



- High Accuracy Measurements
- Status Input Monitoring
- Optional Analog Output
- RS-485 Port at max. 38,400 bps
- Metasys N2 and BACnet MS/TP
- IP52 Enclosure with No Openings
- Large, Bright, Backlit LCD Display with Wide Viewing Angle
- Standard Tropicalization
- Industrial Grade Components
- Extended Temperature Range
- Extended Warranty

Designed For Reliability

Manufactured To Last



The PMC-43M Intelligent Multifunction Meter is CET's latest offer for the entry-level digital power/energy metering market. Housed in an ultra compact form factor measuring only 80mmx80mmx77mm, the PMC-43M is perfectly suited for industrial, commercial and utility metering applications. The meter features quality construction, multifunction measurements, high accuracy and a large, easy to read LCD display with backlight. The PMC-43M is a cost effective replacement for analog instrumentation, capable of displaying 3-phase measurements at once. The meter comes standard with two Digital Inputs for status. With the Metasys N2 and BACnet MS/TP protocol support, the PMC-43M can easily be integrated into Johnson Controls Metasys or any Building Automation Systems.

Typical Applications

- Analog meter replacement
- Low and medium voltage applications
- Industrial and commercial panel metering
- Substation, Factory and Building Automation
- Sub-metering and cost allocation
- Simple BMS integration with Metasys N2 and BACnet MS/TP

Features Summary

Easy of use

- Large, backlit, easy to read LCD display with wide viewing angle
- Password-protected setup via front panel or free PMC Setup software
- Easy installation with mounting clips, no tools required

Measurements

- VLN, VLL, Current per phase and Average
- kW, kvar, kVA, PF per phase and Total
- kWh, kvarh Import / Export and kVAh Total
- Bi-directional energy measurements
- Frequency

Inputs and Outputs

- Front panel kWh LED Pulse Output
- Digital Inputs: 2 volts free dry contact, internally wetted @ 24VDC

SOE Log

- 16 events time-stamped to ± 1 ms resolution
- Record all setup and Digital Input status changes

Communications

- Optically isolated RS485 port at max. 38,400 bps
- Metasys N2 and BACnet MS/TP

System Integration

- Easy integration into Johnson Controls Metasys with N2 or any Building Automation Systems with BACnet MS/TP

Accuracy

Parameters	Accuracy	Resolution
Voltage	$\pm 0.5\%$ reading	0.01V
Current	$\pm 0.5\%$ reading + 0.05% F.S.	0.001A
kW, kVA	IEC 62053-21 Class 1	0.001k
kWh, kVAh	IEC 62053-21 Class 1	0.1kWh
kvar / kvarh	IEC 62053-21 Class 2	0.001k / 0.1kvarh
P.F.	IEC 62053-21 Class 1	0.001
Frequency	± 0.02 Hz reading	0.01Hz


Technical Specifications

Voltage Inputs (VA, VB, VC, VN)	
Standard	240VLN/415VLL
Optional	57.7VLL/100VLL
Range	10% to 110% Un
PT Ratio	1-5000
Overload Burden	1.1xUn continuous, 2xUn for 1s <0.1VA per phase
Frequency	45-65Hz
Current Inputs (IA, IB, IC, IN)	
Standard	5A
Optional	1A
Range	0.1% to 120% In
CT Ratio	1-6,000 (5A) or 1-30,000 (1A)
Overload Burden	1.2xIn continuous, 20xIn for 1s <0.3VA per phase
Power Supply (L/+, N/-, GND)	
Standard	95-250VAC/DC, $\pm 10\%$, 47-440Hz
Burden	<2W
Digital Inputs (DI1, DI2, DIC)	
Type	Dry contact, 24VDC internally wetted
Sampling	1000Hz
Hysteresis	40ms minimum
Environmental Conditions	
Operating Temp.	-25°C to 70°C
Storage Temp.	-40°C to 85°C
Humidity	5% to 95% non-condensing
Atmospheric Pressure	70 kPa to 106 kPa
Mechanical Characteristics	
Panel Cutout	76x76 mm (2.99"x2.99")
Unit Dimensions	80x80x77 mm (3.15"x3.15"x3.03")
IP Rating	52
Shipping Weight	0.5 kg
Shipping Dimensions	125x125x115 mm (4.92"x4.92"x4.53")

Standards of Compliance

Safety Requirements		
CE LVD 2006 / 95 / EC	EN61010-1-1-2001	
Insulation	IEC 60255-5-2000	
Dielectric test: 2kV @ 1 minute		
Insulation resistance: >100MΩ		
Impulse voltage: 5kV, 1.2/50μs		
Electromagnetic Compatibility		
CE EMC Directive 2004 / 108 / EC (EN 61326: 2006)		
Immunity Tests		
Electrostatic discharge	IEC 61000-4-2: 2008 Level III	
Radiated fields	IEC 61000-4-3: 2010 (10 V/m)	
Fast transients	IEC 61000-4-4: 2011 Level III	
Surges	IEC 61000-4-5: 2005 Level III	
Conducted disturbances	IEC 61000-4-6: 2008 Level II	
Magnetic fields	IEC 61000-4-8: 2009 Level IV	
Voltage dips and interruptions	IEC 61000-4-11: 2004 Class III	
Oscillatory waves	IEC 61000-4-12: 2006 Level III	
Emission Tests		
Limits and methods of measurement of electromagnetic disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment	EN 55011: 2009 + A1: 2010 (CISPR 11)	
Limits and methods of measurement of radio disturbance characteristics of information technology equipment	EN 55022: 2010 (CISPR 22)	
Limits for harmonic current emissions for equipment with rated current ≤16 A	EN 61000-3-2: 2006+A1: 2009 +A2: 2009	
Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤16 A	EN 61000-3-3: 2008	
Emission standard for residential, commercial and light-industrial environments	EN 61000-6-4: 2007	
EMC Generic Standards for industrial environments	EN 61000-6-4: 2007+A1: 2011	
Electromagnetic emission tests for measuring relays and protection Equipment	IEC 60255-25: 2000	
Mechanical Tests		
Vibration Test	Response	IEC 60255-21-1:1998 Level I
	Endurance	IEC 60255-21-1:1998 Level I
Shock Test	Response	IEC 60255-21-2:1998 Level I
	Endurance	IEC 60255-21-2:1998 Level I
Bump Test	IEC 60255-21-2:1998 Level I	

Ordering Information



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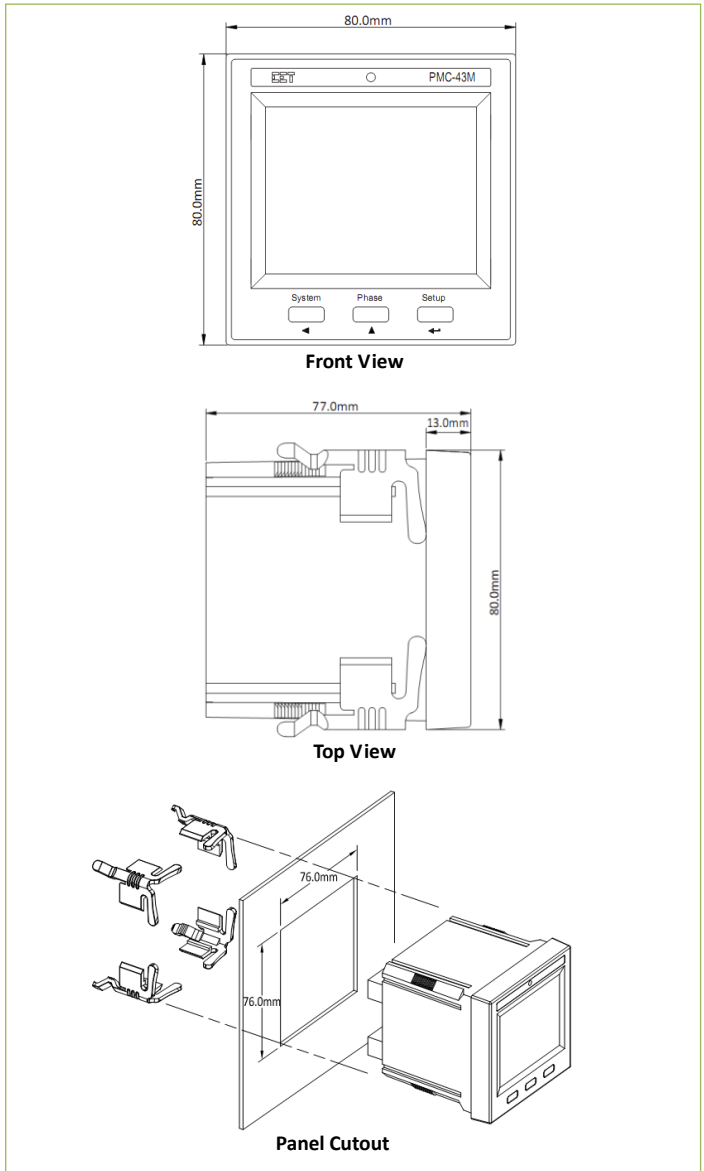
Version 20140708

Product Code	Description
PMC-43M Intelligent Multifunction Meter	
Basic Function	
M	3-phase real-time multi-function parameters
Input Current	
5	5A
1	1A
Input Voltage	
1	57.7V/100V
3	240V/415V
9	415V Delta
Power Supply	
2	95-250VAC/VDC, 47-440Hz
System Frequency	
5	50Hz
6	60Hz
I/O	
A	2DI
Communications	
C	1 RS-485 port, BACnet MS/TP + Modbus N2
Display Language*	
E	English

PMC-43 M - 5 3 2 5 A C E PMC-43M-5325ACE (Standard Model)

* Additional charges apply.

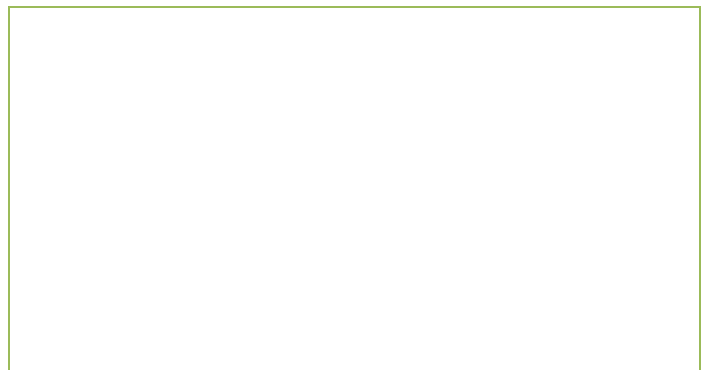
Device View and Dimensions



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