

MARSRIVA

Solar Inverter

Clean Energy



MARSRIVA Technology Co., Ltd.

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Hybrid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPH1500 / 3000 / 4200 TWIN / 6200 TWIN

FEATURES

- Wide PV input range, starts from 30VDC for 1.5K / 3K / 4.2K models
- Built-in communication port for BMS
- Built-in feed-in grid function
- Built-in WiFi with APP for remote monitoring and OTA firmware upgrad
- Dual AC outputs only for 4.2K / 6.2K models
- Maximum charging current 100A/120A based on models
- Battery independent design
- Battery equalization function to optimize battery performance and extend lifecycle
- Built-in anti-dust kit



SPECIFICATION

MODEL	MR-SPH1500	MR-SPH3000	MR-SPH4200 TWIN	MR-SPF6200 TWIN
RATED POWER	1500VA / 1500W	3000VA / 3000W	4200VA / 4200W	6200VA / 6200W
INPUT				
Voltage	230VAC			
Selectable Voltage Range	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)			
Frequency Range	50Hz / 60Hz (Auto sensing)			
OUTPUT				
AC Voltage Regulation (Batt. Mode)	230VAC ± 5%			
Output Power	1500W with PV & battery, 1200W with battery only	3000W with PV & battery, 2500W with battery only	4200W with PV & battery, 4000W with battery only	6200W with PV & battery, 5000W with battery only
AC Output No.	Single	Single	Dual Outputs	Dual Outputs
Surge Power	3000VA	6000VA	8400VA	12400VA
Efficiency (Peak)	93%			
Transfer Time	10ms (For PC); 20ms (For Home Appliances)			
Waveform	Pure sine wave			
BATTERY				
Battery Voltage	12VDC	24VDC	24VDC	48VDC
Floating Charging Voltage	13.5VDC	27VDC	27VDC	54VDC
Overcharge Protection	16VDC	32VDC	32VDC	63VDC
AC CHARGING & MPPT SOLAR CHARGING				
Solar Charger Type	MPPT			
Maximum PV Array Open Circuit Voltage	350VDC	450VDC	500VDC	500VDC
Maximum PV Array Power	2000W	3000W	5000W	6500W
Maximum PV Input Current	13A	13A	18A	18A
MPP Range @ Operating Voltage	30 – 300VDC (Min. 60VDC with out battery connected)	30 – 400VDC (Min. 60VDC with out battery connected)	30 – 450VDC (Min. 60VDC with out battery connected)	90 – 450 VDC (Min. 100VDC without battery connected)
Maximum Solar Charge Current	100A	100A	120A	100A
Maximum AC Charge Current	80A	80A	100A	100A
Maximum Charge Current	100A	100A	120A	100A
PHYSICAL & COMMUNICATION				
Dimension, D x W x H (mm)	90 × 288 × 357		115 × 300 × 435	
Net Weight (kgs)	6.6	7.1	9.0	10.4
Communication Interface	RS232 / BMS / WiFi			
ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Hybrid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF1.2K(3.6K/5K/6.5K)-LP1-TL20E

FEATURES

- High frequency inverter with small size and light weight
- Pure sine wave AC output
- Solar and utility grid can power loads at the same time
- With CAN/RS485 for BMS communication
- With the ability to work without battery
- WIFI module for monitoring
- Dual AC output
- Feed-in to grid function



SPECIFICATION

MODEL	MR-SPF1.2K-LP1-TL20E	MR-SPF3.6K-LP1-TL20E	MR-SPF5K-LP1-TL20E	MR-SPF6.5K-LP1-TL20E
RATED POWER	1.2kVA / 1.2kW	3.6kVA / 3.6kW	5kVA / 5kW	6.5kVA / 6.5kW
INPUT				
Nominal Voltage	208 / 220 / 230 / 240VAC			
Voltage Range	170 – 264VAC (UPS Mode); 90 – 280VAC (APP/GEN Mode)			
Frequency Range	50 / 60Hz ±10Hz (Auto sensing)			
OUTPUT				
Nominal Output Voltage	208 / 220 / 230 / 240VAC ± 5%			
Output Power	1.2KW	3.6KW	Rated 5kW; 4kW(Only Battery)	6.5kW (with PV input); 6kW (without PV input)
Surge Power	2 times of rated power			
Nominal Output Frequency	50 / 60Hz ± 0.1% (Batt. Mode)			
Efficiency	92% (Max.)	92% (Max.)	93.5% (Max.)	94% (Max.)
Transfer Time	10ms (UPS/APP Mode); 20ms (GEN Mode)			
BATTERY				
Nominal Battery Voltage	12VDC	24VDC	24VDC	48VDC
Battery Voltage Range	10VDC-15VDC	20VDC-30.5VDC	20VDC-30.5VDC	40VDC-61VDC
Battery Type	Lead-acid / Lithium / User-defined			
AC CHARGING & SOLAR CHARGING				
Solar Charger Type	MPPT	MPPT	MPPT	MPPT
Max. PV Input Power	1kW	5kW	9kW	9kW
Max. PV Input Current	14A	18A	27A	27A
MPPT Voltage Range	15 – 100VDC	40 – 450VDC	60 – 450VDC (Min. 80VDC without battery connected)	
Max. PV Open Circuit Voltage	125VDC	500VDC	500VDC	500VDC
Max. Solar Charging Current	120A	100A	160A	120A
Max. AC Charging Current	60A	100A	160A	120A
Max. Hybrid Charging Current	60A	100A	160A	120A
PHYSICAL & COMMUNICATION				
Dimension, W x H x D (mm)	228 × 347 × 99.5	284 × 420 × 104	336 × 410 × 110	336 × 410 × 110
Net Weight (kg)	4.5	6.4	8.4	10.0
Communication Interface	BMS(485/CAN), Dry-contact, WiFi Module			
ENVIRONMENT				
Humidity	5% to 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF1200 / 2500 / 3000 / 5000

FEATURES

- Pure sine wave solar inverter
- Reserved communication port for BMS
- Wide PV input range
- Battery independent design
- Maximum charging current 100A
- Built-in anti-dust kit
- Battery equalization function to optimize battery performance and extend lifecycle



SPECIFICATION

MODEL	MR-SPF1200	MR-SPF2500	MR-SPF3000	MR-SPF5000
RATED POWER	1200VA / 1200W	2500VA / 2500W	3000VA / 3000W	5000VA / 5000W
INPUT				
Nominal Input Voltage	230VAC			
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)			
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)			
OUTPUT				
Output Voltage Regulation	230VAC ± 5%			
Nominal Output Frequency	50Hz / 60Hz			
Waveform	Pure sine wave			
Transfer Time	10ms (For PC); 20ms (For Home Appliances)			
Surge Power	2400VA	5000VA	6000VA	10000VA
Peak Efficiency	95% at AC mode, 93% at Battery mode			
BATTERY				
Nominal Battery Voltage	12VDC	24VDC	24VDC	48VDC
Bulk Charging Voltage	14.6VDC (Flooded Battery); 14.1VDC (AGM/GEL)		29.2VDC (Flooded Battery); 28.2VDC (AGM/GEL)	
Floating Charging Voltage	13.5VDC	27VDC		54VDC
Overcharge Protection	16VDC	32VDC		63VDC
AC CHARGING & MPPT SOLAR CHARGING				
AC Charging Algorithm	3 step			
Max. PV Array Power	2000W	3000W		5000W
PV Array MPPT Voltage Range	30VDC – 300VDC (30V – 60V with battery connected)	30VDC – 400VDC (30V – 60V with battery connected)		120 – 450VDC
Max. PV Array Open Circuit Voltage	350VDC	450VDC		500VDC
Max. PV Input Current	13A			18A
Max. AC Charging Current	80A			100A
Max. Charging Current	100A (AC charging plus solar charging)			
PHYSICAL & COMMUNICATION				
Dimension, D x W x H (mm)	90 × 288 × 357		110 × 288 × 390	120 × 300 × 440
Net Weight (kg)	6.5	7.0	7.2	10
Communication Interface	RS232, BMS, WiFi			
ENVIRONMENT				
Humidity	5% – 95% Relative Humidity (Non-condensing)			
Operating Temperature	-10°C to 50°C			
Storage Temperature	-15°C to 60°C			

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF4000 / 6000 TWIN (Version 3)

FEATURES

- Detachable LCD control module with various communications
- Maximum PV input current 27A
- Dual output for smart load management
- Built-in WiFi for mobile monitoring (Android/IOS App available)
- Supports USB On-the-Go function
- Reserved communication port (RS485, CAN-BUS or RS232) for BMS
- Battery independent design
- Battery equalization extends lifecycle
- User-friendly LCD operation
- Replaceable fan design for ease of maintenance



SPECIFICATIONS

MODEL	MR-SPF4000 TWIN (Version 3)	MR-SPF6000 TWIN (Version 3)
RATED POWER	4000VA / 4000W	6000VA / 6000W
INPUT		
Nominal Input Voltage	230VAC	
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)	
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)	
OUTPUT		
Output Voltage Regulation	230VAC ± 10%	
Nominal Output Frequency	50Hz / 60Hz	
Waveform	Pure sine wave	
Transfer Time	10ms (For PC); 20ms (For Home Appliances)	
Surge Power	8000VA	12000VA
Peak Efficiency	95% at Line mode, 93% at Inverter mode	
BATTERY		
Nominal Battery Voltage	24VDC	48VDC
Floating Charging Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
AC CHARGING & MPPT SOLAR CHARGING		
AC Charging Algorithm	3 step	
Max. PV Array Power	5000W	6000W
MPPT Operating Voltage Range	60 – 450VDC	
Max. PV Array Open Circuit Voltage	500VDC	
Max. PV Input Current	27A	
Max. AC Charging Current	100A	
Max. Charging Current	120A (AC charging plus solar charging)	
PHYSICAL & COMMUNICATION		
Dimension, D x W x H (mm)	115 × 300 × 435	
Net Weight (kg)	9	10
Communication Interface	USB, RS232, BMS, WiFi, Dry-contact	
ENVIRONMENT		
Humidity	5% – 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

Specifications are subject to change without notice, all product drawings are for reference only.

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF4000 / 6000 TWIN (Version 4)

FEATURES

- Dual output for smart load management
- Maximum PV input current 27A
- Customizable status LED ring with RGB lights
- Touchable button with large 4.3" colored LCD
- Built-in Wif for mobile monitoring (Android/IOS App available)
- Supports USB On-the-Go function
- Data log event stored in the inverter
- Reserved communication port (RS485, CAN-BUS or RS232) for BMS
- Battery independent design
- Battery equalization extends lifecycle
- Enhanced charging power
- Built-in anti-dust kit



SPECIFICATIONS

MODEL	MR-SPF4000 TWIN (Version 4)	MR-SPF6000 TWIN (Version 4)
RATED POWER	4000VA / 4000W	6000VA / 6000W
INPUT		
Nominal Input Voltage	230VAC	
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)	
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)	
OUTPUT		
Output Voltage Regulation	230VAC ± 10%	
Nominal Output Frequency	50Hz / 60Hz	
Waveform	Pure sine wave	
Transfer Time	10ms (For PC); 20ms (For Home Appliances)	
Surge Power	8000VA	12000VA
Peak Efficiency	95% at Line mode, 93% at Inverter mode	
BATTERY		
Nominal Battery Voltage	24VDC	48VDC
Floating Charging Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
AC CHARGING & MPPT SOLAR CHARGING		
AC Charging Algorithm	3 step	
Max. PV Array Power	5000W	6000W
MPPT Operating Voltage Range	60 – 450VDC	
Max. PV Array Open Circuit Voltage	500VDC	
Max. PV Input Current	27A	
Max. AC Charging Current	100A	
Max. Charging Current	120A (AC charging plus solar charging)	
PHYSICAL & COMMUNICATION		
Dimension, D x W x H (mm)	119 × 313.6 × 457.5	
Net Weight (kg)	10	12
Communication Interface	USB, RS232, BMS, WiFi, Dry-contact	
ENVIRONMENT		
Humidity	5% – 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

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Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF6000K

FEATURES

- Dual outputs, for smart load management
- Maximum PV input current increases to 27A
- Zero (0ms) transfer time to protect mission-critical loads
- High PV input voltage range
- Detachable LCD control module with multiple communications
- Selectable high power charging current
- Built-in Wi-Fi for mobile monitoring (Android/iOS App available)
- Configurable AC/Solar input priority via LCD setting
- Reserved communication port for BMS (RS485 or CAN-BUS or RS232)
- USB On-the-Go function
- Parallel operation up to 9 units



SPECIFICATIONS

MODEL	MR-SPF6000K
RATED POWER	6000VA / 6000W
PARALLEL CAPABILITY	Yes, 9 units
INPUT	
Nominal Input Voltage	230VAC
Input Voltage Range	110 – 280VAC
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)
OUTPUT	
Output Voltage Regulation	230VAC $\pm$ 5%
Nominal Output Frequency	50Hz / 60Hz
Waveform	Pure sine wave
Transfer Time	0ms (Line mode to Battery mode); 4ms (Inverter mode to Battery mode)
Surge Power	2* rated power for 5 seconds
Peak Efficiency	94% (Line mode), 92% (Battery mode), 98% (ECO/Bypass mode)
Harmonic Distortion	$\leq$ 3% THD (Linear Load); $\leq$ 5% THD (Non-linear Load)
BATTERY	
Nominal Battery Voltage	48VDC
Floating Charging Voltage	54VDC
Overcharge Protection	66VDC
AC CHARGING & MPPT SOLAR CHARGING	
AC Charging Algorithm	3 step
Max. PV Array Power	6000W
MPPT Operating Voltage Range	120 – 430VDC
Max. PV Array Open Circuit Voltage	500VDC
Max. PV Input Current	27A
Max. AC Charging Current	120A
Max. Charging Current	120A (AC charging plus solar charging)
PHYSICAL & COMMUNICATION	
Dimension, D x W x H (mm)	140 x 295 x 468
Net Weight (kg)	12
Communication Interface	USB, RS232, BMS, Wi-Fi, Dry-contact
ENVIRONMENT	
Humidity	5% – 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

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Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF8000 / 11000 TWIN (Version 1)

FEATURES

- Dual outputs, for smart load management
- Maximum PV input current increases to 27A
- Status indication with RGB lights
- Built-in Wi-Fi for mobile monitoring (Android/iOS App available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Selectable high power charging current
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Optional DC output for DC fan, LED bulb and so on (only for 8K model)
- Parallel operation with 6 units



SPECIFICATIONS

MODEL	MR-SPF8000 TWIN (Version 1)	MR-SPF11000 TWIN (Version 1)
RATED POWER	8000VA / 8000W	11000VA / 11000W
PARALLEL CAPABILITY	Yes, 6 units	
INPUT		
Nominal Input Voltage	230VAC	
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)	
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)	
OUTPUT		
Output Voltage Regulation	230VAC ± 5%	
Nominal Output Frequency	50Hz / 60Hz	
Waveform	Pure sine wave	
Transfer Time	10ms (For PC); 20ms (For Home Appliances)	
Surge Power	16000VA	22000VA
Peak Efficiency	95% at Line mode, 93% at Inverter mode	
Optional DC Output	12VDC ± 5W, 100W	N/A
BATTERY		
Nominal Battery Voltage	48VDC	48VDC
Floating Charging Voltage	54VDC	54VDC
Overcharge Protection	66VDC	63VDC
AC CHARGING & MPPT SOLAR CHARGING		
AC Charging Algorithm	3 step	
Max. PV Array Power	8000W (4000W*2)	11000W (5500W*2)
MPPT Operating Voltage Range	90 – 450VDC	
Max. PV Array Open Circuit Voltage	500VDC	
Max. PV Input Current	27A*2 (MAX. 40A)	
Max. AC Charging Current	120A	150A
Max. Charging Current	120A	150A
PHYSICAL & COMMUNICATION		
Dimension, D x W x H (mm)	147.4 × 432.5 × 553.6	
Net Weight (kg)	18.4	
Communication Interface	USB, RS232, BMS, WiFi, Dry-contact	
ENVIRONMENT		
Humidity	5% – 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF8000 / 11000 TWIN (Version 2)

FEATURES

- Dual outputs, for smart load management
- Maximum PV input current increases to 27A
- Status indication with RGB lights
- Built-in Wi-Fi for mobile monitoring (Android/iOS App available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Replaceable fan design for ease of maintenance
- Battery independent design
- Configurable AC/PV output usage timer and prioritization
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Built-in DC output for DC fan, LED bulb, router and so on
- Parallel operation with 6 units



SPECIFICATIONS

MODEL	MR-SPF8000 TWIN (Version 2)	MR-SPF11000 TWIN (Version 2)
RATED POWER	8000VA / 8000W	11000VA / 11000W
PARALLEL CAPABILITY	Yes, 6 units	
INPUT		
Nominal Input Voltage	230VAC	
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)	
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)	
OUTPUT		
Output Voltage Regulation	230VAC ± 5%	
Nominal Output Frequency	50Hz / 60Hz	
Waveform	Pure sine wave	
Transfer Time	10ms (For PC); 20ms (For Home Appliances)	
Surge Power	16000VA	22000VA
Peak Efficiency	95% at Line mode, 93% at Inverter mode	
DC Output	12VDC ± 5W, 100W	
BATTERY		
Nominal Battery Voltage	48VDC	48VDC
Floating Charging Voltage	54VDC	54VDC
Overcharge Protection	66VDC	63VDC
AC CHARGING & MPPT SOLAR CHARGING		
AC Charging Algorithm	3 step	
Max. PV Array Power	8000W (4000W*2)	11000W (5500W*2)
MPPT Operating Voltage Range	90 – 450VDC	
Max. PV Array Open Circuit Voltage	500VDC	
Max. PV Input Current	27A*2 (MAX. 40A)	
Max. AC Charging Current	120A	150A
Max. Charging Current	150A	150A
PHYSICAL & COMMUNICATION		
Dimension, D x W x H (mm)	158.4 × 503.6 × 530.8	
Net Weight (kg)	20	
Communication Interface	USB, RS232, BMS, WiFi, Dry-contact	
ENVIRONMENT		
Humidity	5% – 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF12K-LP1-TL20E

FEATURES

- Dual outputs, for smart load management
- Built-in Wi-Fi for mobile monitoring (Android/iOS APP)
- Supports USB On-the-Go function
- Detachable LCD control panel
- Reserved communication ports for BMS (RS485, CAN), RS232
- Configurable input voltage ranges for home appliances and PC
- Configurable AC/PV output usage timer and prioritization
- Configurable AC/PV charger priority via LCD control panel
- Compatible to utility mains or generator power
- Overload /Over temperature / short circuit protection
- Smart battery charger design for optimized battery performance
- Parallel operation with 6 units



SPECIFICATIONS

MODEL	MR-SPF12K-LP1-TL20E
RATED POWER	12000VA/12000W
PARALLEL CAPABILITY	Yes, 6 units
INPUT	
Nominal Input Voltage	230VAC
Input Voltage Range (Selectable)	170 – 280VAC (For PC); 90 – 280VAC (For Home Appliances)
Nominal Input Frequency	50Hz / 60Hz (Auto sensing)
OUTPUT	
Output Voltage Regulation	230VAC $\pm$ 5%
Nominal Output Frequency	50Hz / 60Hz
Waveform	Pure sine wave
Transfer Time	10ms (For PC); 20ms (For Home Appliances)
Surge Power	24000VA
Peak Efficiency	95% at Line mode, 93% at Inverter mode
PV INPUT	
Max. PV Array Power	15000W (7500W*2)
MPPT Operating Voltage Range	90 – 450VDC
Max. PV Array Open Circuit Voltage	500VDC
Max. PV Input Current	27A*2 (Max. 45A)
BATTERY & CHARGING	
Battery Type	Lead-acid, Lithium, User-defined
Nominal Battery Voltage	48VDC
Max. AC Charging Current	200A
Max. Charging Current (AC+PV)	200A
GENERAL	
Communication	USB, RS232, BMS(485,CAN), WiFi Module, Dry-contact
Certification	EMC, LVD
PHYSICAL & ENVIRONMENT	
Dimension, D x W x H (mm)	147.4 $\times$ 432.5 $\times$ 553.6
Net Weight (kg)	18.4
Humidity	5% – 95% Relative Humidity (Non-condensing)
Operating Temperature	-10°C to 50°C
Storage Temperature	-15°C to 60°C

Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF3K(5K)-LP1-TL20U

FEATURES

- MPPT with up to 99.9% efficiency
- Multiple charge and discharge modes
- Multiple safety approvals available
- Support for many types of batteries
- Supports BMS communication
- Outputs pure sine wave AC power
- Industrial design with modern aesthetic look
- Easy to install and simple to use
- Support for APP remote monitoring



SPECIFICATION

MODEL	MR-SPF3K-LP1-TL20U	MR-SPF5K-LP1-TL20U
RATED POWER	3000W	5000W
PARALLEL CAPACITY	No	No
AC INPUT (UTILITY/GENERATOR)		
Nominal Input Voltage	120VAC (single phase)	
Input Voltage Range	90VAC — 140VAC	
Frequency Range	50Hz / 60Hz	
OUTPUT		
Output Voltage	120VAC (single phase)	
Output Frequency	50Hz / 60Hz ± 1%	
Output Waveform	Pure Sine Wave	
Transfer Time	10ms (typical)	
Surge Power	6000VA	11000VA
PV INPUT		
Num. of MPPT Trackers	1	1
Max.PV Array Power	1600W	6000W
Max.input Curent	40A	22A
Max.Voltage of Open Circuit	108VAC	500VDC
MPPT Voltage Range	30VDC — 90VDC	120VDC — 450VDC
BATTERY & CHARGING		
Battery Type	Li-ion/ Lead-Acid / User Defned	
Rated Battery Voltage	24VDC	48VDC
Max. PV Charging Current	60A	80A
Max. AC Charging Current	40A	40A
Max.Hybrid Charging Current	100A	80A
COMMUNICATION		
Embedded Interfaces	RS485 / USB / Dry-contact	
External Modules (Optional)	Wi-Fi moudle / GPRS	
GENERAL		
Dimensions, L × W × H (mm)	378 × 280 × 103	426 × 322 × 126
Weight (kg)	6.8	8.6
Protection Degree	IP20, indoor only	
Operating Temp	-10°C to 50°C	
Humidity	5% – 95% (Non-condensing)	

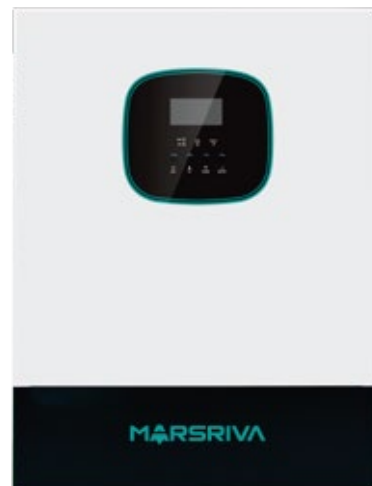
Off-Grid Solar Inverter

Single Phase - IP20 - High Frequency

Model: MR-SPF5K(10K)-LP2-TB20T

FEATURES

- Support BMS communication for Lithium battery
- Selectable charging current based on applications
- Split phase output 110V/220V
- High battery solar charging current 120A
- High efficiency design for optimized battery performance
- WiFi plug with APP for remote monitoring
- Built-in anti-dust kit



SPECIFICATION

MODEL	MR-SPF5K-LP2-TB20T	MR-SPF10K-LP2-TB20T
RATED POWER	6.3kVA / 5kW	12.5VA / 10kW
INPUT		
Nominal input voltage	110VAC	
Input voltage range (selectable)	77VAC-132VAC, 50 - 60Hz (Auto sensing)	
OUTPUT		
Output voltage regulation	110VAC	
Nominal output frequency	50Hz / 60Hz	
Waveform	Pure sine wave	
Transfer time	<8ms	
Power factor	0.8	
PV INPUT		
Solar charger type	MPPT	
Max. PV array power	6400W	
Max. PV input current	120A	
Max. voltage of open circuit	150VDC	
MPPT voltage range	60-150VDC	
BATTERY & CHARGING		
Battery type	Li-ion / Lead-Acid / Users Defend	
Rated battery voltage	48VDC	48VDC
Max. PV charging current	120A	120A
Max. AC charging current	50A	100A
Max. Hybrid charging current	120A	120A
PHYSICAL & COMMUNICATION		
Dimension, W x H x D (mm)	402.8×542.5×176	
Net Weight (kg)	11.6	18.56
Embedded interfaces	RS232, BMS, Dry-contact	
External modules	Wi-Fi module	

Specifications are subject to change without notifications and all the product diagrams are for reference only

Hybrid Solar Inverter

Split Phase - IP65 - High Frequency

Model: MR-SPH12K-LP2-TL65U

FEATURES

- MPPT with up to 99.9% efficiency
- Up to 25A * 2 PV input current
- Software and hardware security protection
- Multiple safety approvals
- Up to 200A charging current
- Supports BMS communication
- IP65 protection degree
- Easy to install and simple to use
- Exclusive Li-ion battery BMS dual activation
- Time-slot function to save cost with peak-valley



SPECIFICATION

MODEL	MR-SPH12K-LP2-TL65U
RATED POWER	@240V 12kW; @208V 10.4kW
PARALLEL CAPACITY	Yes, 6 units
INVERTER OUTPUT	
Rated Output Power	120/240Vac, single-phase / split-phase / three-phase(parallel)
Max. Peak Power	2 times rated power
Rated Output Voltage	120V / 240VAC (plit-phase), 120V / 208V (Three-phase)
Output voltaege error	@240V 41.7A; @208V 48.1A
Load Capacity of Motors	6HP
Rated AC Frequency	50Hz / 60Hz
Waveform	Pure Sine Wave
BATTERY	
Battery Type	Li-ion / Lead-Acid / User Defined
Rated Battery Voltage	48VDC
Voltage Range	40-60VDC
Max. PV Charging Current	200A
Max. Grid Charging Current	120A
Max. Generator Charging Current	60A
Max. Hybrid Charging Current	200A
PV INPUT	
MPPT Numbers	2
Max. PV Array Power	6600W / 6600W
Max. PV Input Current	25A + 25A
MPPT Voltage Range	125VDC – 450VDC
PV Open-circuit Voltage	550VDC + 550VDC
GRID / GENERATOR INPUT	
Input Voltage Range	90VAC – 140VAC
Frequency Range	50Hz / 60Hz
Bypass phase current	63A
EFFICIENCY	
MPPT Tracking Efficiency	99.9%
Max Efficiency	97.5%
CEC Efficiency	96.5%
BASIC DATA	
Dimensions	750 * 440 * 240mm
Weight	42kg
Protection Degree	IP65
Operating Temperature Range	-25°C~60°C, >45°C derated
Noise	<60dB
Cooling Method	Heat sink + intelligent fan cooling
COMMUNICATION	
Communication port	RS485 / CAN / USB / Dry contact
External Modules (Optional)	Wi-Fi / GPRS

Hybrid Solar Inverter

Three Phase - IP65 - High Frequency

Model: MR-SPH8K (SPH10K / SPH12K)-LP3-TL65E

FEATURES

- IP65 waterproof and dustproof makes the inverter available for various working conditions
- Dual output for smart load control
- Two independent AC power sources connected and switched automatically
- Built-in WiFi for mobile monitoring (App is available)
- 150% unbalanced load support
- User-adjustable charging current and voltage
- Reserved communication port for BMS (RS485)
- 5 years warranty
- Parallel operation up to 6 units



SPECIFICATION

MODEL	MR-SPH8K-LP3-TL65E	MR-SPH10K-LP3-TL65E	MR-SPH12K-LP3-TL65E
MAXIMUM PV INPUT POWER	12kW	15kW	18kW
RATED OUTPUT POWER	8kW	10kW	12kW
MAXIMUM CHARGING POWER	8kW	10kW	12kW

GRID-TIE OPERATION

PV INPUT (DC)

Nominal DC Voltage / Maximum DC Voltage	720VDC / 900VDC	720VDC / 900VDC	720VDC / 900VDC
Start-up Voltage / Initial Feeding Voltage	150VDC / 150VDC	150VDC / 150VDC	150VDC / 150VDC
MPP Voltage Range	150VDC – 850VDC	150VDC – 850VDC	150VDC – 850VDC
Full MPP Voltage Range	400VDC – 850VDC	420VDC – 850VDC	400VDC – 850VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 27A, B: 18A

GRID OUTPUT (AC)

Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)		
Output Voltage Range	184VAC – 265VAC* per phase		
Nominal Output Current	11.6A per phase	14.5A per phase	17.4A per phase
Power Factor range	0.9 lag ~ 0.9 lead		

EFFICIENCY

Maximum Conversion Efficiency (DC/AC)	>96%
European Efficiency@ Vnominal	>95%

OFF-GRID OPERATION

AC INPUT

AC Start-up Voltage / Auto Restart Voltage	120VAC - 140VAC per phase / 180VAC per phase
Acceptable Input Voltage Range	170 - 290VAC per phase
Maximum AC Input Current	40A

PV INPUT (DC)

Maximum DC Voltage	900VDC		
MPP Voltage Range	150VDC – 850VDC	150VDC – 850VDC	150VDC – 850VDC
Full MPP Voltage Range	400VDC – 850VDC	420VDC – 850VDC	400VDC – 850VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 18A, B: 18A

BATTERY MODE OUTPUT (AC)

Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	>93%		

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
Power derating 1% every 100 m when altitude is over 1000m
Specifications are subject to change without notice, all product drawings are for reference only.

MODEL	MR-SPH8K-LP3-TL65E	MR-SPH10K-LP3-TL65E	MR-SPH12K-LP3-TL65E
MAXIMUM PV INPUT POWER	12kW	15kW	18kW
RATED OUTPUT POWER	8kW	10kW	12kW
MAXIMUM CHARGING POWER	8kW	10kW	12kW

HYBRID OPERATION

PV INPUT (DC)

Maximum DC Voltage	900 VDC		
Start-up Voltage / Initial Feeding Voltage	150VDC / 150VDC	150VDC / 150VDC	150VDC / 150VDC
MPP Voltage Range	150VDC – 850VDC	150VDC – 850VDC	150VDC – 850VDC
Full MPP Voltage Range	400VDC – 850VDC	420VDC – 850VDC	400VDC – 850VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 15A, B: 15A	2 / A: 18A, B: 18A	2 / A: 18A, B: 18A

GRID OUTPUT (AC)

Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)		
Output Voltage Range	184VAC – 265VAC* per phase		
Nominal Output Current	11.6A per phase	14.5A per phase	17.4A per phase

AC INPUT

AC Start-up Voltage / Auto Restart Voltage	120VAC – 140VAC per phase / 180VAC per phase		
Acceptable Input Voltage Range	170VAC – 290VAC per phase		
Maximum AC Input Current	40A		

BATTERY MODE OUTPUT (AC)

Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)		
Efficiency (DC to AC)	>93%		

BATTERY & CHARGER

Battery Voltage Range	40VDC – 60VDC		
Maximum Discharging Current	200A	220A	250A
Maximum Charging Current	160A	200A	240A

GENERAL

PHYSICAL

Dimension, D x W x H (mm)	247 × 500 × 650		
Net Weight (kgs)	50	50	54

INTERFACE

Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi		
Intelligent Slot	Optional for SNMP and Modbus cards		

ENVIRONMENT

Humidity	0 – 100% RH (Non-condensing)		
Operating Temperature	-25 to 60°C, > 45°C power derating		
Altitude	0 – 1000 m**		

PROTECTION & CERTIFICATE

Safety	IEC 62116, IEC 62727, IEC 61683, IEC 62109, IEC 61000-6-2:2019, IEC 61000-6-4:2019, IEC 61000-3-11:2019, EN 61000-3-12: 2011		
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105		

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
Power derating 1% every 100 m when altitude is over 1000m
Specifications are subject to change without notice, all product drawings are for reference only.

Hybrid Solar Inverter

Three Phase - IP65 - High Frequency

Model: MR-SPH15K-LP3-TL65E

FEATURES

- IP65 waterproof and dustproof makes rating
- Built-in WiFi for mobile monitoring (App is available)
- 150% unbalanced load support
- 26A Maximum PV input current
- Dual outputs for smart load management
- User-adjustable charging current
- Reserved communication port for BMS (RS485)
- Parallel operation up to 6 units



SPECIFICATION

MODEL	MR-SPH15K-LP3-TL65E
MAXIMUM PV INPUT POWER	22.5kW
RATED OUTPUT POWER	15kW
MAXIMUM CHARGING POWER	15kW
GRID-TIE OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720VDC / 1000VDC
Start-up Voltage / Initial Feeding Voltage	320VDC / 350VDC
MPP Voltage Range	350VDC – 950VDC
Full MPP Voltage Range	420VDC – 950VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
GRID OUTPUT (AC)	
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)
Output Voltage Range	184VAC – 265VAC* per phase
Nominal Output Current	21.7A per phase
Power Factor range	0.9 lag – 0.9 lead
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	>96%
European Efficiency@ Vnominal	>95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120VAC – 140VAC per phase / 180VAC per phase
Acceptable Input Voltage Range	170VAC – 290VAC per phase
Maximum AC Input Current	40A
PV INPUT (DC)	
Maximum DC Voltage	1000VDC
MPP Voltage Range	350VDC – 950VDC
Full MPP Voltage Range	420VDC – 950VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)
Output Waveform	Pure sine wave
Efficiency (DC to AC)	>91%

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
Power derating 1% every 100 m when altitude is over 1000m
Specifications are subject to change without notice, all product drawings are for reference only.

MODEL	MR-SPH15K-LP3-TL65E
MAXIMUM PV INPUT POWER	22.5kW
RATED OUTPUT POWER	15kW
MAXIMUM CHARGING POWER	15kW
HYBRID OPERATION	
PV INPUT (DC)	
Maximum DC Voltage	1000 VDC
Start-up Voltage / Initial Feeding Voltage	320VDC / 350VDC
MPP Voltage Range	350VDC – 950VDC
Full MPP Voltage Range	420VDC – 950VDC
Number of MPP Trackers / Maximum Input Current	2 / A: 26A, B: 26A
GRID OUTPUT (AC)	
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)
Output Voltage Range	184VAC - 265VAC* per phase
Nominal Output Current	21.7A per phase
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120VAC – 140VAC per phase / 180VAC per phase
Acceptable Input Voltage Range	170VAC – 290VAC per phase
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)
Efficiency (DC to AC)	>91%
BATTERY & CHARGER	
Battery Voltage Range	40VDC – 62VDC
Maximum Discharging Current	300A
Maximum Charging Current	200A
GENERAL	
PHYSICAL	
Dimension, D x W x H (mm)	247 × 500 × 650
Net Weight (kgs)	78
INTERFACE	
Communication Port	RS-232, RS-485, USB, CAN and Wi-Fi
Intelligent Slot	Optional for SNMP and Modbus cards
ENVIRONMENT	
Humidity	0 – 100% RH (Non-condensing)
Operating Temperature	-25 to 60°C, > 45°C power derating
Altitude	0 – 1000 m**
PROTECTION & CERTIFICATE	
Safety	IEC 62109, IEC 62116, IEC 61727, IEC 61683
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
Power derating 1% every 100m when altitude is over 1000m
Specifications are subject to change without notice, all product drawings are for reference only.

Hybrid Solar Inverter

Three Phase - IP65 - High Frequency

Model: MR-SPH30K(50K)-LP3-TL65E

FEATURES

- IP65 waterproof and dustproof design
- Wide battery input range 200VDC – 900VDC
- Parallel operation up to 4 units with common battery
- Built-in WiFi for mobile monitoring (App is available)
- Two independent AC power sources connected and switched automatically
- User-adjustable charging current up to 100A
- User-friendly HMI LCD design and easy configuration
- Built-in communication port for BMS (CAN and RS485)



SPECIFICATION

MODEL	MR-SPH30K-LP3-TL65E	MR-SPH50K-LP3-TL65E
MAXIMUM PV INPUT POWER	40kW	65kW
RATED OUTPUT POWER	30kW	50kW
MAXIMUM CHARGING POWER	30kW	50kW
GRID-TIE OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	720VDC / 1000VDC	
Start-up Voltage / Initial Feeding Voltage	320VDC / 350VDC	
MPP Voltage Range	350VDC – 900VDC	
Full MPP Voltage Range	420VDC – 900VDC	
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A	4 / A: 32A, B: 32A, C: 32A, D: 32A
GRID OUTPUT (AC)		
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)	
Output Voltage Range	184VAC – 265VAC* per phase	
Nominal Output Current	43.5A per phase	47.5 – 51.5 Hz or 59.3 – 60.5 Hz
Power Factor range	0.9 lag – 0.9 lead	
EFFICIENCY		
Maximum Conversion Efficiency (DC/AC)	96.5%	
European Efficiency@ Vnominal	96%	
OFF-GRID OPERATION		
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120VAC – 140VAC per phase / 180VAC per phase	
Acceptable Input Voltage Range	170VAC – 290VAC per phase	
Maximum AC Input Current	50A	83A
PV INPUT (DC)		
Maximum DC Voltage	1000VDC	
MPP Voltage Range	350VDC – 900VDC	
Full MPP Voltage Range	420VDC – 900VDC	
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A	4 / A: 32A, B: 32A, C: 32A, D: 32A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)	
Output Waveform	Pure sine wave	
Efficiency (DC to AC)	97%	

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
Power derating 1% every 100 m when altitude is over 1000m
Specifications are subject to change without notice, all product drawings are for reference only.

MODEL	MR-SPH30K-LP3-TL65E	MR-SPH50K-LP3-TL65E
MAXIMUM PV INPUT POWER	40kW	65kW
RATED OUTPUT POWER	30kW	50kW
MAXIMUM CHARGING POWER	30kW	50kW
HYBRID OPERATION		
PV INPUT (DC)		
Maximum DC Voltage	1000 VDC	
Start-up Voltage / Initial Feeding Voltage	320VDC / 350VDC	
MPP Voltage Range	350VDC – 900VDC	
Full MPP Voltage Range	420VDC – 900VDC	
Number of MPP Trackers / Maximum Input Current	3 / A: 26A, B: 26A, C: 26A	4 / A: 32A, B: 32A, C: 32A, D: 32A
GRID OUTPUT (AC)		
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)	
Output Voltage Range	184VAC – 265VAC* per phase	
Nominal Output Current	43.5A per phase	47.5 – 51.5 Hz or 59.3 – 60.5 Hz
AC INPUT		
AC Start-up Voltage / Auto Restart Voltage	120VAC – 140VAC per phase / 180 VAC per phase	
Acceptable Input Voltage Range	170VAC – 290VAC per phase	
Maximum AC Input Current	50A	83A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	230VAC (P-N) / 400VAC (P-P)	
Efficiency (DC to AC)	97%	
BATTERY & CHARGER		
Battery Voltage Range	500VDC – 900VDC	
Maximum Discharging Current	100A	
Maximum Charging Current	50A	60A
GENERAL		
PHYSICAL		
Dimension, D x W x H (mm)	255 × 660 × 750	
Net Weight (kgs)	73	110
INTERFACE		
Communication Port	RS-232, USB, DRY CONTACT, RS-485 and Wi-Fi	
Intelligent Slot	Optional SNMP, MODBUS and GPRS	
ENVIRONMENT		
Humidity	0 – 100% RH (Non-condensing)	
Operating Temperature	-25 to 60°C (>45°C De-rating)	
Altitude	0 – 1000 m**	
PROTECTION & CERTIFICATE		
Safety	IEC/EN 61000, IEC/EN 62920, EN 62477	
Grid Connection Standard	NRS097-2-1:2017, VDE-AR-N4105, G99, IEC 61683, IEC 61727, IEC 62116	

 These figures are based on VDE-4105 standard. All figures may vary depending on different AC voltage and country requirements.
 Power derating 1% every 100m when altitude is over 1000m
 Specifications are subject to change without notice, all product drawings are for reference only.

Solar Pumping Inverter

Three Phase - IP20 - High Frequency

Model: MR-VFD5.5K(7.5K)-H3P20

FEATURES

- Adopts intelligent power modules and sine PWM control technology to improve power conversion efficiency.
- Equipped with sunlight dynamic tracking technology to adjust working status in real time according to light intensity.
- No battery required, reducing equipment cost and maintenance expenses.
- Equipped with overvoltage, overcurrent, short-circuit, overload and other protection mechanisms.
- Supports various asynchronous motor water pumps for different power types.
- Can adjust working modes according to scene needs for different water supply requirements.
- Suitable for agricultural / forestry irrigation, desertification control, remote area water supply and other scenarios.
- It can operate in both off-grid and grid-connected environments, getting rid of the dependence on traditional power grids, making it ideal for areas without electricity or suffering from power shortages.
- It automatically detects the photovoltaic voltage to start up, without a DC switch, eliminating the trouble of manual activation.



SPECIFICATION

MODEL	MR-VFD5.5K-H3P20	MR-VFD7.5K-H3P20
DC Input		
Max. Input Voltage	780V	
Min. Operating Voltage	240V	
Start Voltage	270V	
MPP Voltage Range	500V ~ 620V	
Recommended MPP Voltage	560V	
Recommended PV Array Power	8.3~11.0kW	11.3~15.0kW
AC Input		
Input Voltage	3PH 380V(-15%) ~ 440V(+10%)	
Input Frequency	50 / 60Hz	
AC Output		
Rated Power	5.5kW	7.5kW
Rated Current	14.0A	18.5A
Output Voltage	3PH 0V ~ 380V / 440V	
Output Frequency	50 / 60Hz	
Control Performance		
Control Mode	V/F , SVC	
Overload Capability	150% of rated current: 60 seconds; 180% of rated current: 1 seconds	
Protection		
Undervoltage Protection	Integrated	
Overvoltage Protection	Integrated	
Overload Protection	Integrated	
Short-circuit Protection	Integrated	
Overheat Protection	Integrated	
Dry-Run Protection	Integrated	
Surge Protection	Integrated	
General Data		
Ingress Protection Degree	IP20	
Cooling Mode	Air Cooling	
Communication Interface	RS485 communication interface	
Ambient Operating Temperature	-10℃ ~ 50℃(>40℃, rated power will be derated for 1% by every additional 1℃)	
Operation Altitude	Recommend <2000m (the rated power will be decreased for 1% by every additional 100m when the altitude is ≥ 1000m)	
Product Dimension (W*H*D)	160*249*191mm	
Gross Weight	3.6kg	3.7kg
Standard Warranty	18 Month	
Certification Standards	CE	

Solar Pumping Inverter

Three Phase - IP20 - High Frequency

Model: MR-VFD11K(15K/18K/22K)-H3P20

FEATURES

- Adopts intelligent power modules and sine PWM control technology to improve power conversion efficiency.
- Equipped with sunlight dynamic tracking technology to adjust working status in real time according to light intensity.
- No battery required, reducing equipment cost and maintenance expenses.
- Equipped with overvoltage, overcurrent, short-circuit, overload and other protection mechanisms.
- Supports various asynchronous motor water pumps for different power types.
- Can adjust working modes according to scene needs for different water supply requirements.
- Suitable for agricultural / forestry irrigation, desertification control, remote area water supply and other scenarios.
- It can operate in both off-grid and grid-connected environments, getting rid of the dependence on traditional power grids, making it ideal for areas without electricity or suffering from power shortages.
- It automatically detects the photovoltaic voltage to start up, without a DC switch, eliminating the trouble of manual activation.



SPECIFICATION

MODEL	MR-VFD11K-H3P20	MR-VFD15K-H3P20	MR-VFD18K-H3P20	MR-VFD22K-H3P20
DC Input				
Max. Input Voltage	780V			
Min. Operating Voltage	240V			
Start Voltage	270V			
MPP Voltage Range	500V ~ 620V			
Recommended MPP Voltage	560V			
Recommended PV Array Power	16.5~22.0kW	22.5~30.0kW	27.0~36.0kW	33.0~44.0kW
AC Input				
Input Voltage	3PH 380V(-15%) ~ 440V(+10%)			
Input Frequency	50 / 60Hz			
AC Output				
Rated Power	11.0kW	15.0kW	18.5kW	22.0kW
Rated Current	25.0A	32.0A	38.0A	45.0A
Output Voltage	3PH 0V ~ 380V / 440V			
Output Frequency	50 / 60Hz			
Control Performance				
Control Mode	V/F , SVC			
Overload Capability	150% of rated current: 60 seconds; 180% of rated current: 1 seconds			
Protection				
Undervoltage Protection	Integrated			
Overvoltage Protection	Integrated			
Overload Protection	Integrated			
Short-circuit Protection	Integrated			
Overheat Protection	Integrated			
Dry-Run Protection	Integrated			
Surge Protection	Integrated			
General Data				
Ingress Protection Degree	IP20			
Cooling Mode	Air Cooling			
Communication Interface	RS485 communication interface			
Ambient Operating Temperature	-10℃ ~ 50℃(>40℃, rated power will be derated for 1% by every additional 1℃)			
Operation Altitude	Recommend <2000m (the rated power will be decreased for 1% by every additional 100m when the altitude is ≥ 1000m)			
Product Dimension (W*H*D)	208 * 323 * 196 mm			
Gross Weight	6.0kg	6.1kg	6.4kg	6.8kg
Standard Warranty	18 Month			
Certification Standards	CE			

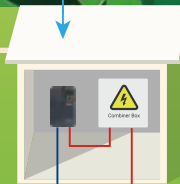
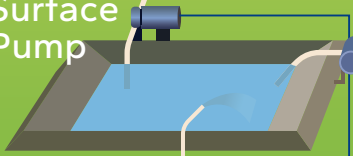


MARSRIVA SOLAR SYSTEM CONNECTION

Solar Pumping Inverter



Surface Pump



Solar Array

Submersible Pump

