

# RESIDENTIAL ENERGY STORAGE BATTERY

**ION-LV-US-12KW**

**(NEW GENERATION 5)**



## RESIDENTIAL ENERGY STORAGE BATTERY // ION-LV-US-12KW

**Supports up to 10pcs in parallel for on/off grid**

**On/off grid seamless switching**

**3 MPPTs with 6 strings input, Max. 18kW PV input**

**200A grid passthrough for whole home backup**

- Peak shaving function
- AFCI protection integrated
- Separate port for
- Generator connection
- Auto generator control
- Support generator exercise
- Support generator boost function
- Or smart load connection and auto control
- Or AC coupling function

# Residential Energy Storage Battery

## ION-LV-US-12KW



### Specifications

INPUT (PV DC)		ION-LV-US-12KW
Max. PV array power(W)		18000
Rated PV input voltage(V)		360
Number of independent MPPT inputs		3/(2:1:1)
PV input voltage range(V)		100~600
MPPT voltage range(V)		120~500
Start-up voltage(V)		140
Max. PV input current per MPPT(A)		25/15/15
Max. PV short-circuit current input per MPPT(A)		31/19/19
Battery		
Compatible battery type		Lithium-ion/Lead-Acid
Rated battery voltage(V)		48
Battery voltage range(V)		40~60
Max. charge/discharge current(A)		250
Max. charge/discharge power(W)		12000
Force wake up battery from PV function		YES
Grid		
Rated AC voltage(V)		240/208
Rated AC frequency(Hz)		60
Rated AC output current(A)		50
Rated AC output power(W)		12000
Max. AC input current(A)		200
PF		0.99 (Adjustable from 0.8 leading to 0.8 lagging)
THDI		<3%
Max. continuous AC passthrough current(A)		200
UPS		
Rated output power(W)		12000
Rated output voltage(V)		120/240; 120/208
Rated output current(A)		50
Rated output frequency(Hz)		60
Surge power, duration		2Pn, 0.5s
Switching time		20ms
Wave form		Sine wave
THDV		<3%
Efficiency		
Max. MPPT efficiency		99.9%
Max. efficiency		97.5%
Battery charge/discharge efficiency		94.0%
CEC efficiency		96.9%
Protection		
PV reverse polarity protection		YES
Over current/voltage protection		YES
Anti-islanding protection		YES
AC Short-circuit protection		YES
Leakage current protection		YES
DC switch		YES
AC/DC surge protection Type III		YES
Rapid shut down		YES
Grid/AFCI/RSD monitoring		YES
Load breaker(Current)		200A
Battery breaker(Current/Voltage)		2*200A/80V
General		
Dimensions(W *H*D)		520*870*285mm/ 20.5*34.2*11.2inch
Weight		55kg/121.2lbs
Ingress protection rating		IP65/NEMA 4X
Relative humidity		0~100%
Operating environment temperature range (°C)		-25~-60 °C, >45°C Derating
Storage temperature range (°C)		-25~-60
Display & Communication interface		Touch color screen, RS485/Wi-Fi/CAN
Warranty		5/10 years
Cooling method		Smart Cooling
Topology		Transformer-less
Altitude		<2000m
Standards & Certification		

E5000, SA17-18, CSA STD. C22.2 No.107.1 and 330, UL STD.1741, 1741SB, UL1998:2018, IEEE STD.1547 and 1547.1  
IEEE STD. HECO SRD-IEEE-1547.1, ETL, CETLus, America CEC List, NEC. section690.12, FCC



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