

TC55 SERIES MID APPROVED

Three Phase CT Connected Multifunctional Energy Meter
TC55M/TC55MT/TC55DS/TC55P/TC55L

Features:

- RS 485 Modbus RTU (Wireless Solution Customization Available);
- Current Transformer/RC Input: 1A/5A, or mV/mA CT input;
- Multifunctional Parameters: V, A, W, Var, VA, kWh, kvarh, PF, ...;
- 1 Pulse Output;
- Bidirectional Measurement: Imp/Exp Active Energy, Imp/Exp Reactive Energy;
- THD: Voltage THD and Current THD;
- Multi-tariffs: 4 tariffs, 8 time segments;
- Dual Sources: Regular Power Supply and Spare Power Supply;
- CT Reverse-Connect Correction Function;
- 4 Modules, TH35-7.5 DIN-Rail.

TC 55 series are three phase external CT connected multifunctional energy meter to measure and analyze the most important electrical parameters, including voltage, current, four-quadrant power parameters, power factor, total harmonic, and etc. And it can also read a variety of energy parameters, involving bidirectional active and reactive energy, four-quadrant energy, monthly and daily energy consumption statistics, and so on. The series realizes the measurement and analysis of power parameters in various power grid environments, such as 1P2W, 3P3W and 3P4W.

The TC55 series have RS485 communication interface with highest baudrate 38400bps, supporting Modbus or DLT645 protocol for remote reading.

At the same time, the large-screen LCD and touch buttons help users to view and set various measurement parameters on site.

Selection Table

	Multiparameters	IMP&EXP	Multi-tariffs	THD	RS485 Modbus	LoRaWAN	Dual Sources
TC55P	●	●					
TC55M	●	●		●	●		
TC55MT	●	●	●	●	●		
TC55DS	●	●		●	●		●
TC55L	●	●		●	●	●	

TC55 SERIES

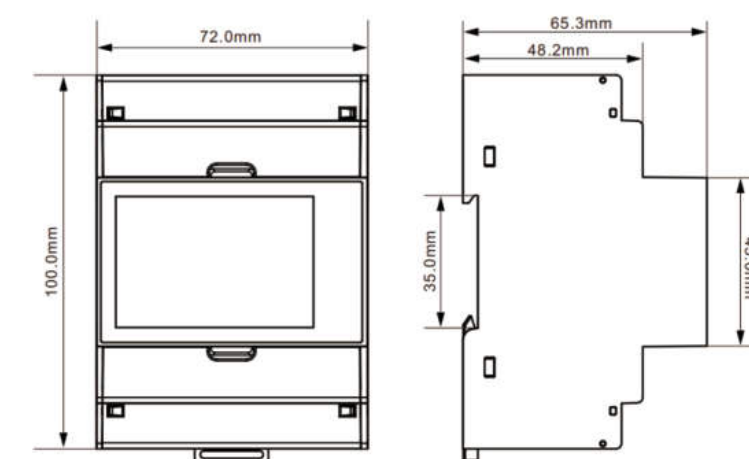
Electrical Parameters

Power Consumption	Voltage Circuit: <2W/10VA Current Circuit: <1VA
Voltage/Current	Class 0.5
Active Power	Class 0.5
Reactive Power	Class 2
Apparent Power	Class 1
Active Energy	Class 0.5S
Reactive Energy	Class 2
Power Factor	Class 1
Frequency	Class 0.2
Data Upgrading Rate	1s (Optional: 100ms)
Rated Voltage	230 VAC (L-N) / 400 VAC (L-L)
Voltage Input	Range: 30 ~ 300 VAC (L-N) ; 30 ~ 500 VAC (L-L)
PT Input	Max. Input: 500000 VAC
Loop Impedance	1MΩ
Frequency	45~65 Hz
Overload Capacity	2x Rated Voltage by lasting 1s
CT 2	Rated: 1A/5A, 100mA/mV (Optional)
CT 1	1 ~ 9999 A
Current Input	0.01~6 A, Rated: 5A
Loop Impedance	<0.01 ohm
Overload Capacity	20x Max. Current by lasting 0.5s
Voltage Input of Aux. Supply	80~300 VAC / 100 ~ 420 VDC
Frequency of Aux. Supply	45~65 Hz
Power Consumption of A.S	<4VA/0.5W
Pulse Type	Open collector optocoupler
Pulse Constant	Options: 0.001, 0.01, 0.1, 1, 10, 100 kWh/kvarh
Pulse Width	Options: 60, 10, 200ms
Pulse Output Type	Options: Import/Export/Total active/Total Reactive kWh
Class	Class A
Voltage Input	5~27 VDC
Pulse Light on Meter	Pulse Constant: 5000imp/kWh(Energ for secondary side)
Accuracy of RTC	0.5 s/d
International Standard	IEC62053-21/22

Mechanical Specifications

IP Class	LCD display: IP51(Indoor) ; Whole meter: IP30
Installation	TH35-7.5 DIN Rail
Flammability Class	UL 94 V-0
Utilization Category	UC 2

Product Size



Environment Specifications

Operation Temperature	-25 ~ +55°C
Storage Temperature	-40 ~ +80°C
Humidity	<90%, no condensing
Pollution Degree	2
Altitude	<2000m
Vibration Frequency	Range: 10~150Hz

Safety Specifications

Installation Degree	CAT III
Over-voltage Degree	CAT III
Insulation	AC Withstand Voltage: 4kVAC by lasting 1min Pulse Withstand Voltage: 6kVAC - 1.2/50μs waveform
Insulation Degree	Double Insulation

Communication Specifications

Interface and Protocol	2 Wire RS485; Modbus RTU, DL/T645-2007
Baudrate	1200,2400,4800,9600,19200,38400 bps
Parity	None, Even, Odd
Stop Bit	1, 2
Response Time	<100ms
Bus Type	Semi-duplex
Distance	Max. 1000m
Bus Load	Max. 64pcs

Please find more details via:



Wiring Diagram (see more in user manuals)

