

Polairis Model PLC3

Refrigerant condensers



Key benefits

- Extremely reliable
- Ultra compact
- Minimal maintenance and easy inspection

Polairis characteristics

- Counter flow, radial fan, forced draft
- PED 2014/68/EU coil design

Capacity range

80 - 1915 kW
(for single cell models, nominal R717 kW's)

Typical applications

- Industrial refrigeration applications with focus on reliability, energy efficiency and minimal maintenance
- Tight enclosures and sound critical installations
- Dry operation in winter time

Extremely reliable

- The Polairis™ evaporative condenser's design incorporates all **experience** BAC acquired over the last decades with thousands of VXC units installed globally since 1978.
- Fan drive systems are located inside the unit, in the **dry air**, preventing condensation and eliminating corrosion issues and premature failures.
- Direct driven fans **eliminate potential mechanical failures**.
- Multiple, individually driven fans guarantee **redundancy**.
- [Baltibond® hybrid coating](#) for maximum equipment life, with corrosion resistance equivalent to SST 304L.
- **Dry operation** possible.

Ultra compact

- The most efficient counterflow evaporative condenser on the market.
- Available up to 1915kW (@35.7/25.6°C).
- Maximum thermal performance on a truck for minimal transport costs.
- Compact design for confined spaces, with single-side air inlet lets you install next to solid walls.
- Units housable indoors thanks to radial fans allowing intake or discharge ductwork.

Minimal maintenance and easy to inspect

- Direct driven fans require **no maintenance** at all.
- The [DiamondClear® Design](#) offers a continuous self-cleaning operation. The **need for maintenance is minimized** by using fully sloping surfaces, a constant impact of falling spray water and high water velocities.
- [Collection basin](#) covers only a fraction of the unit footprint, which makes it subject to higher turbulences. Together with the significantly lower volume (25% reduction versus conventional evaporative condensers), this **reduces the chemical usage and need for cleaning**.
- **Unmatched accessibility** to the basin, drives and fans in the dry section, via the man sized access door at ground level.
- Water distribution system is **easily accessible** from outside.
- [Baltibond® hybrid coating](#) for a smooth surface finish that **facilitates internal cleaning**.

Energy efficient

- Evaporative condensers yield the lowest condensing temperatures and hereby **minimize the system energy consumption**.
- **Extremely efficient** Whisper Quiet radial fans.
- EC/PM motors have superior efficiency that exceeds the IE4 requirements. Integrated electronics of the motors allow for **variable speed control** at a significantly **reduced power consumption** compared to AC motors with VFD (without the need for electronic filters and shielded cables). AC motors available as



alternative when no speed control is required.

- Lifetime efficiency thanks to the extreme maintenance and inspection capabilities

Superb hygiene

- The [DiamondClear® Design](#) offers a **continuous self-cleaning operation**. During standstill the sloping surfaces fully drain, avoiding stagnant water and the risk of sedimentation of impurities.
- A completely encased collection basin eliminates any sunlight ingress, **preventing biological growth**.
- [Baltibond® hybrid coating](#) for a smooth surface finish that **reduces biofilm development**.
- The floor is fully sloped towards the drain - also in the dry section - for **easy cleaning**.
- Water treatment system connections are provided as standard.
- The access door is located in the dry area, **eliminating any leakage risk**.

Ultra silent

- **Silent radial fans** are standard.
- Single side air inlet allows directing the quiet unit rear towards **noise sensitive areas**.
- Sound attenuation is available for the most **stringent sound requirements**.

Interested in the Polairis™ condenser for your industrial refrigeration application? Contact your local [BAC representative](#) for more information.

Downloads

- [Polairis evaporative condenser](#)
- [Operation & Maintenance PLC3](#)
- [Rigging and Installation PLC3](#)
- [Spare Parts for PLC3](#)
- [Retrofit Opportunities for PLC3](#)