HYBRID SERIES

Split-Phase

ION-LV-US 13-16K

- 3 MPPTs with 5 strings input, Max. 21kW PV input
- 200A grid passthrough for whole home backup
- Supports up to 16pcs in parallel for on/off grid
- Peak shaving function
- AFCI protection integrated
- Auto start/stop, works with battery and PV for load support.
- AC coupling function to retrofit the existing grid-tied system
- Remote Monitoring & AI Optimization

Specification

Model	ION-LV-US-13KW	ION-LV-US-16KW
Input(PV DC)		
Max. PV array power (W)	21000	25000
Max. PV input power (W)	18000	21000
Rated PV input voltage (V)	360	
Number of independent MPPT inputs	2/(2:2)	3/(2:2:1)
PV input voltage range (V)	100~600	
MPPT voltage range (V)	120~440	
Start-up voltage (V)	100	
Max. PV input current per MPPT (A)	26/26	26/26/15
Max. PV short-circuit current input per MPPT (A)	31/31	31/31/19
Battery		
Compatible battery type	Lithium-ion/Lead-Acid	
Rated battery voltage (V)	48	
Battery voltage range (V)	40~60	
Max. charging/discharging current (A)	208	250
Max. charging/discharging power (W)	10000	12000
Force wake up battery from PV function	YES	
AC Input/AC Output		
Rated AC voltage (V)	120/240, 120/208	
Rated AC frequency (Hz)	50/60	
Max. AC input power (W)	10000	12000
Rated AC output power with PV (W)	13000@240V / 11200@208V	16000@240V / 13800@208V
Rated AC output current with PV (A)	54	66.7
Rated AC output power with battery (W)	10000	12000
Rated AC output current with battery (A)	41.6A @240V / 48A@208V	50A @240V / 57.7A@208V
PF	0.99 (Adjustable from 0.8 leading to 0.8 lagging)	
THDI	<3%	
Max. continuous AC passthrough current (A)	90	200
GEN		
Rated GEN voltage (V)	120/240, 120/208	
Rated GEN frequency (Hz)	50/60	
Rated GEN input current (A)	60	
Rated GEN input power (W)	14400	
Rated GEN current of BYPASS relays (A)	80	
UPS		
Rated output power (W)	10000	12000
Rated output voltage (V)	120/240; 120/208	
Rated output current (A)	41.6@240V ; 48@208V	50@240V ; 57.7@208V
Rated output frequency (Hz)	50/60	
Surge power, duration	2Pn, 0.5s	
Switching time	20ms	
Wave form	Sine wave	
THDV	<3%	
Efficiency		
Max. MPPT efficiency	99.9%	
Max. efficiency	97.0%	
Battery charge/discharge efficiency	94.5%	
CEC efficiency		
Protection		
PV reverse polarity protection	YES	
Over current/voltage protection	YES	
Anti-islanding protection	YES	
AC short-circuit protection	YES	
Leakage current protecion	YES	
DC switch	YES	
AC/DC surge protection	Type III	
Rapid shut down	YES	
Grid/AFCI/RSD monitoring	YES	
Load breaker (Current/Voltage)	80A	200A
Battery breaker (Current/Voltage)	250A/80V	400A/80V
General		
Dimensions (W*H*D)	TBD	
Weight	TBD	
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		

UL1741SA, UL1741SB,CSA22.2, UL1741PCS CRD, CEC, FCC Part15B, IEEE1547.1.