



Water Treatment and Troop Support Specialists

Highland Engineering, Inc.

1153 Grand Oaks Drive

Howell, MI 48843

(517) 548-4372 (517) 548-4423 (Fax)

JCAR

Joint Containerized Airlift Refrigerator

Part Number:	701-EAC-REF
Dimensions:	108" L x 88" W x 96"H
Weight Tare:	3,250 lbs
Interior Weight Capacity	6,750 lbs
Interior Volume	325 cu ft



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The system interfaces with the aircraft palletized cargo handling system rails and locks - additional restraint is not required. System is certified by ATTLA for internal air transport.

System Description:

- SINGLE AIRLIFT PALLET POSITION – **Current model multiple**
- NO OVERHANG – **Current model overhangs**
- Interior cube 325 cu ft - **approximately a 25% Increase over existing model**
- Three Power sources – **current model has only two options**
 - Diesel - Powered by latest generation Kubota CT3-44 Engine. Tier 4 compliant
 - 0.75 gal/hr MAX fuel consumption rate – 100% runtime
 - **Significantly reduced (over 10%) fuel consumption over current model**
 - Integral Diesel Tank
 - 25 Gallon for over 24 hours run time – **increase from current**
 - Tank is easily drained for air transport
 - External fuel pump and filter for easy maintenance
 - 208 VAC, 3 Phase, 60 A Class L Receptacle for shore power
 - 208 VAC, 3 Phase Aircraft Power Connector
- Interior vinyl strip door to significantly reduce temperature swings and compressor load
- Interior D Rings for securing loads
- Temperature Range -20° F to 86° F
- Operating Temperature Range (Ambient) -20° F to 130° F
- Storage Temperature Range (Ambient) -30° F to 160° F
- Industry Leading Carrier Refrigeration Unit
 - Large parts and service network
 - Improved from previous versions
 - HFC R-404A refrigerant
 - Enhanced noise abatement
 - Microprocessor control system housed within rugged box with cover for light discipline
 - Critical Cargo Monitor
 - Audible temperature alarm
 - Red light visual warning alarm
 - Automatic pretrip system
 - Main on/off system power switch
 - Display indicators
 - Cool-Heat-Defrost
 - Start/Stop-Out of Range
 - Engine Operation-Electric Standby
 - Digital readout center
 - Engine coolant temperature
 - Unit suction pressure
 - Battery voltage
 - Engine run hours



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- Electric standby hours
- Maintenance interval hours
- Total on-time hours
- Setpoint temperature
- Box return-air temperature
- Automatic Start/Stop fuel saver
- Automatic defrost control
- Extended-life antifreeze
- High coolant temperature protection
- High-power 70-amp alternator
- Heavy-duty dry air cleaner
- Low engine oil protection
- High refrigerant pressure protection
- Low refrigerant pressure protection
- Receiver tank pressure relief
- Interior designed to FDA and NSF Standards
- Improved door seals – current prone to failure and sticking
- Interior LED Lighting with Blackout – Runs off battery power with time to provide for lighting even while running on diesel power. Current model does not.
- New door latching mechanism allowing for air certification of filled container
- Commonality of hardware with other systems – reduced life cycle costs