



The Dankoff Solar SlowPump was the world's first commercially available low power solar pump. In response to those that claimed it was impossible, the Solar SlowPump was developed by Windy Dankoff in 1983, and has thousands of installed units worldwide over its nearly 40 year life.

Produced in a wide range of sizes, the Solar SlowPump is used to draw water from shallow sources and push it as high as 450 vertical feet through miles of pipeline.

Designed for reliability and maintainability, wear parts typically last 5-10 years, with an overall life expectancy of 15-20 years before rebuild.

Construction & Features

- Rotary vane mechanism (positive displacement) made of forged brass, carbon-graphite, and stainless steel
- NSF approved for drinking water
- Handles sea water and dissolved minerals
- Survives most freezes
- Permanent magnet, DC motor
- AC models use a low-surge PM motor that greatly reduces starting surges, inverter, and wire size requirements
- Installation and Service Manual is highly detailed and illustrated

Filtration Requirement

This pump *cannot* tolerate dirt, so water *must* be filtered clear. Failure to use an approved filtration unit will void the warranty of the pump. If water is very dirty, improve the source or consider using one of our dirt-tolerant pump models; SolarForce, SunCentric, or Solaram.



Solar-Direct Applications ("PV-Direct"/non-battery)

- Rated power of the PV array must meet Watts listed in the PV Watts column in the chart below
- Use of the Dankoff DC Controller will increase system performance nearly 30% over the course of one year and is required to start and run in low light conditions

Mechanical Characteristics

1300 Models

- Dimensions: 5 3/4 x 17 3/8 inch (14.61 x 44.14 cm)
- Fittings: 1/2 inch Female
- Weight: 12 lbs (5.45 kgs)

1400 Models

- Dimensions: 6 1/2 x 18 3/4 inch (16.51 x 47.63 cm)
- Fittings: 1/2 inch Female
- Weight: 25 lbs (11.34 kgs)

2500 Models

- Dimensions: 5 3/4 x 17 3/8 inch (14.61 x 44.14 cm)
- Fittings: 3/4 inch Male
- Weight: 13 lbs (5.9 kgs)

2600 Models

- Dimensions: 6 1/2 x 18 3/4 inch (16.51 x 47.63 cm)
- Fittings: 3/4 inch Male
- Weight: 29 lbs (13.16 kgs)

Solar Surface Pump Technical Data

Dankoff Solar SlowPump Surface Pump



Warranty

1 year against defects in materials and workmanship

Reading the Chart

Use the chart to determine a four-digit model number. Make note of the voltage indicated.

Total Lift = vertical distance from surface of the water source to the pipe outlet or top of storage tank, plus pipeline friction loss

GPM = U.S. Gallons Per Minute

LPM = Liters Per Minute

| Total Lift | | Model #1322 | | | Model #1310 | | | Model #1308 | | | Model #1304 | | | Model #1303 | | | Model #2505 | | | Model #2507 | | |
|------------|--------|-------------|------|-------|-------------|------|-------|-------------|------|-------|-------------|------|-------|-------------|------|-------|-------------|-------|-------|-------------|-------|-------|
| Feet | Meters | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts |
| 0-20 | 0-6 | 0.51 | 1.93 | 40 | 0.92 | 3.48 | 40 | 1.25 | 4.73 | 40 | 1.75 | 6.62 | 45 | 2.5 | 9.46 | 65 | 3.25 | 12.3 | 70 | 4 | 15.14 | 80 |
| 40 | 12 | 0.51 | 1.93 | 45 | 0.92 | 3.48 | 50 | 1.25 | 4.73 | 65 | 1.75 | 6.62 | 65 | 2.5 | 9.46 | 80 | 3.23 | 12.23 | 75 | 3.95 | 14.95 | 100 |
| 60 | 18 | 0.51 | 1.93 | 45 | 0.89 | 3.37 | 60 | 1.2 | 4.54 | 70 | 1.68 | 6.36 | 80 | 2.44 | 9.24 | 90 | 3.15 | 11.92 | 110 | 3.9 | 14.76 | 130 |
| 80 | 24 | 0.49 | 1.85 | 50 | 0.88 | 3.33 | 65 | 1.2 | 4.54 | 80 | 1.64 | 6.21 | 90 | 2.36 | 8.93 | 110 | 3.1 | 11.73 | 135 | 3.9 | 14.76 | 150 |
| 100 | 30 | 0.49 | 1.85 | 65 | 0.88 | 3.33 | 70 | 1.2 | 4.54 | 85 | 1.64 | 6.21 | 100 | 2.33 | 8.82 | 130 | 3.08 | 11.66 | 155 | 3.85 | 14.57 | 180 |
| 120 | 36 | 0.48 | 1.82 | 65 | 0.88 | 3.33 | 75 | 1.2 | 4.54 | 90 | 1.62 | 6.13 | 110 | 2.33 | 8.82 | 140 | 3.02 | 11.43 | 180 | 3.8 | 14.38 | 210 |
| 140 | 42 | 0.47 | 1.78 | 70 | 0.88 | 3.33 | 80 | 1.2 | 4.54 | 95 | 1.6 | 6.06 | 125 | 2.27 | 8.59 | 160 | 2.92 | 11.05 | 210 | 3.65 | 13.82 | 245 |
| 160 | 48 | 0.47 | 1.78 | 80 | 0.87 | 3.3 | 95 | 1.2 | 4.54 | 110 | 1.6 | 6.06 | 140 | 2.21 | 8.36 | 180 | 2.85 | 10.79 | 235 | | | |
| 180 | 54 | 0.47 | 1.78 | 85 | 0.86 | 3.26 | 100 | 1.18 | 4.47 | 120 | 1.57 | 5.94 | 150 | 2.11 | 7.99 | 190 | 2.75 | 11.41 | 255 | | | |
| 200 | 60 | 0.45 | 1.7 | 100 | 0.85 | 3.22 | 110 | 1.16 | 4.39 | 130 | 1.56 | 5.91 | 165 | 2.03 | 7.68 | 220 | | | | | | |
| 240 | 72 | 0.44 | 1.67 | 120 | 0.83 | 3.14 | 130 | 1.14 | 4.31 | 150 | 1.54 | 5.83 | 190 | 1.96 | 7.42 | 235 | | | | | | |
| 280 | 84 | 0.41 | 1.55 | 130 | 0.81 | 3.07 | 150 | 1.12 | 4.24 | 170 | 1.51 | 5.72 | 220 | | | | | | | | | |
| 320 | 96 | 0.41 | 1.55 | 150 | 0.79 | 3 | 170 | 1.1 | 4.16 | 195 | 1.48 | 5.6 | 245 | | | | | | | | | |
| 360 | 108 | 0.41 | 1.55 | 170 | 0.76 | 2.88 | 195 | 1.05 | 3.97 | 220 | | | | | | | | | | | | |
| 400 | 120 | 0.4 | 1.51 | 190 | 0.73 | 2.76 | 220 | 1 | 3.79 | 250 | | | | | | | | | | | | |
| 440 | 132 | 0.39 | 1.48 | 210 | 0.7 | 2.65 | 250 | | | | | | | | | | | | | | | |
| 480 | 146 | 0.25 | 0.95 | 260 | | | | | | | | | | | | | | | | | | |
| 520 | 158 | 0.25 | 0.95 | 310 | | | | | | | | | | | | | | | | | | |
| 560 | 170 | 0.2 | 0.76 | 340 | | | | | | | | | | | | | | | | | | |

Motor
1/5 Horsepower

PV-Direct Voltage
12 VDC, 24VDC, 48 VDC

Inverted Voltage (AC)
115 VAC

| Total Lift | | Model #1408 | | | Model #1404 | | | Model #1403 | | | Model #2605 | | | Model #2607 | | |
|------------|--------|-------------|------|-------|-------------|------|-------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|
| Feet | Meters | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts | GPM | LPM | Watts |
| 0-20 | 0-6 | 1.92 | 7.27 | 110 | | | | 3.64 | 13.78 | 130 | | | | 6.2 | 23.47 | 185 |
| 40 | 12 | 1.9 | 7.19 | 120 | | | | 3.6 | 13.63 | 150 | | | | 6.1 | 23.09 | 240 |
| 60 | 18 | 1.88 | 7.12 | 130 | | | | 3.61 | 13.66 | 170 | | | | 6.09 | 23.05 | 250 |
| 80 | 24 | 1.88 | 7.12 | 140 | | | | 3.5 | 13.25 | 200 | | | | 6.04 | 22.86 | 290 |
| 100 | 30 | 1.85 | 7 | 150 | | | | 3.5 | 13.25 | 220 | | | | 6.04 | 22.86 | 330 |
| 120 | 36 | 1.83 | 6.93 | 160 | | | | 3.43 | 12.98 | 235 | | | | 6 | 22.71 | 355 |
| 140 | 42 | 1.82 | 6.89 | 180 | | | | 3.43 | 12.98 | 255 | | | | 6 | 22.71 | 390 |
| 160 | 48 | 1.82 | 6.89 | 185 | | | | 3.43 | 12.98 | 280 | | | | 5.93 | 22.45 | 430 |
| 180 | 54 | 1.81 | 6.85 | 200 | | | | 3.4 | 12.87 | 300 | 3.35 | 12.68 | 350 | 5.83 | 22.07 | 470 |
| 200 | 60 | 1.81 | 6.85 | 210 | | | | 3.35 | 12.68 | 330 | 3.33 | 12.61 | 370 | 5.8 | 21.95 | 500 |
| 240 | 72 | 1.77 | 6.7 | 235 | | | | 3.38 | 12.79 | 360 | 3.3 | 12.49 | 415 | 5.75 | 21.76 | 585 |
| 280 | 84 | 1.79 | 6.78 | 260 | | | | 3.3 | 12.49 | 405 | 3.25 | 12.3 | 465 | 5.59 | 21.16 | 675 |
| 320 | 96 | 1.72 | 6.51 | 290 | 1.66 | 6.28 | 320 | 3.3 | 12.49 | 450 | 3.2 | 12.11 | 515 | | | |
| 360 | 108 | 1.75 | 6.62 | 310 | 1.66 | 6.28 | 350 | 3.2 | 12.11 | 520 | 3.16 | 11.96 | 565 | | | |
| 400 | 120 | 1.69 | 6.4 | 330 | 1.64 | 6.21 | 390 | 3.2 | 12.11 | 545 | | | | | | |
| 440 | 132 | 1.69 | 6.4 | 355 | 1.62 | 6.13 | 430 | 3.1 | 11.73 | 610 | | | | | | |
| 480 | 146 | 1.7 | 6.43 | 380 | | | | | | | | | | | | |
| 520 | 158 | 1.61 | 6.09 | 400 | | | | | | | | | | | | |
| 560 | 170 | 1.67 | 6.32 | 435 | | | | | | | | | | | | |

Motor
1/2 Horsepower

PV-Direct Voltage
24 VDC, 48VDC

Inverted Voltage (AC)
115VAC

Performance at 15 or 30V (PV-Direct Voltage)
For battery, subtract 20% from Flow & Watts
24V pump may be run at 12V to yield 1/2 flow at 1/2 watts
Actual performance may vary ± 10%

Dependable water solutions since 1983

Subject to technical changes

DANKOFF SOLAR

321 W. 12th St., Elk City, OK 73644 USA

www.DankoffSolarPumps.com

+ 1 505-471-3469

