



SOLAR DRIVE PSD15 • PSD30

With Pentair Pentek Solar Drives, using the sun's energy to power your day-to-day operations has never been simpler. From dawn to dusk, the Pentair Pentek Solar Drive PSD15 and PSD30 maximize solar energy to power water systems for livestock watering, crop irrigation and remote, off-grid well pumping. Pair it with standard AC Pentair motors for a cost effective solution. Reach more installation opportunities with the unique ability to retrofit to existing pump systems.



FEATURES

- ◆ **Retrofit existing systems** with one-of-a-kind 4" AC pump and motor combination
- ◆ **Efficient** use of solar panels and simple installation
- ◆ **Cost savings** with Pentair's traditional 4" AC pumps versus third-party DC pumps
- ◆ **Buy only what you need** with this configurable system

GENERAL APPLICATIONS

- ◆ Crop irrigation
- ◆ Livestock watering
- ◆ Off-grid



TECHNICAL SPECIFICATIONS

| | Electrical | PSD15 | PSD30 | | Mechanical | PSD15 | PSD30 |
|------------------------------------|------------|----------|----------|-----------------------|------------|----------------|----------------|
| MPPT operating voltage | | 100-380V | 100-380V | Degree of protection | | NEMA4/IP66 | NEMA3/IP65 |
| Max PV panels open circuit voltage | | 400V | 400V | Enclosure material | | Aluminum | Aluminum |
| Minimum operating PV voltage | | 100V | 100V | Operating temperature | | - 40°C to 50°C | - 40°C to 50°C |
| Maximum PV panel current | | 9A | 15A | Dimensions | | 10"x5.5"x4" | 18"x10"x5" |
| Single-phase max AC motor power | | - | 12A | Solar terminal | | AWG#10-14 | AWG#10-14 |
| Three-phase max AC motor power | | 7A | 10A | Motor terminal | | AWG#10-14 | AWG#10-14 |
| | | | | Sensor terminal | | AWG#14-18 | AWG#14-18 |
| | | | | Cooling | | Passive/no fan | Passive/no fan |

ENVIRONMENTAL

Compliance with **IEC 60068**

IEC 60068-2-2 - Cold

IEC 60068-2-2 - Dry Heat

IEC 60068-2-14 - Change of temperature

IEC 60068-2-30 - Damp Heat

SOLAR ARRAY CONFIGURATOR

| Model | Service Factor Nominal Pump Current | | | Recommended Solar PV Capacity | | |
|-------|-------------------------------------|----------------------|----------------------|---------------------------------------|--------------------------------------|--|
| | 1-ph; 120 Vac (Amps) | 1-ph; 230 Vac (Amps) | 3-ph; 230 Vac (Amps) | Recommended PV Power Capacity (Watts) | Minimum Solar MPP Voltage (min/Vmpp) | Absolute Maximum Open Circuit Voltage (max Voc.) |
| PSD15 | 4-6 | 2-4 | 2-3 | 750-1000 | 80/120 | 400 |
| PSD15 | 6-8 | 4-5 | 3-4 | 1000-1500 | 100/150 | 400 |
| PSD15 | 8-10 | 5-6 | 4-5 | 1500-2000 | 150 | 400 |
| PSD30 | 8-10 | 6-8 | 6-7 | 2500-3500 | 220 | 400 |
| PSD30 | 10-12 | 8-10 | 7-8 | 3500-4000 | 250 | 400 |
| PSD30 | - | 10-12 | 8-10 | 4500-6000 | 270 | 400 |

HIGHLIGHTS

- ◆ Universal controller for ½ - 1½ HP motors - Three Phase, 50/60Hz, 120V/240Vac (PSD15)
- ◆ Universal controller for 1½ - 3HP motors - Single/Three Phase, 50/60Hz, 120V/240Vac (PSD30)
- ◆ Simple hook up, weather proof, durable and automatic starting capacity
- ◆ Changes a 1 or 2 speed motor/pump into a soft start, VFD (Variable Frequency Drive)
- ◆ VFD will run motors even at low solar output extending the useful operating time
- ◆ Integrated DC Disconnect (PSD30) and PV Parallel Junction

PROTECTIONS

- ◆ Automatic Dry or Built-In Dry Well
- ◆ Pump Locked Rotor
- ◆ Over-Current and Overload
- ◆ Over-Temperature
- ◆ Short Circuit and Open Circuit
- ◆ Solar Input Reverse Polarity
- ◆ Overvoltage
- ◆ Dry Well Protections



293 Wright Street | Delavan, WI 53115 | Ph: 866.973.6835

Orders Fax: 800.426.9446 | www.pentair.com

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