

Product data sheet

Characteristics

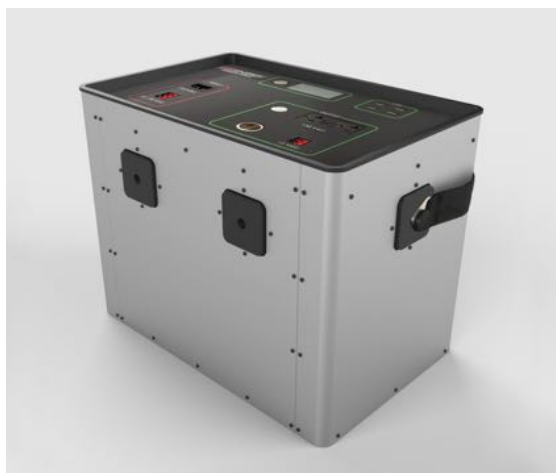
Humless 1500 Series

Portable Off-grid power supply

Multiple Source Charge & Discharge

Output Power: 2kW 120V

Storage Capacity: 640W



Specifications

Primary use	Commercial lights & appliances; Consumer home/domestic: lights & appliances (fridges, washing machines, computers, furnace blowers)
Cycle life	2,500+ cycles (daily use ~6.8 yrs)
Component reliability	2,500+ cycles
Expected usage	Daily
System efficiency	>90%

AC Charger

AC charging model	CC:Constant Current CV:Constant Voltage
Input AC voltage	120+/-6V
Input AC frequency	60Hz±5%
Max.output DC current	25A
Max.output DC voltage	14.6Vdc
Over voltage protection	Yes
Low voltage protection	Yes
Max AC amperage protection	Yes, self-limit
Temperature protection (hot/cold)	No

DC Charger

DC inputs	Variable (solar, wind, other)
DC input voltage	12~50V
Max.output DC current	15A
Max.output DC voltage	14.6Vdc
Over voltage protection	Yes, auto-reset
Low voltage Protection	Yes, auto-reset
Max DC amperage protection	Yes, self-limit
Over temperature protection	Yes, auto-reset

AC Out: Inverter

Output wave form/THD	PSW Pure sine wave / THD 3.82%
Input DC voltage	10.5~14.6V
Output AC voltage	120+/-10V
Output AC frequency	60Hz±5%

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AC Out: Inverter (Continued)

Inverter efficiency (minimum)	88%
Max. constant output power	1500W
Peak output power	1599W (5 seconds)
Startup peak power	115A for 300ms
Overload protection	1600W for <5 seconds
Over temperature protection	Yes 100.2 C
Short protection	Yes
By-pass functionality	Yes, 110~130Vac / 57~63Hz
Low Voltage Protection	Yes

DC Out

DC output - Anderson connector	Voltage: 10.5~14.6 Current max: 20A All DC Max = 38A
USB output	~5V @3A for each port, Max. current for 4 ports is 8A All DC Max = 38A
DC output - Cigarette socket	Voltage: 10.5~14.6 Current max: 10A~20A All DC Max = 38A

Battery (incl. BMS)

Battery type	LFP
Battery standard voltage	12.8V
Battery volume	50AH
Battery Cycle Life (100% DOD; 25 degrees Celcius)	2,500
Battery standards	UL1642 IP20
Battery max. charging current	AC & DC simultaneous charge Max. total current = 40A (0.8C)
BMS shut down voltage	15.2V
LVP (battery)	LVP: 10.0Vdc Shutdown LVP: 9Vdc
Battery Expected Float Charge	~13.3 to 14.2
Internal System Power Consumption: ON (no charge, no discharge)	@13Vdc ~187W/24Hr (≤600mA)
Internal System Power Consumption: ON (no charge, no discharge); AC inverter switch ON but no AC load	@13Vdc ~ 530W/24Hr (~2A)
Internal System Power Consumption: OFF (no charge, no discharge)	@13Vdc ~ 0.01W/24Hr (≤60uA)
Internal System Power Consumption: OFF (no charge, no discharge) AC inverter switch ON but no AC load	@13Vdc ~ 0.01W/24Hr (≤60uA)

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Other

Application environment	Indoor
Normal ambient temperature	25+/-5 °C
Case temperature	< 55 °C full load discharging status
Normal ambient moisture	<= 90%
Storage temperature	0~40 °C
Storage moisture	<= 90%
Altitude	2,000m
Cooling	Fan & Convection
Industrial Design	Aluminium 255mm x 255mm x 355mm
Weight	15.6kg (34.5lbs)

Safety requirement/Standards

FCC	Conform to FCC Part 15 Subpart J Class B
CE	Yes
UL	Not certified but UL standards used in design

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