Single Phase BS Credit Meter with Internally Switched 100A Contactor and 2A Relay

5246

Technical data

The 5246 meter is a whole current credit meter with an integral 100 amp contactor and a 2 amp relay.

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5246 Technical Specification
5246 Technical Specifications

**General**

**Voltage**
- Nominal Voltage \( U_n \) 230V
- Voltage Range 80-115% \( U_n \)
- Voltage Withstand 415V Continuous

**Frequency**
- Nominal Frequency 50Hz
- Frequency Variation +/- 2%

**IEC-Specific Data**

**Current**
- Base Current Direct Connection \( I_b \) 15, 20A
- Current Max \( I_{max} \) 100A

**Measurement Accuracy**
- Measuring Accuracy IEC 62053-21 Class 1 or 2

**Measurement Behaviour**
- Starting Current
  - IEC Class 1 0.4% of \( I_b \)
  - Class 2 0.5% of \( I_b \)
- Max Measuring Range 60mA up to 100A

**Approvals**
- Quality Manufactured to ISO 9001:1994
- OFGEM Approval Number 1003
- Certified Life 20 years

**General**

**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

**Power Consumption**
- Voltage Circuit <5W <25VA
- Current Circuit <4VA

**Environmental Influences**

**Temperature Test** IEC62053-21
- 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

**Temperature Coefficient **
- Range From -10°C to +45°C
- Typical mean value 
  - \( \cos \phi =1 \) (from 0.1 \( I_b \) to \( I_{max} \)) 
  - +0.05% per K
  - \( \cos \phi =0.5 \) (from 02 \( I_b \) to \( I_{max} \)) 
  - ±0.07% per K
- Impermeability to IEC 60529 IP51

**Shock Test** BS EN60068-2-27

**Electromagnetic Compatibility**

**Electrostatic Discharges** to IEC 610000-4-2
- Contact Discharges 8kV
- Air Discharges 15kV

**Electromagnetic RF Fields** to IEC 610000-4-3
- 80 MHz to 2 GHz at least 10V/m

**Radio Interference suppression to IEC/CISPR 22 Class B**
- Fast Transient Burst Test to IEC 610000-4-4
  - With basic current \( I_b \):
    - For current and voltage circuits 4kV
    - For auxiliary circuits >40V 4kV
    - With open current circuit for voltage and current circuits 4kV
- Fast Transient Surge Test to IEC 610000-4-5
  - Impulse Voltage 4kV
  - Impedance of source 2Ω
  - Rise/Decay time of impulse voltage 1.2μs/50μs
  - Rise/Decay time of impulse voltage 8μs/50μs

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

**Protection Class II to IEC626050-131**

**Display**

Characteristics
### Type
- 7 character, 7 segment LCD

### Digit size
- 8x3.5mm

### Number of Digits
- 6 significant numbers 2dp

### Communication Interfaces

#### Optical Interface
- **Type**: serial, bi-directional interface
- **Protocol**: IEC 62056-21

### Case Material
- Base, Top Cover and Terminal Cover
- Flame retardant and UV stabilised polycarbonate

### Weight and Dimensions

#### Weight
- **Standard**: 800g

#### Dimensions
- **Width**: 150mm
- **Height**: 170mm
- **Depth**: 56mm

### Terminal Details
- **Arrangement**: BS5685
- **Size**: 8.3mm diameter

### Connections
- **Standard Layout and Dimensions**

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**Dimensions**

![Diagram showing dimensions of the device]
Terminal Connection Diagrams

Supply

Load

2A Relay
100A Contactor

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