CET
Electric
Technology

PMC-S963-C
Intelligent Multifunction Meter

- IEC 62053-22 Class 0.5S
- True RMS @ 64 Samples/Cycle
- THD with 31st Ind. Harmonics
- Crest Factor and TDD
- Unbalance & Phase Angle
- Simple TOU & Demands
- Max./Min. Log with Timestamps
- Modbus RTU
- Large, Backlit, 7-Segment LCD
- 12 Monthly Energy Log & SOE Log
- Setpoint and I/O
- IP65 Enclosure with No Openings
- Standard Tropicalization
- Industrial Grade Components
- Extended Temperature
- Extended Warranty

Designed For Reliability *Manufactured To Last*

CET
Electric
Technology

PMC-S963-C
Intelligent Multifunction Meter

The PMC-S963-C Intelligent Multifunction Meter is CET's latest offer for the low-cost digital power/energy metering market. Housed in a standard DIN form factor measuring 96x96x92mm, it is perfectly suited for industrial, commercial and utility applications. The PMC-S963-C features quality construction, multifunction measurements and a large, backlit, 7-Segment LCD that is easy to navigate and user friendly. Compliance with the IEC 62053-22 Class 0.5S Standard, it is a cost-effective replacement for analog instrumentation that is capable of displaying 3-phase measurements at once. It comes standard with four Digital Inputs for status monitoring. In addition, it optionally provides 2xDO, 1xSS Pulse Output and 1xAO for different applications. The standard RS-485 port and Modbus RTU protocol support makes the PMC-S963-C a smart metering component of an intelligent, multifunction monitoring solution for any Energy Management System.

Typical Applications

- Industrial, Commercial and Utility Substation Metering
- Building, Factory and Process Automation
- Sub-metering and Cost Allocation
- Energy Management and Power Quality Monitoring

Features Summary

Ease of use

- Large, backlit, 7-Segment LCD display with wide viewing angle
- Intuitive user interface
- LED indicators for Energy Pulsing and Communication activities
- Password protected setup via Front Panel or free setup software
- Easy installation with mounting clips, no tools required

Basic Measurements

- True RMS @ 64 Samples/Cycle
- ULN, ULL per Phase and Average
- Current per Phase and Average with calculated Neutral
- P, Q, S, PF per Phase and Total
- Total RMS kWh, kvarh Import/Export/Net/Total and kVAh Total
- Per-phase kWh, kvarh Import/Export
- Frequency
- Device Operating Time (Running Hours)

Advanced Measurements

- U and I THD, TOHD, TEHD, TH (RMS) and Individual Harmonics up to 31st
- Current TDD, TDD Odd, TDD Even and Crest Factor
- U and I Sequence, Unbalance and Phase Angle
- Fundamental U and I per Phase
- kvarh Q1-Q4
- P/Q/S and 3-phase Current Present and Predicted Demands as well as Max. Demands with Timestamp for This Month & Last Month (or Since Last Reset & Before Last Reset)
- One Simple TOU schedule providing
  - 4 Seasons
  - 4 Daily Profiles, each with 14 Periods in 15-minute interval
  - 4 Tariffs, each providing kWh Import
- 12 monthly recording of kWh/kvarh Import/Export/Total/Net, kVAh Total, kvarh Q1-Q4 as well as kWh Import per Tariff

Setpoints

- 9 user programmable setpoints with extensive list of monitoring parameters including Voltage, Current, Power, P/Q/S Present and Predicted Demands, Unbalance, Phase Reversal and THD/TOHD/TEHD
- Configurable thresholds, time delays and DO triggers

SOE Log

- 32 events time-stamped to ±1ms resolution
- Setup changes, Setpoint and DI status changes and DO operations

Max./Min. Log

- Max./Min. Log with Timestamp for Real-time measurements such as Voltage, Current, In (Calculated), Freq., P, Q, S, PF, Unbalance and THD
- Configurable for This Month & Last Month (or Since Last Reset & Before Last Reset)

Diagnostics

- Loss of Voltage/Current
- P Direction per Phase and Total
- Incorrect U & I Phase Sequence

Communications

- Optically isolated RS-485 port at max. 38,400 bps
- Standard Modbus RTU support

Real-Time Clock

- Battery-backed Real-time Clock with 25ppm accuracy (<2s per day)

System Integration

- Supported by CET's PecStar® iEMS
- Easy integration into other Automation, SCADA or BMS systems via Modbus RTU

Inputs and Outputs

Digital Inputs

- 4 channels, volt free dry contact, 24VDC internally wetted
- 1000Hz sampling for status monitoring with programmable debounce
- Pulse counting with programmable weight for each channel for collecting WAGES (Water, Air, Gas, Electricity, Steam) information
- Tariff switching based on DI status

Digital Outputs (Optional)

- 2 Form A Mechanical Relays for alarming and general purpose control

Pulse Output (Optional)

- 1 Form A Solid-State Relay for kWh and kvarh pulsing

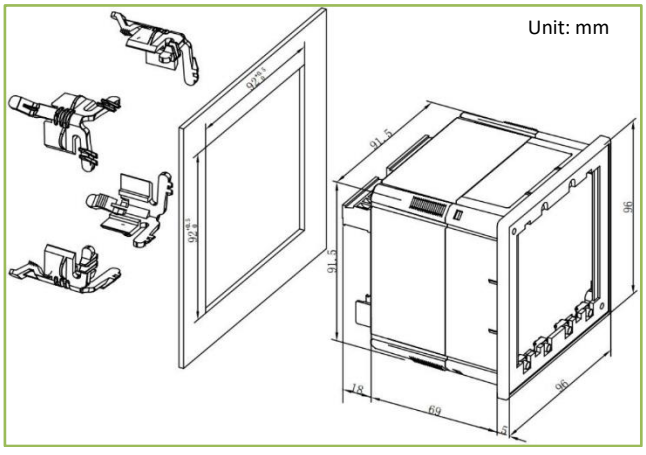
Analog Output (Optional)

- One channel 0/4-20mA DC output with programmable zero and full scales

Accuracy

Parameters	Accuracy	Resolution
Voltage	±0.2%	0.001V
Current	±0.2%	0.001A
In (Calculated)	±1.0%	0.001A
P, Q, S	±0.5%	0.001kX
kWh	IEC 62053-22 Class 0.5S	0.01kWh
kvarh	IEC 62053-23 Class 2	0.01kvarh
PF	±0.5%	0.001
Frequency	±0.02Hz	0.01Hz
THD	IEC 61000-4-7 Class II	0.001%
AO	±1.0%	-

Dimensions and Installation



Designed For Reliability *Manufactured To Last*

CET Electric Technology

PMC-S963-C
Intelligent Multifunction Meter

Technical Specifications

Voltage Inputs (V1, V2, V3, VN)	
Standard Un	240ULN/415ULL
Range	30V to 1.2Un
Overload	1.2xUn continuous 2xUn for 1s
Burden	<0.02VA per phase @ 240ULN
Measurement Category	CAT III up to 300V
Frequency	45-65Hz
Current Inputs (·I11, I12, ·I21, I22, ·I31, I32)	
Standard In	5A/1A Auto-scaling
Range	0.1% to 120% In
Starting Current	0.1% In
Overload	1.2xIn continuous 10xIn for 1s
Burden	<0.25VA per phase
Power Supply (L/+, N/-)	
Standard	95-250VAC/DC, ±10%, 47-440Hz
Burden	<2W
Overvoltage Category	OVC III up to 300V
Digital Inputs (DI1, DI2, DI3, DI4, DIC)	
Type	Dry contact, 24VDC internally wetted
Sampling	1000Hz
Hysteresis	1ms minimum
Optional Digital Outputs (DO11, DO12, DO21, DO22)	
Type	Form A Mechanical Relay
Loading	5A @ 250VAC or 30VDC
Load Type	Resistive
Optional Pulse Output (E+, E-)	
Type	Form A Solid-State Relay
Isolation	Optical
Pulse Width	80ms±20ms
Max. Load Voltage	50VDC
Max. Forward Current	50mA
Optional Analog Output (AO+, AO-)	
Type	0/4-20 mA
Loading	500Ω maximum
Overload	24mA maximum
Installation Torque	
Power Supply, Un, RS-485, I/O	
Tightening:	4 kgf.cm/3.54 lb-in/0.4 N.m/M3
Max.:	5.1 kgf.cm/4.42 lb-in/0.5 N.m/M3
Current Inputs, Voltage Inputs	
Tightening:	5 kgf.cm/4.43 lb-in/0.5 N.m/M3
Max.:	8 kgf.cm/6.94 lb-in/0.78 N.m/M3
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
Altitude	< 3000m
Pollution Degree	2
Mechanical Characteristics	
Panel Cutout	92x92mm (3.62”x3.62”)
Unit Dimensions	96x96x92mm
LCD Display Dimensions	61x61mm
IP Rating	IP65

Standards of Compliance

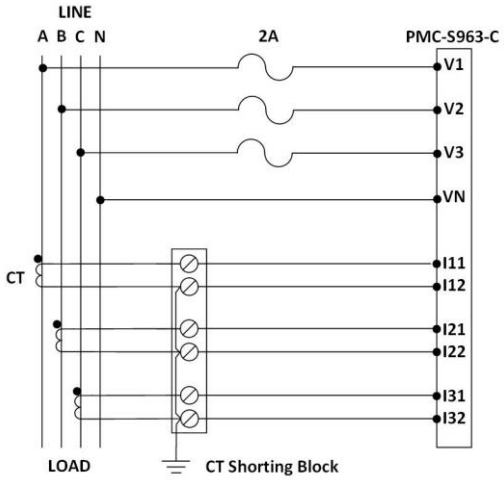
Safety Requirements	
CE LVD 2014 / 35 / EU	EN 61010-1: 2010 + A1: 2019 EN IEC 61010-2-030: 2021 + A11: 2021
Electrical Safety in Low Voltage Distribution Systems up to 1000Vac and 1500 Vdc	IEC 61557-12: 2021(PMD)
Insulation	IEC 62052-31: 2015 EN 61010-1: 2010 + A1: 2019
AC Voltage	2kV @ 1 minute
Insulation Resistance	>100MΩ
Impulse Voltage	6kV, 1.2/50μs
Electromagnetic Compatibility CE EMC Directive 2014 / 30 / EU (EN IEC 61326: 2021)	
Immunity Tests	
Electrostatic Discharge	EN 61000-4-2: 2009
Radiated Fields	EN IEC 61000-4-3: 2020
Fast Transients	EN 61000-4-4: 2012
Surges	EN 61000-4-5: 2014 + A1: 2017
Conducted Disturbances	EN 61000-4-6: 2014 + AC: 2015
Magnetic Fields	EN 61000-4-8: 2010
Voltage Dips and Interruptions	EN IEC 61000-4-11: 2020
Ring Wave	EN 61000-4-12: 2017
Immunity Standard for Industrial Environments	EN IEC 61000-6-2: 2019
Emission Tests	
Limits and Methods of Measurement of Electromagnetic Disturbance Characteristics of Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment	EN 55011: 2016 + A1: 2017 +A2: 2021
Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements	EN 55032: 2015 + AC: 2016 + A11: 2020
Limits for Harmonic Current Emissions for Equipment with Rated Current ≤16 A	EN IEC 61000-3-2: 2019 +AX1: 2021
Limitation of Voltage Fluctuations and Flicker in Low-Voltage Supply Systems for Equipment with Rated Current ≤16 A	EN 61000-3-3: 2013 + A1: 2019 + A2: 2021
Emission Standard for Industrial Environments	EN IEC 61000-6-4: 2019
Mechanical Tests	
Spring Hammer Test	IEC 62052-31: 2015
Vibration Test	IEC 62052-11: 2020
Shock Test	IEC 62052-11: 2020

Designed For Reliability *Manufactured To Last*

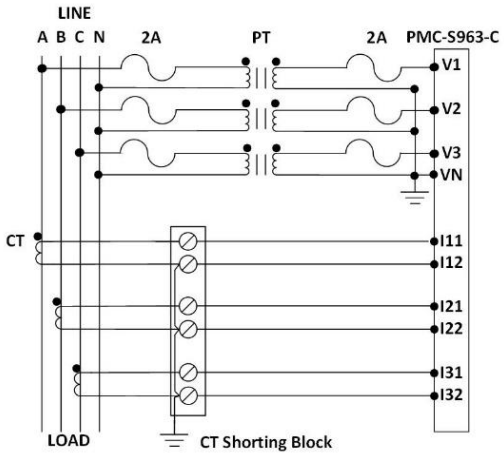
CET Electric Technology

PMC-S963-C
Intelligent Multifunction Meter

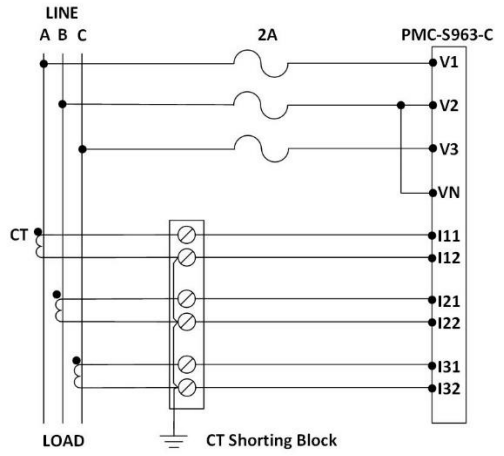
Typical Wiring Diagrams



3P4W with 3CTs and no CTs



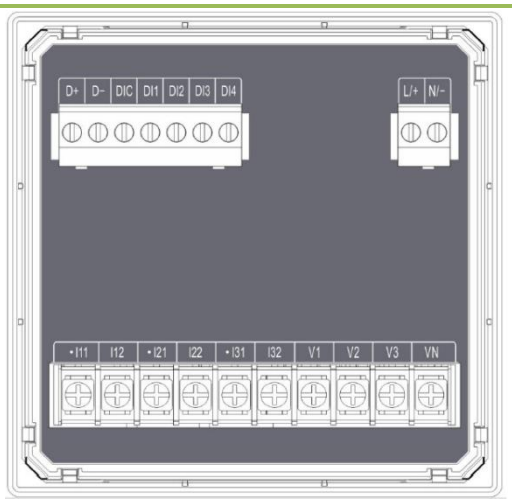
3P4W with 3CTs and 3PTs



3P3W with 3CTs

Notes: *PMC-S963-C does not support 3P3W connection with open Vn.*

Rear Panel



4xDI (Standard Model)

Ordering Information

Version 20250808

Product Code	Description
PMC-S963 Intelligent Multifunction Meter	
Basic Function	
C	DIN96 Panel Mounting with Large 7-Segment LCD display. Multifunction Measurements, Demands, Simple Multi-Tariff TOU, Harmonics up to 31st order
Input Current	
5	5A/1A Auto-Scaling
Input Voltage	
3	240VLN/415VLL
Power Supply	
2	95-250 VAC/DC, 47-440Hz
Frequency	
5	45-65Hz
I/O	
A	4xDI + 2xDO + 1xSS Pulse Output
B	4xDI
C	4xDI + 2xDO + 1xSS Pulse Output + 1xAO
Communication	
A	1xRS-485
Language	
E	English

PMC-S963 - C 5 3 2 5 B A E — PMC-S963-C5325BAE (Standard Model)

Your Local Representative

CET Electric Technology Inc.

E: sales@cet-global.com
W: www.cet-global.com

Revision Date: May 25, 2026