



Datasheets



Residential On-Grid
Photovoltaic System Kits



POSEIDON WATER PUMP

1kW / 2kW / 3kW / 5kW / 10kW / 20kW

Product Description

Poseidon water pumping PV system kits are solar powered units that enable users to irrigate water in remote locations with minimal to no grid access. Poseidon Solar Water Pump kits are reliable, stand-alone systems that require no fuel, batteries and require minimal maintenance.



Ready for any scale

Poseidon solar water pump systems are highly versatile and dynamic in their application, from small scale agricultural use to large scale municipality water projects.



Weather resistant

Designed for easy installation, yet engineered particularly robust to withstand inclement outdoor weather conditions.



Adaptable to your needs

With multiple submersible pump sizes offered, users have flexibility in choosing well water head, depths and required daily water flows.

What's in the Box

- Solar modules
- Solar pumping inverter
- Float switch
- Custom ground mounting system
- PV wiring and grounding harnesses
- DC disconnects
- Wire management kit
- Grounding hardware
- Safety label kit
- Single and three-line electrical and mechanical schematics





Solar Irrigation Made Simple

Poseidon solar pump kits are designed to extract water for diversified range of agricultural applications including livestock and crop irrigation. These systems require no batteries and are often used in remote areas where the cost of running traditional AC powered water pumping is cost prohibitive. These systems are typically ground mounted and are offered in a variety of different volume and head sizes adjusting to most well requirements.

Product Benefits

- Provide clean water distribution with only solar energy
- No moving parts with minimal maintenance
- Can be installed in any location including remote off-grid environments

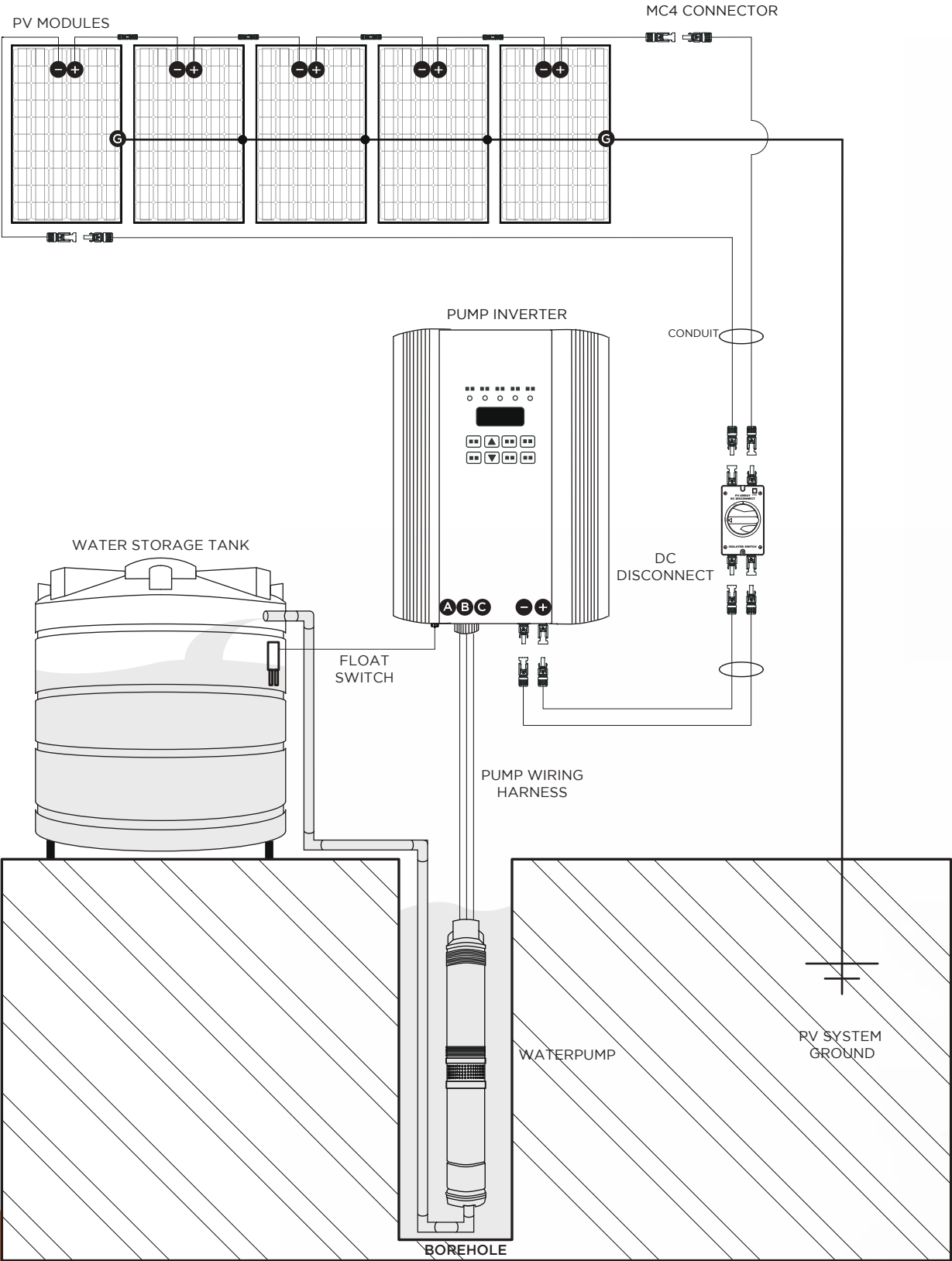
Common Applications

- Livestock
- Agricultural irrigation (row crop, center pivot, large scale drip)
- Wildlife irrigation systems
- Homes, farms, ranches and cabins
- Viages, businesses, and communities

POSEIDON Solar Water Pump Kits

Product Name	Poseidon - 1		Poseidon - 2		Poseidon - 3	Poseidon - 5	Poseidon - 10	Poseidon - 20	
Product Series	Poseidon								
System Size Nominal (kWp)	0.795		2.12		2.65	5.3	10.6	21.2	
Part #	POS-1-DC		POS-2-DC		POS-3-DC	POS-5-AC	POS-10-AC	POS-20-AC	
PV MODULE SPECIFICATIONS (*Poly)									
Power (W)	265								
Vmp (V)	31.1								
Voc (V)	38.2								
Isc (A)	9.1								
Imp (A)	8.55								
Dimensions (L x W x H) (mm)	1638 x 982 x 35								
PV module weight (kg)	19.5								
Certification Standards	TUV (IE61215 & IEC61730) / VDE (IEC61215 & IEC61730) / UL / CE – TUV (IEC61215 & IEC61730) / CE								
INVERTER SPECIFICATIONS									
Inverter Type	DC					AC			
Inverter Size (kW)	0.6		1.2		1.8	5.5	7.5	15	
Max DC Power (kW)	1		2.2		3	11			
Max DC Voltage (V)	150		200				850		
MPPT Voltage range (V)	60 - 120		120 - 160				500 - 700		
No. of MPPT'S	1					1			
Max Output Current (A)	13		11		16	13	18	30	
AC Nom. Voltage (V)	N/A					380			
AC Frequency range (Hz)	N/A					50			
Number of Phases	N/A					3			
Dimensions (L x W x H) (mm)	202 x 244 x 146		202 x 284 x 146		202 x 284 x 146	425 x 415 x 205			
Inverter Weight (kg)	3.6		4.3				9.5	14.5	15
Certification Standards	CE - EN 61000-6-3:2007, EN 61000-6-1:2007, IEC 61000-4-2, IEC 61000-4-3, EN 50178:1997								
Warranty (years)	3								
*WATER PUMP SPECS									
Pump Power (kW)	0.6		1.1		1.5	3	5.5	13	
**Daily Water Flow (m3)	2 to 18		18 to 33		34 to 76	10 to 20	80 to 160	700 to 1100	
**Water Head Range (m)	80 to 18		43 to 22		34 to 16	145 to 90	79 to 43	22 to 18	
Pump Outlet - Hose Diameter (mm)	25		40		50	30	65	150	
Well Diameter (mm)	125					125	200 - 250	200 - 250	
AC Input Voltage (VAC)	N/A					380			
AC Frequency (Hz)	N/A					50			
Dimensions (L x W) (mm)	560 x 100		830 x 100		889 x 100	1563 x 100	1652 x 133	1652 x 133	
Pump Material	Screw and Body AISI 304								
Certification Standards	CE - EN 61000-6-3:2007+A1:2011, EN 61000-6-1:2007, EN 60335-1:2012, EN 60335-2-41:2003, +A1:2004+A2:2010								
Warranty (years)	1								
*Flow based on 6kWh/m2/day **Other Pump flow and head variations available upon request									
BOS CONFIGURATION									
DC Disconnect	1		2			1	2	4	
*PV Wire - 4mm 1000V (m)	50		50		100	100	100	200	
*Pump Power Cable (m)	50		75		100	100	100	150	
Ground Wire - 4mm x (m)			50			50	100	100	
*Extra wire is available upon request									
SYSTEM LAYOUT									
# of Modules	3		8		10	20	40	80	
# of Inverters			1				1	1	
PV Layout options	Portrait or Landscape								
PV Array Surface Area (m2)	5.1		13.6		17	34	68	136	
PV Array Weight (kg)	58.5		156		195	390	780	1560	
PV Module String Configuration (Mono – Poly)	No. of PV Modules / String	3		4		5	20		
	String Voc	114.6		152.8		191	764		
	String Vmp	93.3		124.4		155.5	622		
	String Imp			8.55			8.55		
SYSTEM OPTIONS									
Wi-Fi Monitor	Wi-Fi or GPRS								
PV System Color	Silver or Black Module								
PV Mounting System Type	Metal Roof, Tile roof, Asphalt Shingle, Flat Concrete, Ballast, Ground								
Accessories	Float Switch					Float Switch - Grid / Diesel Back-Up			
SHIPPING									
PV Kit Weight (kg)	122.1		220.3		255	459.5	854.5	1635	
PV Kit Shipping Size (L x W x H) (m)	1.7 x 0.45 x 1		1.7 x 0.55 x 1		1.7 x 0.7 x 1	1.7 x 1.1 x 1			
Total number of Boxes	1					1	2	5	
Packing Material	Symtech SymPack Wood Crates								

POSEIDON Water Pump Example Layout (1kW)





The all-in-one Box Solution

The difference is clear, get better results with our all in a box packaging solutions. Symtech Solar's heavy duty ISPM15 compliant care design not only protects the contents during international shipping but also ensures that the solar kits arrive to their destination site undamaged and ready for installation. Symtech Solar's BOS toolboxes are included in all our solar kits and designed with the installer in mind. With years of installation experience, we understand the benefits of having a safe and well organized jobsite.



Packaging Specs

Designed to be warehouse friendly for distribution centers and local logistics companies, our kits are easily stacked, inventoried, and consolidated.

Poseidon 1kW

1.7 x 0.45 x 1
1 kit per pallet

#POS-1

38 kits per 20'
76 kits per 40'



Poseidon 2kW

1.7 x 0.55 x 1
1 kit per pallet

#POS-2

26 kits per 20'
52 kits per 40'



Poseidon 3kW

1.7 x 0.70 x 1
1 kit per pallet

#POS-3

20 kits per 20'
40 kits per 40'



Poseidon 5kW

1.7 x 1.1 x 1
1 kit per pallet

#POS-5

12 kits per 20'
24 kits per 40'



Poseidon 10kW

1.7 x 1.1 x 1
2 pallets per kit

#POS-10

6 kits per 20'
12 kits per 40'



Poseidon 20kW

1.7 x 1.1 x 1
2 pallets per kit

#POS-20

6 kits per 20'
12 kits per 40'





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