OB434-A/D

Three phase four wire DIN rail energy meter with LCD or Mechanical display

(Four DIN modules)

User manual

1.1 Foreword

Thank you for purchasing Owen Brothers Metering OB434 series DIN rail three phase four wire energy meter.

The OB434 series includes two types of energy meter: one is an analogue meter OB434-A, and the other has LCD display meter OB434-B.

1.2 General Technical Data

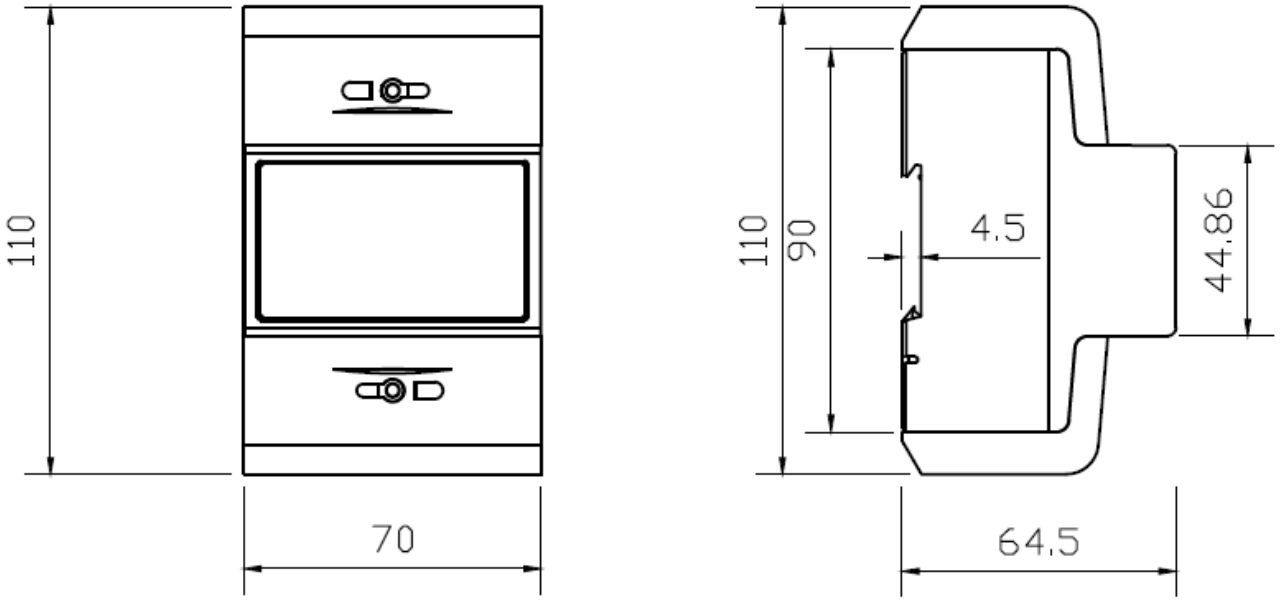
1.2.1 Voltage (V)	
Voltage AC (Un)	3*230/400
Voltage range	3*161/279 to 300/500
1.2.2 Current (A)	
Base (Ib)	5/10
Max (Imax)	80/100
Starting current (mA)	0.4% of Ib
1.2.3 Power consumption current	≤2W /10VA per phase
1.2.4 General data	
Frequency (Hz)	50(±10%)
Accuracy	1.0
1.2.5Standards	EN50470-3
1.2.6 Memory back-up	EEPROM
1.2.7 Enclosure material	
Upper	Polycarbonate
Lower	Polycarbonate/glass fiber
1.2.8 Temperature range (℃)	
Operating	-25℃ to +55℃
Storing	-30℃ to +70℃
1.2.9 Humidity	
Operating	75%
Storing	95%
1.2.10 Protection	
Protection against penetration	
Of dust and water	IP51
1.2.11 insulating encased meter	
Of Protective class	II
1.2.12 Voltage withstand	
AC voltage withstand	2KV for 1 minute
Impulse voltage withstand	6KV-1.2uS waveform
1.2.13 Current withstand	30Imax for 0.01s
1.2.14 Pulse output rate	400/1000imp/kWh
1.2.15 Data stored	More than 20 years when power off

1.3 Basic errors:

0.05Ib	Cosφ = 1	±1.5%
0.1Ib	Cosφ = 0.5L	±1.5%
	Cosφ = 0.8C	±1.5%
0.1Ib - Imax	Cosφ = 1	±1.0%
0.2Ib - Imax	Cosφ = 0.5L	±1.0%
	Cosφ = 0.8C	±1.0%

1.4 Dimension

Height	110 mm
Width	70 mm
Depth	64.5 mm
Weight	0.4 Kg (net)



Material

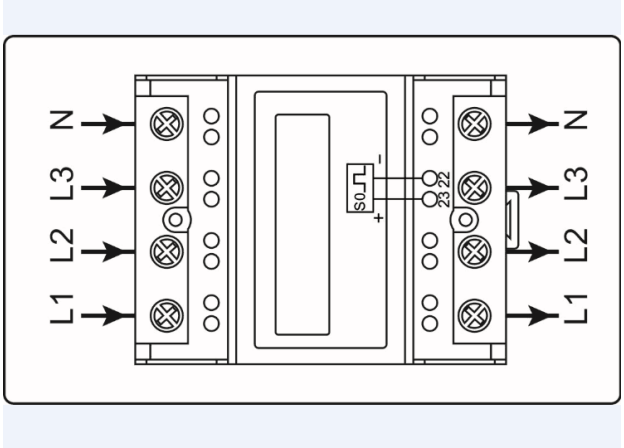
Front panel	PC inflammable - flame retardant
Cover	ABS inflammable - flame retardant
Base	ABS inflammable retarding - flame retardant

1.5 Installation

⚠ CAUTION
♦ Isolate supply before working on the installation. ♦ Always use a suitable test lamp & proving unit to prove that power is isolated. Such as Cyclim Test lamps.

⚠ WARNING
♦ Installation should be performed by qualified personnel familiar with related procedures, regulations and risks. ♦ Use insulated tools to install the meter. ♦ The case is sealed, do not brake it as this will void MID certification and warranty.

connection diagram			
23	active pulse output contact "+"	22	active pulse output contact "-"
L1	L1 phase wire	L2	L2 phase wire
L3	L3 phase wire	N	Neutral wire



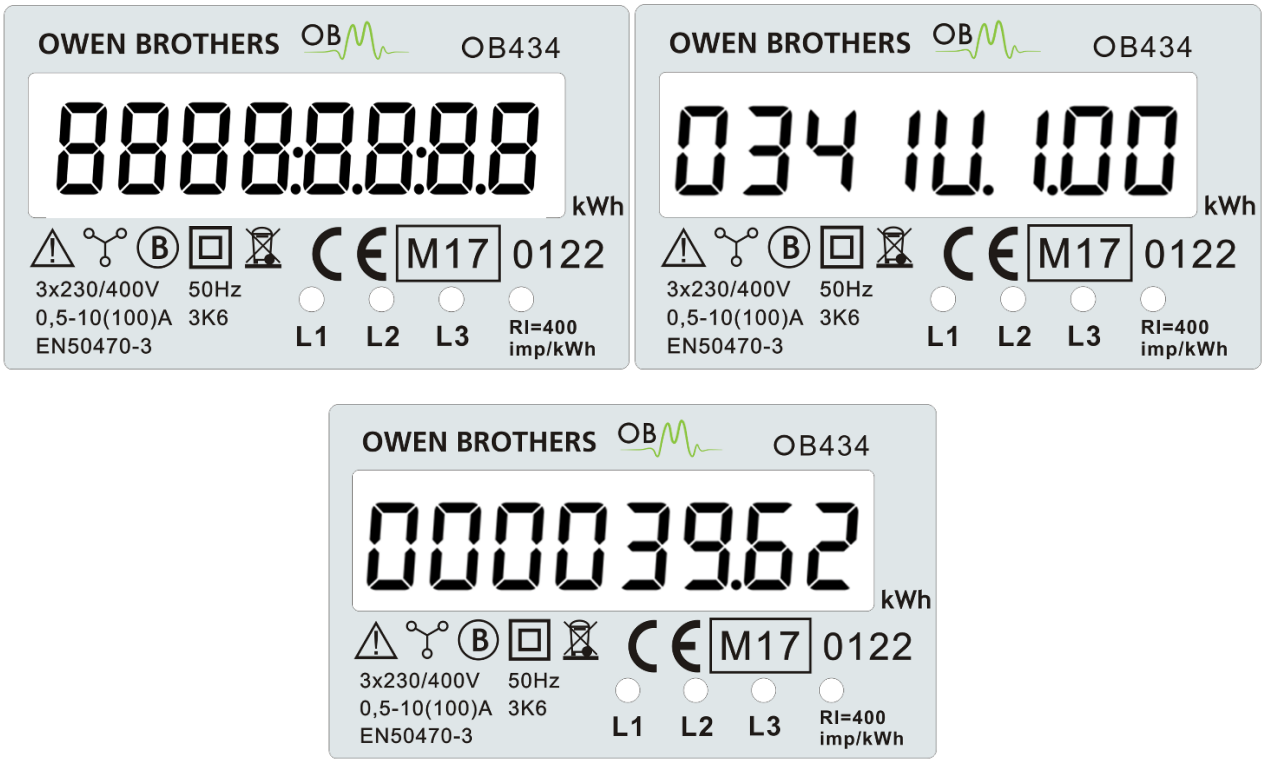
1.6 Operating

Consumption indication:

L1 indicator: will become yellow when there is current in phase A
L2 indicator: will become green when there is current in phase B
L3 indicator: will become red when there is current in phase C
The other indicator is for pulse output. When consumption happens; the LED will flash.
More LED flashes means more consumption RI=400imp/kWh

Reading the meter:

The display digits of OB434-A are 6+1. Five integers are marked with white colour and the one decimal is marked red.
The display digit of OB434-B are 6+2 as default and can be customized to 7+1 if required.



KWh consumption can't be reset to zero. The reading accuracy is 1/100 kWh.

Display function : **LCD will display the total kWh consumed.**

Pulse output
The OB434 Series DIN rail energy meter is equipped with a pulse output which is fully separated from the live circuits. It generates pulses in proportion to the measured energy for accuracy testing and system integration.

1.7 Technical support/sales

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