

PHILLIPS & TEMRO industries

Field Testing Demonstrates the Idle Free® Series 5000 Delivers Driver Comfort and Savings Over the Long Haul

The American Trucking Association estimates that the driver shortage in the United States is expected to reach six figures by 2024. According to the American Transportation Research Institute (ATRI), driver shortage is the top-ranked industry concern, followed closely by hours-of-service rules and anti-idling regulations. Comfort has become more important than ever to attract and retain drivers who are spending more non-driving time in the cab.

Auxiliary Power Units (APUs) are one key component of a solution to address recruiting, retention, idle reduction and rest time in the cab. APUs allow the driver to stay cool and comfortable in municipal and customer locations that require anti-idling regulations. In addition, emissions, fuel consumption, maintenance and engine hours are also reduced. Another critical component of driver comfort is safety, which is directly linked to sleep quality.



Idle Free® Series 5000 eAPU

Many factors must be considered when determining which type of APUs are best for an over-the-road fleet. Typically, diesel APUs are higher in fuel costs and maintenance, while some electric APUs do not provide the capacity or run time to meet the fleets' needs.

Maximum Cooling Capacity Testimonial

"The Idle Free Series 5000 thermostat never needs to be above the half-way setting," says Joel Marrow, specifications and commercial vehicle fuel economy specialist. "At night I needed to adjust it to a minimum cooling temperature. The blower remained on the lowest level for all but two hours during the afternoon."

"Throughout the 34-hour restart, the truck only needed to recharge the batteries," confirms Marrow. "During the idle period my truck burned four gallons of fuel. And, according to the dash display, nothing was added to the diesel particulate filter (DPF) ash load."

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Phillips and Temro's Idle Free® Series 5000 electric auxiliary power unit (eAPU®) delivers the cooling capacity and run time to keep drivers comfortable in extremely high temperatures while providing operational cost reduction to the fleet. It is a next-generation cooling system based on electric vehicle technology that keeps the bunk cooler and quieter to improve driver comfort during off-duty hours. It also reduces idling time, fuel consumption, truck maintenance costs and carbon emissions. During a 34-hour restart, with a maximum ambient temperature of 114°F (45°C), the eAPU ran on battery power for 21.95 hours with only 1.5 hours of main engine idling to recharge the eAPU batteries.

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Automatic Start-Stop Technology

The cooling performance of the Idle Free Series 5000 eAPU includes a high-capacity cooling solution with automatic start-stop technology. This technology allows for auxiliary battery charging during extended rest periods, such as a 34-hour restart or during rest periods preceded by a lack of drive time to sufficiently charge the auxiliary batteries. In addition to improving the electric APUs run time the automatic start-stop technology monitors the truck batteries and can start the truck to provide charging in order to prevent a no-start situation.

Over the past year, Phillips and Temro has been tracking many field test units. The data below features data from one of these trucks.

Idle Free Series 5000 eAPU Data Logger Highlights*

eAPU usage: 34-hour restart	21.95 hours
Start/stop idle time	1.5 hours
Total eAPU runtime	95.67 hours

Comfort + Savings

Driver comfort: average bunk temperature**	72°F
Fuel savings***	\$291.79

*Complete eight-day operation, 34-hour restart plus seven days available.

**Will vary based on driver settings.

***Fuel savings was calculated based on \$3.05 per gallon of diesel fuel and 1 gallon per hour fuel consumption.

To learn more about the Idle Free Series 5000 eAPU, visit phillipsandtemro.com/series5000eapu, call 1-800-328-6108 or email sales@phillipsandtemro.com.

