

DDSU1820

Single-Phase Energy Meter



CE

MULTIFUNCTIONAL MEASUREMENT

- Accurate Measurement Voltage, Current, Power, Power Factor, Frequency, etc
- 0.5% Accuracy on Voltage and Current

REVENUE METERING

- Bi-Directional Energy: Import Energy, Export Energy
- IEC 62053-21 Class 1
- 1 Light Pulse Output and 1 Electric Pulse Output

COMPACT DESIGN

- Saving Space
- 35 mm DIN Rail Mount

CONVENIENT WIRING

- RS485 Port, Modbus RTU Communication Protocol
- Without Auxiliary Power Supply

APPLICATIONS

■ Factory



■ Public Building



■ Microgrid



■ Energy Management Systems

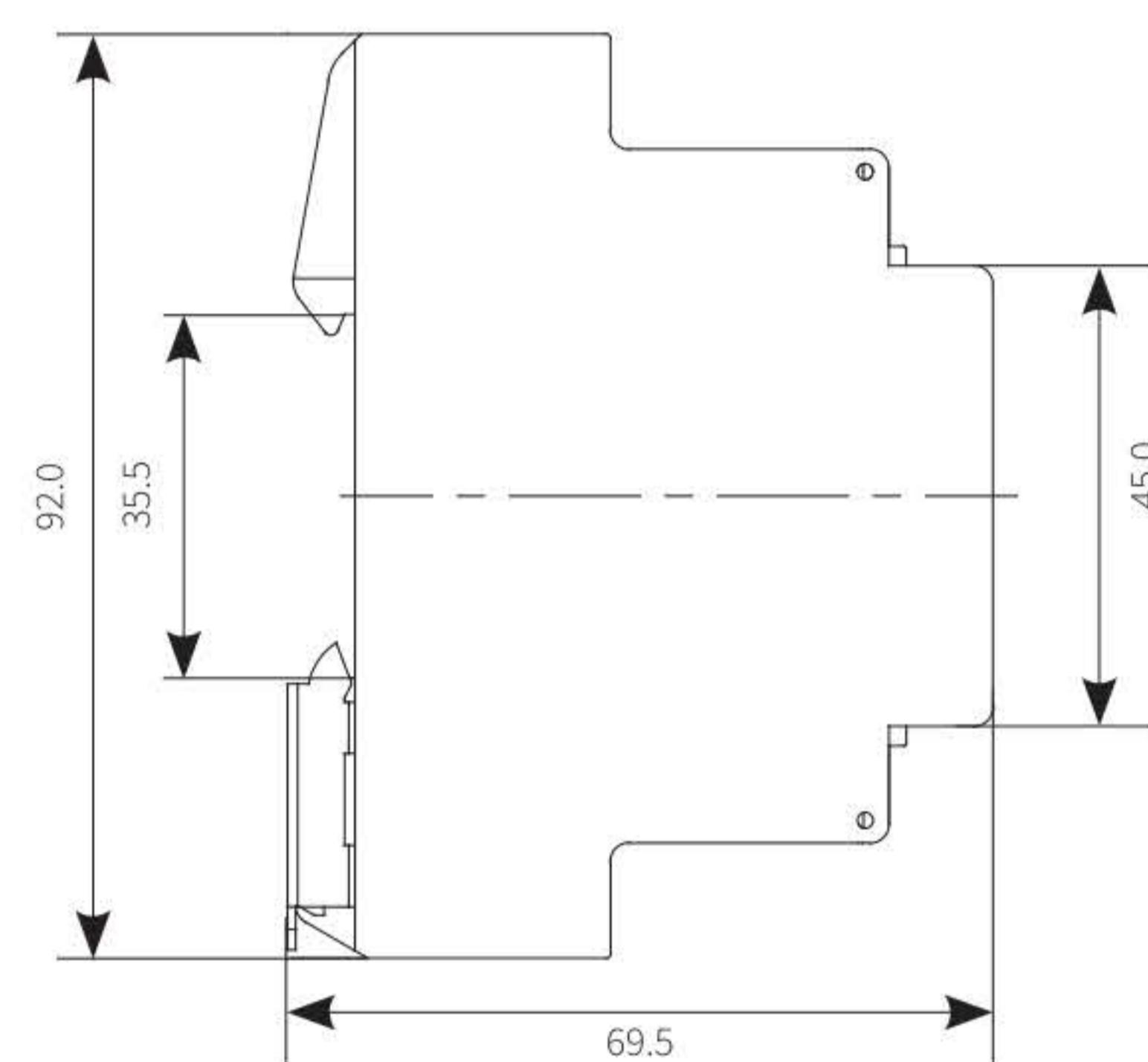
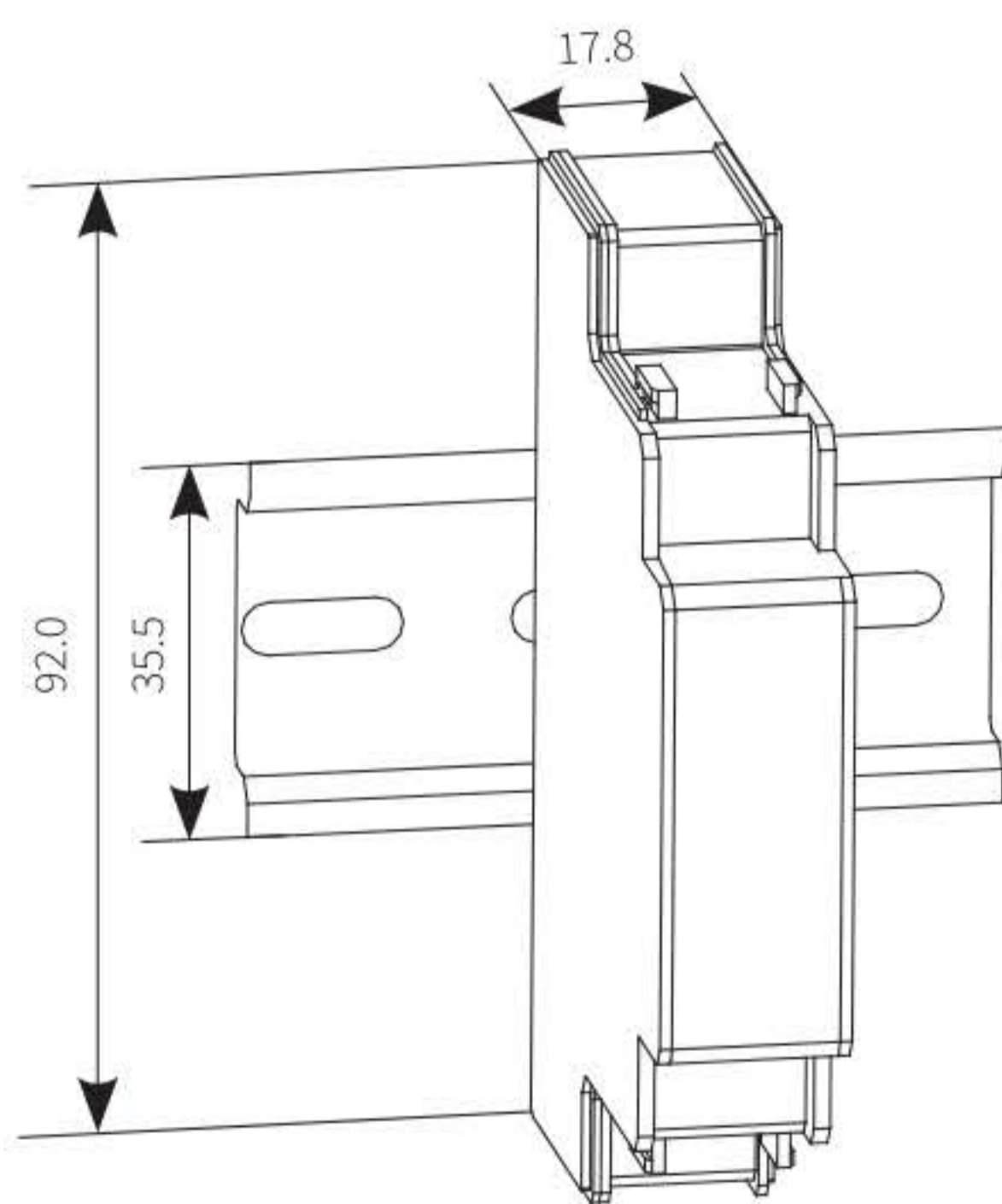


FUNCTION

Parameters			DDSU1820
Metering	Voltage	U	●
	Current	I	●
	Active Power	P	●
	Reactive Power	Q	●
	Apparent Power	S	●
	Power	F	●
	Power Factor	PF	●
Energy	Bi-Directional Energy	Ep_imp, Ep_exp	●
Digital Output	Light Output	Light Pulse Output	●
	Optional	Electric Pulse Output	●
Communication	RS485	Modbus RTU, Baud Rate: 1200 ~ 9600 bps	●
Dimensions	92 × 17.8 × 69.5 mm		

DIMENSIONS

Unit: mm



Side View

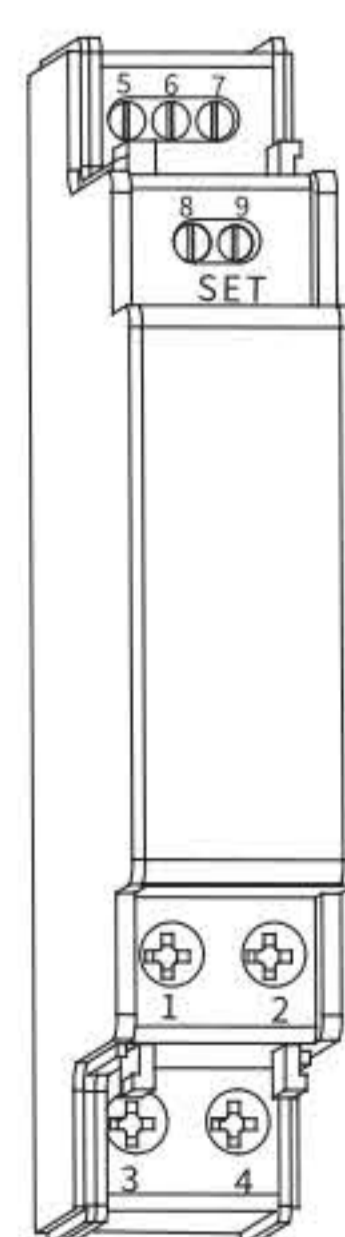
TERMINAL DIAGRAM

5	6	7
A	B	S

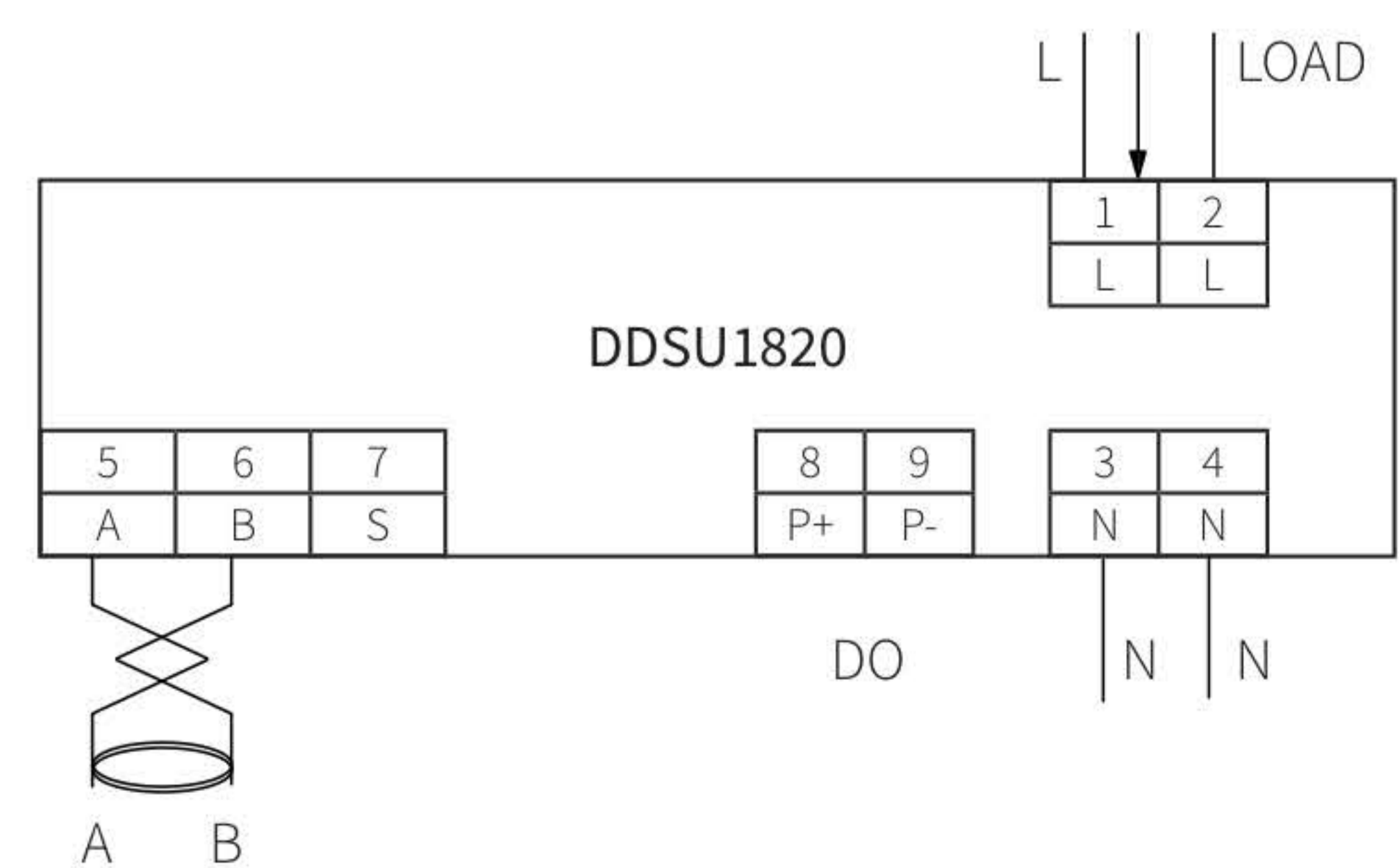
8	9
P+	P-

1	2
L↑	↓L

3	4
N	N



TYPICAL WIRING



SPECIFICATION

Measurement Accuracy

Parameters	Accuracy	Resolution	Range
Voltage	0.5%	0.1 V	175 V ~ 265 V
Current	0.5%	0.001 A	0.25 A ~ 40 A
Energy	1S	1 Wh	0 kWh ~ 3000000 kWh
Active Power	1%	1 W	-10 kW ~ 10 kW
Reactive Power	2%	1 var	-10 kvar ~ 10 kvar
Apparent Power	1%	1 VA	0 ~ 10 kVA
Power Factor	1%	0.001	-1.000 ~ 1.000
Frequency	0.05%	0.01 Hz	50 or 60 Hz (±5%)

Operating Conditions

Metering	Parameters	Specification
Voltage	Nominal Voltage	230 V AC
	Voltage (Max)	230 V AC (-20% ~ +15%)
	Load	≤0.6 W
	Range	230 V AC (-20% ~ +15%)
Current	Reference Current I_{ref}	5 A
	Current (Max) I_{max}	40 A
	Current (Min) I_{min}	0.25 A
	Starting Current I_{st}	<20 mA
	Terminals Contacts Capacity	1 ~ 10 mm ²
	Torque	1 Nm
Frequency	Frequency	50 or 60Hz±5%
Light Pulse	Pulse Constant	1000 imp/kWh
	Pulse Width	40 ms
Pulse Output	Voltage	5 ~ 30 V DC
	Current	5 ~ 50 mA
	Pulse Width	80 ms
	Pulse Constant	1600 imp/kWh
	Terminals Contacts Capacity	0.5 ~ 1mm ²
	Torque	0.25 Nm
Communication	RS485	Modbus RTU, Baud Rate: 1200 ~ 9600 bps
Operating Environment	Operating Temperature	-25 °C ~ +70 °C
	Storage Temperature	-40 °C ~ +85 °C
	Relative Humidity	5% ~ 95% (Non-Condensing)
	IP Degree of Protection	UL 94V0
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 55032 /CISPR 32 Class B

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