Pure Sine Wave
Hybrid Solar Inverter

M-HF6000-24 S3.6US

Single phase





German Technology Grade A

- CT Anti-Backflow, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Load.
- Peak Shaving, Smart Tariff Management.
- Single Channel 27A / 6000W, 500V High Open-Circuit Voltage.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 140A Continuous Discharge, 120A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF6000-24 S3.6US

DC Input (PV)	
Max DC Input Power	6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	40Aac
Max AC Charge Current	80Adc
AC Output	
Rated AC Output Power	3600W
Max AC Output Power	3600VA
Peak Power / Duration	5400VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	28.8Vdc
Min Start Voltage	22V
Battery Voltage Range	20~33Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	20~33Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	8.2kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	Not Supported
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF6000-48 S3.6US

Single phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow, Zero Feed-in Protection
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Load
- Peak Shaving, Smart Tariff Management
- Single Channel 27A / 6000W, 300V High Open-Circuit Voltage
- 6-Unit Parallel, Up to 21.6kW per Split-Phase / Three-Phase Group
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- Battery 85A Continuous Discharge, 80A Max Charge
- Dry Contact Diesel Generator Control
- Battery-less Operation, Solar + Grid Direct Supply
- Dual PV / Grid Source Battery Activation

M-HF6000-48 S3.6US

DC Input (PV)	
Max DC Input Power	6000W
Max DC Input Voltage	300V
Start Voltage	120V
PV Input Voltage Range	90~300V
MPPT Voltage Range	90~260V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	80A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	40Aac
Max AC Charge Current	60Adc
AC Output	
Rated AC Output Power	3600W
Max AC Output Power	3600VA
Peak Power / Duration	5400VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92.3%
Battery Parameters	
Rated Battery Voltage	48Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	80A/85A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	7.8kg
Operating Temperature	-10°C to 55°C (Derating above 45°C)
Storage Temperature	-25°C~60°C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF9000-48 S6.2US-S

Split phase





German Technology Grade A

- CT Zero export to grid.
- Inverter and Grid hybrid Power supply capable of withstanding continuous impact loads.
- usable PV power up to 125% inverter rated power, Dual-channel MPPT, 27A PV input.
- 125% EPS peak output in 5s.
- UPS-Level Switching time down to 10ms.
- Support faster charging with battery current up 120A. Support diesel generator input.
- Supports use without battery. PV and grid can supply power to load together.
- Easy & intuitive capacitive touch screen.
- Remote diagnostics & OTA update.

M-HF9000-48 S6.2US-S

DC Input (PV)	
Max DC Input Power	9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	40Aac
Max AC Charge Current	100Adc
AC Output	
Rated Output Power (Per Phase)	6200W
Rated Output (Same Phase)	4800W
Peak Power (Per Phase)	9300VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	420×330×122mm
Weight	12kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	Not Supported
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF9000-48 S6.2US

Single phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- Single Channel 27A / 9000W, 500V High Open-Circuit Voltage.
- 6-Unit Parallel, Up to 37.2kW per Split-Phase / Three-Phase Group.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 140A Continuous Discharge, 120A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF9000-48 S6.2US

DC Input (PV)	
Max DC Input Power	9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	60Aac
Max AC Charge Current	100Adc
AC Output	
Rated AC Output Power	6200W
Max AC Output Power	6200VA
Peak Power / Duration	9300VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	51.2Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	60A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	420×330×122mm
Weight	12kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi/CAN
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter
M-HF9000-48 S6.2US-S

Split phase





German Technology Grade A

- CT Zero export to grid.
- Inverter and Grid hybrid Power supply capable of withstanding continuous impact loads.
- usable PV power up to 125% inverter rated power, Dual-channel MPPT, 27A PV input.
- 125% EPS peak output in 5s.
- UPS-Level Switching time down to 10ms.
- Support faster charging with battery current up 120A. Support diesel generator input.
- Supports use without battery. PV and grid can supply power to load together.
- Easy & intuitive capacitive touch screen.
- Remote diagnostics & OTA update.

M-HF9000-48 S6.2US-S

DC Input (PV)	
Max DC Input Power	9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	40Aac
Max AC Charge Current	100Adc
AC Output	
Rated Output Power (Per Phase)	6200W
Rated Output (Same Phase)	4800W
Peak Power (Per Phase)	9300VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	420×330×122mm
Weight	12kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	Not Supported
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF9000-48 S6.5US

Single phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- 9kW Dual MPPT, 22A / 4500W per Channel.
- 6-Unit Parallel, Up to 39kW per Split-Phase / Three-Phase Group.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 153A Continuous Discharge, 120A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF9000-48 S6.5US

DC Input (PV)	
Max DC Input Power	4500W+4500W
Max DC Input Voltage	300V
Start Voltage	120V
PV Input Voltage Range	90~300V
MPPT Voltage Range	90~260V
MPPT Channels	2
Max MPPT Input Current	22A
Max PV Charging Current	150A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	60Aac
Max AC Charge Current	120Adc
AC Output	
Rated AC Output Power	6500W
Max AC Output Power	6500VA
Peak Power / Duration	9750VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	48Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/153A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	540×350×120mm
Weight	18.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF10000-48 S8US-S

Split phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- 10kW Dual MPPT, 18A / 5000W per Channel.
- 6-Unit Parallel Expansion, Up to 48kW Three-Phase System.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 180A Continuous Discharge, 160A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF10000-48 S8US-S

DC Input (PV)	
Max DC Input Power	5000W+5000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	18A+18A
Max PV Charging Current	160A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	50Aac
Max AC Charge Current	120Adc
AC Output	
Rated Output Power (Per Phase)	8000W
Rated Output (Same Phase)	6000W
Peak Power (Per Phase)	12000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	160A/180A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	50A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	580x359x127mm
Weight	15.9kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating）
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF12000-48 S10US-S

Split phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- 12kW Dual MPPT, 22A / 6000W per Channel.
- 6-Unit Parallel Expansion, Up to 60kW.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 220A Continuous Discharge, 220A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF12000-48 S10US-S

DC Input (PV)	
Max DC Input Power	6000W+6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	22A+22A
Max PV Charging Current	220A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60Aac
Max AC Charge Current	120Adc
AC Output	
Rated Output Power (Per Phase)	10000W
Rated Output (Same Phase)	7200W
Peak Power (Per Phase)	15000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	220A/220A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	620×450×132mm
Weight	23.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter
M-HF18000-48 S12US-S
Split phase-in Parallel





German Technology Grade A

- CT Zero export to grid.
- Inverter and Grid hybrid Power supply capable of withstanding continuous impact loads.
- Usable PV power up to 150% inverter rated power, Dual-channel MPPT, 27A*2 PV input.compatible with all residential modules and flexible arrays.
- 125% EPS peak output in 5s.
- Up to 6 inverters in parallel or change single phase system.
- UPS-Level Switching time down to 10ms.
- Support faster charging with battery current up 250A.
- Support diesel generator input.
- Easy & intuitive capacitive touch screen.
- Remote diagnostics & OTA update.
- Supports use without battery. PV and grid can supply power to load together.

Solar System Connection



M-HF18000-48 S12US-S

Parallel mode (function reserved)	
Allow quantity	1~6
Mains mode	
Nominal input voltage	120(L1/N, L2/N)/240Vac(L1/L2)
Input phase voltage range	(85Vac~140Vac)±2%
Frequency	50Hz/60Hz （Auto detection)
Frequency range	47±0.3Hz~55±0.3Hz (50Hz)； 57±0.3Hz~65±0.3Hz (60Hz);
Max. efficiency	>95%
Conversion time (bypass and inverter)	10ms (typical)
Max. bypass phase overload current	2P，63A/63A(L1/L2)
Inverter mode	
Output voltage waveform	Pure sine wave
Nominal output power （VA） / （W）	Split phase: 12000VA/12000W Single phase:7200VA/7200W (limited by the wiring terminals)
Power factor	1
Nominal output voltage (Vac)	120Vac (L1/N, L2/N)/240Vac(L1/L2)
Output frequency range(Hz)	50Hz±0.3Hz/60Hz±0.3Hz
Max. efficiency	>91%
Overload protection	(102% < load <110%) ±5%: report error and turn off the output after 5 minutes;(110% < load < 125%) ± 5%: report error and turn off the output after 10 seconds;Load >125% ±5%: report error and turn off the output after 5 seconds;
Peak power	Split phase: 18000VA Single phase: 18000VA
Loaded motor capability	6HP
Nominal battery input voltage	51.2V (Minimum starting voltage 44V)
Battery voltage range	40.0Vdc~58.6Vdc±0.6Vdc (Undervoltage alarm/shutdown voltage/overvoltage alarm /overvoltage recovery... settable on LCD screen)
Save power mode	Load≤25W enter power-saving mode
Mains charge	
Battery type	Lead acid or lithium battery
Max. charge current (configurable)	160A
Charge voltage range	40 ~58.6Vdc
Solar charge	
Max. PV open circuit voltage	500Vdc
PV operate voltage range	90Vdc~500Vdc
MPPT voltage range	90Vdc~450Vdc
Battery voltage range	40-58.6Vdc
Max. PV input power/current	9000W×2/27A×2
Charge current range (configurable)	250A
Max. hybrid charge current （PV+AC)	
Max. hybrid charge current (configurable)	0-250A
Certification	
Safety certification	UL 1741
EMC certification level	FCC part15, CLASS B
Operate temperature range	-10°C to 55°C(>45°C derating)
Storage temperature range	-25°C ~ 60°C
Humidity range	5% to 95% （Conformal coating protection)
Noise	≤60dB
Cooling	Forced air cooling, variable speed of fan
communicate	USB/RS485(/WiFi/GPRS)/ Dry node control
Dimensions （L*W*D)	620*450*132
Weight （kg)	23.8

Pure Sine Wave
Hybrid Solar Inverter

M-HF24000-48 S12US-S

Split phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- 24kW Dual MPPT, 32A / 12000W per Channel.
- 6-Unit Parallel Expansion, Up to 72kW.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 270A Continuous Discharge, 250A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF24000-48 S12US-S

DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	250A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60Aac
Max AC Charge Current	160Adc
AC Output	
Rated Output Power (Per Phase)	12000W
Rated Output (Same Phase)	7200W
Peak Power (Per Phase)	18000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	250A/270A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	620×450×132mm
Weight	23.8kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter

M-HF24000-48 S16US-S

Split phase-**in Parallel**





German Technology Grade A

- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads.
- Peak Shaving, Smart Tariff Management.
- 24kW Dual MPPT, 36A / 12000W per Channel.
- 6-Unit Parallel Expansion, Up to 72kW.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 340A Continuous Discharge, 300A Max Charge.
- Dry Contact Diesel Generator Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Dual PV / Grid Source Battery Activation.

M-HF24000-48 S16US-S

DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	36A+36A
Max PV Charging Current	300A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	90Aac
Max AC Charge Current	200Adc
AC Output	
Rated Output Power (Per Phase)	16000W
Rated Output (Same Phase)	9600W
Peak Power (Per Phase)	24000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	100A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	720×482×149mm
Weight	37.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m （2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

Pure Sine Wave
Hybrid Solar Inverter
M-HF18000-48 S12US-S Plus

—— By Pass:200A





German Technology Grade A

- This off-grid inverter does not support grid-tied operation but can utilize grid power for battery charging while directly supplying loads.
- Max. 6 inverters parallelable (72kW total output).
- The system supports lithium battery activation from both grid power and solar power sources.
- Features scheduled charging and discharging function, supporting multiple charging modes.
- The photovoltaic system features dual 12kW with a total capacity of 24kW, supporting a maximum input current of 32A per circuit.
- Equipped with AFCI detection function and RSD protection function (AFCI&RSD).
- Has photovoltaic insulation resistance detection function (ISO).
- Equipped with a dedicated generator input interface and supports dry contact control. It also features a generator efficiency enhancement function.
- Dual output interfaces (standard & smart load), with smart load configurable as AC-coupled input.
- Communication: CAN, USB, Wi-Fi, RS485 ; Control & Updates: Local & Remote
- Comes with comprehensive protection functions, including over-voltage/under-voltage protection, over-current and overload protection, reverse protection, etc.

M-HF18000-48 S12US-S Plus

Parallel mode	
Permitted parallel numb	1-6
AC mode	
Rated input voltag	120Vac (L1/N, L2/N)/240Vac(L1/L2)
Input phase voltage rang	(85Vac~140Vac) ±2%
Frequency	50Hz/60Hz (Auto detectior
Frequency Range	47±0.3Hz~55±0.3Hz(50Hz);57±0.3Hz~65±0.3Hz(60I
Overload/short circuit protecti	Circuit breake
Efficiency	>95%
Conversion time (bypass and inverte	10ms(typical
AC reverse protectio	Yes
Maximum bypass phase overload curre	2pole200A/200A(L1/L2)
Inverter mode	
Output voltage wavefor	Pure sine wave
Rated output power (VA)	Split phase:1200(
	Single phase:7200 (limited by the wiring termina
Rated output power (W)	Split phase:1200(
	Single phase:7200(limited by the wiring termina
Power facto	1
Rated output voltage (Vac	120Vac (L1/N, L2/N)/240Vac(L1/L2)
Output voltage erro	±5%
Output frequency range (Hz	50Hz±0.3Hz/60Hz±0.3I
Maximum Efficienc	>91%
Overload protection	(105%<load<110%) ±5% report error and turn off the output after 5 minu (110%<load<125%) ±5%: report error and turn off the output after 10 seconds; Load>125%±5% report error and turn off the output after 5 seco
Peak power	Split phase:18000VA
	Single phase:18000VA
Loaded motor capabili	6HP
Output short circuit protecti	Can protec, after continuous short circuit for 1 seco
Bypass circuit breaker phase specificatic	2pole200A/200A(L1/L2)
Rated battery input voltag	51.2V (Minimum starting voltage 44\
Battery voltage range	40.0Vdc~58.6Vdc±0.6Vd (Undervoltage alarm/shutdown voltage/overvoltage ala /overvoltage recover..settable on LCD screen)
Power saving mode sel-consumptio	Load per phase is null or less than 25W enter powe-saving mode
AC charging	
Battery typ	Lead acid or lithium batte
Maximum charge currer (can be set)	160A
Charge current erro	±5Ad
Charge voltage range	40-58.6Vdc
Short circuit protectic	Circuit breake and blown fus
Circuit breaker phase specificatior	2pole,63A/63A(L1/L2)
Generator Mode	
Rated inputvoltage	120(L1/N, L2/N)/240Vac(L1/L2)
Input phase voltage rang	(85Vac~140Vac) ±2%
Frequency Range	40±0.3Hz~70±0.3I
Maximum charge currer (can be set)	160A
Overload/short circuit protecti	Circuit breake
Circuit breaker phase specificatior	2pole,63A/63A(L1/L2)
PV charging	
Number of MPPT groups	2
Maximum PV open circuit voltag	500Vdc
PV operating voltage rang	90Vdc~500Vd
MPPT voltage range	90Vdc~450Vdc
Battery voltage rang	40-58.6Vdc
Maximum PV input powe	9000W+9000W
Maximum PV inpu current	32A+32A
PV charge current (can be set)	250A
Charging short circuit protecti	Circuit breake
Wiring protectio	Reverse polarity protectic
Hybrid charging Max charger current specifications (AC charger + PV charger)	
Max charger current(can be set	0-250A
Certified specifications	
Certificatio	UL1741
EMC certification levl	FCC part15, CLASS B
Operating temperature rang	-10°C to 55°C (>45°C derating
Storage temperature rang	-25°C~60°C
Humidity rang	5% to 95% (Conformal coating protectic
Noise	≤60dI
Heat dissipatio	Forced air cooling variable speed of fa
Communication interfac	USB/RS485(Wi Fi/GPRS)/Dry node contrc
Size (L*W*D)	760mm*485mm*160.8mm
Weight (kg)	35.5

Pure Sine Wave
Hybrid Solar Inverter

M-HF12000-48 S8US-S Plus

Split phase-**in Parallel**

(By Pass: 200A)





German Technology Grade A

- Whole-Home Backup.
- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- Peak Shaving, Smart Tariff Management.
- 12kW Dual MPPT, 18A / 6000W per Channel.
- 6-Unit Parallel Expansion, Up to 48kW for Medium-to-Large Off-Grid Projects.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 180A Continuous Discharge, 160A Max Charge.
- Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost.
- Independent SmartLoad Output, Microinverter Input Compatible.
- AFCI+RSD+ISO Triple Safety Protection.

M-HF12000-48 S8US-S Plus

DC Input (PV)	
Max DC Input Power	6000W+6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	18A+18A
Max PV Charging Current	160A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	120Adc
AC Output	
Rated AC Output Power	8000W
Max AC Output Power	8000VA
Peak Power	12000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	60Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	160A/180A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	160A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	50A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10°C to 55°C (Derating above 45°C)
Storage Temperature	-25°C~60°C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤60dB
Altitude	4000m（2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

Pure Sine Wave
Hybrid Solar Inverter

M-HF24000-48 S12US-S Plus

Split phase-**in Parallel**

(By Pass: 200A)





German Technology Grade A

- Whole-Home Backup.
- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- Peak Shaving, Smart Tariff Management.
- 24kW Dual MPPT, 32A / 12000W per Channel.
- 6-Unit Parallel Expansion, Up to 72kW for Medium-to-Large Off-Grid Projects.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 270A Continuous Discharge, 250A Max Charge.
- Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost.
- Independent SmartLoad Output, Microinverter Input Compatible.
- AFCI+RSD+ISO Triple Safety Protection.

M-HF24000-48 S12US-S Plus

DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	250A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	160Adc
AC Output	
Rated AC Output Power	12000W
Max AC Output Power	12000VA
Peak Power	18000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	125Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	250A/270A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	160A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	63A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10°C to 55°C (Derating above 45°C)
Storage Temperature	-25°C~60°C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

Pure Sine Wave
Hybrid Solar Inverter

M-HF24000-48 S16US-S Plus

Split phase-**in Parallel**

(By Pass: 200A)





German Technology Grade A

- Whole-Home Backup.
- CT Anti-Backflow + AC Coupling, Zero Feed-in Protection.
- Peak Shaving, Smart Tariff Management.
- 12kW Dual MPPT, 18A / 6000W per Channel.
- 6-Unit Parallel Expansion, Up to 48kW for Medium-to-Large Off-Grid Projects.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 180A Continuous Discharge, 160A Max Charge.
- Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost.
- Independent SmartLoad Output, Microinverter Input Compatible.
- AFCI+RSD+ISO Triple Safety Protection.

M-HF24000-48 S16US-S Plus

DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	36A+36A
Max PV Charging Current	300A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	200Adc
AC Output	
Rated AC Output Power	16000W
Max AC Output Power	16000VA
Peak Power	24000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	125Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	200A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	100A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m（2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

Pure Sine Wave
Hybrid Solar Inverter
M-HF24000-48 T16US

Three phase-**in Parallel**





German Technology Grade A

- Three-Phase Independent CT Anti-Backflow + AC Coupling.
- 150% Surge Peak for 5 Seconds,100% Unbalanced Load Capacity.
- Peak Shaving, Smart Tariff Management.
- 24kW Dual MPPT, 32A/12000W per Channel.
- 6-Unit Parallel Expansion, Up to 96kW.
- 10ms UPS Transfer, Uninterrupted Power for Critical Loads.
- Battery 340A Continuous Discharge, 300A Max Charge.
- Independent Diesel Generator Interface, Dry Contact Start/Stop Control.
- Battery-less Operation, Solar + Grid Direct Supply.
- Triple PV/Grid/Generator Source Battery Activation.
- AFCI+RSD+ISO Triple Protection.

M-HF24000-48 T16US

DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	300A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60A
Max AC Charge Current	200Adc
AC Output	
Rated AC Output Power	16000W
Max AC Output Power	16000VA
Peak Power	24000VA/5s
Rated Output Voltage	3L/N/PE 120/208Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+L3+N+PE
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	3L/N/PE 120/208Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	200A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	63A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	720×482×149mm
Weight	30kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	⩽ 60dB
Altitude	4000m (2000m ⩽ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 | EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Three-Phase
Communication Ports	USB/RS485/WiFi
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Three-Phase Independent CT Anti-Backflow
Special Functions	AFCI+RSD+ISO Triple Protection / 100% Unbalanced Load Capacity