ORANGE Locomotive Air Conditioner for Switchers & Road Units

“Uniting Innovation, Engineering, Manufacturing and Distribution”

Product Description
PowerRail, an AAR M-1003 Certified Quality Company introduces our New

**Split Type Air Conditioner Systems**

**32K BTU for Switchers and 42K BTU for Road Units.**

The Orange is the ONLY direct 72V DC driven Locomotive Cab Air Conditioning System that **DOES NOT NEED AN INVERTER.**

Running directly off the locomotive’s batteries and using VRF (Variable Refrigerant Flow) technology, the Orange will save up to 30% in energy consumption while reducing power surges in the 72V DC system. Our compact split-system components can be custom configured to fit any cab without looking like a retrofit.

**Patent Pending Design:**
Breakthrough proven technology used in both off-road vehicles and MOW vehicles. Our new AC unit offers a compact, reliable, and brushless system while eliminating the Inverter known for major failures. The AC unit’s lightweight and modular design offers the end user the option of easy maintenance by replacing any of the (3) three major components on a UX (Unit Exchange) Basis.

Compressor - 72V
Brushless Motor
NO Inverter!
ORANGE Locomotive Air Conditioner for Switchers & Road Units

“Uniting Innovation, Engineering, Manufacturing and Distribution”

**32K BTU for Switchers**
**ORANGE1000SUS - 32K**

- Compressor - 72V
- Brushless Motor
- NO Inverter!

**42K BTU for Road Units**
**ORANGE1000SUS - 42K**

- Compressor - 72V
- Brushless Motor
- NO Inverter!

205 Clark Road
Duryea, PA 18642
Phone: 570-883-7005
Fax: 70-883-7006
Sales@EPowerRail.com
### Specifications and Features

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporators (Weight 10 lbs.)</td>
<td>Achieving a cooling capacity of 32,000 BTU and an Amp draw at max load of 60A, with individual adjustable airflow and temperature controls</td>
</tr>
<tr>
<td>Refrigerant System</td>
<td>Non Ozone depleting refrigerant, type R134a, sealed systems (eliminates need for refrigeration techs for installation)</td>
</tr>
<tr>
<td>72V DC Power</td>
<td>Directly from the locomotives electrical systems battery-bank and/or Auxiliary Generator (Operating Voltage 68V to 74V DC)</td>
</tr>
<tr>
<td>Condenser/Compressor Weights</td>
<td>32,000 BTU 24 lbs./60 lbs. 42,000 BTU 24 lbs./46 lbs.</td>
</tr>
</tbody>
</table>

### Why VRF?

VRF (Variable Refrigerant Flow) technology works like the accelerator in a car, by matching the Out-Put to the Load. The compressor starts up smoothly and ramps up until it meets the demand. When the Thermostat is satisfied, it ramps down to match the lower demand.

### Modular Design

Our design offers a unique Modular Design for easy operations during the Maintenance or Replacement of a component. Each component is lightweight, offering easier installation and lower labor cost to the installer.

### Installation #1: Roof Mount - No Cutout

Our Compact Modular design can be easily mounted anywhere on the locomotive. The Roof Mount is most common and achieves a low clearance of only nine inches to accommodate tunnel clearances or low bay doors.

---

**Diagram:**

- **Compressor**
- **Condenser**
- **Air Handler**
- **Controls**

**Flat Roof - No Cutout Required. Drill 2 inch Hole for Hoses. Low Clearance Height of 9” for 32K BTU and 12 ¾” for 42K BTU.**
Installation #2: Roof Mount With Cutout For Frame Mounting - SINGLE UNIT

Our Compact Modular design can be easily mounted in a new Square Cutout or can be used in an Existing Cutout. Both designs require our Universal Roof Cutout Frame and the Mounting Kit to accommodate a replacement which will be a precise fit.

(Note: Switchers with round roofs, an additional frame is required)
Installation #3: Roof Mount With Cutout For Frame Mounting - DOUBLE UNIT
Our Double Unit System is mounted the same as the Single Unit. The extra advantage of never having a Locomotive unit out of service offers True Train Time Reliability for the End User.

**NO MORE DOWN TIME**
If One Unit Fails, the Secondary Unit Still Provides Enough Cooling Power to cool the Cab
Installation #4: In Floor Mounting

Our In-Floor Unit is mounted in the same Foot Print as the Single Unit. We can also take your Old Unit and convert to the new 3-piece Modular Design at a competitive price., therefore reducing maintenance cost drastically. Please call for details and specifications.
Air Conditioner Reference Dimensions - 32K BTU for Switchers

COMPRESSOR BOX

CONDENSER

EVAPORATOR/AIR HANDLER
Air Conditioner Reference Dimensions - 42K BTU for Road Units