EVRHEAT SERIES 20

Efficiency & Savings

Efficiency is Everything

While many engine heaters are labeled as an energy efficient option, few are put to the actual test. But at Hotstart, we know efficiency is everything when it comes to engine heating. So to be sure the EVR20 can deliver, we tested it in our own facilities against our own industry-leading benchmarks.

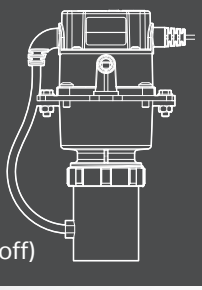
EVR20

Wattage:
1400 W | 1900 W | 2500 W
Engine:
20 L max.
Circulation Method:
Forced Circulation
Set Temperature:
110 °F

Comparisons

To evaluate the EVRHEAT Series 20 in terms of efficiency compared to both standard thermosiphon and forced circulation systems, we tested it against our engine heating benchmarks: the Hotstart CTM, TPS and CB models.

CTM

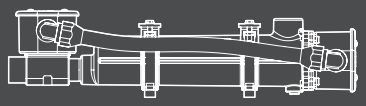


Wattage:
1500 W | 2500 W
Circulation Method:
Forced Circulation
Set Temperature:
100 °F (on) / 120 °F (off)

TPS

Wattage:
1500 W | 2000 W
Circulation Method:
Thermosiphon
Set Temperature:
100 °F (on) / 120 °F (off)

CB



Wattage:
1500 W | 2000 W | 2500 W
Circulation Method:
Thermosiphon
Set Temperature:
100 °F (on) / 120 °F (off)

Testing

Each heater in our test was installed on the same test engine. Test ambient temperatures: 10 °C, 15 °C and 20 °C (50 °F, 59 °F and 68 °F) were selected to replicate common outdoor environments and a typical climate-controlled facility). To provide detailed consumption data, EVR20 UL certified heaters were tested separately from EVR20 CE certified heaters.

Power consumption readings were captured during testing and were calculated out to represent a full year operating at test conditions.

At 10 °C, the 1500 watt TPS and 1500 watt CB heaters lacked sufficient power to adequately heat the test engine to their set points in those ambient conditions and their test data was discarded.

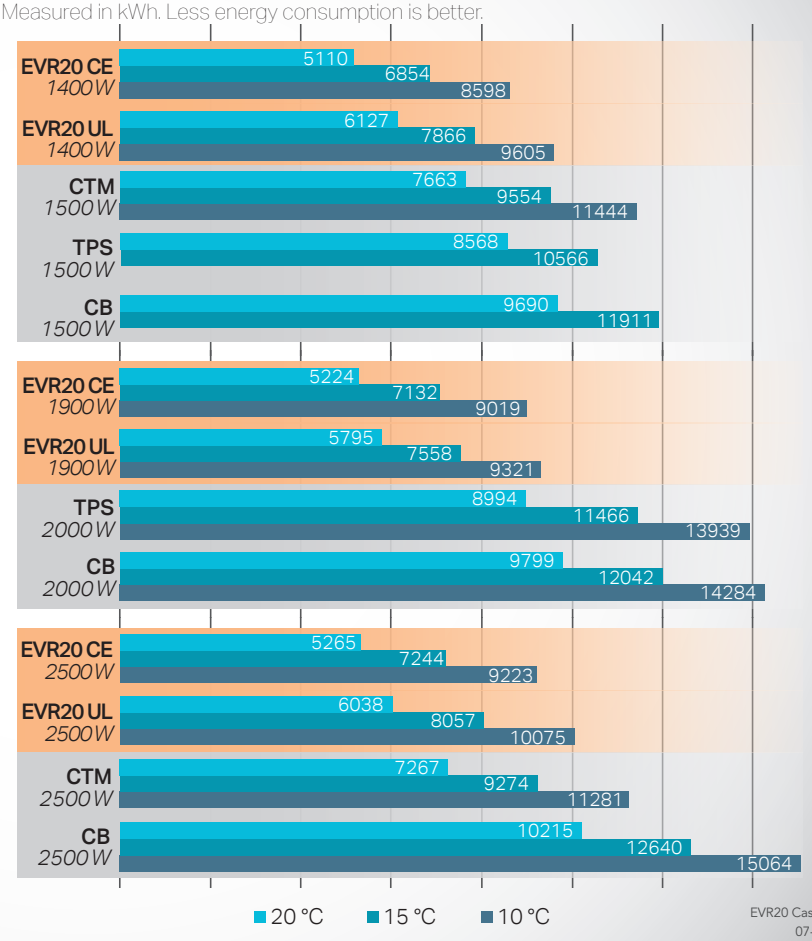
Efficiency Breakdown

The EVR20 test units consumed significantly less power than their competitors in every ambient condition. And while this may be expected when compared to the thermosiphon systems, the TPS and CB, it comes as a surprise when placed against a similarly pump-equipped model, the CTM.

However, when up against the already-efficient CTM, the EVR20 used an average of 20% less energy heating the engine in the identical conditions to the same target temperature.

Annual Energy Consumption

Measured in kWh. Less energy consumption is better.



EVRHEAT SERIES 20

Efficiency & Savings

The Cost of Heating

While engine heaters are often deemed essential for onsite power generation, their operating costs may be overlooked. However, even though a generator may only run during a power event or during exercise periods, the engine heater is always operating. The efficiency built-in to the EVR20 can help keep those costs low over the entire lifespan of the engine heater.

EVR20

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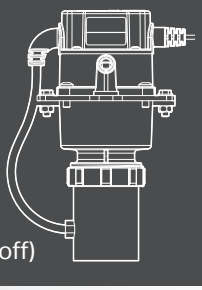
1400 W | 1900 W | 2500 W
Engine:
20 L max.
Circulation Method:
Forced Circulation
Set Temperature:
110 °F

Comparisons

To evaluate the EVRHEAT Series 20 in terms of efficiency compared to both standard thermosiphon and forced circulation systems, we tested it against our engine heating benchmarks: the Hotstart CTM, TPS and CB models.

CTM

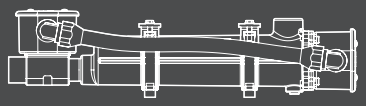


Wattage:
1500 W | 2500 W
Circulation Method:
Forced Circulation
Set Temperature:
100 °F (on) / 120 °F (off)

TPS

Wattage:
1500 W | 2000 W
Circulation Method:
Thermosiphon
Set Temperature:
100 °F (on) / 120 °F (off)

CB



Wattage:
1500 W | 2000 W | 2500 W
Circulation Method:
Thermosiphon
Set Temperature:
100 °F (on) / 120 °F (off)

Testing

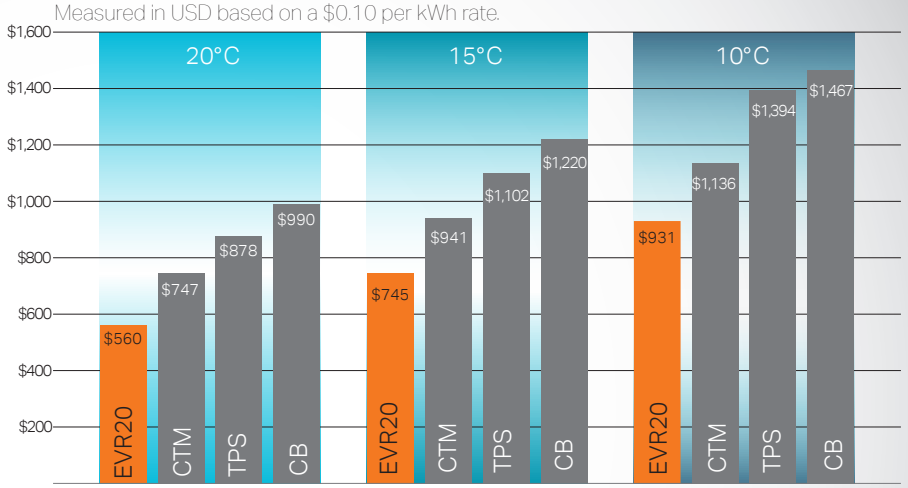
Each heater in our test was installed on the same test engine. Test ambient temperatures: 10 °C, 15 °C and 20 °C (50 °F, 59 °F and 68 °F) were selected to replicate common outdoor environments and a typical climate-controlled facility). For cost breakdown analysis, the EVR20 data was averaged between UL certified models and CE certified models.

The cost to operate each heater was based on power consumed during testing, calculated out to a full calendar year.

Each of the annual power consumption calculations were then applied to a broad $0.10 USD/kWh rate to generate an annual operating cost.

Annual Cost to Operate

Measured in USD based on a $0.10 per kWh rate.



Cost Breakdown

Commercial and industrial power rates vary widely based on region and provider, with the highest rates in the contiguous US exceeding $0.20 per kWh. While our analysis numbers use an example rate of $0.10/kWh, savings show by this testing may be more significant based on local rates and peak pricing.

Versus the pump-driven CTM, the EVR20 shows impressive operating cost savings between 18% and 25%. When compared against the thermosiphon units, the difference increase dramatically: saving an average of 34% over the TPS and an average of nearly 40% against the CB heater.

When it comes time to replace your engine's heating system, keep in mind the role that efficiency and operating costs can have when choosing a heating solution. The EVR20 is the efficiency leader that can save you time and money while providing peace of mind.