

T FIN ENGINE



Options: CMP - RT1.2.3

Main applications: cogeneration, power generation, free cooling...
gen-sets, and cooling all kinds of fluids compatible with copper,
with a maximum inlet temperature of 100°C.

Dry coolers

FC NEOSTAR FI NEOSTAR



When the outlet air temperature exceeds +80°C, choose AEV

Description

Casing

- The casing is composed of galvanised sheet steel and pre-painted galvanized metal, colour grey RAL7035.
- The use of stainless steel screws guarantees excellent, long-lasting corrosion resistance (standard ISO 7253) and aesthetic quality.
- All components used have successfully passed the salt mist corrosion and Kesternich tests.
- The units are delivered screwed to a wooden base.

Ventilation

- The FC/FI NEOSTAR range is equipped with 2 speed external rotor fans units (star or delta coupling) - Class F.
- The FCH/FIH NEOSTAR range is equipped with 2 speed external rotor fans units (star or delta coupling) - Class H.
- These motors are of the type 400V/3/50Hz, sealed, IP54, compliant with standard EN 60529 and permanently lubricated.
- The motor fan units are wired as standard and factory connected as follows:
 - 1 to 3 electrical boxes for the models L (motors connected in series),
 - 2 to 8 electrical boxes for the models P (motors connected in parallel).
- **We are also able to deliver the units unwired upon request (option SCU).**
- The protection guards are compliant with standard NF EN 294.
- EC type of motor fan units (MEC) is also optional available and enables optimised operation of your installation.
- Fans units with special voltage ratings (FC/FI NEOSTAR):
 - M60: Fan motor 400 V/3/60Hz, IP54, class F, in version 06P Ø 910 mm
 - M26: Fan motor 230 V/3/60Hz, IP54, class F, in version 06P Ø 910 mm
 - M25: Fan motor 230 V/3/50Hz, IP54, class F, in version 06P and 12P Ø 800 mm

Coil

- The dry coolers are equipped with coils with the following characteristics :
 - Copper tubes in a staggered arrangement and corrugated aluminium fins for optimum heat transfer.
 - Headers with air vents and drain plugs.
 - Connections : steel pipe, flanges.
- Special coil coatings are available (Vinyl protection (option BAE), Blygold Polual XT protection (BXT)) offering greater corrosion resistance when used in aggressive atmospheres.

Performances

- As the performance of a dry cooler varies a lot with each working condition, it is not possible to present a selection method in this document.
- Only the selection software, at your disposal on simple request, will allow you to select the dry cooler which suits the best your needs.
- In case of emergency, do not hesitate to consult us in specifying : capacity, maximum day/night noise level, type of fluid, ambient temperature, fluid inlet temperature, fluid outlet temperature (or flow), maximum allowed pressure drop, other external constraints.

Dry coolers advantages

- Replace advantageously cooling towers :
 - no air and water bacteria contamination
 - no water consumption
 - reduced maintenance
 - low maintenance costs
 - no steam production
 - flexible use in winter time
 - simple and cheap installation (steel pipes)
 - easy control of fluid temperature in winter time
- The most economical solution.
- Reduced maintenance due to direct driven fans.
- An optimised solution (noise level, energy consumption, size, type of temperature control...) due to multiple selection possibilities.

Generalities

- The freezing point of the fluid must be at least 5K below the minimum winter ambient temperature of the site of installation.

Freezing risk

- A standard dry cooler cannot be fully drained simply by opening the drain fitting orifices.
- Always run the piping leak tests using the selected fluid.
- For an application with plain water, and when the ambient temperature may drop below 0°C, a special coil design is required. Please consult us.

Recommendations

- According to the professional regulations concerning :
 - Vents and drains
 - Surge tanks
 - Flexible connexions
 - Vibration protection
 - Correct percentage of glycol
 - Fan motor protection
- Water treatment