



Powerhouse

IDLE REDUCTION TECHNOLOGY



Big savings
come in small packages.



POWER DRIVES

Innovation Engineered

Designed to be a better fit for your locomotive, budgetary, and environmental needs.

The PowerHouse™ is a revolutionary idle reduction technology – significantly decreasing the energy wasted through idling. Its unique design allows for easy installation, immediately delivering the benefits of increased fuel savings and reduced noise and air pollution.

- » Heats and circulates water or coolant through the locomotive engine block and cooling system to maintain a temperature of above 100°F, even in the coldest of temperatures.
- » Compact PowerHouse™ units require significantly less fuel than the idling locomotive engine, leading to lower costs and increased fuel savings for a rapid return on your investment.
- » Available as a diesel-powered Auxiliary Power Unit version with a durable Tier 4 compliant Kubota® engine or as a 120/240 VAC version operating from an external power source.
- » Helps railroads comply with U.S. and global emission standards.
- » Designed for convenient set-up, installation, and maintenance – reducing the need for train crew interface.
- » Operates in the harshest of conditions with proven dependability.



LESS OPERATING COST



SMALLER SIZE

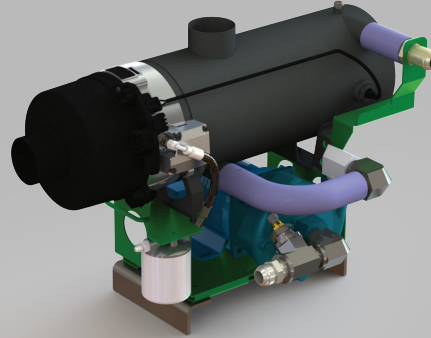
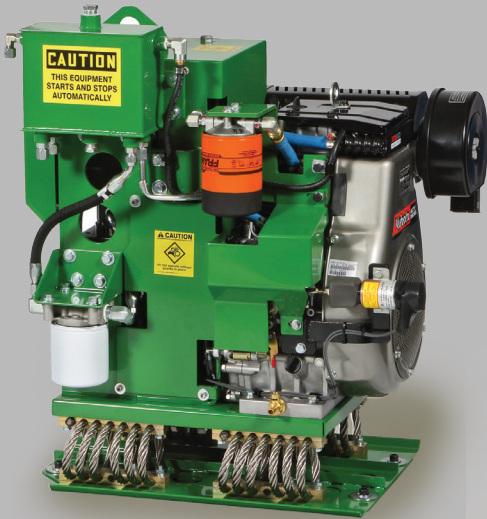


HIGHER HEAT OUTPUT

The PowerHouse™ Heat Exchanger

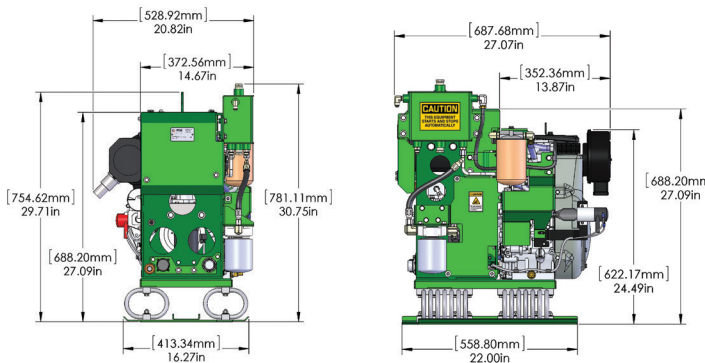
The heart of the PowerHouse™ is the 90,000 BTU/hr (26kW) diesel-fueled heat exchanger, which provides rapid coolant heating plus rock-solid reliability.

PowerHouse™ APU

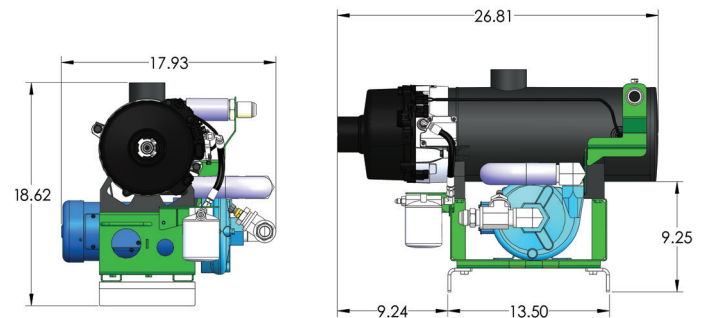


FEATURES AND SPECIFICATIONS

- » Modular components can be mounted up to 20 feet apart – providing additional installation flexibility and occupying a smaller footprint.
- » 90,000 BTU/hr (26kW) diesel burner draws fuel directly from the locomotive fuel tank.
- » Consumes, on average, 0.38 gallons of fuel per hour.
- » Wall mounted control panel.
- » A 72 VDC, 80 amp alternator driven by a 9.5 HP single-cylinder, onboard diesel engine supplies power to electronic controls and a 35 amp locomotive battery trickle charger.
- » A 25 GPM, 72 VDC electric water pump circulates heated water and/or coolant.
- » Optional 5 GPM oil circulating pump. Full load amperage 7.6.
- » Remote monitoring capabilities.



Engine Module



Heater Module

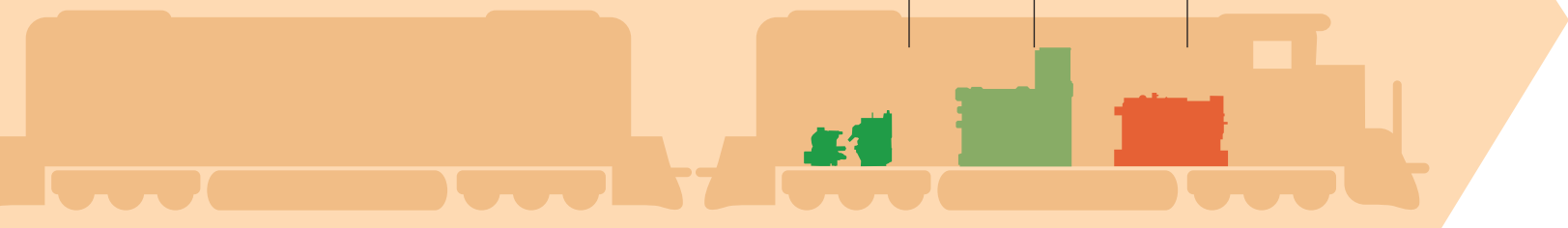
WHEN IT COMES TO APU SYSTEMS, SIZE DOES MATTER.

Shown to scale for relative size purposes only.
Does not reflect mounting locations.

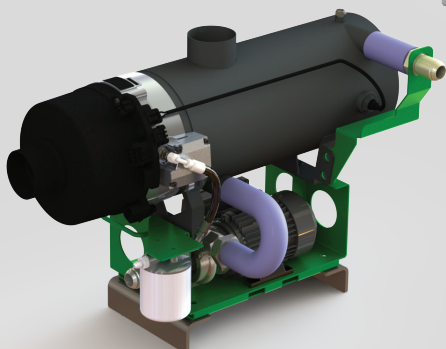
PowerHouse™

Competitor A

Competitor B

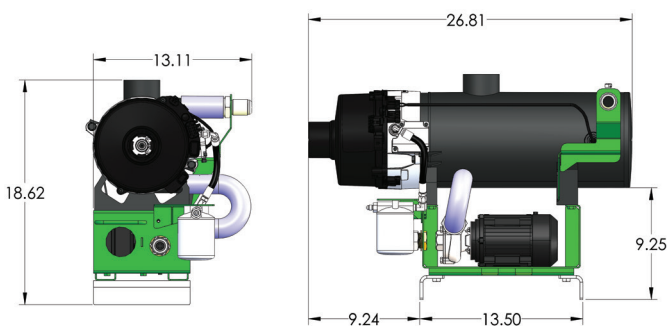


PowerHouse™ 120



FEATURES AND SPECIFICATIONS

- » Powered by a standard 120/240 VAC, 5/2.5 amp external power source.
- » 90,000 BTU/hr (26kW) diesel burner draws fuel directly from the locomotive fuel tank.
- » A 25 GPM, 120/240 VAC water pump circulates heated water and/or coolant.
- » Consumes, on average, 0.38 gallons of fuel per hour.
- » Optional 5 GPM oil circulating pump. Full load amperage 11/5.5.
- » Remote monitoring capabilities.



POWERDRIVES.COM



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IDLE REDUCTION TECHNOLOGY



PDI

POWER DRIVES

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For more information, visit powerdrives.com or go to youtube.com/user/powerdrivesdws to watch an informational video.

Remote monitoring provides real-time data.

The PowerHouse™ APU includes standard remote monitoring. With this feature, you can access real-time operating data that shows how your system is performing through the PowerHouse™ dashboard displayed on your computer, tablet, or smart phone.

Key features include:

- » Accessible anytime – anywhere.
- » Real-time maintenance updates and more.
- » Visible fuel savings.



Environmentally sound.

Integral to the design of the PowerHouse™ are the environmental benefits the units provide:

- » Reduction in noise and air pollution.
- » USEPA SmartWay* verified technology that helps railroads meet USEPA mandates.
- » Proactive compliance with Tier 4 EPA clean air standards.
- » 90% emission reduction.

* SmartWay is a public/private collaboration between the United States Environmental Protection Agency (USEPA) and the freight transportation industry that helps shippers, carriers, and logistics companies improve fuel efficiency and save money.

NYSERDA proves that the PowerHouse™ saves thousands of gallons of fuel.†



The New York State Energy Research and Development Authority (NYSERDA) conducted a demonstration project on locomotives equipped with the PowerHouse™ idle reduction technology. Over the demonstration period, numerous trains were tested for the amount of fuel used by the PowerHouse™ units during locomotive out-of-service time, compared to the amount of fuel consumed by idling locomotive engines during the same amount of time. The net fuel savings experienced by every train tested numbered in the thousands of gallons.

† PON 2078.



Scan here for more information about the PowerHouse.™