

u n i v e r s a l p e r f o r m a n c e



OPERA

→ Dry coolers and condensers



OPERA

powerful yet discreet





OPERA is a comprehensive range of advanced dry coolers and air-cooled condensers. Developed using CIAT's recognised expertise in heat exchange, air handling and electronics, they deliver **more** for **less**.



OPERA

MORE

FOR

MORE EFFICIENT

OPERA is equipped with the best fans on the market and a high-efficiency tube bundle to guarantee sustainable energy efficiency. The Aerofresh spray cooling system increases OPERA's performance even further.

MORE FLEXIBLE

Each unit and its options are optimised by CIAT's thermal selection software to suit all situations and best match your requirements. The possibilities are multiplied thanks to the extensive choice of fans.

MORE INTELLIGENT

The Aeroconnect electronic circuit board has been designed to communicate with the CIAT chiller and efficiently controls your system. It also includes a free cooling function.



HIGH ENERGY EFFICIENCY



SUSTAINABLE DEVELOPMENT



ECO DESIGN

R

LESSS

LESS ENERGY

Sizing to your exact specifications is the key to optimising your projects. CIAT's thermal engineers will help you to find the best configuration that will reduce your running costs.

LESS TIME

Today, every one is concerned with saving time. Our options tailored to the specific needs of your market have been designed to keep your equipment running smoothly and to save time, during maintenance and normal operation periods.

LESS NOISE

OPERA adapts harmoniously to the constraints of its surroundings. Its control system is engineered to keep the sound level low ensuring peace and quiet for you and your neighbourhood.

an elegant, natural choice
for your industrial facilities



OPERA: the refer

ENERGY EFFICIENCY

The fan motor assemblies equipped with high energy efficiency motors and airfoil blades directly cut your energy bills by an average of 15%.

15% SAVINGS



MODERN



HIGH TECHNOLOGY

The high-efficiency finned bundles and high-tech fan motor assembly disperse large amounts of heat while minimising energy consumption.

OUTPUT



UNOBTRUSIVE



ence range

ECODESIGN

When designing OPERA, CIAT took into account its impact on the environment throughout its entire life cycle. It is over 90% recyclable.

ACOUSTIC COMFORT

Sound levels are kept low by combining different propeller diameters to the rotation speeds, reinforced by airfoil-shaped collars and aerodynamic dual-construction propellers.

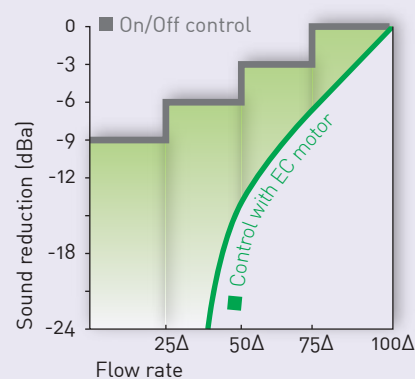
QUALITY & RELIABILITY

- Galvanised steel casing coated with polyester paint on both sides
- Copper manifolds
- Hydraulic connections via stainless steel lap-joint flanges
- Shear-resistant tube bundles
- Heat exchanger with low refrigerant charge

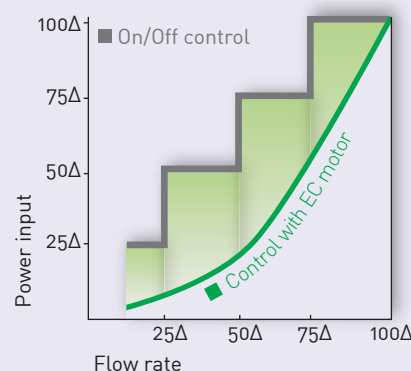
EC MOTORS

The optional new-generation EC motors allow the speed to be gradually raised from 0 to 100% thus greatly reducing energy and noise levels.

Effects on sound level



Energy savings



OPERA RANGE



AN EXTENSIVE RANGE

The OPERA range is suitable for most applications requiring the use of dry coolers or air-cooled condensers. Its modularity and the options available allow you to choose from very low sound level or high capacity configurations.



OPERA is destined to become a centrepiece of CIAT's system offer and a leading reference in its field.

From 1 to 14 fans.
Three housing lengths for optimised capacities and electricity consumption.
Capacities of up to 1100 kW.
Choice of several propeller diameters.
Rotation speeds of 300 to 900 rpm.

POWER GENERATOR COOLING

- Expansion vessel
- Two cooling circuits
- Forced draught for high-temperature

INDUSTRIAL APPLICATIONS

- Designed in accordance with CODAP (French code for pressure vessel design), ASME and ATEX guidelines
- Corrosion-resistant coating
- Raised feet

**THE OPERA RANGE
FEATURES OPTIONS
DESIGNED
SPECIFICALLY
FOR ALL YOUR
APPLICATIONS**

CHILLER WITH FREE COOLING

- Controlled via an AEROCONNECT electronic circuit board

COOLING OF INDOOR SPACES

- Communication with CIAT chiller via controller (energy savings)
- Aerofresh spray cooling system



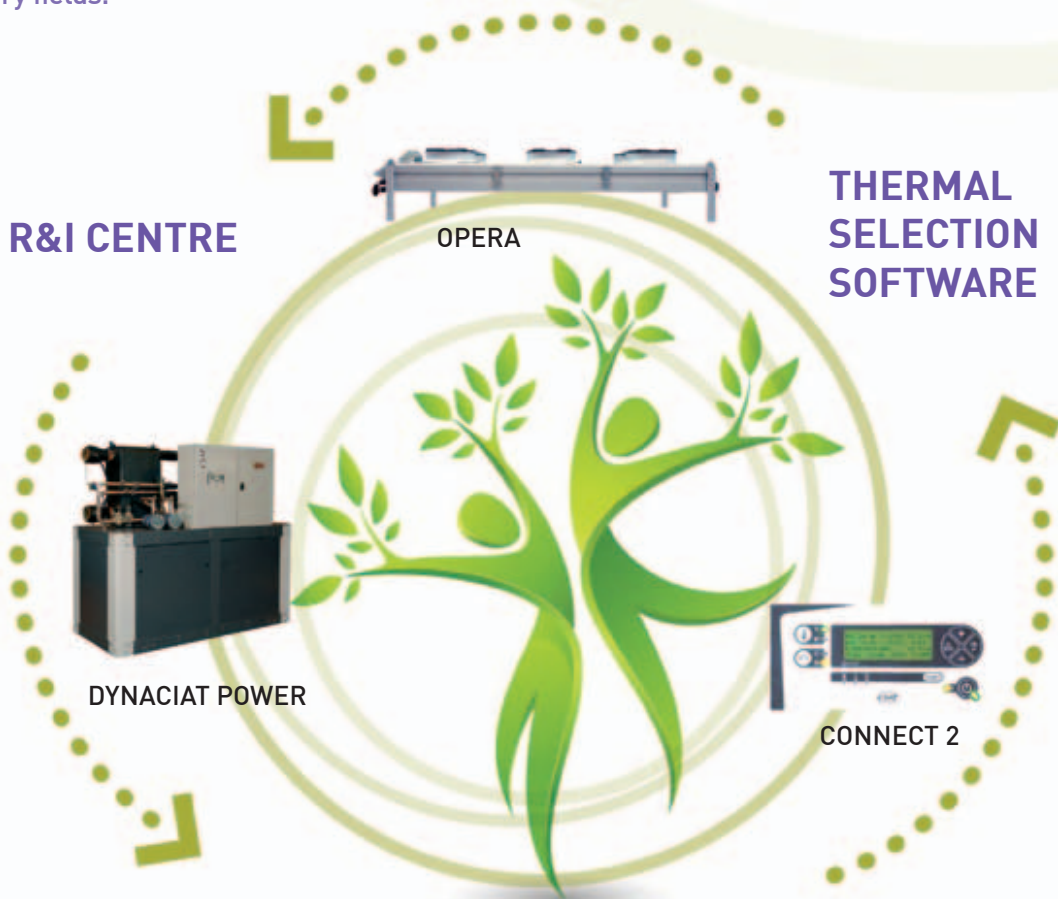
CIAT has created the energy ecosystem

A machine is not truly efficient unless it is completely integrated with all the elements that interact with the surrounding environment.

The resulting installation forms an ecosystem that is both stable and able to adapt to changes. A rich ecosystem signifies a large variety of choices and possibilities from a multitude of complementary fields.

CIAT's engineers and technicians, experts in heat exchange, acoustics, air handling and electronics, work with a host of research centres and continuously monitor and anticipate changes in our environment.

As a result, CIAT is able to combine a remarkable product offer with networked systems in order to provide you with coherent and extremely energy efficient installations.



ADVICE/AFTER-SALES/TRAINING

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

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