

- ▶ ACCOMMODATES ARRAYS WITH ONE OR TWO 36-CELL MODULES IN SERIES; WILL OPERATE FROM 12 OR 24 VOLT BATTERY BANKS
- ▶ MAXIMUM POWER POINT TRACKING
- ▶ SELF PROGRAMMING OPERATION
- ▶ CURRENT OR VOLTAGE BOOSTING
- ▶ SELF DIAGNOSTIC
- ▶ SIMPLIFIED CONTROL AND TROUBLESHOOTING
- ▶ LED INDICATORS PROVIDE CONVENIENT INFORMATION ABOUT VOLTAGES, SWITCH AND SENSOR STATUS AND OVERLOAD CONDITIONS

The CD 300 pump controller is designed to connect solar modules to Kyocera Solar's SD series submersible diaphragm pumps. The controller provides current or voltage boosting combined with true Maximum Power Point Tracking (MPPT) of the solar modules. The pump controller's microprocessor, using true MPPT, constantly monitors the incoming solar power and boosts current or voltage to operate the solar modules at their peak power point and maximize pump output. The controller is entirely self configuring and requires no setup or adjustment by the user to ensure proper operation.

The CD 300 controller will accommodate one or two 36-cell modules in series. Other combinations of modules can be used as long as the total Open Circuit Voltage (VOC) does not exceed 50 Volts. Modules can be wired in parallel to maximize daily water production. Highest efficiencies (94-98%) will be attained when the solar modules are wired in series for operation between 30-42 Volts. However, single modules, such as a KC120, can also be used, maintaining controller efficiencies over 92%.

In addition to solar modules, the controller will also operate the pump using 12 or 24 Volt battery banks as a power source. The CD 300 controller will also work with any permanent magnet positive displacement pump rated for 30 Volts with 10 Amps maximum current draw.

The controller's unique design simplifies control and troubleshooting of pumping. Inputs are provided for remote switches and Kyocera Solar's unique water level sensor. Indicators provide convenient information about voltages, switch and sensor status, and overload conditions.

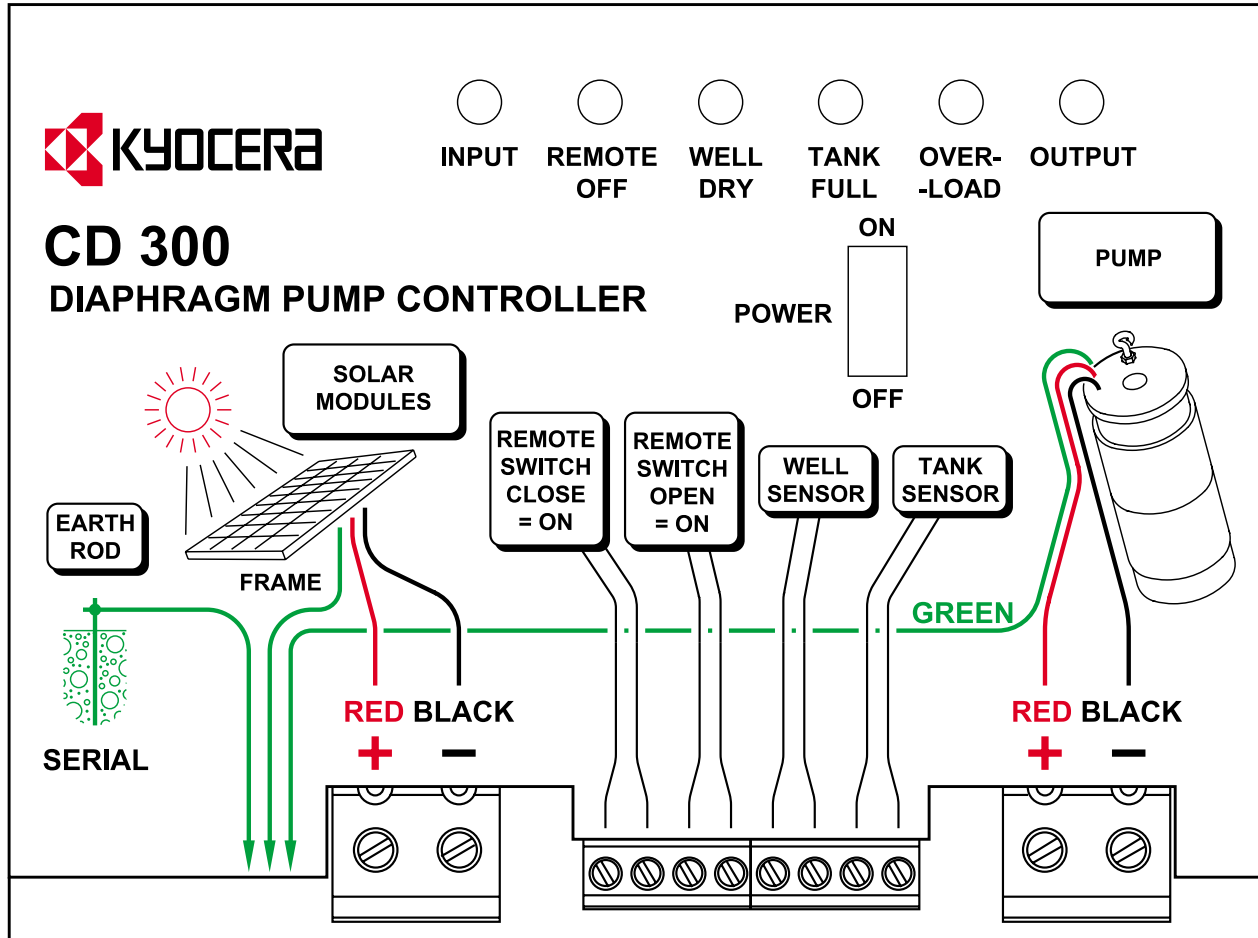
Kyocera Solar's newly designed pump controller is user friendly. It is designed to provide maximum power under varying conditions and requires no programming by the user. We are proud to introduce the Kyocera Solar line of pump controllers and are confident you will be satisfied.

**KYOCERA SOLAR WATER PUMPING SYSTEMS
AND COMPONENTS ARE MANUFACTURED BY
KYOCERA SOLAR, INC.**



KYOCERA SOLAR, INC.

CD 300 Controller Display



CD300 CONTROLLER SPECIFICATIONS

Description	Value
Maximum Ambient Temperature	50° C
Minimum Ambient Temperature	-20° C
Maximum Solar/Input Voltage (<i>total VOC @ -20°C</i>)	50 Volts
Maximum Output Current - Current Boost Mode (<i>input voltage greater than output voltage</i>)	10 Amps
Maximum Output Power - Current Boost Mode (<i>input voltage greater than output voltage</i>)	300 Watts
Maximum Output Current - Voltage Boost Mode (<i>input voltage less than output voltage</i>)	5 Amps
Maximum Output Power - Voltage Boost Mode (<i>input voltage less than output voltage</i>)	150 Watts
Input Current Limiting	12 Amps
High Temperature Protection (<i>shutdown temperature at heatsink</i>)	85° C
Solar and Pump Wire Sizes	0.5 - 16 mm ² 6 - 20 AWG
Sensor and Remote Switch Wire Sizes	0.2 - 2.5 mm ² 14 - 24 AWG



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