

EMC Meter series

EMC Meter Series with MID



EATON

Powering Business Worldwide

EMC3P-P2P1 Plug & Play Energy Meter

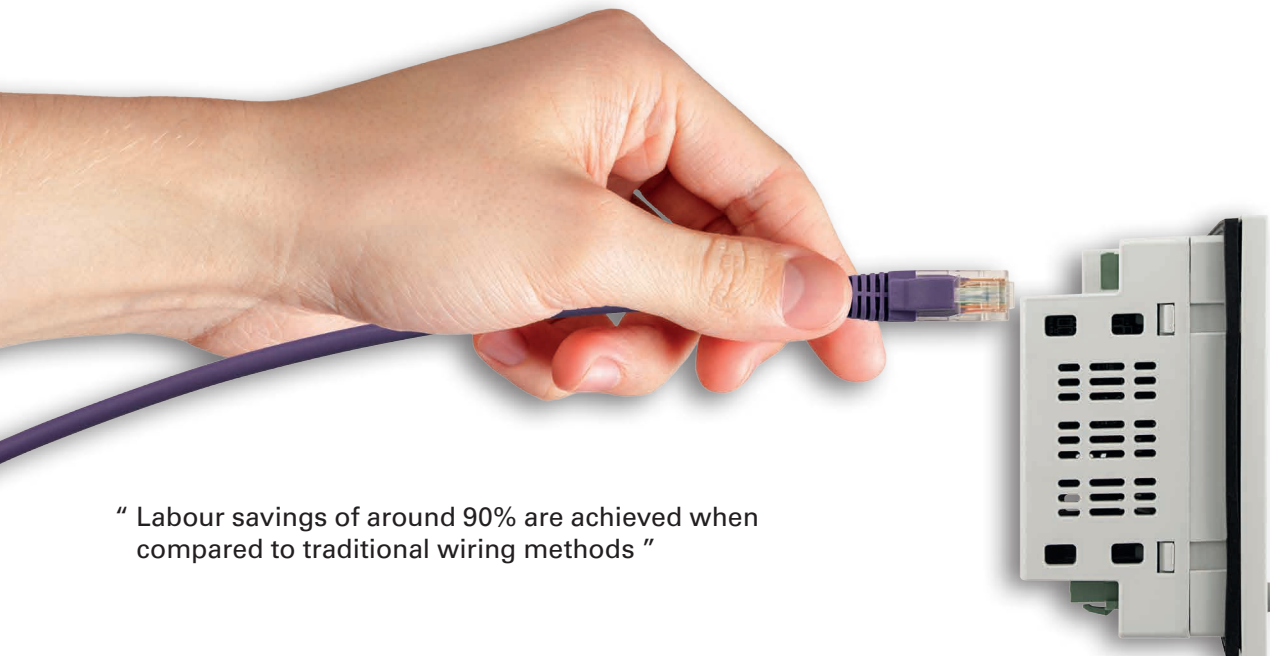


Plug & Play Single and Three Phase Multifunction Energy Meters



EMC3P-P2P1

- DIN 96 panel mounted
- Single phase or three phase network compatible
- Programmable voltage and current transformer ratio
- True RMS measurement
- High definition white backlit LCD display
- MID B+D Certified
- Compact size - only 50mm panel depth
- Simple programming & operation
- Pulse output and Modbus communication
- Auto or manual page scrolling
- Daisy chaining up to 32 meters from one supply



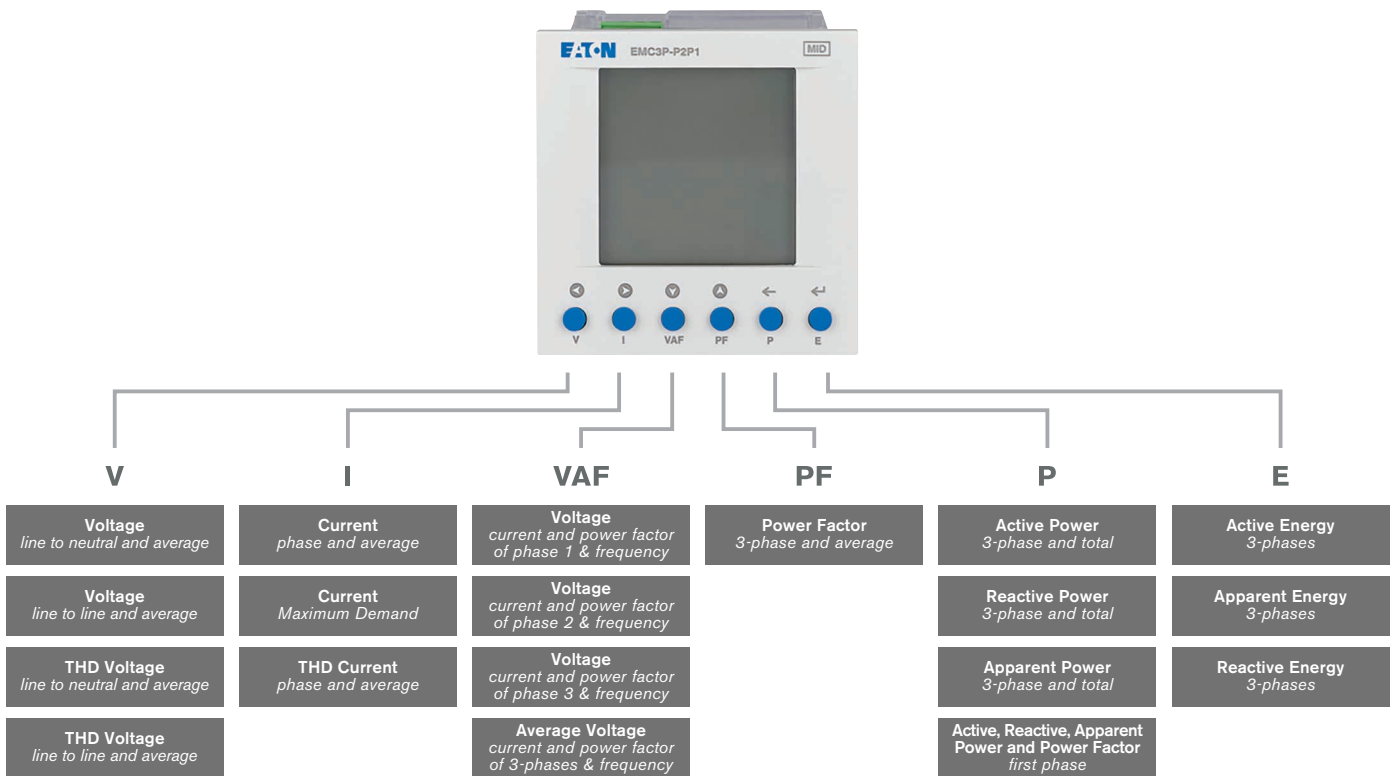
“ Labour savings of around 90% are achieved when compared to traditional wiring methods ”

The EMC3P-P2P1 (MID Certified) DIN 96 panel mounted multifunction energy meters are suitable for monitoring energy consumption and many other electrical parameters in industrial and commercial applications. These meters may be used in single or three phase applications.

A high efficiency white backlit LCD display provides clear indication of measured values in all light conditions.

Quick select push-buttons on the front of the meter allow the user fast access to the display page required.

Function Diagram



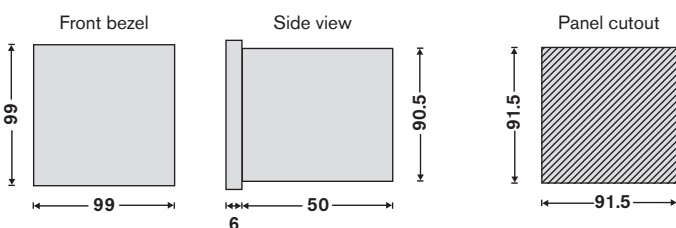
Displayed Parameters

Voltage – L-L, L-N and average
 Current – Phase, total and Max. demand
 Power Factor – per phase and average
 Total Harmonic Distortion – Current and Voltage
 Neutral current (calculated)
 Frequency
 Hours Run – Hours & minutes
 Power – Active, Reactive and Apparent (per phase and total)
 Power Min./Max. demand – Active, reactive and apparent.
 Energy – Active, reactive and apparent (per phase and total)
 Import and export energy – Active, Reactive and Apparent (per phase and total)

Conformity

Electromagnetic compatibility	IEC/EN61326-1, IEC/EN55011 Class A, IEC/EN61000-4-2, -3, -4, -5, -6, -8, -11, IEC/EN50470-1/3
Accuracy and functionality	IEC/EN50470-1/3, IEC/EN62053-21, IEC/EN62053-23, DIRECTIVE 2014/32/EU
Safety	IEC/EN61010, IEC/EN50470-1

Dimensions (mm)



Please allow space at the rear of the meter for cable connections.

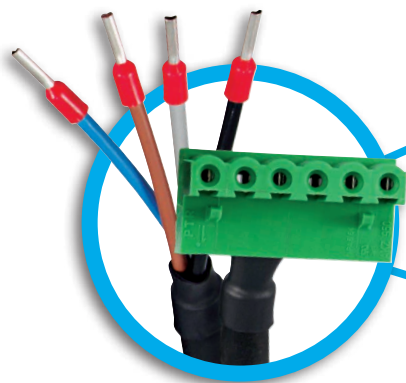
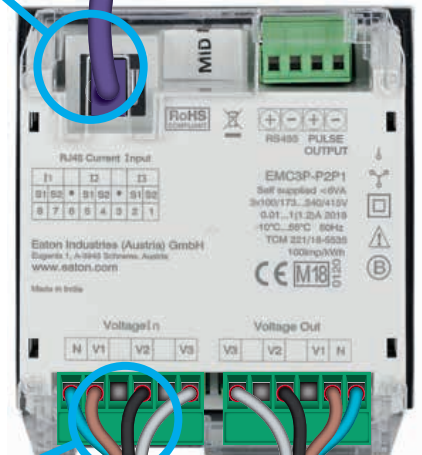
Model Selection Table

Type	Communications	Model (order code)
MID Certified	Modbus and pulse output	EMC3P-P2P1

Plug & Play

Connect your current transformer...

Plug one end of the RJ45 lead into the multifunction power meter and the other end into the three-phase current transformer and you're done - it's that simple.



Power-up your meter...

Plug the ready-made 'supply' lead connector into your meter. Connect the other, ferrule tipped, ends to the supply, not forgetting to use the correct fuses, and you're done.

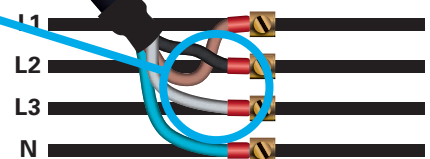
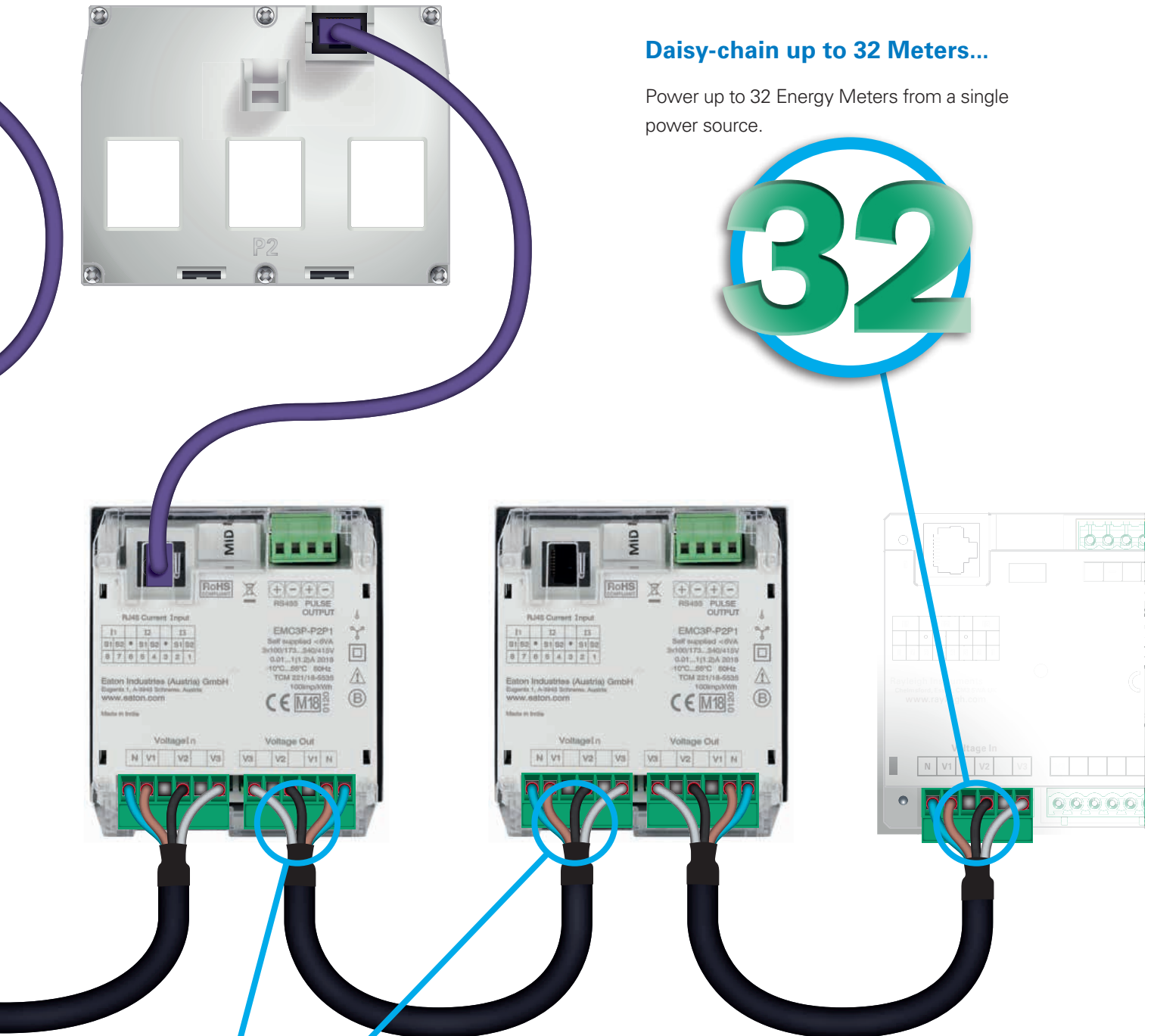


Illustration Only - device should be correctly fused.

Daisy-chain up to 32 Meters...

Power up to 32 Energy Meters from a single power source.

32



More than one meter?...

Plug the ready-made 'linking' lead connector from your first meter to your second meter.



EMC Plug & Play Current Transformers

EMC3P-P240 Series



EMC3P-P249 Series



EMC3P-P242 Series



EMC3P-P250 Series



EMC3P-P248 Series



Plug & Play CT's for EMC3P-P2P1

- Foot, busbar or DIN rail mounting
- RJ45 connector output
- Safe to leave transformer on load with output disconnected
- Fits standard moulded circuit breaker frame sizes
- 330mV output
- Sealable RJ45 connection

Model Selection Table

Series/type	Primary Current	Output (RJ45)	Order Code
EMC3P-P240	160A	330mV	EMC3P-P240-160
EMC3P-P242	250A	330 mV	EMC3P-P242-250
EMC3P-P248	400 A	330 mV	EMC3P-P248-400
EMC3P-P248	630 A	330 mV	EMC3P-P248-630
EMC3P-P249	160A	330mV	EMC3P-P249-160
EMC3P-P250	800A	330mV	EMC3P-P250-800
EMC3P-P250	1000A	330mV	EMC3P-P250-1000
EMC3P-P250	1600A	330mV	EMC3P-P250-1600

This three phase current transformers are suitable for monitoring current in industrial and commercial applications and are designed to connect to the EMC Plug and Play Meter Series.

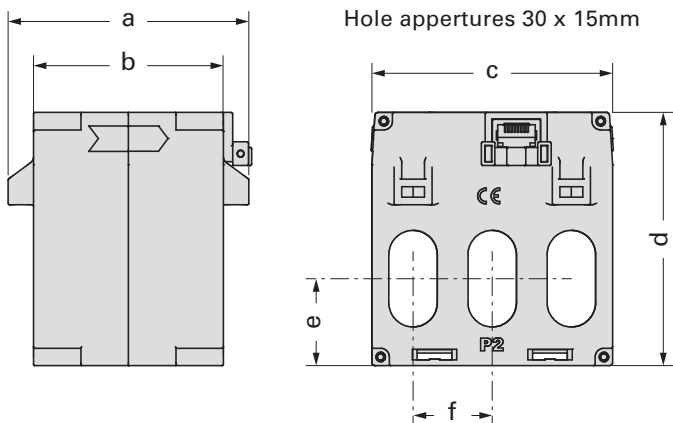
Built-in limiting circuitry ensures the secondary of the current transformer is always under load and clamped to a safe level. This means that the output connection may be safely disconnected while under load.

Improved design features of these Plug and Play current transformers include fixing feet, a robust 'snap-on' DIN rail fixing, captive busbar location screw fittings, insulated busbar location feet, sealable (anti-tamper) RJ45 connection sockets and moulded load direction indication arrows on the CT shoulders.

All our three phase current transformers have been designed with hole centres and apertures to fit most standard industrial circuit breakers.

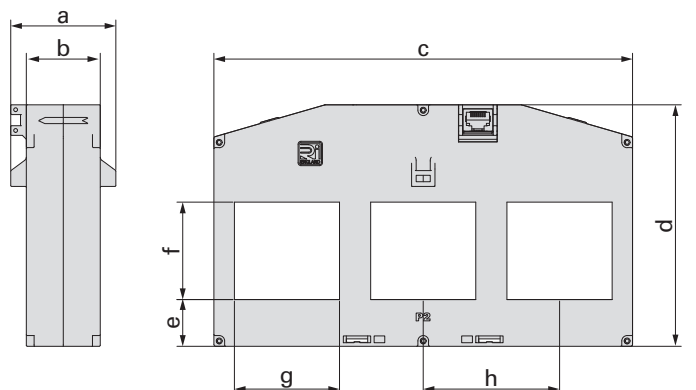
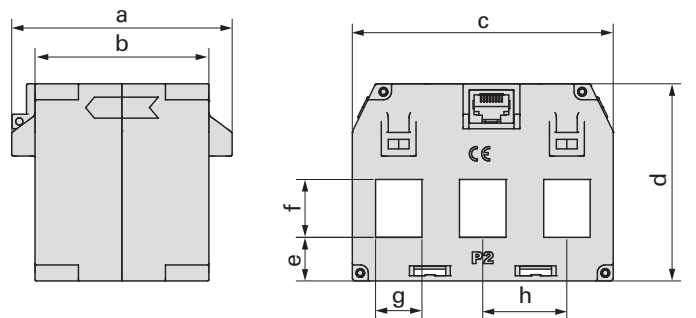
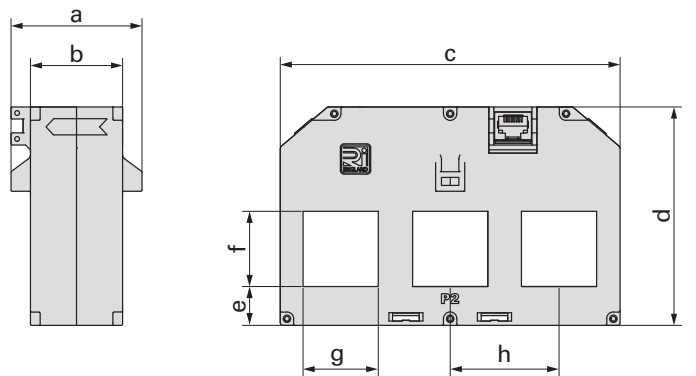
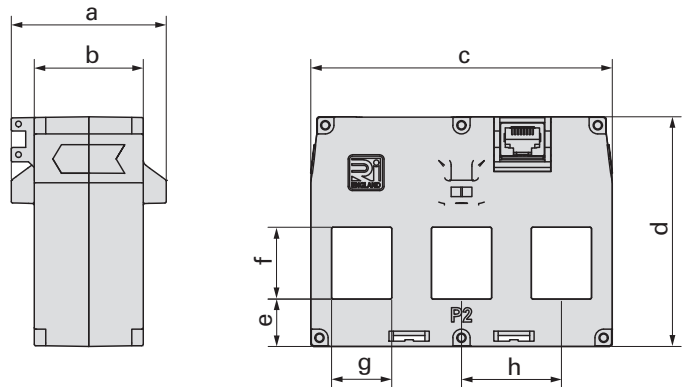
Dimensions (mm)

Series /type	a	b	c	d	e	f
						bar centres
EMC3P-P240	78	60	76	80	27.50	25



Dimensions (mm)

Series/type	a	b	c	d	e	f	g	h
			width			apertures	bar centres	
EMC3P-P242	54	38	105	80	16	25	21	35
EMC3P-P248	54	38	140	90	16	31	31	45
EMC3P-P249	76	60	90	68	15	20	16	29
EMC3P-P250	54	38	215	124	24	50	54	70





Three Phase Multifunction Energy Meter (MID Certified)



EMC3P-P2C1

- DIN 96 panel mounted
- -/1A or -/5A current transformer input (MID certification only on 5A)
- Three phase network compatible
- Programmable voltage and current transformer ratio
- True RMS measurement
- MID B+D Certified
- High definition white backlit LCD display
- Compact size - only 50mm panel depth
- Simple programming and operation
- Pulse output and RS485 Modbus communication
- Auto and manual page scrolling

Product Description

The EMC3P-P2C1 Series are a range of MID approved 96mm panel mounted multifunction energy meters. Suitable for monitoring energy consumption and many other electrical parameters in residential, solar PV, industrial and commercial utility applications.

These meters may be used in three phase four wire systems.

A high efficiency white backlit LCD display provides a clear indication of the measured value in all light conditions. Quick select push-buttons on the front of the meter allow the user fast access to the display page required.

The meter is currently available in one version:

- With single pulse output and RS485 Modbus communication.

The unit is housed in a compact DIN 96 case suitable for panel mounting.

Displayed Parameters

- Voltage – L-L, L-N and average
- Current – Phase, total and Max. demand
- Power Factor – per phase and average
- Total Harmonic Distortion – Current and Voltage
- Neutral current (calculated)
- Frequency
- Hours Run – Hours & minutes
- Power – Active, Reactive and Apparent (per phase and total)
- Power Min./Max. demand – Active, reactive and apparent.
- Energy – Active, reactive and apparent (per phase and total)
- Import and export energy – Active, Reactive and Apparent (per phase and total)

Model Selection Table

Type	Communications	Model (order code)
MID Certified	Modbus and pulse output	EMC3P-P2C1



Three Phase Multifunction DIN Rail Energy Meter (MID Certified)

EMC3P-D2C1

- Four module DIN rail mounted
- Energy pulse LED
- -1A or -5A current transformer input (MID certification only on 5A)
- Single phase or three phase network compatible
- Programmable voltage and current transformer ratio
- True RMS measurement
- MID B+D Certified
- High definition white backlit LCD display
- Simple programming and operation
- Modbus communication
- Auto and manual page scrolling

Product Description

The EMC3P-D2C1 is a MID approved DIN rail mounted multifunction energy meter. Suitable for monitoring energy consumption and many other electrical parameters in industrial and commercial applications. These meters may be used in single or three phase four wire systems.

A high efficiency white backlit LCD display provides a clear indication of the measured value in all light conditions. Push-buttons on the front of the meter allow the user access to the display page required.

Its MID status means the EMC3P-D2C1 has been tested for the build quality and accuracy of the meter and is certified for billing purposes.

The meter is currently available in one version:

- With RS485 Modbus communication.

The unit is housed in a compact four module width housing suitable for 35mm DIN rail mounting.

Displayed Parameters

Voltage – L-L, L-N and average
Current – Per phase and average
Power Factor – per phase and average
Frequency
Power – Active, Reactive and Apparent (per phase and total)
Power Min./Max. demand – Active and apparent power.
Energy – Active, reactive and apparent (per phase and total)
Import and export energy – Active, Reactive and Apparent (per phase and total)

Model Selection Table

Type	Communications	Model (order code)
MID Certified	Modbus and pulse output	EMC3P-D2C1

Summary



EMC3P-P2P1



EMC3P-D2C1



EMC3P-P2C1

Order Number	Short description	Communication
EMC3P-P2P1	1/3-Phase Panel mounted MID-Meter for Plug and Play Current Transformers	Modbus RTU and pulse output
EMC3P-D2C1	1/3-Phase DINRail mounted MID-Meter for 1A or 5A Current Transformers	Modbus RTU and pulse output
EMC3P-P2C1	1/3-Phase Panel mounted MID-Meter for 1A or 5A Current Transformers	Modbus RTU and pulse output

Order Code Current Transformers	
EMC3P-P240-160	EMC3P Plug'n'Play CT 160A
EMC3P-P242-250	EMC3P Plug'n'Play CT 250A
EMC3P-P248-400	EMC3P Plug'n'Play CT 400A
EMC3P-P248-630	EMC3P Plug'n'Play CT 630A
EMC3P-P249-160	EMC3P Plug'n'Play CT 160A
EMC3P-P250-800	EMC3P Plug'n'Play CT 800A
EMC3P-P250-1000	EMC3P Plug'n'Play CT 1000A
EMC3P-P250-1600	EMC3P Plug'n'Play CT 1600A

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