



## Features:

- 3Ø energy and power sub-meter
- Standard 96x96 DIN Panel Mount
- Pulse Output, MODBUS & Ethernet comms options
- Measures comprehensive range of energy and power parameters
- 2 pulse outputs
- 2nd pulse output gives kVArh/kVAh through selection link
- Auto-CT rotation OR Factory Set Import/Export Option
- 5/1Amp & mV retrofit CT input options
- Individual Harmonics to the 15th, THD to the 30th Option
- Custom wall mount enclosure option.
- Hours run, 5 Year Warranty, CE, UL, C-Tick accredited

## Model options:

### Pulse Output:

- kWh & kVArh over 2 Pulse Outputs
- Comprehensive range of energy & power parameters on LCD
- Optional Individual Harmonics to the 15th, THD to the 30th on LCD

### MODBUS RS485:

Comprehensive range of energy & power parameters on LCD & MODBUS

Optional Individual Harmonics to the 15th & THD to the 30th on LCD & over MODBUS IP Ethernet Option

### IP Ethernet:

Web pages show energy, power, volts, amps, power factor, & digital input/output set-up; Log upto 60 parameters; Set up logging for FTP/HTTP/TFTP, SNMP for directly interfacing with energy management software & building control solutions; 3 scalable Digital Pulse Inputs can measure other utilities eg gas & water etc.; 2 digital alarm outputs; 2 pulse outputs; Individual Harmonics to the 15th, THD to the 30th over MODBUS TCP/IP standard; Comprehensive range of energy & power parameters over IP Ethernet & smaller selection on display

## Safety

Conforms to EN 61010-1:2001 Overvoltage Category III, Pollution Degree 2 Accreditation UL, cUL, C-Tick, CB

## Cube 400

The Cube 400 is a metering solution designed to meet the requirements of both energy managers and electrical engineers. It provides a powerful platform to analyse power quality yet allows for an extremely flexible communications

output to fit around most requirements. The backlit 3 line display allows for clear display of data in switch-room environments. The Cube 400 is fitted with large rising cage terminals, allowing connection to a wide range of cables, from 0.25mm to 4mm sq

The Cube 400's communication options are pulse output only, RS485 MODBUS & IP Ethernet offering TCP/IP protocols such as HTTP, FTP, TFTP, SNMP. The various TCP/IP protocols make this the ideal meter to interface directly with energy management software and building control solutions, without the need for data loggers or concentrators. The IP enabled Cube 400 (Cube 400 IP) also has data logging functionality and an additional 3 Pulse inputs plus 2 pulse/alarm outputs. These allow collection of additional utility data such as incoming electricity meters, water, air, gas and steam. The web pages on the IP Ethernet enabled Cube 400 allow the user to view important instantaneous values and access the setup pages should the need arise to change any of the parameters.





Parameters on Display, MODBUS & TCP/IP \*Parameters over MODBUS & TCP/IP only

Parameters:	All Phases	Sum
Volts, L-N & L-L; Amps; Peak Volts, L-N; Peak Amps; Average Volt&Peak; Amp Demand & Peak, *(Option) % THD Volts & Amps Individual Harmonics 2nd - 15th	X	
Powerfactor; kW, kVa&kvar	X	X
Import and Export kWh, kVAh, kVAhr; Hours run (on load); Inductive and capacitive kVArh; Neutral Amps; kW; kVA; & kvar Demand; Peak kW; kVA; & kvar Demand		X

## Inputs

System	3 Ø 3 or 4 Wire Unbalanced Load
Voltage U:	480/277V
Current I:	5Amp, 1 Amp or 0.333V
Measurement range:	Voltage 20% to 120 Current 0.2% to 120%
Frequency range:	Fundamental 45 to 65 Hz
Harmonics:	Harmonics THD to 30th Harmonic at 50Hz; Individual Harmonics to 15th
Auxiliary Supply options	230V 50/60Hz at 5W max 110V 50/60Hz at 5W max

## Accuracy

kWh	Class 1 per EN 62053-21 & BS 8431 ANSI C12.20 Class 0.5
kVarh	Class 2 per EN 62053-23 & BS 8431
kW & kVA	Class 0.25 IEC 60688
kvar	Class 0.5 IEC 60688
Amps & Volts	Class 0.1 IEC 60688
Pf	±0.2°
Neutral current	Class 0.5 IEC 60688

## Pulse in and output

Function	1 pulse per unit of energy
Scaling	Configurable
Pulse duration	0.1 second default (other durations configurable)
Type	N/O volt free contact. Optically isolated
Contacts	100mA ac/dc max; 70Vdc/33Vac max; 5W max. load

## General + Mechanical

Terminals	Rising Cage. 4mm2 (AWG) cable max
Materials	Mablex with fire protection to UL94-V-0. Self extinguishing
Weight+ Dim.	250gms (0.55 lbs); 96x9683.5mm (3.8"x3.8"x3.3"
Temperature	Operating -10°C to +55°C
Storage	-25°C to +70°C
Humidity	<75% non-condensing
Environment	IP54 standard

