Model: SMS-CSP00005F3P

An affordable DC-to-3-Phase AC self-priming surface water pump It looks like a conventional water pump. It's not.

Surface water pumps have many applications, but most 0.5HP pumps on the market today use less efficient, less durable DC or single phase motors. If you can even find a high-efficiency *commercial/industrial-grade* pump they cost more (some cost a lot more) upfront, but most agree that...

AC motors are more cost-effective. In general 3-phase motors offer more features, are more efficient and provide a better power factor than single-phase or DC motors. AC motors have no capacitors or internal switches to wear out – they are more reliable, lighter, requiring less maintenance – and that saves you time and money.

The SWP-series 0.5HP/374w surface water pump runs better with fewer panels, lasts longer – and costs less!



This high-efficiency AC pump (180v) runs on a single 300w (36v) solar panel! Compare with other off-grid systems that require up to eight 300w panels! **How?** Our proprietary High Frequency Interleaved Booster, soft-start and slip management technology. Max out this 660 GPH pump with only two 300w panels.

A better pump starts with better components

We searched the market but could not find a 0.5HP 3-phase surface water pump that met our quality standards – so we built one!

We chose the highest quality components: high-grade silicon steel core, F Class insulation, brass impeller, a stainless steel shaft, an electrostatic high-grade PU paint coating to ensure no bare metal remained, and we machine wound the core using our *proprietary* design to further enhance performance.

Combined with our Solar Motor Controller – with *proprietary* **High Frequency Interleaved Booster** technology – the system maximizes the solar DC input to produce high-quality conditioned power from only two 300w solar panels. The commercial/industrial-grade 3-phase (AC) pump auto-adjusts to meet available solar power. *Proprietary* circuit-level MPPT manages the variable input – even on cloudy days or with partial shadowing – An SMC controlled pump keep running when other pumps do not!



Solar power's problem is not a problem here.

Solar is a variable energy source, when shadowing occurs a panel's voltage output fluctuates. These variations in current are bad for motors – they can cause them to run hotter, reducing efficiency and shortening lifespan. It also forces the motor into more stop/ start cycles – reducing performance.

Our patented Solar Motor Controller eliminates these issues by stabilizing voltage and conditioning the output that we feed to our specially designed pump. Fewer panels produce clean AC power. Motors run quieter, smoother and with less heat – they last longer.

Many off-grid applications.



This plug n' play workhorse is easy to set up for commercial/industrialgrade performance for a variety of surface water pumping jobs:

- > Domestic supply, animal water tanks, construction sites.
- > Gardens, fountains, agriculture, horticulture, irrigation.
- > Aerate ponds or fish farm tanks.
- > Circulation/cooling fans, condensers (HVAC) and compressors.

Model: SMS-CSP00005F3P

Pump more water with only 2 solar panels

Soft-start technology 3-Phase commercial grade durability Plug n' play easy

Power using standard solar panels and our Solar Motor Controller (SMC) or direct connect the pump using standard 3-phase connections.

This specially designed AC motor/pump is compact, durable and easy to set up. When combined with controller and a few panels it provides commercial/industrial-grade performance – up to 660GPH – in several configuration options. And it costs less than comparable pumps!

Clean AC power allows SMS motors to run quieter, smoother and with less heat, so they last longer. The pump has a one-year manufacturer's warranty. Extended warranty programs available.

SMS Surface Water Pump System – Off-Grid Pumping



Conventional Solar Panels or direct 3-phase connection



Solar Motor Controller w High Frequency Interleaved Booster Model: SMS-SMC000050G0



Surface Water Pump Self-Priming 0.5HP 3-phase

Perfect for isolated locations



Discharge - Head - Power

Discharge in LPH GPH	Head in Meters Feet	Power
731 LPH 193 GPH	47m 156ft	.833kW
1,109 LPH 293 GPH	37m 123ft	.668kW
1,456 LPH 385 GPH	28m 93ft	.552kw
1,871 LPH 494 GPH	20m 66ft	.439kW
2,301 LPH 608 GPH	8m 26ft	331kW



- Specifications
- Use any standard PV solar panels
- Standard 3-Phase wiring (to solar panels or direct connection)
- Standard 1" PVC intake/discharge
- Proprietary machine winding Polyester Enamelled Copper
- Superior Low RPM performance
- Cast iron suction and delivery flanges
- High grade die cast aluminum stator body and rotor
- Multi-stepped stainless steel shaft
- Silicon steel core of M-47/M-45/M-43 grade

SMS Certified Distributor:

- Brass impeller LTB2
- F Class insulation
- Electrostatic high-grade PU paint coating (inside & out)
- Integrated check valve
- Stainless steel screws and bolts
- Machine wound 2 pole stator
- NEMA Insulation Class F Rating
- Type Self-Priming Monobloc Pump
- Operating Head: 30m/98ft
- Operating Temperature: 50°c/122°f (atmospheric)

- Suction Head 4m/13ft
- Max Pressure: 56.8psi (at 30m head)
- Discharge Flow Rate: 8m/26ft Head 2,301LPH/608GPH
- Discharge Flow Rate: 47m/156ft Head 731LPH/193GPH
- Dimensions: (LxWxD) 13.78" x 8.07" x 10.24" 350 x 205 x 260 (mm)
- Unit Weight: 9kg /19.84lbs.
- ISO9000 Certified Manufacturer
- CE & UL Certified



www.SolarMotorSystems.com