



Tawanai Energy

Solar Pump Inverters

Tawanai Solar pumping systems contain the following :

DC Pumps, 3 Phase AC Motors

Large inverters for single Phase applications are available for unusual cases.

In some very specific cases, a single phase VFD might be available, but not for large power applications.

Solar Panels

Solar Pump Inverters

Features of solar pumping system

Wide MPPT range to improve the efficiency of the whole system. Efficiency is more than 99%.

Indoor and out door IP65 designs.

Full protection function can keep the system always in safe operation.

1 to 50 years warranties available with maintenance plans.

Build Operate and Transfer options.

Modular design, easy to install, operate and maintain.

Application areas including but not limited to :

Daily water using

Agricultural irrigation

Forestry irrigation

Desert control

Pasture animal husbandry

Rural town and village water supply

Desalinization of sea water

Scenic fountain

Factory

Residential wells

Technical Specifications for Solar Pump Inverters

Power Range: 1.1kw-110KW

MPPT Range:460~850VDC

Output Voltage: 220VAC or 380~460V AC; Three Phase Only

Output Frequency Range: 0~50/60Hz

Protection: IP65 for outdoor models

Model	1.1KW-SP	1.5KW-SP	2.2KW-SP	3KW-SP	3.7KW-SP	4KW-SP	2.2KW-3P	3KW-3P	3.7KW-3P	4KW-3P	5.5KW-3P	7.5KW-3P
d.c. Input												
d.c. Max. Input Voltage	450Vdc					750Vdc	880Vdc					
Recommended MPPT Voltage	150~400Vdc					280~600Vdc	460~850Vdc					
d.c. Max. Input Current	8A	10A	14.6A	21A	24.6A	15A	5A	6.9A	9A	9A	12A	16.3A
Max. MPPT Efficiency	99%											
Number of String	1	1	2	2	2	2	2	2	2	2	2	3
a.c. Output												
Max. Motor Output Power	1.1kW	1.5kW	2.2kW	3kW	3.7kW	4kW	2.2kW	3kW	3.7kW	4kW	5.5kW	7.5kW
Rated Output Voltage	220~240Vac,three phase						380~460Vac,three phase					
Output Frequency Range	0~50/60Hz											
Rated Output Current	5.5A	7A	11A	14A	17A	20A	6A	7A	9A	10A	13A	18A
Other Parameters												
Weight	8.6kg	8.6kg	8.6kg	10kg	11.1kg	11.1kg	11.1kg	11.1kg	11.1kg	11.1kg	11.1kg	11.1kg
Dimension(L*W*H)	203*378*157mm					203*378*157mm						
Max. Efficiency	97%	97%	97%	97%	97%	97%	96%	97%	98%	98%	98%	98%
Protection Class	I											
Protection Level	IP65											
Operating Temperature	-25 C~+60 C ; above 60 C need derate operating											
Cooling Way	Natural Cooling											
Display	LCD											
Communication	RS485/GPRS											
Altitude	3000m;above 3000m need derate operating											
Noise Emission	< 50dB											
Compliance	EN50178;IEC/EN62109-1;IEC 61800											

Model	11KW	15KW	18.5KW	22KW	30KW	37KW	45KW	55KW	75KW	90KW	110KW	
d.c. Input												
d.c. Max. Input Voltage	880Vdc											
Recommended MPPT Voltage	460~850Vdc											
d.c. Max. Input Current	24.4A	33.3A	41.1A	49A	67A	82A	100A	122A	166A	205A	251A	
Max. MPPT Efficiency	99%											
Number of String	3	3	3	1	1	1	1	1	1	1	1	
a.c. Output												
Max. Motor Output Power	11kW	15kW	18.5kW	22kW	30kW	37kW	45kW	55kW	75kW	90kW	110kW	
Rated Output Voltage	380~460Vac,three phase											
Output Frequency Range	0~50/60Hz											
Rated Output Current	21A	29A	36A	42A	57A	71A	86A	104A	142A	171A	209A	
Other Parameters												
Weight	15.1kg	15.1kg	15.1kg	34kg	34kg	34kg	34kg	34kg	48kg	48kg	48kg	
Dimension(L*W*H)	305*430*190mm			390*532*210mm						585*690*225mm		
Max. Efficiency	98%											
Protection Class	I											
Protection Level	IP65											
Operating Temperature	-25℃~+60℃; above 60℃ need derate operating											
Cooling Way	Force Cooling											
Display	LCD											
Communication	RS485/GPRS											
Altitude	3000m;above 3000m need derate operating											
	< 50dB											
	EN50178;IEC/EN62109-1;IEC 61800											

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