



Energy Service Solutions LLC

Solar Lift Stations

Water Pumping Solutions

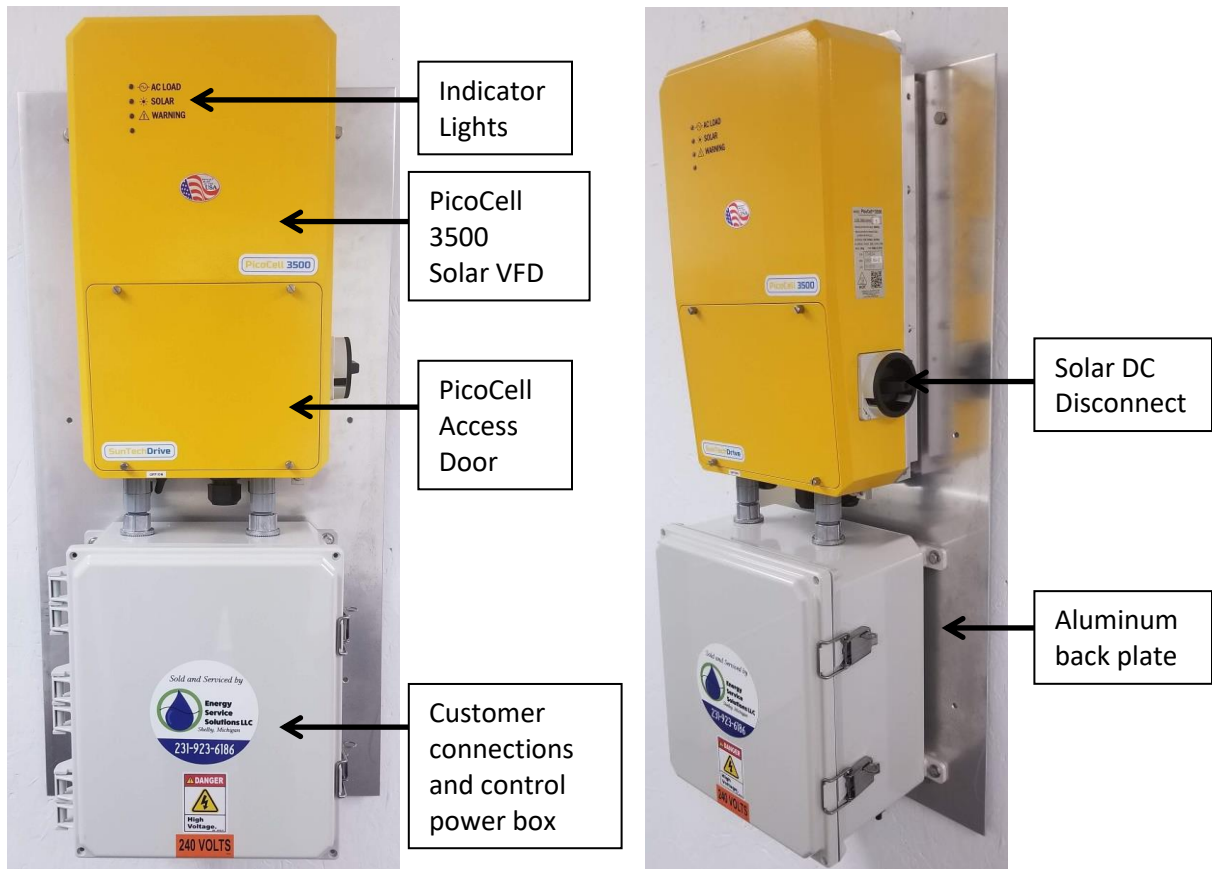
DPC3500

Drainage Pump Controller

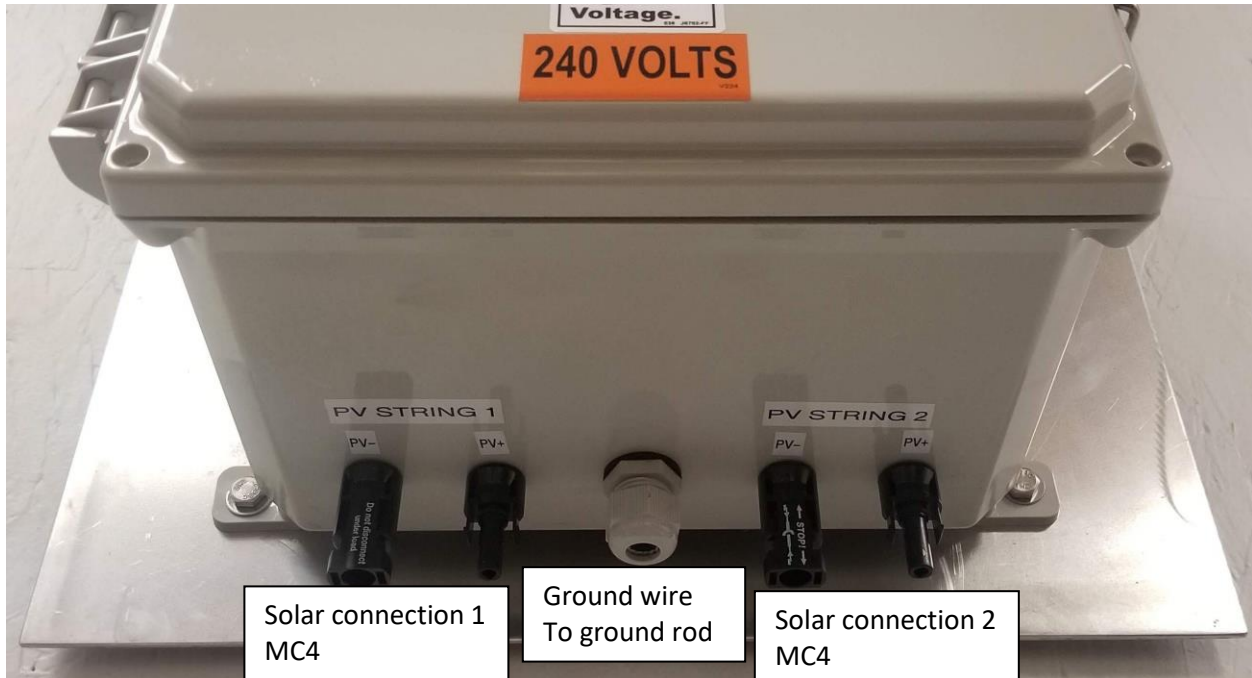
Introduction

The DPC3500 is a 3HP max, solar direct motor controller. The PicoCell 3500 is at the heart of the system and modifies the 300-350Vdc solar PV input power into a 230Vac 3 phase output for the pump motor. The 3500 can operate 230V, 3PH pump motors with maximum 10A S.F. rating. The system acts as a motor soft start and variable speed drive to match the MPPT (max power point) of the PV array.

External Features

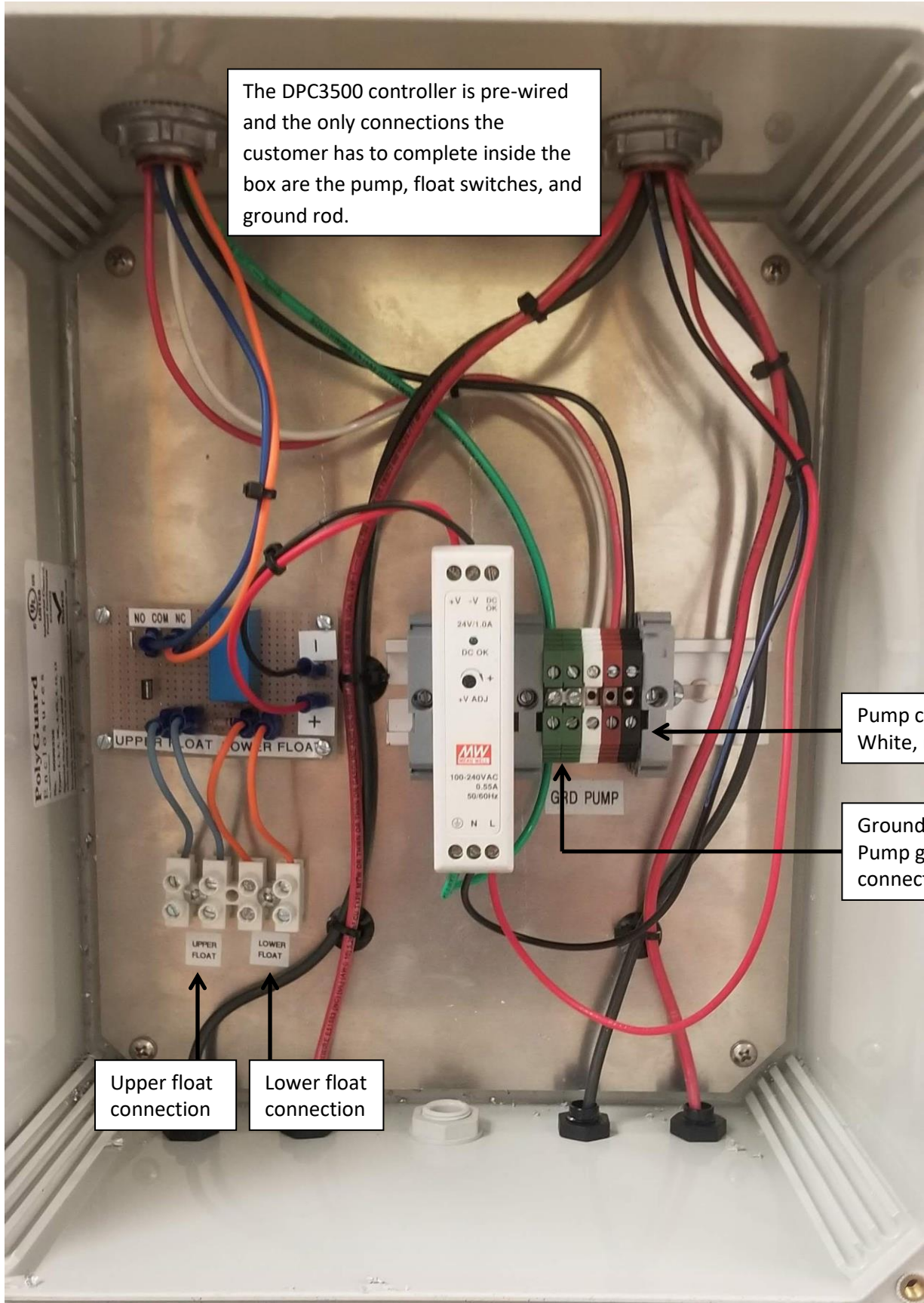


Solar and sump/basin connections



1 ¼ conduit from the pump basin. Will contain the pump cable and the two float switch leads.

*This could enter into the bottom of the enclosure if preferred.



The DPC3500 controller is pre-wired and the only connections the customer has to complete inside the box are the pump, float switches, and ground rod.

Pump connection
White, red, black

Ground rod and
Pump ground
connect here

Upper float
connection

Lower float
connection

Mounting

Our kits come with the unistrut channel attached to the backside of the mounting plate. The 4.5" unistrut clamps are also included to easily mount the plate to the solar panel stand.



SunTech Drive – PicoCell 3500 specifications

Input Specification

Dual Solar PV input:

- Maximum Solar Open Circuit Voltage: **400Vdc**
- Maximum Solar PV Current (per channel): **9 Amps**

Output Specification (when used with PicoCell)

- Maximum Output Current: **13Amps** (1-phase motors)
- Maximum Output Current: **10.5Amps** (3-phase motors)
- Maximum Power Sustained **3500W**

Digital signals:

- One active open digital input
- One active close digital input

Protections:

Overcurrent, Overvoltage, Over temperature, Short Circuit, Overload.
AC Load GFCI – 5, 10, or 30mA based on selected setpoint (optional)

ELECTRICAL	MECHANICAL
AC Source operating voltage: 115-240V	Degree of protection: NEMA3R/IP65
AC Source phase and frequency: 1/3 phase 50/60Hz	Enclosure material: Aluminum
Solar PV open circuit voltage: 400V	Operating temperature: -40°C to 40°C
Maximum PV panel current: 9A	Dimensions: 18"x10"x5"
Max Single phase AC motor current: 13A	AC Source terminals: AWG #10-16
Max Three phase AC motor current: 10.5A	Solar terminals: AWG #10-16
	Motor terminals: AWG #10-16
	Float Sensor terminals: AWG #14-20