

# **Single Phase ESS Hybrid Inverter**

Compatible with Midea Smart Low Voltage ESS

ME-HS5L-A - 5kW



## **Energy Independence**

- Typical 10ms fast transition to backup mode during power outage
- < 2 Hours (5kW/5kWh system) high efficiency circulation for charging and discharging
- Supports standby diesel generator



## Midea EMS Supports Maximum Self-sufficiency

• 90% energy self-sufficiency with Midea EMS connect with heat pump



### **High Yield**

- DC Max. efficiency 97.3%
- Battery charge/discharge efficiency 94%





# Midea Residential Energy Storage System

Model	ME-HS5L-A	
Input (PV)	WIL-H35L-A	
Max. PV Power (W)	9000	
	550	
Max. PV voltage (V)	90~520	
MPPT voltage range (V)		
Max. input current of single MPPT(A)	15	
MPPT tracker/strings	2/1	
Max. short current (A)	20	
Start operating voltage (V)	90	
Input (BAT)		
Compatible battery type	Lithium-iron/Lead-acid	
Battery voltage range (V)	40~60	
Max. charge current (A)	120	
Max. discharge current (A)	120	
Max. charge/discharge power (W)	5000/5000	
Max. charging voltage(V)	60	
Output (Grid)		
Rated output power(VA)	5000	
Max. AC output apparent power (VA)	5500	
Max. AC output current (A)	25	
Rated AC voltage (V)	220	
AC voltage range (V)	150~300	
Rated grid frequency (Hz)	50/60	
AC output topology	L+N+PE	
Power factor	0.8 lagging-0.8 leading	
THDI	<3%	
Output (Back up)		
Nominal output voltage (V)	230	
Nominal output frequency (Hz)	50/60	
Nominal output power (VA)	5000	
Nominal output current (A)	21.7	
Transfer time (ms)	10(typ) /20(max)	
THDu	<3%	
Efficiency	700	
Battery charge /discharge efficiency	94%	
DC Max. efficiency	97.30%	
Europe efficiency		
	95.5%	
	99.90%	
General data		
General data Max. operation altitude (m)	2000 (derating above 2000m)	
General data Max. operation altitude (m) Noise emission (dB)	2000 (derating above 2000m) <35	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree	2000 (derating above 2000m)  <35 IP65	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)	2000 (derating above 2000m)  <35  IP65  -25~60	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)	2000 (derating above 2000m)  <35  IP65  -25~60  0~100 (non-condensing)	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling	2000 (derating above 2000m)  35 IP65 -25~60 0~100 (non-condensing) Natural	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)	2000 (derating above 2000m)  <35 IP65 -25~60 0~100 (non-condensing) Natural 550*200*520	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)	2000 (derating above 2000m)  35 IP65 -25~60 0~100 (non-condensing) Natural	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer	2000 (derating above 2000m)  <35 IP65 -25~60 0~100 (non-condensing) Natural 550*200*520	
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General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection	2000 (derating above 2000m)  <35 IP65  -25~60  0~100 (non-condensing)  Natural  550*200*520  25  No	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch	2000 (derating above 2000m)  <35 IP65  -25~60  0~100 (non-condensing)  Natural  550*200*520  25  No <10	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection	2000 (derating above 2000m)  <35 IP65 -25~60 O~100 (non-condensing) Natural 550*200*520 25 No <10 Support	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection	2000 (derating above 2000m)  <35 IP65 -25~60 O~100 (non-condensing) Natural 550*200*520 25 No <10 Support Support	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  Overpower protection	2000 (derating above 2000m)  35 IP65  -25~60  0~100 (non-condensing)  Natural  550*200*520  25  No  10 Support  Support  Support  Support  Support	
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General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC overcurrent protection  Insulation detection  Display and communication	2000 (derating above 2000m)  <35 IP65 -25~60 O~100 (non-condensing) Natural 550*200*520 25 No <10 Support	
MPPT efficiency  General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC short circuit protection  Insulation detection  Display and communication  Display  Communication interface	2000 (derating above 2000m)  <35 IP65 -25~60 O~100 (non-condensing) Natural 550*200*520 25 No <10 Support	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC overcurrent protection  Insulation detection  Display and communication  Display  Communication interface	2000 (derating above 2000m)  35 IP65 -25~60 0~100 (non-condensing) Natural 550*200*520 25 No <10 Support	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC short circuit protection  Insulation detection  Display and communication  Display  Communication interface  Certification	2000 (derating above 2000m)  335 IP65 -25°60 0°100 (non-condensing) Natural 550*200*520 25 No <10 Support LED+APP RS485, CAN, DRM/RS485 (for Meter), Optional: WiFi	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC short circuit protection  Insulation detection  Display and communication  Display  Communication interface  Certification  Grid	2000 (derating above 2000m)  335 IP65 -25°60 0°100 (non-condensing) Natural 550*200*520 25 No 410 Support Suppor	
General data  Max. operation altitude (m)  Noise emission (dB)  Ingress protection degree  Operating temperature range (° C)  Relative humidity (%)  Cooling  Dimensions (W*D*H) (mm)  Weight (Kg)  Isolation transformer  Self-consumption (W)  Protection  DC switch  DC reverse polarity protection  Over temperature protection  AC overcurrent protection  AC overcurrent protection  Insulation detection  Display and communication	2000 (derating above 2000m)  335 IP65 -25°60 0°100 (non-condensing) Natural 550*200*520 25 No <10 Support LED+APP RS485, CAN, DRM/RS485 (for Meter), Optional: WiFi	

<sup>\*</sup> Appearance and parameters are subject to adjustment without prior notice



# **Smart Low Voltage EnergyStorage**

(Compatible with Single Phase Hybrid Inverter)

Safe & Reliable CATL Lithium Ion Phosphate (LFP) Cell

ME-B5L-S - 5.12 kWh



#### **Reliable & Friendly Installation**

- CATL Grade-A battery cells inside
- Wall/floor mount with mating connector to make installation easier
- Compact size, 53kg light weight



### Patented Charging & Discharging Technology

- Auto cell balance technology ensures longer lifetime
- Smooth battery charge/discharge current



#### **Flexible Expansion**

- Supports multiple expansions options refer to user manual
- Max Scale up to 5kWh x 15 battery units in Parallel (max 75kWh on DC)
- Max Scale up to 3 x 5Kwh Inverters in Parallel (max 75kWh batteries x 3 = 225kWh Max on AC)



Midea



Model	ME-B5L-S			
Battery Parameters				
Nominal Voltage	51.2V			
Nominal Energy	5.12kWh			
Discharge Voltage	45~54V			
Charge Voltage	51.5~57.6V			
Con. Charging Current	60A			
Con. Discharge Current	60A			
Max. Discharge Current	99A			
Con. Discharge DC Power	3000W			
Max. Discharge DC Power	5000W			
Operating Temperature	Charge: 0~50°C Discharge: -20~50°C			
General Data				
Scalability	Paralleling Max 15, refer to user manual			
DoD	90%			
Communication	CAN/RS485			
Cycle Life	≥ 6000cycles			
IP Grade	IP31			
Installation	Wall mount / Floor-standing			
Dimension [W*D*H]	450*205*535(mm)			
Weight	5 3 Kg			
Warranty	5 years product warranty, 10 years performance warranty			
Certification	UN38.3/CE/IEC62619			
* When the temperature < 0°C or > 45°C, the product performance is limited.				

 $<sup>\</sup>ensuremath{^{*}}$  Appearance and parameters are subject to adjustment without prior  $\ensuremath{\mathsf{notice}}$ 



# **Single Phase ESS Hybrid Inverter**

Compatible with Midea Smart Low Voltage ESS

ME-HS8L - 8kW



## **Energy Independence**

- Typical 10ms fast transition to backup mode during power outage
- 4 MPPT trackers
- Supports standby diesel generator



## Midea EMS Supports Maximum Self-consumption

• 78% self-consumption with Midea EMS system connect with heat pump



## **High Yield**

- DC Max. efficiency 97%, Battery charge/discharge efficiency 97.2%
- Max. charging/discharging current up to 190A

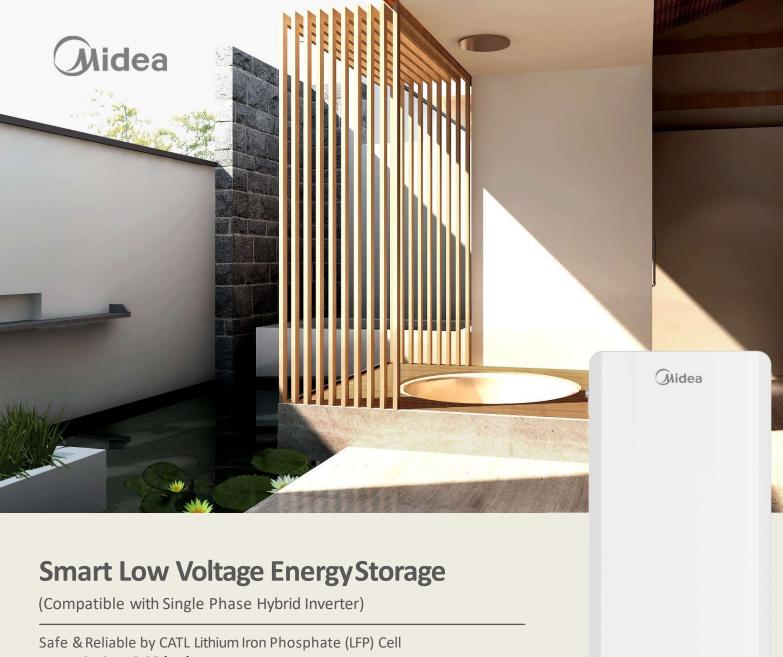




# Midea Residential Energy Storage System

Model	ME-HS8L	
Input (PV)	INIE-1129F	
	12000	
Max. PV Power (W)	500	
Max. PV voltage (V)	120~500	
MPPT voltage range (V)		
Max. input current of single MPPT(A)	12	
MPPT tracker/strings	4/1	
Max. short current (A)	15	
Start operating voltage (V)	120	
Input (BAT)		
Compatible battery type	Lithium-iron/Lead-acid	
Battery voltage range (V)	40~60	
Max. charge current (A)	190	
Max. discharge current (A)	190	
Max. charge/discharge power (W)	8000/8000	
Max. charging voltage(V)	60	
Output (Grid)		
Rated output power(VA)	8000	
Max. AC output apparent power (VA)	8800	
Max. AC output current (A)	38.3	
Rated AC voltage (V)	230	
AC voltage range (V)	220,230,240	
Rated grid frequency (Hz)	50/60	
AC output topology	L+N+PE	
Power factor	0.8 lagging-0.8 leading	
THDI	<3%	
Output (Back up)		
Nominal output voltage (V)	220,230,240	
Nominal output frequency (Hz)	50/60	
Nominal output power (VA)	8000	
Nominal output current (A)	38.3	
Transfer time (ms)	10(typ) /20(max)	
THDu	<2%	
Efficiency		
Battery charge /discharge efficiency	97.20%	
DC Max. efficiency	97.00%	
Europe efficiency	97.80%	
MPPT efficiency	99.90%	
General data		
Max. operation altitude (m)	2000 (derating above 2000m)	
Noise emission (dB)	<35	
Ingress protection degree	IP65	
Operating temperature range (° C)	-25~60	
Relative humidity (%)	0~95 (non-condensing)	
Cooling		
Dimensions (W*D*H) (mm)	Fan Cooling 460*225*760	
Weight (Kg)		
Isolation transformer	41	
Self-consumption (W)	No	
Protection (w)	< 5	
DC switch	Support	
	Support	
DC reverse polarity protection		
Over temperature protection	Support	
Overpower protection	Support	
AC overcurrent protection	Support	
ACshort circuit protection	Support	
Insulation detection	Support	
Display and communication		
Display	LED+APP	
Communication interface	RS485, CAN, DRM/RS485 (for Meter), Optional: WiFi	
Certification		
	NRS097-2-1	
Grid	NN3097-2-1	
Grid Safety	IEC 62109-1/-2	

<sup>\*</sup> Appearance and parameters are subject to adjustment without prior notice



ME-B12L-S – 12.28 kWh ME-B15L-S - 15.46 kWh



#### **More Usage Scenarios**

- Flexible expansion to meet light commercial ESS system
- Supports multiple expansions options refer to user manual
- Max Scale up 12kWh / 15kWh x 12 battery units in Parallel (max 144kWh / 180kWh on DC)
- Max Scale up to 3 x Inverters in Parallel (max 144kWh/180kWh batteries x 3 = 432kWh /540kWh Max on AC)



### Reliable and Patented Charging & Discharging Technology

- CATL Grade-A battery cells inside
- Auto cell balance technology ensures longer lifetime



### **Easy Installation**

- Wall/floor mount with mating connector to make installation easier
- Compact size, only 120kg light weight for 15kWh





Model	ME-B12L-S	ME-B15L-S		
Battery Parameters				
Nominal Voltage	51.2V			
Nominal Energy	12.28kWh	15.46kWh		
Discharge Voltage	45~54V			
Charge Voltage	51.5~57.6V			
Con. Charging Current	200A			
Con. Discharge Current	200A			
Max. Discharge Current	230A			
Con. Discharge DC Power	10,000W			
Max. Discharge DC Power	30,000W / More than 4 units in parallel			
Operating Temperature	Charge:0~55°C Discharge:-20~60°C			
General Data				
Scalability	Paralleling Max 12, refer to user manual			
DoD	90%			
Communication	CAN/RS485			
Cycle Life	≥6000cycles			
IP Grade	IP31			
Installation	Wall mount / Floor-standing			
Dimension [W*D*H]	460*200*980(mm)	460*230*980(mm)		
Weight	113 Kg	120 Kg		
Warranty	5 years product warranty, 10 years performance warranty			
Certification	UN38.3/CE/IEC62619			
* When the temperature $< 0^{\circ}$ C or $> 45^{\circ}$ C, the product performance is limited.				

 $<sup>\</sup>ensuremath{^{*}}$  Appearance and parameters are subject to adjustment without prior  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left($