The Fhoton™ SolarPAK is the system solution to your solar pumping requirements. By utilizing quality components, innovative thinking based on global market inputs, and a technical expertise in groundwater pumping, Franklin Electric has developed a rugged system which tackles the challenges of harsh and remote environments. No other system delivers the features, benefits, and reliability in just one package!

**FEATURES**

- “Off-the-shelf” 4” Franklin Electric pumps withstand sand better than any other pump
- Proven Franklin Electric submersible motors for long-term reliability
- Simple installation: Connect motor, DC power, flow switch (optional)
- Fhoton™ Wi-Fi Module: Easily adjust min/max speeds or minimum off-time with FE Connect Fhoton mobile app to adapt pump to well conditions
- High-flow system for faster tank-fill and significant water output
- Type 4 enclosure minimizes impact from wildlife, insects, dust, and weather
- Maximum Power Point Tracking (MPPT) for maximizing efficiency of input power
- Soft-start feature prevents water hammer and increases system life
- Built-in diagnostics and protection

**MODEL NOMENCLATURE**

```
XXX FD SP - X.XHP
```

- Motor Rating: 0.5, 0.75 or 1.5 hp
- SolarPAK
- Fhoton Drive
- Pump Flow: 5, 7, 10, 15, 25, 35, 45 or 90 US gpm (18, 25, 30, 45, 70, 100, 150 or 270 lpm)
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong></td>
<td>Max. Output Voltage: 48 V AC, 3-phase&lt;br&gt;Max. Amps (RMS): 9.8 A, each phase&lt;br&gt;Output Frequency: 20-60 Hz&lt;br&gt;Efficiency at Max Power: ~98%</td>
</tr>
<tr>
<td><strong>PV Source</strong></td>
<td>Input Voltage: 40* – 110** V DC&lt;br&gt;Max. Amps Input: 7.2 A DC, continuous&lt;br&gt;Power at MPP: Up to 0.38 kW</td>
</tr>
<tr>
<td><strong>For Use with Franklin Electric Motor</strong></td>
<td>2349049204G</td>
</tr>
<tr>
<td><strong>Controller Size - L x W x D</strong></td>
<td>6.28” x 6.28” x 7.32” (159.5 mm x 159.5 mm x 185.9 mm)</td>
</tr>
<tr>
<td><strong>Controller Weight</strong></td>
<td>10 lbs (4.5 kg)</td>
</tr>
<tr>
<td><strong>Temperature Range</strong></td>
<td>-13 °F to 122 °F / -25 °C to 50 °C</td>
</tr>
<tr>
<td><strong>Relative Humidity Range</strong></td>
<td>0 to 100% Condensing</td>
</tr>
<tr>
<td><strong>Enclosure Rating</strong></td>
<td>Type 4</td>
</tr>
</tbody>
</table>

**BUILT-IN DIAGNOSTICS & PROTECTION**

- Surge Protection
- Underload/Dry Run
- Overvoltage
- Locked Pump
- Open/Short Circuit
- Reverse Polarity
- Overheated Controller

**DRIVE COMPONENTS**

- Operating status indicated by multi-color LED
- MOVs for lightning protection
- Output motor phase connections for three-phase induction motor
- DC power supply input from the solar array
- Terminals provided for optional Photon App communication board
- Jumper section for single- or two-level control
- Flow switch input to detect dry-run and deadhead conditions for additional motor and pump protection
- Removable bottom gland plate for simple conduit installation

Visit franklin.config.intelliquip.com for options, accessories, and more solar-powered systems from 3/4 to 10 hp.
GENERAL PERFORMANCE
FHoton™ 48V SOLARPak (1/2 HP)

**5 FDSP - 0.5 HP**

- **FHoton™**: 1/2 hp
- **Pump End**: 3200 Series 5 gpm (18 lpm)
- **Motor**: 1/2 hp

**7 FDSP - 0.5 HP**

- **FHoton™**: 1/2 hp
- **Pump End**: 3200 Series 7 gpm (25 lpm)
- **Motor**: 1/2 hp

**15 FDSP - 0.5 HP**

- **FHoton™**: 1/2 hp
- **Pump End**: Tri-Seal 15 gpm (45 lpm)
- **Motor**: 1/2 hp

**20 FDSP - 0.5 HP**

- **FHoton™**: 1/2 hp
- **Pump End**: Tri-Seal 20 gpm (60 lpm)
- **Motor**: 1/2 hp
Franklin Electric’s solar product line ranges from cost-effective systems operating on only two solar panels through large-scale watering systems using thousands of gallons per day. These various options provide you with everything you need – panels, pump, motor, and drive from the people who know groundwater best. And, we back it up with Field Service Engineers willing to help you every step of the way.

Complete Solar Pumping Systems

solar.franklin-electric.com