

# 3-8kW Hybrid Inverter

MHS-3/3.6/4.2/5/6/8K-30

97.6%

Max. Efficiency

15A

PV Input Current

30A

Charge/Discharge

10ms

UPS-level Switch



Residential

Single-Phase

HV Battery



## Optimal Power & Storage

- 97.6% Max. Efficiency
- 15A PV input current per string, 1-2 MPP trackers
- 30A charge/discharge current



## Strong Load & Back-up

- 110% continuous AC output overloading
- 130% max. back-up output overloading @60s
- 160% DC oversizing



## Convenient Installation & Operation

- Plug & Play terminals for easy wiring
- Solinteg I-light, power and alarm indicator
- OLED display and App for setting and data management



## Flexible Design & Use

- 85-450V wide battery voltage range
- IP65 for indoor and outdoor installation
- Compact size and elegant appearance

# Integ M Series

## The Power Master

Model	MHS-3K-30	MHS-3.6K-30	MHS-4.2K-30	MHS-5K-30	MHS-6K-30	MHS-8K-30	
<b>PV Input</b>							
Recommended Max. input power	[kW]	4.80	5.76	6.72	8.00	12.80	
Start-up voltage	[V]	80	80	80	80	80	
Max. DC input voltage*	[V]	600*	600*	600*	600*	600*	
Rated DC input voltage	[V]	360	360	360	360	360	
MPPT voltage range*	[V]	100-550*	100-550*	100-550*	100-550*	100-550*	
No. of MPP trackers		1	1	2	2	2	
No. of DC inputs per MPPT		1	1	1/1	1/1	1/1	
Max. input current	[A]	15	15	15/15	15/15	15/15	
Max. short-circuit current	[A]	20	20	20/20	20/20	20/20	
<b>Battery Side</b>							
Battery type		Lithium Battery (with BMS)					
Battery voltage range	[V]	85-450					
Maximum charging/discharge current	[A]	30/30					
<b>Grid Side</b>							
Rated output power	[kW]	3.00	3.60	4.20	5.00 <sup>3)</sup>	6.00	8.00
Max. output apparent power	[kVA]	3.30	3.96 <sup>1)</sup>	4.60	5.50 <sup>4)</sup>	6.60	8.00
Max. input apparent power**	[kVA]	6.00	7.20	8.40	10.00	10.00	12.00
Max. charging power of battery	[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Rated AC voltage		L/N/PE; 220/230/240V					
Rated AC frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Max. output current	[A]	15.00	18.00 <sup>2)</sup>	21.00	25.00 <sup>5)</sup>	28.70	36.30
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	<0.5%In	<0.5%In
<b>Back-up Side</b>							
Rated output power	[kW]	3.00	3.60	4.20	5.00	6.00	8.00
Max. output apparent power	[kVA]	3.30	3.96	4.60	5.50	6.60	8.00
Max. output current	[A]	15.00	18.00	21.00	25.00	28.70	36.30
UPS switching time		<10ms	<10ms	<10ms	<10ms	<10ms	<10ms
Rated output voltage		L/N/PE; 220/230/240V					
Rated output frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60
Voltage harmonic distortion		<3% @Linear load					
<b>Efficiency</b>							
Max. efficiency		97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
European efficiency		97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
<b>Protection</b>							
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					
<b>General Data</b>							
Over voltage category		PV: II Main: III					
Dimensions	[W×H×D mm]	534×418×210					
Weight	[KG]	27.0					
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		Natural Convection					
Noise Level	[dB]	<25					
Display		OLED & LED					
Communication		CAN, RS485, WiFi/LAN (Optional)					

\* PV Max. Input voltage is 550V without battery, or 500V with battery, otherwise inverter will be waiting;

\*\* 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;

1) G98: 3.68kVA; 2) G98: 16.00A; 3) AS 4777.2: 5.0kW, VDE-AR-N 4105: 4.6kW; 4) AS 4777.2: 5.0kVA, VDE-AR-N 4105: 4.60kVA, C10/11: 5.0kVA;

5) AS 4777.2: 21.7A, VDE-AR-N 4105: 21.0A, C10/11: 21.7A;