



Unit Description

Air cooled high efficiency water chillers, with screw compressors.
Complete inverter management.
From 492 kW to 842 kW.

Optimised performance for the majority of operating conditions, at part load and at the most frequent outdoor temperatures. This is the i-FOCS philosophy: extraordinary efficiency of both the single unit and of the whole system, when it is really needed.



Unit Features

- **PRACTICALLY SILENT OPERATION**

The new i-FOCS units ensure low noise at the most typical operating conditions. The noise is particularly critical during night time operation, a condition usually associated with the unit's partialised regimes.

The adoption of compressors and fans with continuous speed variation involves the reduction of the noise levels right at the most critical conditions in terms of noise impact.

- **SOFT INTEGRATION WITH THE ELECTRIC INSTALLATION**

Further differentiating element is the absence of inrush currents, resulting from the features of the inverter-driven compressor.

This decisive point highlights the i-FOCS units, offers superior reliability and contributes to limit the installation cost, making the use of additional switching equipment unnecessary. Furthermore, the use of motors with continuous speed variation increases the unit's power factor. This ensures optimum terms for the power supply sourcing, with no need of expensive additional components for power factor correction.

- **HIGHEST EFFICIENCY AT PART LOADS**

A chiller operates at full regime just for 3% of the time, as per the "Energy Efficiency and Certification of Central Air Conditioners" study, conducted on behalf of the European Union. For this reason the part load efficiency, expressed by the ESEER, is the key factor for the assessment of the unit's consumption at the realoperating conditions.

The innovative i-FOCS was conceived exactly for the purpose of the maximum efficiency at part loads. From this, resulting ESEER values are higher by 25%

or more, with respect to the traditional screw units available in the market. The operation cost savings are conspicuous and sound, bringing to a more favourable classification of the energy efficiency of the building (European Directive 2002/91 CE), associated to the reduction of primary energy consumption and consequent carbon dioxide emissions.

Unit Benefits

- **PLUG & PLAY APPROACH**

The evolved unit's built-in electronics allows an optimum adjustment of the operation with reference to the changing loads.

- **INTEGRATION UNIT'S GROUP - PLANT**

With a group of multiple i-FOCS units in a plant, the group regulation device Manager 3000V permits the optimum activation of the resources available on each installed unit.

This is based upon an accurate regulation, involving also various parameters detected on the water circuit, when the unit is provided with inverter pumps.

- **GLOBAL EFFICIENCY**

The advantages of i-FOCS are further heightened in the group operation. While one i-FOCS achieves an energy saving of 26% on a yearly basis with respect to a traditional chiller, the benefit rises to 30% if a group of multiple units is considered, with regulation performed by Manager3000V.

Equipment designed to ISO-9001 and all relevant directives. Product improvement is a continual process at ICS Industrial Cooling and we reserve the right to change the design and specifications without notice or obligation.

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