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The Tiny

Brief Description

The Tiny is a SINGLE PHASE kWh Electricity Meter.
This is for domestic use and works on a pulse system.
Small with a digital display - entry level meter.

Voltage

Nominal Voltage UN	220-240V, 120V
Voltage Range	80 - 115% Un
Voltage Withstand Continuous	415V

Frequency

Nominal Frequency	50/60Hz
Frequency Variation	± 2%

Current

Base Current Direct Connection Ib	5, 10, 15, 20A
Current Max Imax	40, 60, 80, 100A
Starting Current EC	0.004Ib

Measurement Accuracy

Max Measuring Range	20mA upto 100A
Measuring Accuracy	
Class 1 or 2	IEC 62053-21
Class 2 or 3	IEC 62053-23

Measurement Behaviour

Starting Current IEC	0.4% of Ib
Max Measuring Range	20mA upto 100A

Power Consumption

Voltage	< 5W
Current Circuit	< 4VA

Enviromental Influences

Temperature Test	IEC 62053-21EC62053-23
Temperature Range Operation	-10°C to + 45°C
Power Measurement Range	- 25°C to + 55°C
Storage	- 25°C to + 70°C

This complies with EN 62052-11 : 2003 section 6.1

Shock Test

BS EN60068-2-27

Temperature Coefficient

Range	-10°C to + 45°C
Typical Mean Value	± 0.015% per K
IEC 62053-21	
cosö = 1 (from 0.1 Ib to Imax) per K	± 0.05%
cosö =0.5 (from 0.2 Ib to Imax) per K	± 0.06%
IEC 62053-23	
sin = 1 (from 0.1 Ib to Imax) per K	± 0.10%
sin =0.5 (from 0.2 Ib to Imax) per K	± 0.15%
Impermeability to IEC 60529	IP51

Electromagnetic Compatibility

Electrostatic Discharges to IEC 610000-4-2
Contact Discharges 8kV
Air Discharges 15 kW
Electromagnetic RF Fields to IEC 610000-4-3
80 Mhz to 2 Ghz at least 10 V/m
Radio Interference suppression to IEC/CISPR 22 Class B
Fast Transient Burst Test to IEC 610000-4-4

With Basic Current Ib

For current and voltage circuits 4kV
For auxilary circuits › 40V 4kV
With open current circuit for voltage an current circuits 4kV
Fast Transient Surge Test to IEC610000-4-5
Impulse Voltage 4 kV
Impendence of source 2Ω
Rise | Decay time of impulse voltage 1.2µs | 50µs
Rise | Decay time of impulse voltage 8µs | 50µs

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Insulation Strength

4.4kV at 50Hz for 80 seconds
Impulse Voltage Strength to IEC62053-11
Impulse Voltage 6 kV
Impendence of source 500Ω
Rise | Decay time of impulse voltage 1.2μs | 50μs

Display

Characteristics Type : 7 Character
7 Segment LCD Digit Size : 8 x 3.5mm
Number of Digits : 6 x 2dpi

Operating Behaviour

Voltage Interruptions (Power down)
Blocking of inputs and outputs Immediate
Standby Operation for 0.15s
Data Storage after 0.15s
Switch off after approx. 0.15s

Voltage Restoration (Power Up)
Function Standby < 5s (depending on duration of failure)
Detection of energy direction and phase voltage < 5s

Power Supply Quality

The meter complies with EN63052-11 Section 7.1.1
Voltage range and 7.1.2 voltage dips and short interruptions

Case Material

Base, top cover and terminal cover
Flame retardant and UV stabilised polycarbonate

Weight and Dimensions

Weight : 304g
Width : 125mm
Height : 80mm
Depth : 36mm

Terminal Details

Arrangement BS 5685
Size 8.3mm diameter

Connections

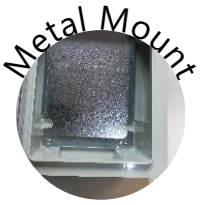
Standard Layout and Dimensions

Pulsed Output (where fitted)

Code SC100/P
Output : Transistor
Pulse : Voltage Free
Pulse Width : 100m/s
Measurement 1 pulse = 1 watt/hr 1000 pulses per kWh
No of pulses maximum per second @ 100 amps = 6.6

Enclosures

Required when installation is external or have environmental influences



Approvals

Quality Manufactured to ISO 9001:1994
OFGEM Approval Number: 986
Certified Life 20 years
Reference Standards IEC 62052-121 | IEC 62053-21 | IEC 62053-23