

IHY-50KH3S

Hybrid Inverter



50kW | 3P-Hybrid

■ Maximized Energy Harvesting

- 100% Unbalanced Output Enhances Self-consumption
- 150A Charge/Discharge for Efficient Energy Transfer
- 150-840V Super Wide Battery Voltage Range
- 160% DC Oversizing Boosts Efficiency
- 20A PV Input Current per String, 4 MPPT Trackers

■ Engineered for Versatility

- Max. Parallel Number 10
- 150% Max Backup @10s Handles Overloads
- IP66 Protection for Indoor & Outdoor Use
- Supports Half-wave Loading

■ Intelligent Energy Dynamics

- Six Work Modes for Diverse Use
- Supports both TOU and Dynamic Pricing Strategies for Optimized Energy Use and Cost Savings
- Supports Diesel Generators for Diverse Energy Sourcing

■ Simplified Interaction

- Remote Upgrades Maintain System Health
- Fast Commissioning through Bluetooth
- Advanced EMS Platform for Peak Intelligent Energy Management

Model	IHY-50KH3S
Efficiency	
MPPT Efficiency	99.90%
PV Input	
Max. PV Input Power (kW)	75
Max. DC Input Voltage (V)	1000
Start-up Voltage (V)	135
MPPT Voltage Range (V)	200~950
Max. Input Current (A)	40/40/40/40
Number of MPPT	4
Number of Strings per MPPT	2
AC Input	
Nominal Input Voltage (Vac)	220/380V; 230/400V; 240/415V (3L+N+PE)
Max. AC Input Current (A)	121.2
Nominal Operating Frequency (Hz)	50/60
Max. Input Apparent Power (kVA)	80
AC Output	
Nominal AC Output Power (kW)	50
Max. Output Apparent Power (kVA)	50
Nominal AC Output Voltage (Vac)	220/380V; 230/400V; 240/415V (3L+N+PE)
Max. Output Current (A)	75.8
Total Current Harmonic Distortion	<3%
Nominal AC Frequency (Hz)	50/60
Switch Time (ms)	<10*
Surge Power (kVA)	75
Overload Capability	110%<Load≤150% @ 10s
Battery	
Battery Type	Lithium-ion
Battery Voltage Range (V)	150-840
Number of Battery Input	1
Max. Charge/Discharge Current (A)	150/150
Max. Charge/Discharge Power (kW)	50/50
General	
Dimensions (L*W*H, mm)	909*735*305
Net Weight (kg)	89
Operating Temperature Range (°C)	-30 ~ +60 (>45°C Power Derating)
Max. Operating Altitude (m)	3000
Communication	Wi-Fi/CAN/RS485/Dry Contact/LAN (Optional)
Diesel Generator Support	Yes
Smart Load Support	Yes
Parallel Capability	10
Cooling Method	Intelligent Fan Cooling
Noise (dB)	<65
Authentication Level	IEC62109/IEC61000
Protection	
Ingress Protection	IP66
Overvoltage Protection	Yes
Overload Protection	Yes
Short Circuit Protection	Yes
Over Temperature Protection	Yes
Surge Protection	DC: TYPE II; AC: TYPE III

* Switch time (ms) for single unit

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