Cube300 Operating Instructions – Dual Tariff October 2005



Safety 1

This instruction sheet gives details of safe installation and operation of the Cube300 electricity meter. Safety may be impaired if the instructions are not followed. Labels on each meter give details of equipment ratings for safe operation. Take time to examine all labels before commencing installation. Safety symbols on the meter have specific meanings.



Refer To User Manual

WARNING

The meter contains no user serviceable parts. Installation and commissioning should only be carried out by qualified personnel

Further information is available at http://www.ndmeter.co.uk.

2 Introduction

A second (Alternate) kWh register is optionally available for the Cube300 meter. This is a factory fitted option requiring additional hardware and setup. This feature is provided as an addendum to the standard meter functions. For information on meter specifications and standard features refer to the meter Operating Guide.

An isolated input is provided to enable external systems to control when measured energy is accumulated in the primary or alternate registers. An external ac/dc voltage is applied to the input to select accumulation in the Alternate register. Energy is accumulated in the primary register while the signal is absent or below the threshold.

The *Alternate* register may be used, for example, to provide dual tariff energy readings, with a mains timer as the control input, or to give separate registers for grid versus generator kWh in automatic backup supply systems using a phase voltage from the generator as the control input.

3 Pulse Output

The single pulse output occurs for each energy increment irrespective of which register is currently active. This may be connected to an external system to provide accumulation of total energy

Energy Display 4

to toggle between the primary and alternate Press accumulated energy register displays.



Alternate Energy Register

4.1.1 Alternate Register LED

A red LED on the front panel of the instrument remains ON while the control signal is active and input energy measurement is directed to the Alternate Register.



"Ar" Control Input Active

4.2 **Control Input**

The control input is isolated from all other circuits at 2.5kV. This should take the form of a DC or AC voltage applied to pins 15 and 16 as shown below.





DC Control

AC Control

	AC/DC Range
Primary Register Selected	0V – 35V
Unsure (Primary/Secondary)	35V - 60V
Alternate Register Selected	60V – 300V