



Hybrid Inverter 3-8kW

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

15A

Max. PV Input Current

80V

Start-up Voltage

30A

Max. Charge/Discharge

Residential | Single-Phase | HV Battery | 1-2 MPPTs



Maximized Energy Harvesting

- 160% DC oversizing boost solar capture
- Starts at 80V for more generation time
- Continuous 110% AC overloading sustains power
- Smooth transition to backup power ensures continuity during power outages



Engineered for Versatility

- Wide 85-450V range fits diverse batteries
- IP65 protects both indoors and outdoors
- Silent 25dB operation for comfort



Intelligent Energy Dynamics

- 7 work modes for diverse use
- The newly enhanced Solinteg EMS platform for peak intelligent energy management
- Centralized smart management for efficiency



Simplified Interaction

- Remote upgrades maintain system health
- Solinteg I-light for quick status checks
- OLED and App for easy control



Integ M Series

The Power Master



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Models		MHS-3K-30	MHS-3.6K-30	MHS-4.2K-30	MHS-5K-30	MHS-6K-30	MHS-8K-30
PV Side							
Max. PV Array Power	[kWp]	4.8	5.8	6.7	8	9.6	12.8
Max. PV Input Voltage *	[V]	600*					
Rated PV Input Voltage	[V]	360					
Start-up Voltage	[V]	80					
MPPT Operating Voltage Range *	[V]	100-550*					
No. of MPP Trackers		1	1	2	2	2	2
No. of Strings per MPPT		1	1	1/1	1/1	1/1	1/1
Max. Input Current per MPPT	[A]	15	15	15/15	15/15	15/15	15 / 15
Max. Short-circuit Current per MPPT	[A]	20	20	20/20	20/20	20/20	20/20
Battery Side							
Battery Type		Litnum-lion					
Battery Voltage Range	[V]	85-450					
No. of Battery Input		1					
Max. Charging/Discharge Current	[A]	30/30					
Max. Charging/Discharge Power	[W]	3/3	3.6/3.6	4.2/4.2	5/5	6/6	8/8
Grid Side (On-Grid)							
Rated Output Power	[kW]	3	3.6	4.	5(3)	6	8
Max. Output Apparent Power	[kVA]	3.3	3.96(1)	2	5.5(4)	6.6	8
Rated AC Voltage	[V]	4L/N/PE; 220/230/240V					
Rated AC Frequency	[Hz]	6 50/60					
Rated Output Current	[A]	13.6/13/12.5	16.4/15.7/15	19.1/18.3/17.5	22.7/21.7/20.8	27.3/26.1/25	36.3/34.8/33.3
Max. Output Current	[A]	15	18(2)	21	25	28.7	36.3
Power Factor		0.8 leading ...0.8 lagging					
THDi (@Rated Power)		<3%					
Max. Input Apparent Power **	[kVA]	6	7.2	8.4	10	10	12
Rated AC Voltage	[V]	L/N/PE; 220/230/240V					
Rated AC Frequency	[Hz]	50/60					
Max. AC Input Current	[A]	27.3	32.7	38.2	45.5	45.5	54.5
Back-up Side (Off-Grid)							
Rated Output Power	[kW]	3.0	3.6	4.2	5.0	6.0	8.0
Peak Output Apparent Power	[kVA]	5.46@10s	5.46@10s	5.46@10s	7.8@10s	7.8@10s	10.4@10s
Rated Output Voltage	[V]	L/N/PE; 220/230/240V					
Rated Output Frequency	[Hz]	50/60					
Rated Output Current	[A]	13.6/13/12.5	16.4/15.7/15	19.1/18.3/17.5	22.7/21.7/20.8	27.3/26.1/25	36.3/34.8/33.3
On/Off-grid Switching Time	[ms]	< 10ms					
THDv (@Linear Load)		<3%					
Efficiency							
MPPT Efficiency		99.90					
Max. Efficiency		%					
European Efficiency		97.60					
Protection							
		%					
Integrated Protection		DCreversepolarityprotection/Batteryinputreverseconnectionprotection/Insulationresistance protection / Surgeprotection(DC/AC:Typell/Typell)/Over-temperatureprotection/Residualcurrentprotection / Islandingprotection /ACover-voltage protection /Overloadprotection /ACshort-circuitprotection					
General Data							
Dimensions	[W×H×D mm]	534×418×210					
Weight	[KG]	27					
Ingress Protection		IP65					
Standby Self-consumption	[W]	< 15					
Topology		Transformerless					
Operating Temperature Range	[°C]	-30~60					
Relative Humidity	[%]	0~100					
Max. Operation Altitude	[m]	3000					
Over Voltage Category		II(PV+Battery), III(Mains)					
Cooling		Natural Convection					
Noise Level		<25					
Display	[dB]	LED & OLED					
Communication		CAN, RS485					

* 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) VDE-AR-N 4105: 4.6kW; (4) VDE-AR-N 4105: 4.60kVA;

