DTSU1900a

Three-Phase Energy Meter

CE

MULTIFUNCTIONAL MEASUREMENT

- Accurate Measurement Voltage, Current, Power, Power Factor, Frequency, etc
- 0.2% Accuracy on Voltage and Current

POWER QUALITY ANALYSIS

- THD and Individual Harmonics to 31st
- Voltage Unbalance, Current Unbalance

REVENUE METERING

- Bi-Directional Energy: Import Energy, Export Energy
- IEC62053-22 0.5S
- TOU, Four Tariffs, 14 Schedules

OVER/UNDER LIMIT ALARM

- Over or Under Setting Limit
- Power Measurement Parameters can be Set

ABLEWISE
Make Energy Usage Wiser

APPLICATIONS

- Commercial Metering
- Railway Transit
- University/School/Hotel
- Power Distribution
- Intelligent Building
- Apartment
- Energy Management System
- Energy-Saving System

FEATURES

Metering

- Voltage, Current
- Active power, Reactive Power, Apparent Power, Power Factor
- Frequency
- Load Nature
- Four Quadrant Power and Energy

Energy

- Bi-Direction and Four Quadrant Energy
- Monthly Energy Record
- Energy Freeze

Time of Use (TOU)

- Two TOU Settings can Automatically Switch at the Setting
- TOU, 4 Tariff, 14 Schedules

Power quality

- Voltage Unbalance,Current Unbalance
- THD and Individual Harmonics to 31st

Over/Under Limit Alarm

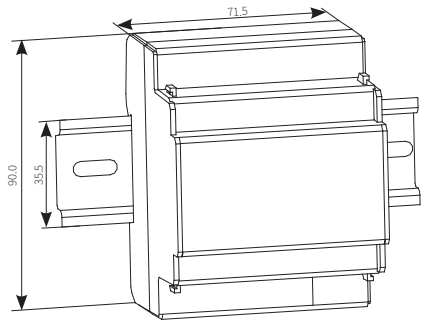
- Over or Under Setting Limit
- Power Measurement Parameters can be Set
- Alarm can Trigger the Relay Output

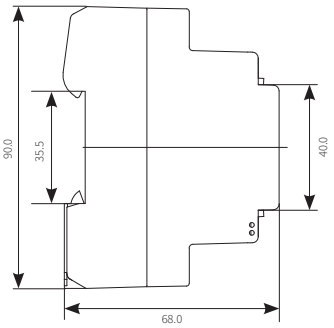
Communication

- RS485 Port & Modbus RTU Protocol

DIMENSIONS

Unit: mm





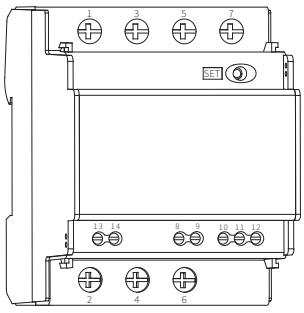
Side View

TERMINAL DIAGRAM

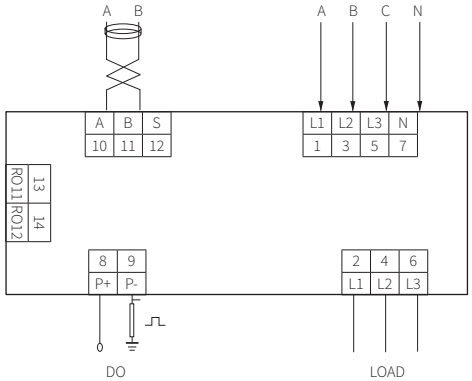
1	3	5	7
L1	L2	L3	N

13	14	8	9	10	11	12
RO11	RO12	P+	P-	A	B	S

2	4	6
L1	L2	L3



TYPICAL WIRING



SPECIFICATION

Measurement Accuracy

Parameters	Accuracy	Resolution	Range
Voltage	0.2%	0.1 V	175 ~ 265 V
Current	0.2%	0.001 A	0.25 ~ 80 A
Active Power	0.5%	0.001 kW	-60 ~ 60 kW
Reactive Power	0.5%	0.001 kvar	-60 ~ 60 kvar
Apparent Power	0.5%	0.001 VA	0 ~ 60 kVA
Power Factor	1%	0.001	-1.000 ~ 1.000
Frequency	0.05%	0.01 Hz	50/60 Hz (±5%)
Active Energy	0.5S	0.01 kWh	0 ~ 9999999 kWh
Reactive Energy	0.5%	0.01 kvarh	0 ~ 9999999 kvarh
Apparent Energy	0.5%	0.01 kVAh	0 ~ 9999999 kVAh
Harmonics & THD	2%	0.01	0 ~ 600%
Unbalance	2%	0.1	0 ~ 100%

Operating Conditions

Metering	Parameters	Specification
Voltage	Nominal Voltage	3×230 V AC
	Range	230 V AC (-20% ~ +15%)
	Load	≤1.2 W
	Measurement Range	230 V AC (-20% ~ +15%)
	Accuracy	0.5%
Current	Reference Current I_{ref}	20 A
	Current (Max) I_{max}	80 A
	Current (Min) I_{min}	0.25 A
	Starting Current I_{st}	<20 mA
	Accuracy	0.5%
Frequency	Frequency	45 ~ 65 Hz
Energy	Active	0.5S
	Reactive, Apparent	0.5
Energy Pulse	Voltage	5 ~ 30 V DC
	Current	2 ~ 50 mA
	Pulse Width	10 ~ 999 ms
	Pulse Constant	10 ~ 3200 imp/kWh
Relay Output(RO)	Type	FORM A
	Switching Voltage (Max)	250 V AC or 30 V DC
	Switching Current (Max)	5 A
	Output Type	Level or Pulse
Operating Environment	Operating Temperature	-25 °C ~ +70 °C
	Storage Temperature	-40 °C ~ +85 °C
	Relative Humidity	5% ~ 95% (Non-Condensing)
	IP Degree of Protection	UL94V0
Electromagnetic Compatibility	Electrostatic Discharge Immunity	IEC 61000-4-2
	Fast Transients Immunity	IEC 61000-4-4
	Surge Immunity	IEC 61000-4-5
	Radiated Field Immunity	IEC 61000-4-3
	Conducted Disturbances Immunity	IEC 61000-4-6
	Radiated and Conducted Emission	EN 55022 Class B

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