



YOUR GUIDE TO THE NEW U.S. DEPARTMENT OF ENERGY DEDICATED PURPOSE POOL PUMP REGULATIONS (DP3)

REGULATION SUMMARY:

Effective July 19, 2021, new U.S. Department of Energy (DOE) regulations will go into effect that require Dedicated Purpose Pool Pumps (DP3) manufactured in or imported into the U.S. meet minimum energy-efficiency standards. The standards apply to all pool pumps with a Hydraulic Horsepower (HHP) rating ≤ 2.5 HHP, with some limited exceptions. HHP is approximately 50% of the pump motor's total horsepower (THP) rating.

Most pool pumps with a motor rating of 5.0 THP or less will be required to meet the minimum energy-efficiency standards.

IMPACT TO VARIABLE-SPEED AND NON-VARIABLE-SPEED PUMPS:

There is no distinction in the regulations between variable-speed and non-variable speed pumps. The regulations simply require dedicated purpose pool pumps to meet minimum energy-efficiency standards.

The Good News: The regulations are written in a way that makes it relatively easy for variable-speed pumps to meet the requirements.

What to be Aware of: The regulations make it difficult for most non-variable-speed pumps ≥ 1.0 THP to meet the requirements. Many single-speed and two-speed pumps < 1.0 THP, including booster pumps, will meet the requirements.

EXEMPTIONS:

The following classes of pool pumps are exempt from meeting the minimum energy-efficiency standards:

- Waterfall Pumps that operate at ≤ 30 feet of head with a maximum speed of $\leq 1,800$ RPM
- Integral Sand- and Cartridge-Filter Pool Pumps
- Storable Electric Spa / Rigid Electric Spa Pumps
- Pumps with 3-Phase Motors

ENERGY-EFFICIENCY MEASUREMENTS:

Two Terms to be Familiar with:

- **Hydraulic Horsepower (HHP)** is a standardized measurement of how much water the pump moves and is roughly half of the pump motor THP. A 5.0 THP pump will have a HHP of roughly 2.5 HHP.
- **Weighted Energy Factor (WEF)** is a standardized measurement of how much energy is required to move the water in terms of gallons per kWh of energy use. A pump with a WEF of 7.847 means the pump is rated as being able to pump 7,847 gallons of water with one kWh of energy.

DP3 REGULATION FAQ's

1. Does this mean I cannot purchase any non-compliant pumps starting on July 19, 2021?

- No. The regulations restrict the ability of manufacturers to manufacture or import non-compliant pumps on or after this date. No inventory in the supply chain needs to be returned.

2. Is there a list of compliant pumps that I can reference that will still be available?

- Unfortunately, there are two accompanying “motor rules” that have been proposed, one by the DOE and another by the California Energy Commission (CEC) — these have yet to be finalized. These rules may restrict the sale of some replacement motors and pumps, even if they meet the current minimum energy performance requirements.

Until these rules are finalized, manufacturers will be hesitant to provide an official, final list. In general, all variable-speed pumps will be compliant while most single- and two-speed pumps with a motor THP rating ≥ 1.0 THP will be non-compliant.

3. Who is responsible for non-compliant pumps that end up in the market?

- Manufacturers bear sole responsibility to ensure only compliant pumps are manufactured or imported starting on July 19, 2021.

4. What is the difference between HHP and THP?

- HHP stands for Hydraulic Horsepower and is generally used to measure how much water a pump moves. THP refers to the Total Horsepower of the motor used on the pump. HHP is roughly half of the THP rating of the motor.

5. How do I interpret WEF and will it be published anywhere?

- The easiest way to understand WEF is to view it as you would Miles Per Gallon (MPG) for a motor vehicle. The higher the WEF, the more energy-efficient the pump is. In general, pumps with a lower HHP/THP rating will have higher WEF ratings.
- Manufacturers will be required to publish WEF and THP on the pump rating label as well as other product material on all pumps manufactured and/or imported on or after July 19, 2021.

6. Should consumers be making purchasing decisions based on WEF alone?

- No. Pumps still need to be sized properly. Homeowners need to rely on their Pool Professional to prescribe the best pump for the application. WEF is simply a reference point that indicates energy efficiency.

7. Does DP3 impact above-ground pool pumps?

- The regulations do not make a distinction between in-ground and above-ground pool pumps. Rather, most pumps used in above-ground applications are classified as “non self-priming” pool pumps. The minimum WEF standards for these types of pumps are lower than “self-priming” pool pumps used in most in-ground applications. The result is most non-self priming single-speed pumps meet the minimum energy-efficiency requirements and will continue to be available.