

AUTOMETERS

SYSTEMS

Introduction

The new DTS 541 multifunction meter introduced by Autometers is to address the requirement for a low cost MID approved meter with a pulse output and a range of displays to help the engineer assess the load accurately.

The DTS 541 meter is a 80 Amp direct connected with large diameter cable holes.

The meter has an LCD display and the choice of energy registers pre-programmed in the meter make it the electrician's ideal choice.

The DTS 541 multifunction meter can be used in all applications where the energy is to be monitored and the meter used for billing purposes.

Features

Optical communication
Multi tariffs

Measurement

- Measure active and reactive power total and in each phase and tariff
- Measure instantaneous data:
 - Total energy in kWh
 - Import kWh
 - Export kWh
 - Current phase 1
 - Current phase 2
 - Current phase 3
 - Voltage phase 1
 - Voltage phase 2
 - Voltage phase 3
 - Power factor
 - Frequency

Technical overview

TYPE	PARAMETER
Active accuracy	Class 1 (IEC 62053-21) Class B (EN50470)
Rated voltage	3P4W: 3 x 230/400 V
Rated frequency	50 Hz
Current specification	5(80)A
Starting current	0.004Ib (20mA)
Pulse constant	Active: 1000 imp/kWh
Power consumption	Current circuit: Active power consumption per phase <1.0VA, Voltage circuit: Active power consumption per phase <2.0W, Apparent power consumption per phase <10VA
Operating temperature	-25c~+70c
Storage temperature	-40c~+70c
Relative humidity	<95%
Basic test	EN50470-1 EN50470-3 IEC62052-11 IEC62053-21
Communication	
Communication port	1 optical communication port
Communication protocols	IEC 62056-21 mode E, DMLS- HDLC
Communication security	Reads and writes require password
Metrology	
Active energy	Total absolute active energy, total import active energy, total export active energy
Reactive energy	Total import reactive energy
Protection class	IP51
Seal	Two for terminal cover
End knob specifications	DIN standard
Meter case material	Polycarbonate
Shock vibration	IEC 62052-11 parts 5.2.2.1, 5.2.2.2 & 5.2.2.3
Dimension	217mm x 170mm x 45mm
Weight	550g

Specifications

The Energy meter meets the requirements of:

- IEC 62052-11**
General requirements, tests and test conditions for alternating current measuring equipment.
- IEC 62053-21**
Active Class 1 and Class 2 static AC active energy meters.
- IEC 62053-22**
Active 0.2S class and 0.5S class static AC active energy meters.
- IEC 62053-23**
Reactive 2-stage static AC reactive energy meter.
- IEC 62056-21**
Local Area Data Direct Exchange.
- IEC 62056-61**
Object identifier system.

DTS 541 Multifunction Meter

Three Phase, Four Wire, kWh Meter with built in pulse output. MID Approved B & D

230/415 Volt 50 Hz 80 Amp direct connected meter

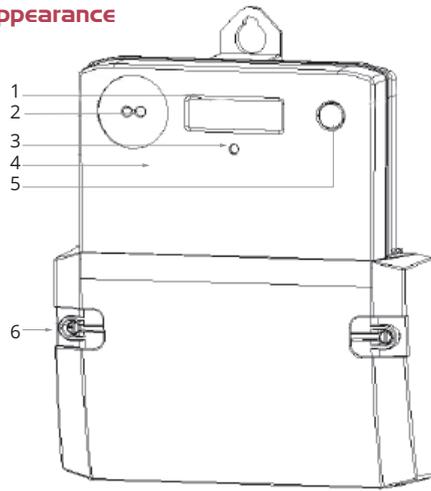


- MID Approved "B" and "D" for revenue collection
- Small and compact in size (170 x 217mm)
- Pulse Output: 10 imp/kWh
- Large terminal connection holes (8.5mm diameter)
- Extended terminal cover
- The display indicating individual phase voltages which are connected (L1, L2, L3)

Certification

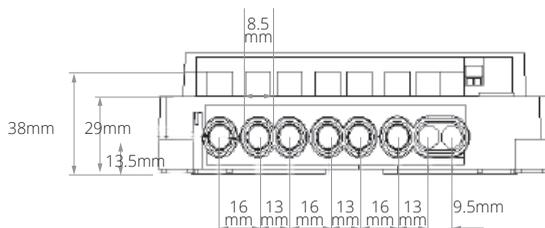
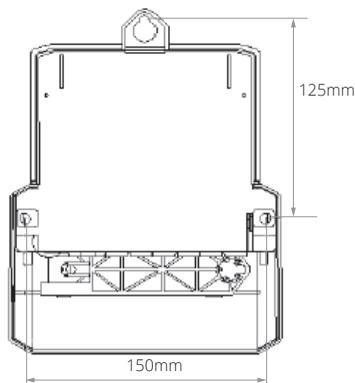
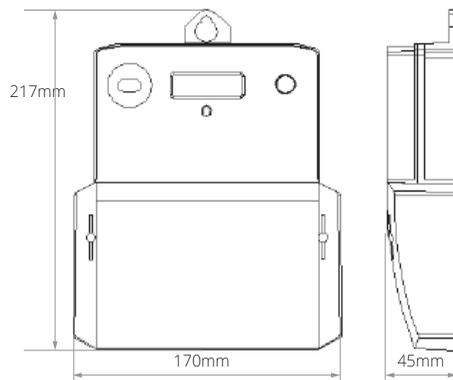


Appearance

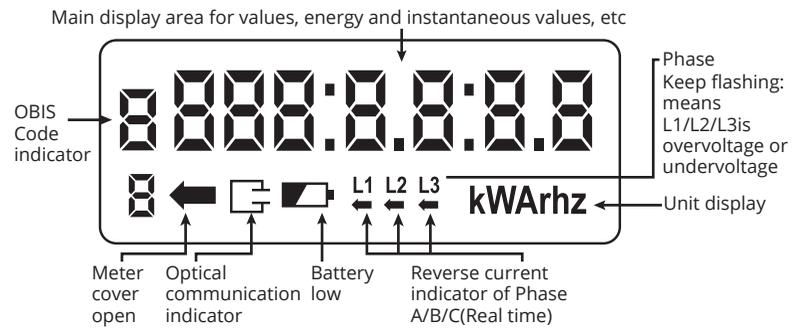


1. LCD display
2. Optical communication port
3. Active pulse LED (10 imp/kWh)
4. Meter cover and nameplate
5. Scroll button
6. Terminal cover and screws

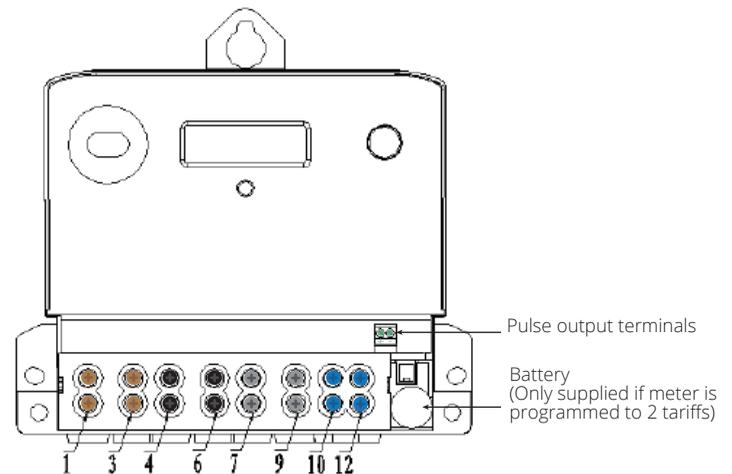
Dimensions



Display

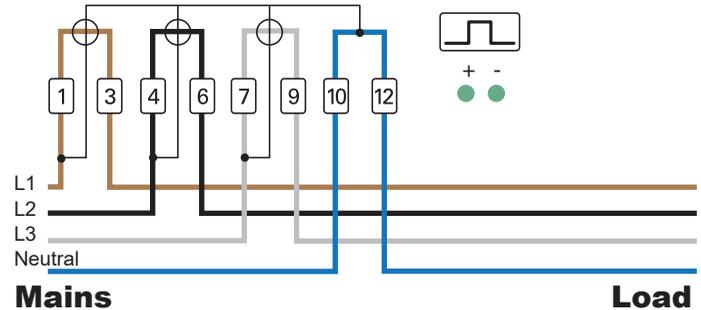


Connection diagram



- (1,4,7) represent the voltage and current inputs of L1/ L2/L3 phases respectively, and (3,6,9) represent the current outputs of L1/ L2/L3 phases respectively.
- 10,12 for N-wire voltage connections

3 Phase 4 Wire
80 Amp direct connected



Product development is continuous and Autometers Systems Limited reserves the right to make alterations and manufacture without notice. Products as delivered may therefore differ from the descriptions and illustrations in this publication.
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Autometers Systems Ltd.
Unit 15c Raleigh Hall Ind. Estate, Eccleshall, Stafford ST21 6JL
Email: sales@autometers.co.uk Phone: 0161 861 9056 Web: www.autometers.co.uk