



Solar Pumping Inverter

Three Phase - IP20 - High Frequency

FEATURES

- **High-efficiency energy conversion:**
Adopts intelligent power modules and sine PWM control technology to improve power conversion efficiency.
- **Dynamic tracking adjustment:**
Equipped with sunlight dynamic tracking technology to adjust working status in real time according to light intensity.
- **Significant cost advantage:**
No battery required, reducing equipment cost and maintenance expenses.
- **Multiple safety protections:**
Equipped with overvoltage, overcurrent, short - circuit, overload and other protection mechanisms.
- **Strong motor compatibility:**
Supports various asynchronous motor water pumps for different power types.
- **Flexible operation mode:**
Can adjust working modes according to scene needs for different water supply requirements.
- **Multi-scenario adaptability:**
Suitable for agricultural/forestry irrigation, desertification control, remote area water supply and other scenarios.
- **Operable in both off-grid and grid-connected conditions:**
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.
- **Automatic PV voltage detection start:**
It automatically detects the photovoltaic voltage to start up, without a DC switch, eliminating the trouble of manual activation.

APPLICATION SCENARIOS



Living Water Supply



Agriculture and Forestry Irrigation



Pasture Animal Husbandry

SPECIFICATION

MODEL	MR-VFD5.5K -H3P20	MR-VFD7.5K -H3P20	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	8.3~11.0kW	11.3~15.0kW	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	5.5kW	7.5kW	11.0kW	15.0kW	18.5kW	22.0kW
Rated Current	14.0A	18.5A	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)	160*249*191mm		208 * 323 * 196 mm			
Gross Weight	3.6kg	3.7kg	6.0kg	6.1kg	6.4kg	6.8kg
Standard Warranty	18 Month					
Certification Standards	CE					

Specifications are subject to change without notice, and all product drawings are for reference only. Consult MARSRIVA for the latest design and specifications.



MARSRIVA SOLAR SYSTEM CONNECTION

Solar Pumping Inverter



Surface Pump

Solar Array

Submersible Pump

