

Environment Limit

Three Phase Inverter	MH+HYV5.0-THE	MH+HYV6.0-THE	MH+HYV8.0-THE	MH+HYV10.0-THE	MH+HYV10.0-THE-SE	MH+HYV12.0-THE	MH+HYV15.0-THE
Ingress protection	IP66						
Protection class	Class I						
Pollution degree	PD3						
Over voltage category	III (MAINS), II (DC)						
Operating temperature range[°C]	-20~+60(derating at +45)						
Max. operation altitude[m]	<3000						
Humidity	0-100%, No Condensing						
Storage temperature[°C]	-40~+70						
Typical noise emission[dBA]	<30		<50				
Communication with BMS	CAN						
Communication with Meter	RS485						
Self-consumption at night [W]	<25						
User Interface	LED,APP (LCD Optional)						
Warranty[Years]	10						

Mechanical Parameter

Dimension (W*H*D) [mm]	700*520*240						
Weight[KG]	36.0						
Cooling Concept	Natural Convection			Smart air cooling			
Topology	Non-isolated						
Communication interfaces	Meter/CT,CAN,RS485,WIFI(External)						
HMI	APP						
PV connector	MC4 (4-6mm2)						
AC connector	Quick Plug						
Battery connector	Quick Plug						
Certification	IEC/EN 62109-1&2, IEC 62477-1, IEC 61000-6-1/2/3/4,IEC62920,IEC 61000-4-16/18/29, IEC 60529,IEC 60068, IEC 61683,EN50530, CEI 0-21,VDE4105, ISO 13849, IEC62443						

Battery Pack	5KWh Battery Pack	10KWh Battery Pack	15KWh Battery Pack	20KWh Battery Pack
Component	Base+1 Module	Base+2 Module	Base+3 Module	Base+4 Module
Nominal Battery Pack Energy[KWh]	5.12	10.24	15.36	20.48
Available Battery Pack Energy[KWh]	4.76	9.52	14.28	19.05
Nominal Battery Cell Capacity[Ah]	100			
Nominal Voltage[V]	230			
Nominal Charging Current[A]	20			
Nominal Discharging Current[A]	20			
Communication	CAN			
User Interface	LED			
Ingress Protection	NEMA 4X			
Cooling Concept	Natural Convection			
Operating Temperature	-20°C ~ 55°C (For Both Charging & Discharging)			
Storage Temperature	-20°C ~ 55°C			
Humidity	5% ~ 95%			
Altitude	2000			
Cycle Life	6000			
Warranty[Years]	10			
Dimension[mm]	710×430×170	710×800×170	710×1170×170	710×1540×170
Weight[Kg]	54	104	154	204

Battery Pack	20KWh Battery Pack - Parallel	25KWh Battery Pack - Parallel	30KWh Battery Pack - Parallel	35KWh Battery Pack - Parallel	40KWh Battery Pack - Parallel
Component	2*Base+4*Modules	2*Base+5*Modules	2*Base+6*Modules	2*Base+7*Modules	2*Base+8*Modules
Nominal Battery Pack Energy[KWh]	20.48	25.6	30.72	35.84	40.96
Available Battery Pack Energy[KWh]	19.05	23.81	28.57	33.32	38.08
Nominal Battery Cell Capacity[Ah]	100				
Nominal Voltage[V]	230				
Nominal Charging Current[A]	20				
Nominal Discharging Current[A]	20				
Communication	CAN				
User Interface	LED				
Ingress Protection	NEMA 4X				
Cooling Concept	Natural Convection				
Operating Temperature	-20°C ~ 55°C (For Both Charging & Discharging)				
Storage Temperature	-20°C ~ 55°C				
Humidity	5% ~ 95%				
Altitude	2000				
Cycle Life	6000				
Warranty[Years]	10				
Dimension[mm]	710× (850+800) ×170	710× (850+1170) ×170	710× (1220+1170) ×170	710× (1590+1170) ×170	710× (1960+1170) ×170
Weight[Kg]	104+104	104+154	154+154	204+154	254+154



HIENERGY SERIES G2 THREE PHASE RESS
Three-phase Solution

2023 TOTAL REVENUE (USD)

51.68 B

2023 NET PROFIT (USD)

4.66 B

NUMBER OF EMPLOYEES

190 K+

BY S&P/MOODY'S/FITCH CREDIT RATINGS

A/A3/A

FORTUNE GLOBAL 500 2024

277

FORBES GLOBAL 2000 2023

199

BRAND FINANCE 2023 TOP 500 MOST VALUABLE BRANDS

198

BRAND FINANCE 2023 TOP 100 MOST VALUABLE TECH BRANDS

36

LEADING ODM PROVIDER OF GREEN ENERGY PRODUCTS

ODM VALUE CHAIN A REPEATABLE PATH FOR EXCELLENCE IN QUALITY DELIVERY

GLOBAL R&D STRATEGY

4 Research Institutes

Central Academy
Industrial Technology Research Institute
Industrial Technology Research Institute
AI Research Institute

33 R&D Centers

50+ Core Laboratory

25% Masters & PhDs

Aesthetics & Design Center

BILLION LEVEL SUPPLY CHAIN

27.6 B Procurement Volume

100 K+ Supplier System

100% Quality Sampling

Top 5 Supplier Resources

INTELLIGENT MANUFACTURING

50+ Years Manufacturing Experience

40 Global Manufacture Centers

100 K GMP Cleanroom

Inhouse Production Lines
Beijing & Anqing Manufacturing Center

Lighthouse / Digital Factory

QUALITY CONTROL

130 M Dollars Investment

1st in Industry to Conduct:

Mechanical back-to-back test
Simulation test
Motor Load Test

CSA Cooperative Sightings Lab

UL/CE Certificates

HIENERGY SERIES G2 THREE PHASE RESS



- SUPERIOR PERFORMANCE**
 - DC Input Current Up to 20A
 - Up to 200% PV Input Power
 - Up to 25A EPS Output Current
 - Shadow Scan For Optimal Production
- FLEXIBLE APPLICATION**
 - Smart Swap Battery
 - AC Couple, 6-Period TOU & Peak Shaving Functionality
 - String Monitoring & IV Curve Diagnosis
 - Installation < 15 min & Commissioning < 5 min
- INTEGRATED CONTROL**
 - <10ms On-Grid to Off-Grid Transition
 - Up to 6 PCS Parallel Operation
 - VPP Ready for Various Application
 - Smart Midea Heat Pump Control
- TRUSTED RELIABILITY**
 - ISO 13849 Function Safety & IEC 62443 Cyber Security
 - 8 Level Cell Safety Protection
 - IP66 Design for Outdoor Application
 - AFCI Integrated for Higher Safety

PRODUCT PARAMETER

	MH-HYV5.0-THE	MH-HYV6.0-THE	MH-HYV8.0-THE	MH-HYV10.0-THE	MH-HYV10.0-THE-BE	MH-HYV12.0-THE	MH-HYV15.0-THE
PV Input							
Max. PV array power[W]	10000	12000	16000	20000	20000	24000	30000
Max. open circuit voltage[V]	1000						
Max. input current per string[A]	20						
Max. short circuit current per string[A]	25						
MPPT voltage range[V]	180-850						
Start operating voltage[V]	200						
No. of MPP tracks	2						
String per MPP tracker	1/1						
BAT Input							
Battery type	LFP						
Max. charge/discharge power [W]	5000	6000	8000	10000	10000	12000	15000
Battery voltage range [V]	320-495						
Max. charge/discharge current [A] ²	25	25	25	37	37	37	50
AC Grid Input							
Nominal Apparent Power from Utility Grid [VA]	10000	12000	16000	20000	20000	24000	30000
Max. Apparent Power from Utility Grid [VA]	10000	12000	16000	20000	20000	24000	30000
Nominal AC current[A]	15.2	18.2	24.3	30.4	30.4	36.5	43
Max AC current[A]	15.2	18.2	24.3	30.4	30.4	36.5	43
Nominal grid voltage[V]	415/240 ~ ;400/230 ~ ;380/220V ~ ;3L/N/PE						
Nominal grid frequency[Hz]	50/60						
AC Grid Output							
Nominal AC output power[W]	5000	6000	8000	10000	10000	12000	15000
Max. AC output power[W]	5500	6600	8800	11000	10000	13200	16500
Max apparent power to Utility Grid [VA]	5000	6000	8000	10000	10000	12000	15000
Nominal grid voltage[V]	415/240 ~ ;400/230 ~ ;380/220V ~ ;3L/N/PE						
Nominal grid frequency[Hz]	50/60						
Max output AC current[A]	8.4	10	13.4	16.7	15.2	20	25
Nominal output AC current[A]	7.6	9.1	12.2	15.2	15.2	18.2	22.8
Displacement power factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
THDI[%]	<3@Rated power						
EPS(Off-grid) Output							
Nominal EPS output apparent power [VA]	5000	6000	8000	10000	10000	12000	15000
Nominal EPS output power[W]	5000	6000	8000	10000	10000	12000	15000
Max. EPS output apparent power	5500	6600	8800	11000	10000	13200	16500
Off Grid[VA]							
Max. EPS output apparent power On Grid[VA]	5500	6600	8800	11000	10000	13200	16500
Nominal voltage[V], frequency[Hz]	380/400, 50/60						
Max output current[A]	8.4	10	13.4	16.7	15.2	20	25
Nominal output current[A]	7.6	9.1	12.2	15.2	15.2	18.2	22.8
On Grid to Off Grid Transition[ms]	<10						
THDv[%]	<3@Rated power						
Efficiency							
MPPT efficiency[%]	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Euro efficiency[%]	97.0	97.0	97.0	97.0	97.0	97.0	97.0
Max.efficiency[%]	97.5	97.5	97.5	97.5	97.5	97.5	97.5
Battery charge/discharge efficiency[%]	97.6PV-BAT 96.0BAT-AC	97.6PV-BAT 96.0BAT-AC	97.6PV-BAT 95.4BAT-AC	97.6PV-BAT 95.4BAT-AC	97.6PV-BAT 95.4BAT-AC	97.6PV-BAT 95.4BAT-AC	97.6PV-BAT 95.4BAT-AC