

DTSU1900-b

Three-Phase Energy Meter



CE

MULTIFUNCTIONAL MEASUREMENT

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

REVENUE METERING

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

POWER QUALITY ANALYSIS

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

OVER/UNDER LIMIT ALARM

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

APPLICATIONS

- Commercial Metering
- School
- Industrial Facility
- Apartment
- Intelligent Building
- Power Distribution
- Energy Management
- Power Quality Monitoring

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
- Daily and Monthly Energy Record
- Freeze Meter Reading

Time of Use (TOU)

- Two TOU
- Weekend and Holiday Settings

Demand

- Current Demand
- Power Demand
- Peak Demand

Power quality

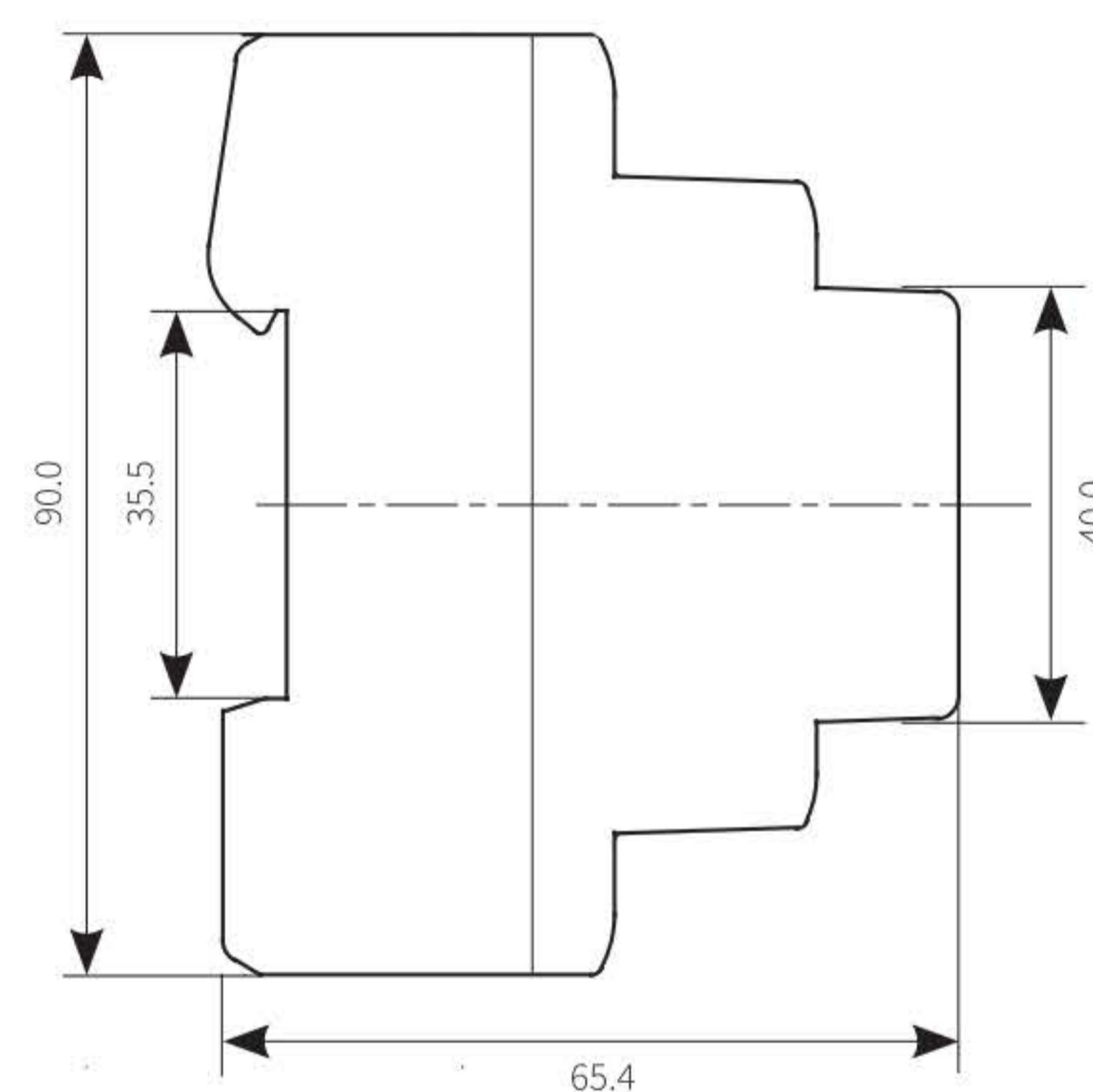
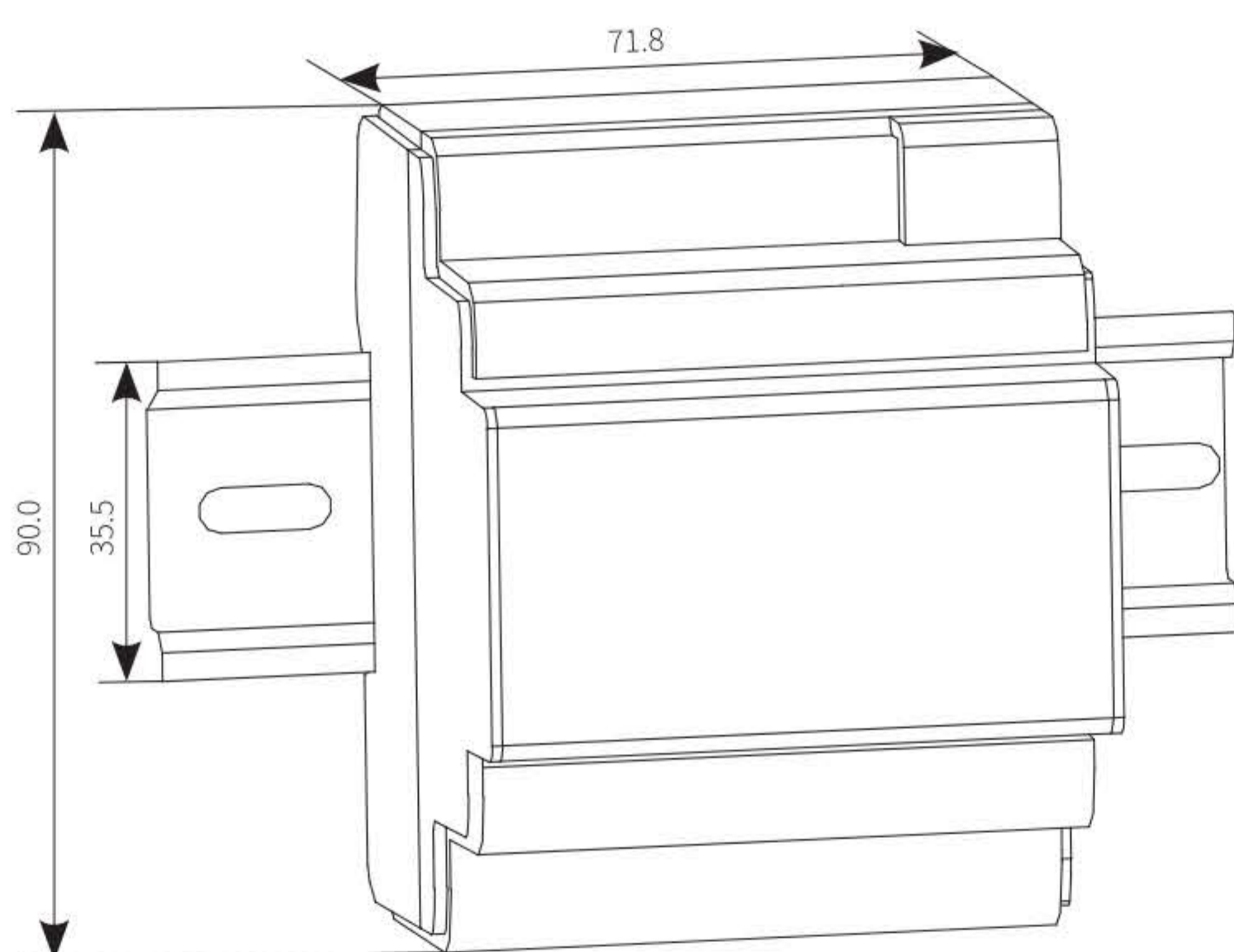
- Voltage Unbalance, Current Unbalance
- THD and Individual Harmonics to 31st

Over/Under Limit Alarm

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

DIMENSIONS

Unit: mm



Side View

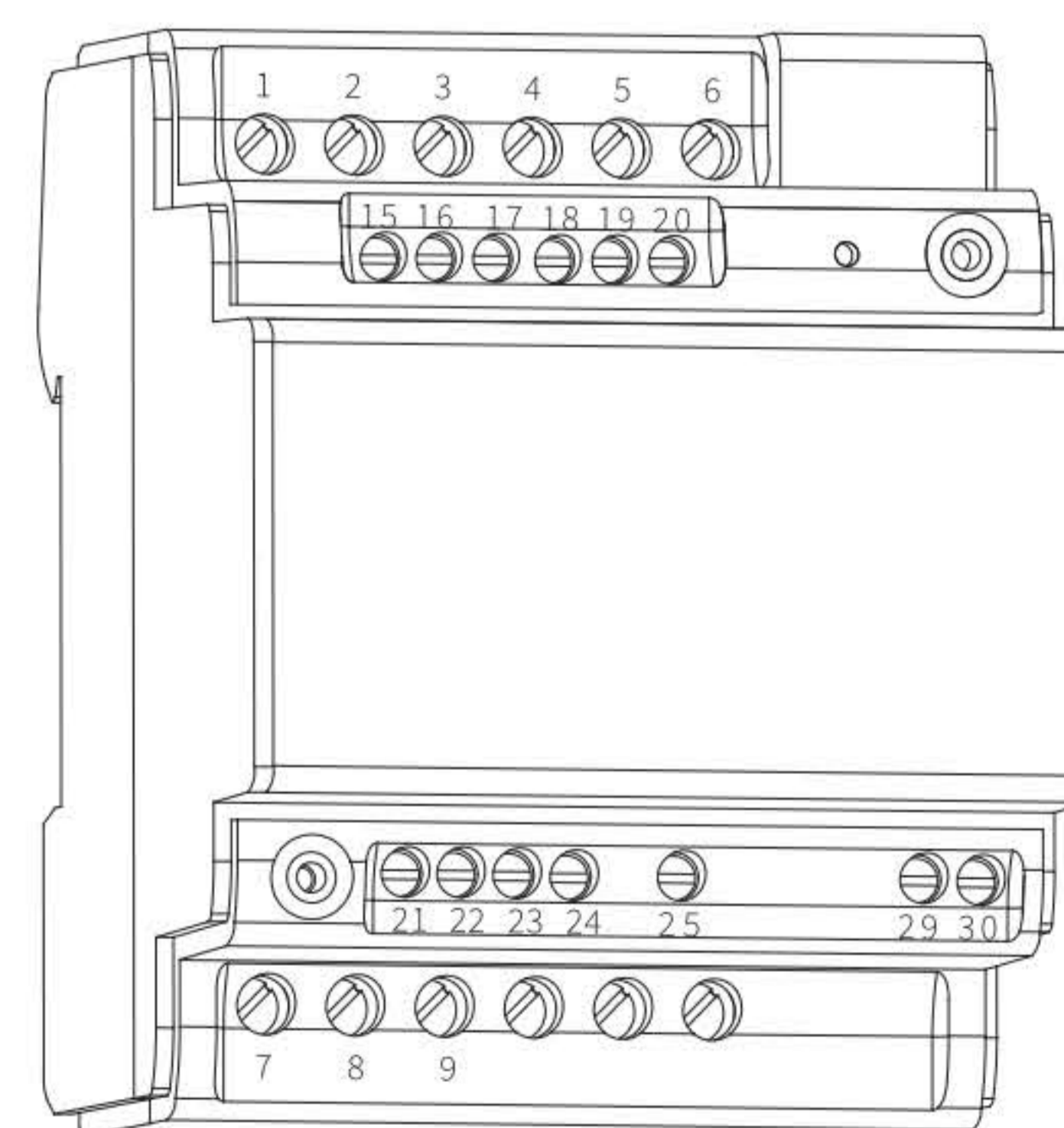
TERMINAL DIAGRAM

1	2	3	4	5	6
L/+	N/-	V1	V2	V3	Vn

15	16	17	18	19	20
DI1	DI2	DIC	A	B	S

21	22	23	24	25	29	30
R11	R12	R21	R22	T1	P+	P-

7	8	9	10	11	12
I11	I12	I21	I22	I31	I32



SPECIFICATION

Measurement Accuracy

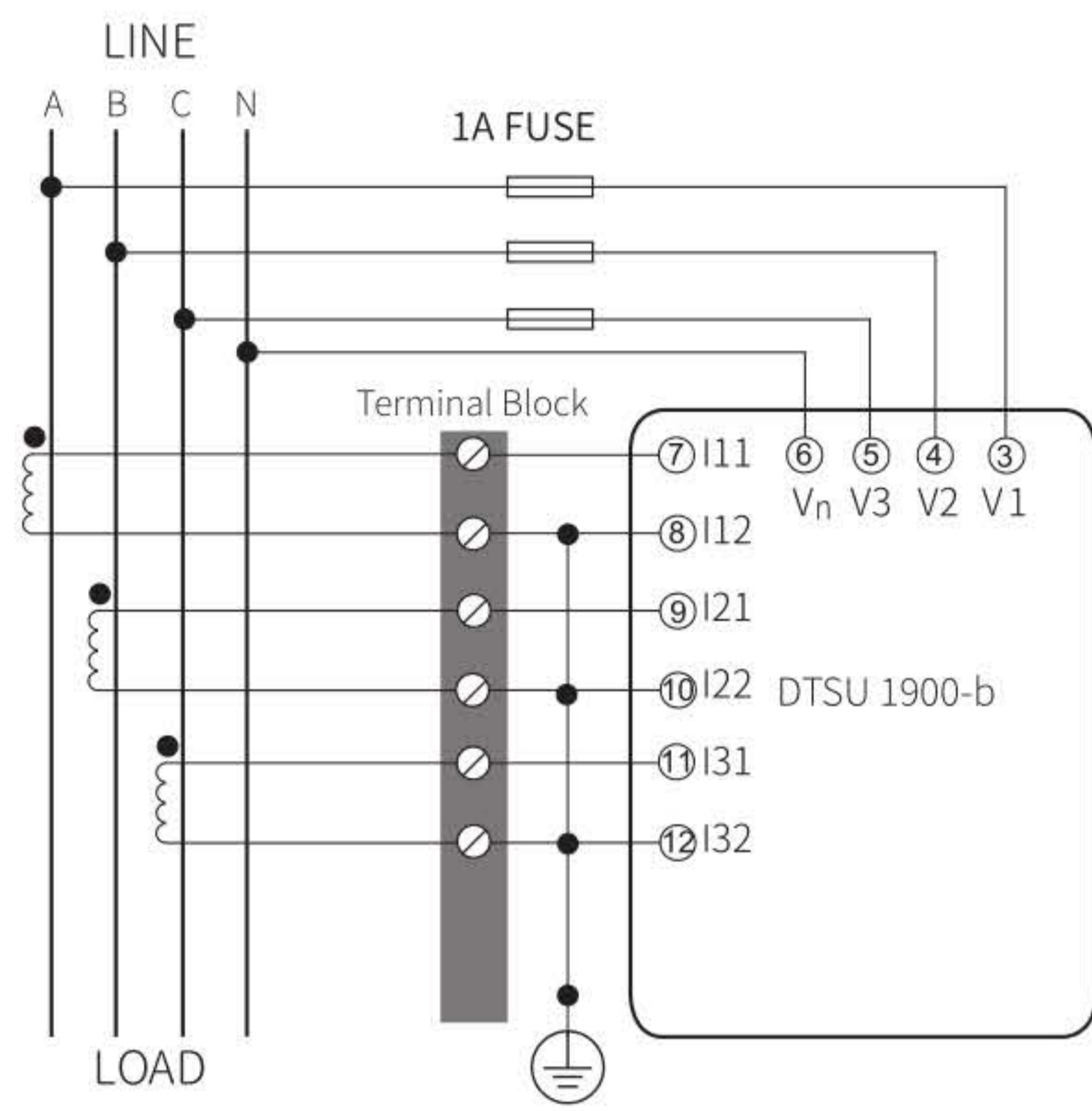
Parameters	Accuracy	Resolution	Range
Voltage	0.2%	0.1 V	10 V ~ 1000 KV
Current	0.2%	0.001 A	5 mA ~ 50000 A
Active Power	0.5%	0.001 kW	-99 ~ 99 MW
Reactive Power	0.5%	0.001 kvar	-99 ~ 99 Mvar
Apparent Power	0.5%	0.001 VA	0 ~ 99 MVA
Power Factor	0.5%	0.001	-1.000 ~ 1.000
Frequency	0.05%	0.01 Hz	42.00 ~ 69.00 Hz
Active Energy	0.5S	0.1 kWh	0 ~ 99999999.9 kWh
Reactive Energy	0.5%	0.1 kvarh	0 ~ 99999999.9 Kvarh
Apparent Energy	0.5%	0.1 kVAh	0 ~ 99999999.9 KVAh
Harmonics & THD	2%	0.01%	0 ~ 600.00%
Unbalance	2%	0.1%	0 ~ 100%

Operating Conditions

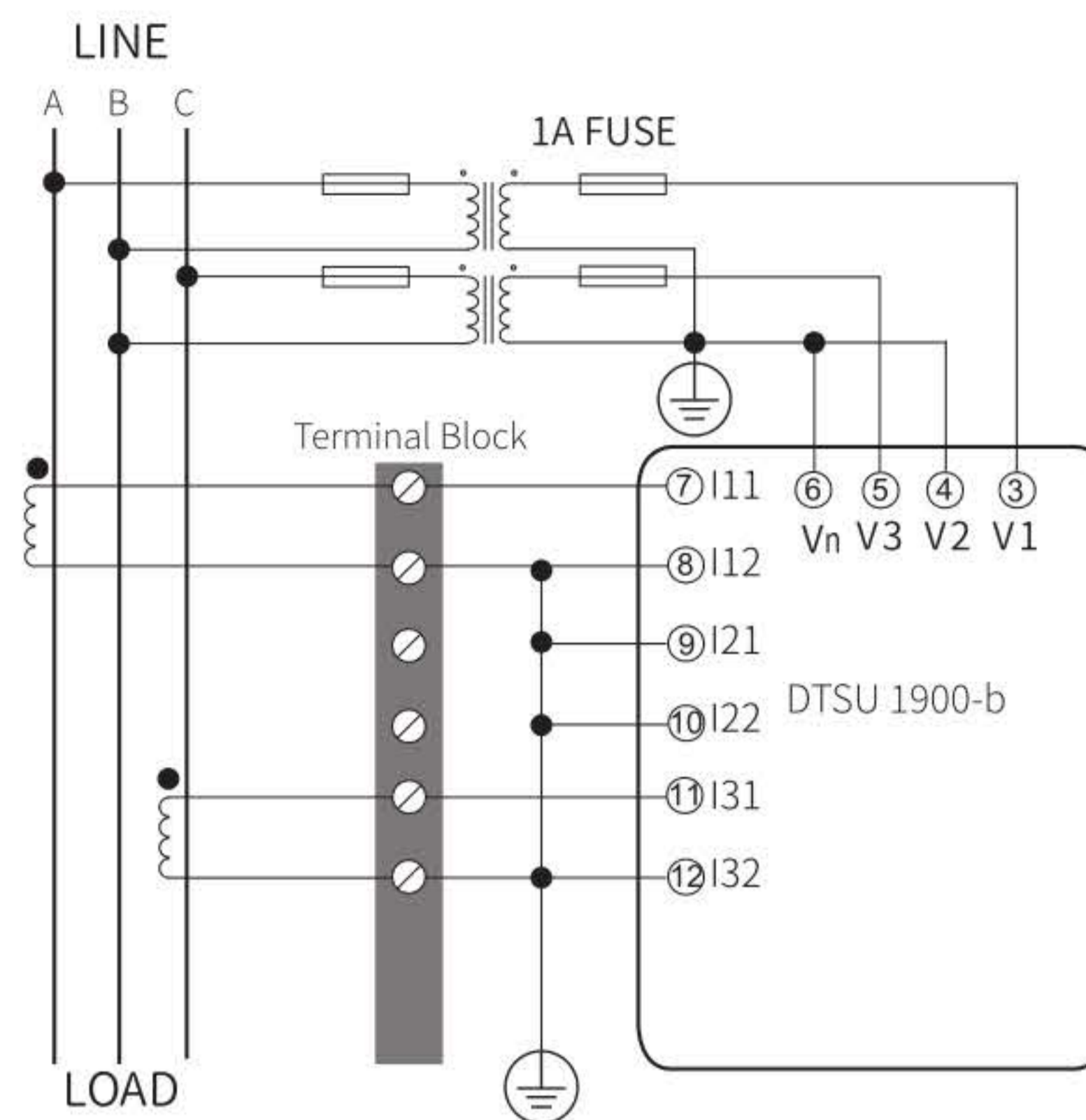
Metering	Parameters	Specification
Voltage	Nominal Voltage	400 V AC L-N, 690 V AC L-L (+20%)
	Withstand	2500 V AC, 50 Hz/60 Hz for 1 min
	Input Impedance	2 MΩ/Phase
Current	Nominal Current	5 A
	Withstand	100 A for 1 second, Non-Recurring
	Starting Current	5 mA
	Burden	0.05 VA @ 5 A
Energy Pulse	Voltage	5 ~ 30 V DC
	Current	5 ~ 50 mA
	Pulse Width	10 ~ 990 ms
	Pulse Constant	10 ~ 3200 imp/kWh
Digital Input(DI)	Input Type	Dry
	Input Impedance	2 kΩ (Typical)
	Input Voltage	24 V DC
	Resolution	1 ms
Relay Output(RO)	Type	FORM A
	Switching Voltage (Max)	250 V AC or 30 V DC
	Switching Current (Max)	5 A (R)
	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	IP Degree of Protection	IEC 60529, IP51
Safety Standards	Safety Standard	IEC/EN61010-1ed.3, CATIII, Pollution Level 2
Power Supply	Operating Range	100 ~ 415 V AC @50/60 Hz or 100 V ~ 300 V DC
	Power Consumption	<3 W
	Withstand	3250 V AC, 50/60 Hz for 1 minute

TYPICAL WIRING

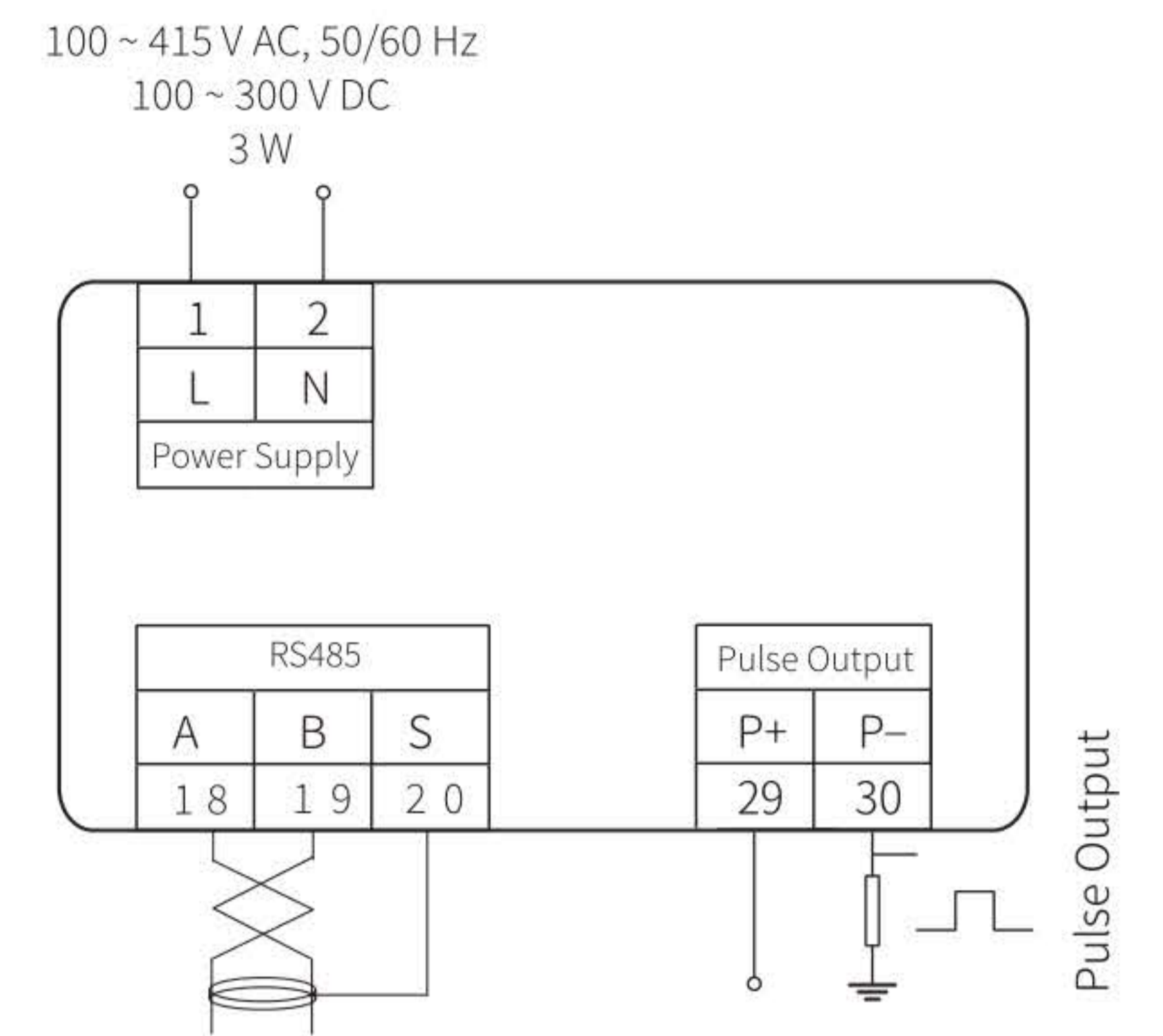
3LN, 3CT



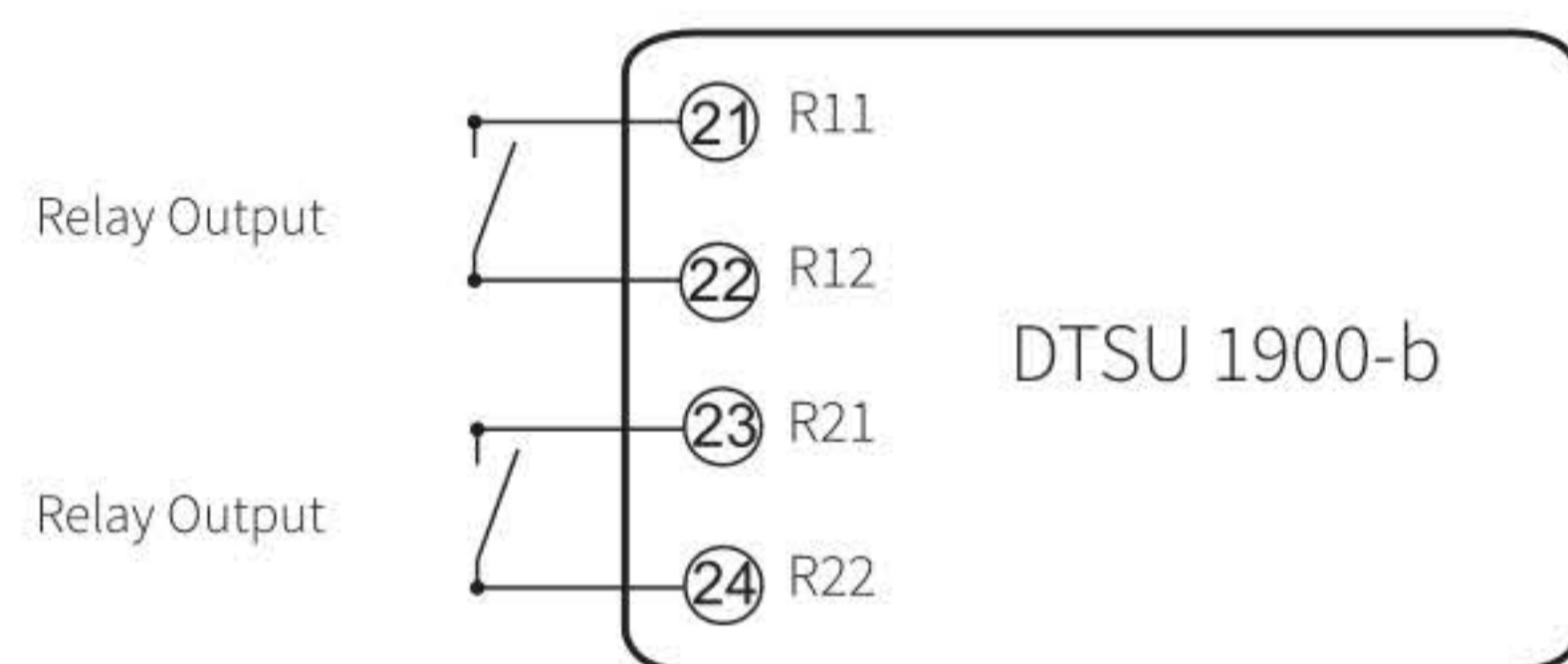
2LL, 2CT



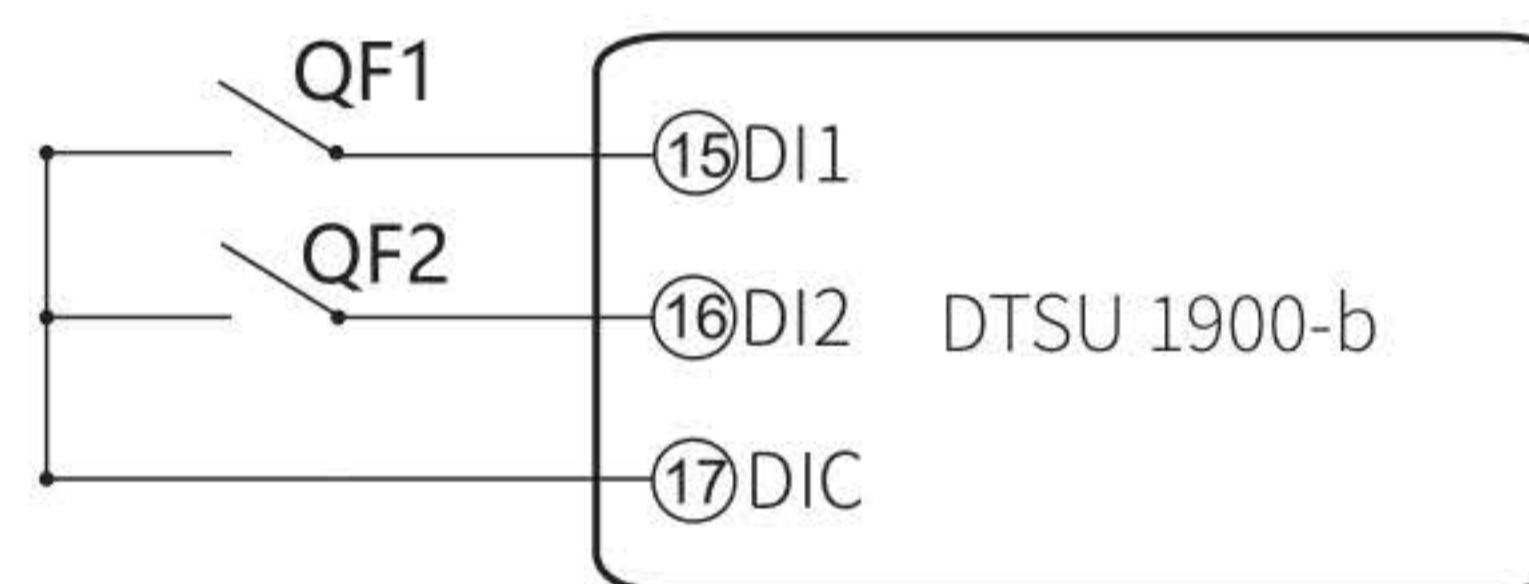
Power Supply + RS485



2RO



2DI



ORDERING INFORMATION

Model	I/O Option
DTSU1900-b	- Blank: No Option
	- 2RO: 2RO
	- DIO: 2 DI+2 RO

Ordering Example: DTSU1900-b; DTSU1900-b-2RO; DTSU1900-b-DIO

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