



Tetris 2 FC



Hilarion Gesundheitszentrum
Essen - Germany
2 x TETRIS FC BASIC 15.2 ST1PS
supply 300 kW



Air cooled modular
freecooling chiller
97 ÷ 518 kW



MODULAR FREECOOLING

without compromise

General

High efficiency modular free-cooling chillers.
Air source. Scroll compressors. Plate exchanger.
Selectable dedicated free-cooling module.

Configurations

A and A+: High efficiency unit
LN: Low sound level
SLN: Superlow sound level
DS: Desuperheater
DC: Recovery condenser
3 free-cooling modules: Basic, Custom, Extra



**3 tiers of
Total
Free-cooling
Temperature**

**Low refrigerant
charge**

**Modular layout:
wide capacity
range**

**Flowzer: Inverter pump
control management**

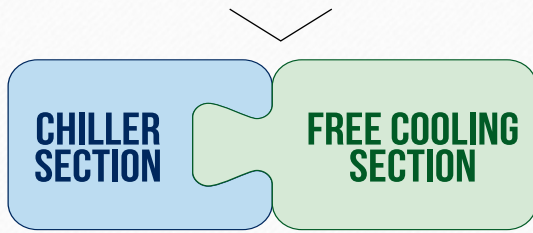
**Bluethink advanced control
with integrated web server**

**Blueye supervision
system (option)**

**Multilogic/Multifree function for
multiple units' system (option)**

EFFICIENCY

modular free-cooling



modular free-cooling uses less yearly energy

up to -16%

compared to common free-cooling method

The common method of free-cooling chillers is to use a close couple condenser and freecooling coil, which shares the same fans and air flow.

The result is a compromise of efficiency performance.

- Summertime EER is lower than non free-cooling units.
- All fans need to operate all time.

Tetris 2 FC have two dedicated sections that have their own fans and coils functioning independently, to ensure the optimum balance between mechanical cooling and free-cooling

This means that:

- **Freecooling section** operates with fan speed control to maximise the freecooling mode, while fans are stopped in summer.
- **Chiller section** operate with fan speed control with condensing control function in hybrid free-cooling mode, or stopped fans when 100% freecooling is achieved.
- **Designed structure** allows more configurations with 3 different free-cooling levels.

Tetris 2 FC allow all combinations with 3 free-cooling levels. Every chiller version can be couple with the different free-cooling sections.

8 versions

of efficiency and noise emission on chiller section

3 versions

of efficiency on free-cooling section



ENERGY SAVING

	Basic	Custom	Extra
MILAN (0,22 €/kW)	13% 29.000 €/y saving	17% 38.000 €/y saving	20% 45.000 €/y saving
LONDON (0,10 €/kW)	17% 16.000 €/y saving	21% 20.000 €/y saving	23% 22.000 €/y saving
BERLIN (0,11 €/kW)	22% 23.000 €/y saving	26% 27.000 €/y saving	28% 29.000 €/y saving
MOSCOW (0,06 €/kW)	38% 21.000 €/y saving	41% 23.000 €/y saving	44% 25.000 €/y saving

Energy saving achieved using TETRIS 2 FC, in comparison to the correspondent standard unit

Tetris 2 FC 47.6, nominal cooling capacity 518 kW -- inlet/outlet water temperature 15/10 °C; e.g. 30%

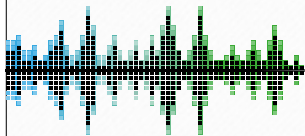
€/kW : Derived from the International Energy Agency publication, Energy Prices and Taxes; Prices include all taxes where not refundable on purchase.

-40°C
ambient temperature



EXTENDED OPERATING LIMITS

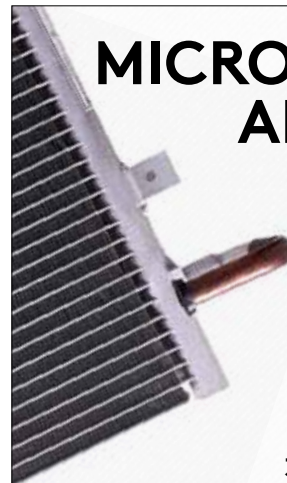
Operating limit reachable with SUN accessory, heaters for operation with air below -25°C



NIGHT SHIFT FUNCTION

The unit (A or SLN) can operate in high efficiency mode or super low noise mode according to day time setting.

up to 3 dB(A)
of sound power reduction



MICROCHANNEL ALUMINIUM COIL

Tetris 2 FC chillers use this new generation of condensing coil as standard.

30% LESS REFRIGERANT
10% OVERALL CHILLER WEIGHT REDUCTION
LESS AIR SIDE PRESSURE DROP

EC AXIAL FANS | ELECTRONICALLY COMMUTATED BRUSHLESS MOTOR AS OPTION



STANDARD

15% ENERGY SAVING PER FAN
3.000 €/y* SAVING

(*unit with 12 fans; operating 8700 hours/year; 0,10 €/kWh)



OVERSIZE

FURTHER ENERGY SAVING

+ 100 Pa
AVAILABLE PRESSURE PER FAN



PRESSURE RECUPERATOR

+ 50 Pa
AVAILABLE PRESSURE PER FAN COMPARED TO OVERSIZED FANS

UP TO **3dB(A)**
OF UNIT NOISE REDUCTION

BLUE ●●●● ●●●● THINK

Monitoring, performance reports, full management.

Blue Box control platform allows a total access to the machine from any device, in complete autonomy.

Integrated web server

- SET POINT**
operating set point
- MODE**
unit mode (heating, cooling)
- UNIT**
visual status of unit (circuits, compressors..)
- GRAPHS**
real time diagrams of main variables (temperatures, pressure..)
- INPUT/OUTPUT**
status of inputs / outputs (digital and analogic)
- MULTILOGIC**
management of multiple units
- LOGS**
download and analyze unit data history

BLUEEYE CONNECT
REMOTE ACCESS TO UNIT

**SAVE MONEY
FAST SERVICE**

BLUEEYE CLOUD
CLOUD RECORDING DATAPOINTS

**PREDICTIVE MAINTENANCE
CUSTOMER REPORTING
ANALYSIS**

FLOWZER

INVERTER-DRIVEN PUMPS CONTROL
MANAGEMENT FOR DIFFERENT SYSTEM
LAYOUTS

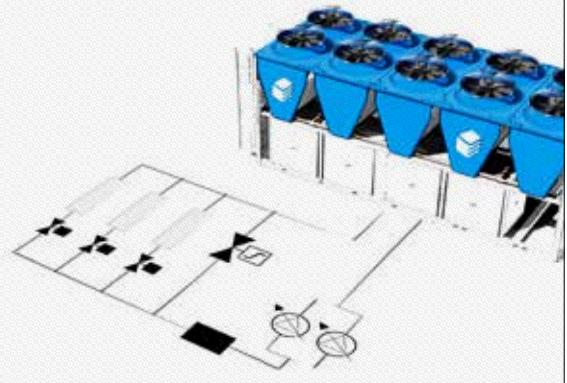
VPS **PLUG & PLAY** VARIABLE FLOW MANAGEMENT REDUCES YOUR OPEX SAVING UP TO 55% OF PUMPING ENERGY

Dedicated controller and algorithm to manage inverter pumps on Primary + Secondary systems.

VFPP **FULLY** VARIABLE FLOW MANAGEMENT REDUCES OPEX & CAPEX

Dedicated controller and algorithm to manage inverter pumps on system with Primary Circuit only.

UP TO
-53% **PUMPING CONSUMPTION***
compared to nowadays common layout:
primary fixed + secondary variable



*Yearly saving based on Ecodesign's SEER and SCOP profiles (Average climate), comfort application.

Blue Box technological product range

find out the complete product range on our web site and catalogues



Zeta Rev .Ei & FC > 30÷90 kW

Chiller range with high overall efficiency. Versatile configuration. Free-cooling model: independent section, no-glycole option.



Zeta Rev HE FC > 44÷143 kW

Free-cooling chillers. Extensive range, versatile applications. Independent free-cooling section, no-glycole option.



Kappa Rev FC > 320÷1300 kW

Modular free-cooling chillers for large systems. Wide range and versions available. Selectable independent free-cooling module.



Kappa Rev .Ei & FC > 286÷1451 kW

Modular chillers for large systems. High overall efficiency, two tiers. Wide capacity range. Free-cooling model: selectable independent module.



Kappa Rev LGW & FC > 240÷1020 kW

Low GWP modular chillers for large systems. Unique width of range and versions. Free-cooling model: selectable independent module.



Kappa V Evo & FC > 325÷1178 kW

Compact chillers for large systems. Free-cooling model available.



Tetris W Rev FC/NG > 39÷634 kW

Water-source free-cooling chillers, no-glycole. Wide range, fully integrated management.



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