



## BHP HIGH PROFILE EVAPORATORS: GENERAL SPECIFICATIONS

*Ideally suited for large warehouse/industrial type applications.*



### 1. General:

The unit cooler is to be cULus Approved and is to be located inside of a walk-in refrigerated cooler or freezer. This unit consists of the casing, evaporator coil, fans and defrost (air, electric or hot gas) system as determined by the model. The evaporator systems and electrical control panels are to be housed within a single assembly with fan airflow pattern of draw-through design pulling air through the unit cooler and directing it outwards in a single direction. All of the component parts, options and accessories will be provided, mounted, piped and wired, as required by the manufacturer.

### 2. Casing:

Entire unit cooler casing shall be a minimum of 14 gauge aluminum with a textured finish. Cabinet consists of a fixed front fan panel and top panel, hinged side panels and a hinged drain pan. Fan guards are polyester powder-coated steel wire 0.125" diameter rings with 0.215" diameter support rods shall prevent the passage of 0.500" diameter rod. Optional throw booster shall be a fabricated assembly of 14 gauge plain aluminum and shipped loose for field installation. All components of the casing shall be assembled and cleaned.

### 3. Coil:

Evaporator coil constructed varies with model and may use smooth wall 0.5" OD seamless copper tubes or 0.625" OD seamless copper tubes in a staggered pattern mechanically expanded into die-formed fully collared corrugated aluminum fin. Coils are available in 7 FPI, 6 FPI (0.0075" thickness) and 4 FPI (0.009" thickness) fin spacing and are supplied with a Schrader valve and 0.25" OD equalizer line brazed on the suction header. The evaporator coil shall be tested for leaks at a minimum pressure of 300 pounds per square inch/gauge (psig) dehydrated and sealed.

### 4. Fans and Motors:

850 RPM Models: Motors shall be 1 horsepower in rating and may be open drip-proof (ODP) or totally enclosed fan cooled (TEFC) varying with model. Motor shall be mounted to a 10 gauge galvanized steel mounting plate. Fan blades are mill finish galvalume, steel spider with 0.625" OD bore to be coated to prevent corrosion.

1140 RPM Models: Motors shall be 1.5 horsepower in rating and may be open drip-proof (ODP) or totally enclosed fan cooled (TEFC) varying with model. Motor shall be mounted to a 10 gauge galvanized steel mounting plate. Fan blades are mill finish galvalume, steel spider with 0.625" OD bore to be coated to prevent corrosion.

Electronically Commutated (EC) Models: All motors are electronically commutated (EC) type, infinitely variable speed requiring a 10-0VDC input for operation; (10VDC - OFF, 0VDC = ON). A controller may be factory installed or supplied By Others. Motor shall be mounted to a 10 gauge galvanized steel mounting plate. Fan blades are mill finish galvalume, steel spider with 0.625" OD bore to be coated to prevent corrosion.

High-Velocity Models: Totally enclosed fan cooled (TEFC) motors shall be 3 horsepower in rating operating at 1725 RPM. Motor shall be mounted to a 10 gauge galvanized steel mounting plate. Fans are five (5) blade cast aluminum airfoil impeller style, hub accepts a 7/8" OD shaft with keyway.

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### **5. Electric Defrost:**

Stainless steel defrost heaters of 0.375" diameter are inset flush to the face of the coil even with the edge of the fins. Medium temperature electric defrost models shall use an adjustable defrost termination control, all other models shall use a fixed defrost termination control. All models shall as utilize an adjustable fan delay thermostat well as a heater high limit switch. All switches and controls are mounted to the endplate and factory wired to the terminal board.

### **6. Drain Pan:**

Drain pan shall be manufactured from a single piece of 12 gauge textured aluminum. Drain pan shall use a 1-1/4" FPT condensate drain fitting. Drain pan may be defrosted by means of an electric heater or hot gas copper loop varying with model. Three (3) pan heaters are to be secured to the drain pan via clips and welded studs for units equipped with electric heat in the drain pan. Models equipped with hot gas loops shall utilize 0.500" OD seamless copper tubes secured to the drain pan via clips and welded studs.

### **Additional Resources:**

#### **Products Affected:**

BHP – High Profile Evaporators: <https://b-rp.ca/bhp>

#### **Affected Products Documentation:**

BHP Air Defrost Product Data and Specifications: <https://docs.b-rp.ca/1081587.pdf>

BHP Electric Defrost Product Data and Specifications: <https://docs.b-rp.ca/1081590.pdf>

BHP Hot Gas Defrost Product Data and Specifications: <https://docs.b-rp.ca/1081593.pdf>

#### **Related Product Specialist Group:**

Evaporators: [evaps@b-rp.ca](mailto:evaps@b-rp.ca) 1-844-893-3222 ext. 520

### **Additional Resources:**

Bally Refrigeration website: <https://b-rp.ca>

Bally Refrigeration Evaporators page: <https://b-rp.ca/product-category/evaporators>

### **Author:**

Norman Haimes – Senior Application and Systems Specialist