

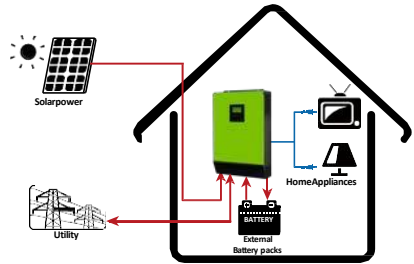
On-Grid Inverter with Energy Storage



On-Grid Inverter with Energy Storage



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie (with battery connected), off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 9 units only for 3K/4K/5K models



On-Grid Inverter With Energy Storage Selection Guide

MODEL	MB-HSI 12V 1000W	MB-HSI 24V 2000W	MB-HSI 48V 3000W	MB-HSI 48V 4000W	MB-HSI 48V 5000W
Max. PV Array Power	1000W	2000W	4000W	4000W	6000W
Rated Output Power	1000W	2000W	3000W	4000W	5000W
Maximum PV Array Open Circuit Voltage	145 VDC	145 VDC	145 VDC	145 VDC	145 VDC
MPPT Range @ Operating Voltage	15 VDC ~ 115VDC	30 VDC ~ 115VDC	60 VDC ~ 115VDC	60 VDC ~ 115VDC	60 VDC ~ 115VDC
MPP Tracker Number	1	1	1	1	2
GRID-TIE OPERATION					
GRID OUTPUT (AC)					
Nominal Output Voltage	220/230/240 VAC				
Output Voltage Range	184 - 264.5 VAC or 195.5 - 253 VAC (Selectable)				
Nominal Output Current	4.3 A	8.7 A	13 A	17.4 A	21.7 A
Power Factor	> 0.99				
EFFICIENCY					
Maximum Conversion Efficiency (DC/AC)	90%				
OFF-GRID, HYBRID OPERATION					
GRID INPUT					
Acceptable Input Voltage Range	90 - 280 VAC or 170 - 280 VAC				
Frequency Range	50 Hz/60 Hz (Auto sensing)				
Maximum AC Input Current	10A	20A	40A		
BATTERY MODE OUTPUT (AC)					
Nominal Output Voltage	220/230/240 VAC				
Output Waveform	Pure sine wave				
Efficiency (DC to AC)	93%				
BATTERY & CHARGER					
Nominal DC Voltage	12 VDC	24 VDC	48 VDC	48 VDC	48 VDC
Maximum Solar Charge Current	80 A	80 A	80 A	80 A	120 A
Maximum AC Charge Current	60 A				
Maximum Charge Current	140 A	140 A	140 A	140 A	180 A
GENERAL					
PHYSICAL					
Dimension, D x W x H (mm)	100 x 300 x 440	100 x 300 x 440	120 x 295 x 468	120 x 295 x 468	190 x 295 x 483
Net Weight (kgs)	8	8	11	11	16
INTERFACE					
Parallel Function	N/A	N/A	Yes	Yes	Yes
External Safety Box (Optional)	Yes				
Communication Ports	USB or RS232/Dry-Contact				
ENVIRONMENT					
Humidity	0 ~ 90% RH (Non-condensing)				
Operating Temperature	0 to 50°C				

On-Grid Inverter with Energy Storage



- IP65 waterproof and dustproof makes the inverter available for various working conditions.
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current up to 250A
- User-adjustable charging current and voltage
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer for various mode of on/off operation
- Reserved communication port for BMS (RS485)
- Parallel operation up to 6 units

On-Grid Inverter with Energy Storage

Three Phase On-Grid Inverter with Energy Storage Selection Guide

MODEL	MB-HSI - 8KW	MB-HSI-10KW	MB-HSI - 12KW
Maximum PV Input Power	10500W	14500W	16000W
Rated Output Power	8000 W	10000 W	12000 W
Maximum Charging Power	8000 W	10000 W	12000 W
GRID-TIE OPERATION			
PV INPUT (DC)			
Maximum DC Voltage	1000 VDC	1000 VDC	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC		
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / 13A + 13A	2 / 23A + 13A	2+2 / 23A + 23A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Voltage Range	184 - 265 VAC per phase		
Nominal Output Current	11.6 A per phase	14.5 A per phase	17.4 A per phase
Power Factor range	0.9 lag ~ 0.9 lead		
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	>96%		
European Efficiency@ Vnominal	>95%		
OFF-GRID OPERATION			
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC		
Acceptable Input Voltage Range	170 - 280 VAC per phase		
Maximum AC Input Current	40 A	40 A	40 A
PV INPUT (DC)			
Maximum DC Power	10500W	15000W	16000W
Maximum DC Voltage	1000 VDC	1000 VDC	1000 VDC
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / 13A + 13A	2 / 23A + 13A	2 / 23A + 23A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	91%	91%	91%
HYBRID OPERATION			
PV INPUT (DC)			
Maximum DC Voltage	1000 VDC	1000 VDC	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC		
MPP Voltage Range	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	2 / 13A + 13A	2 / 23A + 13A	2 / 23A + 23A
GRID OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Output Voltage Range	184 - 265 VAC per phase		
Nominal Output Current	11.6 A per phase	14.5 A per phase	17.4 A per phase
AC INPUT			
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC / 180 VAC		
Acceptable Input Voltage Range	170 - 280 VAC per phase		
Maximum AC Input Current	40 A	40 A	40 A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)		
Efficiency (DC to AC)	91%	91%	91%
BATTERY & CHARGER			
Battery Voltage Range	40 - 64 VDC		
Maximum Charging Current	190 A	220 A	250 A
GENERAL PHYSICAL			
Dimension, D x W x H (mm)	700 x 630 x 312		
Net Weight (kgs)	75		
INTERACE			
Parallel Function	Yes, 6 units		
Communication Port	RS-232, USB, Wifi, DRY CONTACT		
ENVIRONMENT			
Humidity	0 ~ 100% RH		
Operating Temperature	-25 to 60°C, > 45°C Derating		