

# PowerCube

## kW Demand & kWh Meter



- **Giant Backlit Display**
- **Short depth DIN 96x96mm case Only 71mm**
- **kW, kWh, MD and Peak Demand**
- **High Accuracy, kW  $\pm 0.2\%$ , kWh Class 1**
- **Fully Isolated Current I/Ps (Meets LVD)**

PowerCube uses the latest LCD technology to provide power and energy readings on a giant display.

Power is displayed using 4.5 digits, 21mm high, while the 7 digit energy register is 12mm high.

Advanced technologies provide high contrast wide viewing angles with a long life backlight for clear viewing in all conditions. Custom design provides a display tailored for the application with legends (kW, kWh, MD, Peak etc.) giving clear unambiguous information.

Fully isolated current inputs ensure maximum safety and full compliance with the Low Voltage Directive, while the short depth of the case makes front panel installation simple.

PowerCube has been designed for a wide variety of modern loads - analogue measurement ensures accuracy even in the presence of distorted waveforms such as those generated by variable speed drives, computers, lighting dimmers, temperature controllers etc.

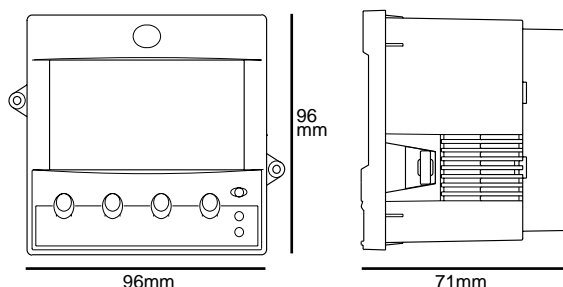
It may be programmed by the user to suit loads from a few watts to megawatts and to provide outputs suitable for a variety of applications such as Energy Management Systems, Data Logging etc.

Three display pages are available, each selected by an individual key : • kW plus kWh • Rolling Demand plus kWh • Peak Demand plus kWh •

The programming sequence is also simple:

- Set a CT and VT constant (1 to 200.000) •
- Set the Pulse Output Rate •
- Set the Demand Period (1 to 60 min) •

- ✓ GIANT BACKLIT DISPLAY
- ✓ LOW COST
- ✓ kW, kWh & ROLLING MD, INCLUDING PEAK
- ✓ DIN STANDARD 96 x 96 mm CASE
- ✓ FLUSH PANEL MOUNTING, SHORT DEPTH
- ✓ 0.2% ACCURACY ON kW
- ✓ CLASS 1 ACCURACY ON kWh
- ✓ FRONT PANEL PROGRAMMING
- ✓ SINGLE & 3 PHASE
- ✓ ISOLATED PULSE OUTPUT
- ✓ 25 YEAR MEMORY
- ✓ PROGRAMMABLE CT & VT RATIOS
- ✓ QUALITY RISING CAGE 4mm<sup>2</sup> TERMINALS



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## SPECIFICATION

### INPUTS

**System** 3Ø 3 or 4 wire Unbalanced Load  
3Ø Balanced Load & 1Ø to order  
**Voltage** 400/230V 3Ø LL/LN  
(110/63V optional) Others to order

**Current** Fully Isolated  
5Amp from CTs (1Amp optional)

**Measurement Range** Voltage 50% to 120%  
Current 0.5% to 120%

**Frequency Range** 45Hz to 65Hz fundamental  
**Harmonic Range** Up to the 40th

**Input Burdens** Voltage & Current Less than 0.1VA per phase

**Overloads**  
Voltage x2 for 2 seconds  
Current x40 for 1 second

### AUX. SUPPLY

**Standard** 230V 50/60Hz ±15%  
**Options** 110V 50/60Hz ±15%. Others to order  
**Burden** 5VA maximum

### DISPLAY

**Display Type** Custom LCD. Supertwist with continuous LCD Backlight  
**Data Retention** 25 years minimum  
**Display format** 2 lines of digits plus Legends  
kW & Demand 4½ digits, 21mm high plus DPs  
kWh 7 digits, 12mm high plus DPs  
Legends Various, 3 or 4mm high  
**Display Pages** 3 pages plus configuration  
kW plus kWh  
kW Demand plus kWh  
Peak kW plus kWh

**CT & VT Ratios** Fully Programmable  
**Legends & DP Pos.** Automatically set by VT & CT ratios  
**Demand Period** Selectable 1 to 60 minutes with 15 sub-periods

### ACCURACY

**kW & MD** Class 0.4 EN 60668  
**kWh** Better than Class 1 per EN 61036 (IEC1036)

### PULSE OUTPUT

Volt Free pulse output,  
1 pulse/unit of energy  
(depends on CT & VT ratio)  
**Type** Solid State Relay  
**Max. Rating** 100V & 10mA, ac or dc max.  
**Isolation** 2000V 50Hz 1minute from I/Ps  
**Programmability** Pulse Value & Duration

### GENERAL

**Temperature** Operating -10°C to +65°C  
Storage -25°C to +70°C  
**Humidity** Operating <75% non-condensing

### STANDARDS

**Safety** EN 61010-1 Installation CAT III  
**EMC** 89/336/EMC  
EN 50081, Part 1 1992  
EN 50082, Part 2 1995  
EN 61036 & EN60688

### MECHANICAL

**Dimensions** 96x96x71mm per DIN 43700  
**Weight** 300 gms  
**Enclosure** Black ABS with fire protection to UL95 VO self extinguishing  
**Terminals** Rising Cage type  
**Inputs** Max. 4mm<sup>2</sup> (12AWG) cable