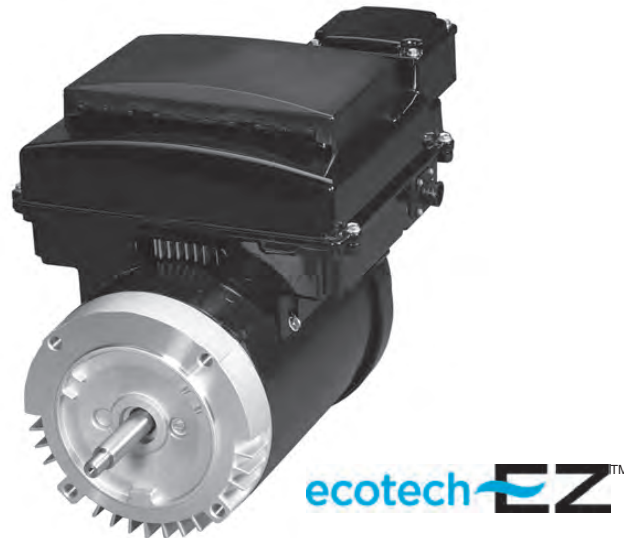


EcoTech EZ[®] Variable Speed Pool Motor and Control Commonly Asked Questions



1. What is the minimum and maximum voltage required to power the motor?

- The motor is labeled 230 volts but there is a +/- 10% allowable variation in voltage.
- The acceptable voltage range is 207-253 Volts AC

2. Can I adjust the prime time and speed of the motor if the 4 minutes at 100% flow is not necessary?

- The priming time and motor speed is adjustable as follows:
- The control has to be in the OFF STATE (Green RUN LED OFF).
- Press and hold the EXIT key and the RIGHT → key for approximately two seconds.
- The screen will say PRESS ENTER TO CONFIRM. Press the Enter button.
- The screen now shows the current setting for priming. Press Up / Down to adjust the prime flow rate (from 30% to 100%).
- Then press RIGHT to get to the prime time minutes. Press Up / Down to adjust the prime flow time (from 0 minutes to 10 minutes).
- Press enter to save the data.

3. How long do the programmed settings last in the event of power outage?

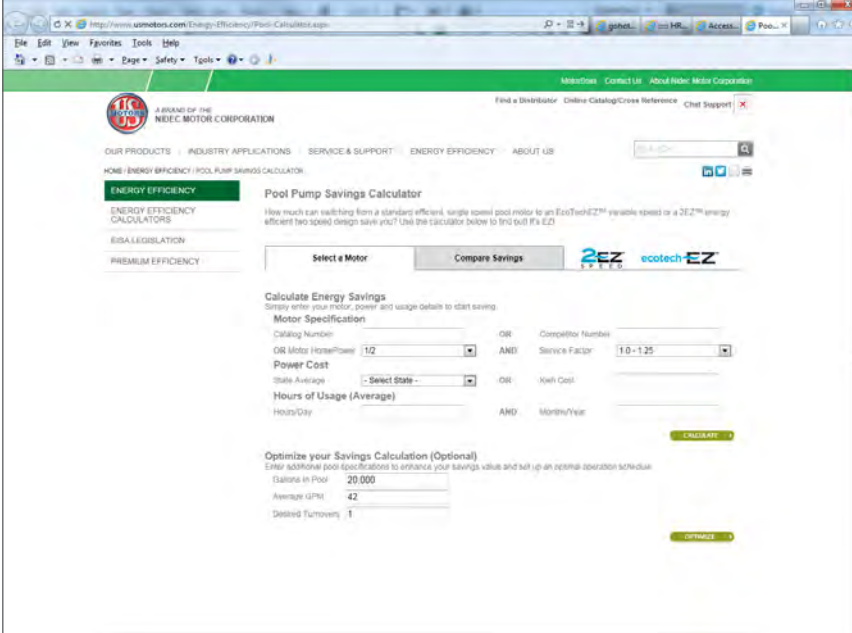
- The program is saved in permanent memory so if the power goes out to the motor, your program settings are secure.
- The time of day and day of week settings are saved but only for 8-24 hours dependent upon the ambient temperature around the motor. The cooler the temperature, the less time the time and day are saved. Should these settings be lost, please follow the directions under the lid of the user interface to reset the time of day and day of week then press the Run/Stop button to run the pump.

4. When a button is pressed on the User Interface, how long does it take for the motor to respond to the command?

- The motor should respond within 2 seconds to the command entered onto the user interface.

5. How do I program my pump to run at the most energy efficient setting?

a. Go to this web site: <http://www.usmotors.com/Energy-Efficiency/Pool-Calculator.aspx>

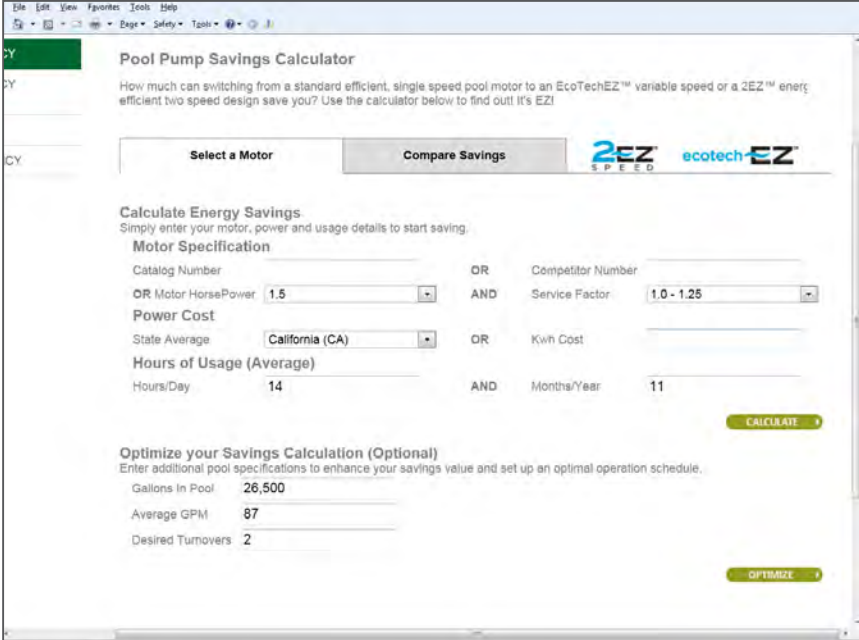


The screenshot shows the 'Pool Pump Savings Calculator' page on the US Motors website. The page includes a navigation menu with 'ENERGY EFFICIENCY' selected. The main content area features a 'Calculate Energy Savings' section with the following input fields:

- Motor Specification:** Catalog Number, OR Motor HorsePower (1/2), Competitor Number, Service Factor (1.0 - 1.25).
- Power Cost:** State Average (- Select State -), OR Kwh Cost.
- Hours of Usage (Average):** Hours/Day, AND Months/Year.
- Optimize your Savings Calculation (Optional):** Gallons In Pool (20,000), Average GPM (42), Desired Turnovers (1).

Buttons for 'Calculate' and 'Optimize' are visible at the bottom right of the form.

b. Enter the current motor's horsepower & service factor range. Enter your State or for a more accurate measure, your Kwh cost, the hours per day you run your current pump and the number of months per year your pool pump runs. Enter in the number of gallons of water in your pool and the desired number of water turnovers. If you do not know, we recommend two water turnovers per day. Then press the Optimize button.



The screenshot shows the 'Pool Pump Savings Calculator' page with the following example data entered:

- Motor Specification:** OR Motor HorsePower (1.5), Service Factor (1.0 - 1.25).
- Power Cost:** State Average (California (CA)).
- Hours of Usage (Average):** Hours/Day (14), Months/Year (11).
- Optimize your Savings Calculation (Optional):** Gallons In Pool (26,500), Average GPM (87), Desired Turnovers (2).

The 'Calculate' and 'Optimize' buttons are still visible at the bottom right.

c. In the first column of the below section, you can see the estimated cost per year to operate your current pool pump. The far right three columns show the run options for the EcoTech EZ[®] product. Please ensure the number of Turnovers/Day is equal to the amount you specified on the previous screen. Please notice the program offers three choices of run time per day for the EcoTech EZ[®] variable speed pool motor and for each option, the program calculates your anticipated cost per year to operate your pool pump. You can also easily see your savings % per year of operation. Should you choose 18 hour per day operation, please ensure you check with your utility company to ensure you operate the pool pump during off-peak hours each day. For example, if your utility rate is higher from 12 to 6PM daily, you should set the user interface program to run the pump the 18 hours per day not including these hours. Enjoy the savings!

Click "Print Savings Report" to obtain a consumer ready sales tool like the below:

INNOVATION MADE **EZ**[™] **Energy Savings Report**

| Catalog Number | Horsepower | Power Cost | Usage Hours/Day | Usage Months/Year |
|----------------|------------|------------|-----------------|-------------------|
| EB858 | 1.5 | \$0.172 | 14 | 11 |

| Gallons In Pool | Average GPM | Turnovers |
|-----------------|-------------|-----------|
| 26,500 | 87 | 2 |

| | Single Speed Pump - Existing Pump Motor | Single Speed Pump - Extreme E Pump Motor | 2EZ Two-Speed Motor (230V Only) | | | EcoTech EZ Variable Speed Motor (230V Only) | | |
|----------------------|---|--|---------------------------------|-----------------------|-----------------------|---|----------------------|----------------------|
| Run Time/Day | 14 Hours | 10.2 Hours | 8 Hours | 18 Hours | 24 Hours | 8 Hours | 18 Hours | 24 Hours |
| Turnovers/Day | 2.8 | 2 | 1.6 | 2.1 | 2.4 | 1.6 | 2 | 2 |
| Hours/Day @ Speed 1 | 14 Hours | 10.2 Hours | 0 Hours at Low Speed | 15 Hours at Low Speed | 24 Hours at Low Speed | Run at 100% Flow Rate | Run at 50% Flow Rate | Run at 40% Flow Rate |
| Hours/Day @ Speed 2 | N/A | N/A | 8 Hours at High Speed | 3 Hours at High Speed | 0 Hours at High Speed | — | — | — |
| Savings/Day | — | \$1.75 | \$2.44 | \$3.55 | \$4.21 | \$2.62 | \$4.31 | \$4.75 |
| Cost/Year to Operate | \$1817.65 | \$1231.58 | \$1000.98 | \$630.51 | \$408.22 | \$940.10 | \$375.69 | \$228.26 |
| Savings/Year | — | \$586.06 | \$816.66 | \$1187.14 | \$1409.43 | \$877.55 | \$1441.96 | \$1589.38 |
| Savings %/Year | — | 32% | 45% | 65% | 78% | 48% | 79% | 87% |
| Payback Period | — | | | | | | | |
| Catalog # | | | | | | | | |
| 56J Mount | — | EB796 | EB2977T | EB2977T | EB2977T | EVSJ3 | EVSJ3 | EVSJ3 |
| Square Flg Mount | — | EB842 | EB2983T | EB2983T | EB2983T | EVSS3 | EVSS3 | EVSS3 |

Costs and Savings results are approximate numbers as each pool's hydraulic system differs. The motor and pump's actual performance and energy consumption is dependent upon filter types, pipe sizes and lengths, and other special characteristics of the hydraulic system.

6. Can I run the EcoTech EZ® pool motor for 24 hours per day?

- a. We recommend setting the program on the user interface to run the unit from 12:01AM to 11:59PM daily to avoid any kind of software issues when the unit changes the day of the week to the next day at midnight each night.

7. Do our motors communicate with 3rd party controllers?

- a. Yes with the purchase of our EZCOM™ interface adapter. Please see the EcoTech EZ® Interface adapter manual link from this web site:
 - i. <http://www.usmotors.com/Our-Products/Pool-Spa.aspx>

8. Do our motors have an input/output jack to link booster pump operation?

- a. This can be accomplished by using the EZCOM™ interface adapter output jack and a relay. Please see the link listed above in # 7 for the hot link to this user manual.

