IDLE REDUCTION - ANYWHERE
Unlike electric heating systems, the APU allows a locomotive to be shut down in any location by using the locomotive’s own diesel fuel supply. Eliminating unnecessary idling means reducing fuel consumption, oil consumption, emissions, noise, engine wear and wet-stacking.

EFFICIENT & RESPONSIVE
During normal operation, the APU consumes under a half gallon (2 liters) of fuel per hour. Featuring four heat exchange points plus a built-in tank heater and heavy-duty alternator, the APU provides up to 19 kW of total heating power and 80 amps of battery charging power.

INTUITIVE & INTEGRATED
Every aspect of the APU's design is intended to work seamlessly with a locomotive's day-to-day operations, including an easy-to-use configurable display, real-time operating parameters, automatic operation, and AESS-ready capability.

CREW COMFORT
Installation is made easy with our optional plumbing kit. Choosing the cab heat option delivers APU power directly to the locomotive's cabin heaters, keeping the crew comfortable during layover periods.

Hotstart’s APU heating system is a self-contained coolant and oil preheater that uses the locomotive's onboard fuel supply to heat prime movers without requiring a shore power connection.
Locomotive Battery Charging & Cab Heat

- DC/DC Converter: 72 V/12 V DC, 200 W for 12 V battery charging
- Locomotive Charging: 72 V DC, 80 A available
- Cab Heat: up to 3 kW, 72 V DC (sidewall heaters)

Coolant

- Fluid Type: Water, Coolant mix (50% water/50% glycol)
- Heat Exchange: oil tank, radiator exchanger, exhaust exchanger
- Heat Boost: 3 kW tank heater, thermostat 100–120 °F (38–49 °C)
- Pump Power: APU belt-driven
- Flow: 20 gpm @ 25 psi (75.7 L/min @ 170 kPa)
- Inlet/Outlet: 24 JIC / 1.0" NPT

Oil

- Fluid Type: Lubrication oil
- Heat Exchange: oil/coolant exchanger
- Pump Power: APU belt-driven
- Flow: 6.86 gpm @ 25 psi (26.0 L/min @ 170 kPa)
- Inlet/Outlet: 10 JIC

Options shown represent typical tested or certified configurations. Additional options or configurations may be available. For assistance with your heating system application, contact Hotstart at 509.536.8660 or sales@hotstart.com.

1 Yanmar approved application.
2 Measured outside locomotive body at 30.5 m from unit.
3 APU heat output rated 11.5 kW without heat boost / 19 kW with heat boost activated. Heat boost activated at locomotive coolant temperatures below 100 °F (38 °C).

Ordering Information

APU

<table>
<thead>
<tr>
<th>Engine Displacement*</th>
<th>Fluid Heating</th>
<th>Battery Charging</th>
<th>AESS Interface</th>
<th>Plumbing Kit</th>
<th>Cab Heat</th>
<th>Model</th>
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</thead>
<tbody>
<tr>
<td>9000–12000 CID</td>
<td>coolant/oil</td>
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<td>yes</td>
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<td>APUS-110-000</td>
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<td>APUS-110-100</td>
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<tr>
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<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>APUS-110-110</td>
</tr>
</tbody>
</table>

* Heat loss through wet cooling systems (watertowers) during heating system operation may reduce or impair the heating system’s ability to maintain optimal heat levels for engine operation or engine start.

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See part drawings for additional model dimensions.