

BOOSTESS 3HI-40A



10-20kW Hybrid Inverter

| Commercial | Three Phase | HV Battery | 2 MPPTs |

98.4%

Max.Efficiency

40A

PV Input Current

10ms

UPS-level Switching

110%

Unbalanced Load



Talented

- 98.4% max. efficiency
- 135-750V super wide battery voltage range
- Within 10ms UPS-level switching
- Max. 30A PV input current
- Max. 40A charge/discharge current



Powerful

- Up to 110% unbalanced load
- Up to 125% AC output overloading
- Max. 200% back-up output overloading @60s
- Parallel operation capacity with max. 10 units



Reliable

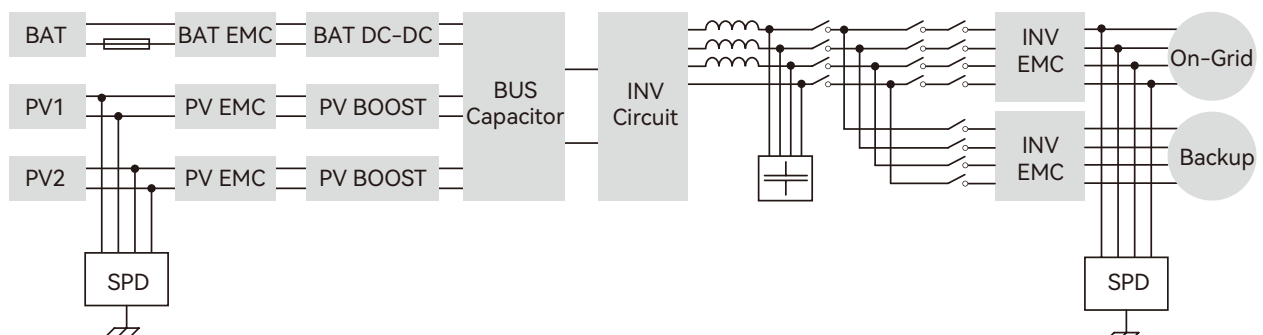
- IP65 protection degree
- Compact and elegant design with integrated die-casting technology
- Long-term efficient operation with advanced heat dissipation design
- Outstanding working performance thanks to BOOSTESS More platform



Friendly

- Convenient installation and O&M with horizontal design and quick plug terminals
- Easy data check via both OLED display and App
- Intelligent energy management with BOOSTESS built-in EMS
- Easy Wifi configuration via App

CIRCUIT DIAGRAM



Technical Specifications

Type Designation	3HI-10K-40	3HI-12K-40	3HI-15K-40	3HI-20K-40
PV Input				
Max. Input Power (kW)	15.0	18.0	22.5	30.0
Start-up Voltage(V)	135	135	135	135
Max. DC Input Voltage (V)*	1000	1000	1000	1000
Rated DC Input Voltage (V)	620	620	620	620
MPPT Voltage Range (V)	120-950	120-950	120-950	200-950
No. of MPP Trackers	2	2	2	2
No. of DC Inputs per MPPT	2/2	2/2	2/2	2/2
Max. Input Current (A)	30/30	30/30	30/30	30/30
Max.Short-circuit Current(A)	40/40	40/40	40/40	40/40
Battery Side				
Battery Type	Lithium Battery(with BMS)			
Battery Voltage Range(V)	135-750			
Max. Charge/Discharge Current (A)	40/40			
Grid Side				
Rated Output Power (kW)	10.0	12.0	15.0	20.0
Max. Output Apparent Power (kVA)	11.0	13.2	16.5/15.0 ¹⁾	22.0
Max. Input Apparent Power (kVA)**	20.0	24.0	30.0	30.0
Max.Charging Power of Battery(kW)	10.0	12.0	15.0	20.0
Rated AC Voltage (V)	3L/N/PE; 220/380V; 230/400V; 240/415V			
Rated AC Frequency (Hz)	50/60	50/60	50/60	50/60
Max. Output Current (A)	16.5	20.0	25.0/21.7 ²⁾	33.5
Power Factor	0.8 leading ... 0.8 lagging			
Max.Total Harmonic Distortion	<3% @Rated output power			
DCI	<0.5%In	<0.5%In	<0.5%In	<0.5%In
Back-up Side				
Rated Output Power (kW)	10.0	12.0	15.0	20.0
Max. Output Apparent Power (kVA)	11.0	13.2	16.5	22.0
Max. Output Current (A)	16.5	20.0	25.0	33.5
UPS Switching Time	<10ms	<10ms	<10ms	<10ms
Rated Output Voltage (V)	3/N/PE; 220/380V; 230/400V; 240/415V			
Rated Output Frequency (Hz)	50/60	50/60	50/60	50/60
Peak Output Apparent Power (kVA)***	20, 60s	20, 60s	25, 60s	25, 60s
Voltage Harmonic Distortion	<3% @Linear load			
Efficiency				
Max.Efficiency	98.4%	98.4%	98.4%	98.4%
European Efficiency	97.5%	97.5%	97.5%	97.5%
Compliance				
IEC/EN 62109, IEC/EN 61000, EN50549-1, TOR Generator Type A, VDE-AR-N-4105				

Protection	General Data
DC Reverse Polarity Protection	Integrated
Battery Input Reverse Connection Protection	Integrated
Insulation Resistance Protection	Integrated
Surge Protection	Integrated
Over-temperature Protection	Integrated
Residual Current Protection	Integrated
Islanding Protection	Integrated
AC Over-voltage Protection	Integrated
Overload Protection	Integrated
AC Short-circuit Protection	Integrated
Over Voltage Category	PV: II; Main: III
Dimensions (W×H×D mm)	534×418×210
Weight (KG)	28.0(10-12KW)/31.0(15-20KW)
Protection Degree	IP65
Standby Self-consumption (W)	<15
Topology	Transformerless
Operating Temperature Range (°C)	-30~60
Relative Humidity (%)	0~100
Operating Altitude (m)	3000 (>3000m derating)
Cooling	Smart Fan
Noise Level (dB)	<40
Display	OLED & LED
Communication	CAN, RS485, WiFi/LAN (Optional)

* Max. operating DC voltage is 950V, max. withstanding DC voltage is 1000V

**Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery

***The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is related to the overload power

1)AS 4777.2:15.0kVA; 2)AS 4777.2:21.7A