

Three Phase Direct Wall Mounted Energy Meter

Model: DTS6682

Product Overview

The **DTS6682 Three Phase Direct Wall Mounted Energy Meter** is a high-performance electronic energy meter designed for accurate measurement of three-phase active energy consumption in commercial, industrial, and residential applications. It supports **RS485 Modbus RTU** communication for seamless integration with Building Management Systems (BMS), SCADA, and IoT energy monitoring platforms.

The meter offers high accuracy, reliable long-term operation, and easy installation, making it ideal for modern energy management systems.

Key Features

- Three Phase Four Wire Direct Connected Meter
- Class 1.0 Accuracy
- Large LCD Display
- Active Energy Measurement (kWh)
- RS485 Communication
- Modbus RTU / DLT645-2007 Protocol
- Wall Mounted Design
- Compact & Lightweight
- Long Service Life
- Reverse Energy Indication
- Tamper Resistant Design
- Low Power Consumption
- Suitable for Smart Metering Applications



Technical Specifications

Parameter	Specification
Model	DTS6682
Meter Type	Electronic Three Phase Energy Meter
Phase	Three Phase Four Wire
Connection Type	Direct Connected
Accuracy Class	Class 1.0
Standard	IEC 62052-11, IEC 62053-21

Parameter	Specification
Rated Voltage	3×230/400V AC
Operating Voltage	3×220/380V, 3×230/400V
Rated Current	5(80)A
Maximum Current	80A
Frequency	50Hz / 60Hz
Energy Measurement	Active Energy (kWh)
Measuring Range	0 – 999999.9 kWh
Display	LCD
Communication	RS485
Communication Protocol	Modbus RTU / DLT645-2007
Installation	Direct Wall Mounted
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +70°C
Relative Humidity	≤95% RH (Non-condensing)
Protection Degree	IP51
Power Consumption	≤2W per phase
Dimensions	Approx. 160 × 126 × 72 mm
Housing Material	Flame Retardant Polycarbonate
Weight	Approx. 0.8 kg

Electrical Characteristics

Item	Value
Rated Voltage	3×230/400 VAC
Voltage Range	80%–120% U_n
Rated Current	5A
Maximum Current	80A
Frequency	50/60Hz
Accuracy	Class 1.0
Starting Current	≤0.004 I_b

Measurement Functions

The meter measures:

- Active Energy Import (kWh)
- Active Energy Export (Optional)
- Phase Voltage (L1, L2, L3)
- Phase Current (L1, L2, L3)

- Total Active Power (kW)
 - Apparent Power (kVA)
 - Reactive Power (kVAR) (*Optional Version*)
 - Frequency
 - Power Factor
 - Total Running Time
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Communication Specifications

Parameter	Specification
Interface	RS485
Protocol	Modbus RTU
Alternative Protocol	DLT645-2007
Baud Rate	1200–9600 bps (Configurable)
Communication Address	Configurable
Data Format	8 Data Bits, Even/None Parity

LCD Display Parameters

The LCD displays:

- Total Energy (kWh)
 - Voltage per Phase
 - Current per Phase
 - Frequency
 - Active Power
 - Power Factor
 - Communication Status
 - Meter Address
 - Running Indicator
 - Phase Sequence
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Mechanical Specifications

Parameter	Value
Installation	Direct Wall Mounted
Mounting	Screw Mount
Enclosure	Flame Retardant Polycarbonate
Display	LCD

Parameter	Value
Protection	IP51
Terminal Type	Heavy Duty Screw Terminal

Environmental Conditions

Parameter	Specification
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +70°C
Humidity	≤95% RH
Altitude	<2000 m

Applications

- Commercial Buildings
 - Industrial Facilities
 - Factories
 - Warehouses
 - Shopping Malls
 - Hotels
 - Hospitals
 - Educational Institutions
 - Data Centers
 - Smart Buildings
 - Solar Energy Monitoring
 - Building Management Systems (BMS)
 - SCADA Systems
 - Energy Management Systems (EMS)
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Dimensions

Item	Size
Height	160 mm
Width	126 mm
Depth	72 mm

Wiring Configuration

- Three Phase Four Wire (3P4W)
 - L1, L2, L3, Neutral
 - Direct Connected up to 80A
 - RS485 Communication Terminals (A+, B-)
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Compliance

- IEC 62052-11
 - IEC 62053-21
 - IEC 62053-23 (*Optional Reactive Energy Version*)
 - CE Compliant (*Optional*)
 - RoHS Compliant (*Optional*)
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Ordering Information

Model	Description
DTS6682	Three Phase Direct Connected Wall Mounted Energy Meter, RS485 Modbus RTU
DTS6682-M	Three Phase Meter with Modbus RTU
DTS6682-D	Three Phase Meter with DLT645-2007 Protocol