

Metering Protection – Selector Guide

Metering Protection

Features	EPM 2200	EPM 6000	EPM 6010	PQMII	EPM 7000	EPM 9450	EPM 9650
ENERGY & MEASUREMENT ACCURACY							
Active Energy Measurement Accuracy <0.2%						0.04%	0.04%
Active Energy Measurement Accuracy ≥0.2%	0.5%	0.2%	0.2%	0.4%	0.2%		
Energy Accuracy Meets or Exceeds ANSI Class	C12.20/Class 0.5	C12.20/Class 0.2	C12.20/Class 0.2		C12.20/Class 0.2	C12.20/Class 0.2	C12.20/Class 0.2
Energy Test Pulse for Accuracy Certification	•	•	•		•	•	•
POWER & ENERGY MEASUREMENT							
Multi-circuit Measurement							
Voltage, Current, Frequency, Power Factor	•	•	•	•	•	•	•
Power (kW, kVAR, kVA)	•	•	•	•	•	•	•
Bi-Directional Power	•	•	•	•	•	•	•
Energy (kWh, kVARh, kVAh)	•	•	•	•	•	•	•
Demand	•	•	•	•	•	•	•
Demand-Time-of-Use Support				•		•	•
Auto-calibrating						•	•
Constant Calibration							
POWER QUALITY							
Measurement sampling (samples/cycle)				64	512	512	512
Harmonics - THD		•	•	•	•	•	•
Sags & Swells				•	•	•	•
Harmonics-Spectrum Analysis				•	•	•	•
Crest-Factor				•	•	•	•
Subcycle Transient Detection						•	•
K-Factor						•	•
Real-time harmonics (highest)						128	128
IEC 61000-4-15 Flicker							•
IEC 61000-4-30 Class A Reporting/ EN50160 Reporting							
DATA LOGGING							
Historical Logging				•	•	•	•
Event Logging				•	•	•	•
Maximum Logging Memory				192KB	4MB	512KB	4MB
Event-Driven Waveform Capture				•	•	•	•
Time Synchronization via Modbus				•	•	•	•
Time Synchronization via IRIG-B						•	•
Time Synchronization via NTP					•		
Transient Recorder Samples/Cycle							
AUTOMATION AND I/O							
Configurable alarm thresholds		•	•	•	•	•	•
Custom boolean alarms						•	•
KYZ Pulse Output	•	•	•	•	•	•	•
Alarm Annunciation via Relay				•	•	•	•
Analog Input (Max)				1	0	32	32
Analog Output (Max)				4	8	32	32
Digital Input (Max)				4	8	40	40
Digital Output (Max)				4	4	16	16
Control Relay (Max)				4	4	16	16
Relay outputs / status inputs							
COMMUNICATIONS & PROTOCOLS							
Communication Ports (Max)	1	2	2	2	4	4	4
Modbus Serial	•	•		•	•	•	•
Modbus Ethernet	•	•	•	•	•	•	•
Modbus RTU	•	•		•	•	•	•
Ethernet Port / Modbus TCP		•	•	•	•	•	•
DNP 3.0		•	•	•	•	•	•
IEC 61850					•		
BACnet	•		•				
Embedded Web Server			•		•	•	•
WiFi Capable							
Front Communication Port		•	•	•	•	•	•
USB Port						•	•
Modem						•	•
DISPLAYS AND MOUNTING							
Multifunction Touch Screen Display						•	•
Enclosure	•	•	•	•	•	•	•
Low Voltage Power Supply Option		•	•	•	•	•	•



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Features	EPM 9700	EPM 9800	EPM 9900	EPM 4600	EPM 6100	EPM 7100	EPM 9900P
ENERGY & MEASUREMENT ACCURACY							
Active Energy Measurement Accuracy <0.2%	0.06%	0.06%	0.06%				0.06%
Active Energy Measurement Accuracy ≥0.2%				0.5%	0.2%	0.2%	
Energy Accuracy Meets or Exceeds ANSI Class	C12.20/Class 0.2	C12.20/Class 0.2	C12.20/Class 0.2	C12.20/Class 0.5	C12.20/Class 0.2	C12.20/Class 0.2	C12.20/Class 0.2
Energy Test Pulse for Accuracy Certification	•	•	•	•	•	•	•
POWER & ENERGY MEASUREMENT							
Multi-circuit Measurement				24			
Voltage, Current, Frequency, Power Factor	•	•	•	•	•	•	•
Power (kW, kVAR, kVA)	•	•	•	•	•	•	•
Bi-Directional Power	•	•	•	•	•	•	•
Energy (kWh, kVARh, kVAh)	•	•	•	•	•	•	•
Demand	•	•	•	•	•	•	•
Demand-Time-of-Use Support	•	•	•	•		•	•
Auto-calibrating	•	•	•				
Constant Calibration							•
POWER QUALITY							
Measurement sampling (samples/cycle)	1024	512	1024				1024
Harmonics - THD	•	•	•				•
Sags & Swells	•	•	•				•
Harmonics-Spectrum Analysis	•	•	•				•
Crest-Factor	•	•	•				•
Subcycle Transient Detection	•	•	•				•
K-Factor	•	•	•				•
Real-time harmonics (highest)	128	128	128				128
EN50160 Flicker & Compliance	•	•	•				•
IEC 61000-4-30 Class A Reporting/ EN50160 Reporting	•		•				•
DATA LOGGING							
Historical Logging	•	•	•	•		•	•
Event Logging	•	•	•				•
Maximum Logging Memory	1.2GB	4MB	1GB	32MB		2MB	4GB
Event-Driven Waveform Capture	•	•	•				•
Time Synchronization via Modbus	•	•	•	•	•	•	•
Time Synchronization via IRIG-B	•	•	•				•
Time Synchronization via NTP			•				•
Transient Recorder Samples/Cycle			166,000				833,333
AUTOMATION AND I/O							
Configurable alarm thresholds	•	•	•				•
Custom boolean alarms	•		•				•
KYZ Pulse Output	•	•	•		•	•	•
Alarm Annunciation via Relay	•	•	•				•
Analog Input (Max)	32	32					
Analog Output (Max)	32	32					
Digital Input (Max)	40	40	40				40
Digital Output (Max)	16	16	4				4
Control Relay (Max)	16	16	12				12
Relay outputs / status inputs				2 / 4			
COMMUNICATIONS & PROTOCOLS							
Communication Ports (Max)	6	4	6	3	2	2	6
Modbus Serial	•	•	•	•	•	•	•
Modbus Ethernet	•	•	•	•	•	•	•
Modbus RTU	•	•	•	•	•	•	•
Ethernet Port / Modbus TCP	•	•	•	•	•	•	•
DNP 3.0	•	•	•				•
IEC 61850			•				•
BACnet							
Embedded Web Server	•	•	•				•
WiFi Capable				•	•	•	
Front Communication Port	•	•	USB	•	•	•	USB
USB Port	•		•	•			•
Modem		•					
DISPLAYS AND MOUNTING							
Multifunction Touch Screen Display			•	•			•
Enclosure	•	•	•				•
Low Voltage Power Supply Option	•	•	•				•