Optional	Optional	Optional
Logs	Waveform Log	–	✓	✓
	Energy Log	✓	✓	✓
	Minimum/Maximum Log	✓	✓	✓
	Load Factor Log			
	Time of Use Log			
	Alarm Log			
	Event Log			
	Setpoint Log			
	Data Log			
	Power Quality Log	–	✓	✓
	Trigger Data Log			
	Snapshot Log			
	EN 50160 Weekly and Yearly Log	–	–	✓
Inputs/Outputs	Status Inputs (4)	✓	✓	✓
	Pulse (digital) Output (Relay and KYZ)			
Other Features	Configurable via Webpage	✓	✓	✓
	Revenue Accuracy			
	Virtual Wiring Correction			
	Setpoint Programming			
	Logical Setpoint Programming	–	✓	✓
	Time Sync	✓	✓	✓
	Waveform Synchronization Broadcast	–	✓	✓
	CIP Energy Object	✓	✓	✓

Product Selection

Description	Communication	Cat. No.
Base Power Monitor	Native Ethernet	1426-M5E
	Native Ethernet and Optional ControlNet Network	1426-M5E-CNT
	Native Ethernet and Optional DeviceNet Network	1426-M5E-DNT
Basic Power Quality Monitor	Native Ethernet	1426-M6E
	Native Ethernet and Optional ControlNet Network	1426-M6E-CNT
	Native Ethernet and Optional DeviceNet Network	1426-M6E-DNT
Advanced Power Quality Monitor	Native Ethernet	1426-M8E
	Native Ethernet and Optional ControlNet Network	1426-M8E-CNT
	Native Ethernet and Optional DeviceNet Network	1426-M8E-DNT

Accessories

Description			Cat. No.
Catalog Number Upgrade	• Add capabilities to your PowerMonitor – Example: A M5 unit can be promoted to a M6 or M8 unit • Use the ControlFLASH™ utility • Contact your local Rockwell Automation representative or Allen-Bradley® distributor to purchase	M5 to M6	1426-UPGR-56
		M5 to M8	1426-UPGR-58
		M6 to M8	1426-UPGR-68
	PowerMonitor Display Module • 4.3 inch Touch Screen HMI with factory-installed application • Displays key information from one, two, or three PowerMonitor units. • Reads data directly from the PowerMonitor over the Ethernet IP network • Does not require a controller		1426-DM

Specifications

General Specifications

Attribute	Value *Accuracy in % of Reading at 25 °C (77 °F) 50/60 Hz Unity Power Factor*		Nominal Rating/Metering Range
Voltage Sense Inputs (V1, V2, V3, VN)	± 0.1%		Line-neutral rms: 398V AC / 15…660V AC Line-line rms: 690V AC /26…1144V AC
Input Voltage (VG)	—		Connect to power system earth ground only This is a functional ground
Current Sense Input	I1, I2, I3, I4		5 A / 0.05 — 15.6 A rms
Frequency	±0.05 Hz		50 or 60 Hz / 40…70 Hz
Power Functions (kW, kVA, kVAR)	ANSI C12.20 -2010 Class 0.2 (1) Clause 5.5.4	EN 62053-22 -2003 Class 0.2 Accuracy Clause 8	—
Demand Functions (kW, kVA, kVAR)			
Energy Functions (kWH, kVAH, kVARH)			
Metering Update Rates	One update per line cycle; 1024 samples per cycle per channel		

(1) For catalog number 1426-M5E (PN-54351) units manufactured from July 2012…January 2013, the accuracy is Class 0.5, not Class 0.2.
All other characteristics and products are not impacted. The impacted units are those with manufacturing date codes of 0712, 0812, 0912, 1012, 1112, 1212, 0113.

Input/Output Specifications

Attribute		Value
Control Power	L1, L2	Maximum rating: 85…264V AC 47…63 Hz or 106…275V DC; Nominal value: 120/240V AC or 120/240V DC
	24V DC	Maximum rating: 22.8…25.2V DC Nominal value: 24V DC
Voltage Sense Inputs (V1, V2, V3, VN)	Input Impedance	5 MΩ minimum
	Input Current	1 mA maximum
Current Sense Inputs (I1, I2, I3)	Overload Withstand	22 A continuous, 200 A for 1 second
	Burden	Negligible
	Impedance	Negligible
	Maximum Crest Factor at 5 A	4
	Starting Current	5 mA
Status Inputs		Contact closure (internal 24V DC)
KYZ Output	Solid State KYZ	80 mA at 240V AC/V DC
Control Relay	ANSI C37.90 Trip Duty	2005

Environment Specifications

Attribute		Value
Temperature	Operating	-20…+70 °C (-4…158 °F)
	Storage	-40…+85 °C (-40…+185 °F)
Humidity	Non-condensing	5…95%
Dielectric Withstand		UL61010, EN61010; Pollution Degree 2
Vibration		2 g
Shock	Operating	30 g peak each axis
	Non-operating	50 g peak each axis
Installation Location		Indoor use only
Altitude [m (ft)]	Maximum	2000 (6560)