



Tetris W Rev FC/NG



MANN HUMMEL
Ludwigsburg - Germany
TETRIS W Rev + TETRIS W Rev FC/NG
supply 2 MW

Water-source free-cooling
chillers, no-glycole.

39 ÷ 634 kW



INDOOR FREECOOLING

the ultimate free-cooling experience

General

Water-cooled free-cooling chiller for indoor installation. Scroll compressors and plate heat exchangers.

Configurations

Base: unit with a TFT of -2°C
HE: unit with a TFT of 1°C
LN: Low Noise setup

Easily integrated with dry-cooler

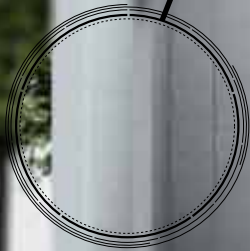


Bluethink advanced control with integrated web server

Blueye supervision system (option)

Multilogic function for multiple units' system (option)

Plug & Play unit for easy indoor installation



Flowzer: Inverter pump control management



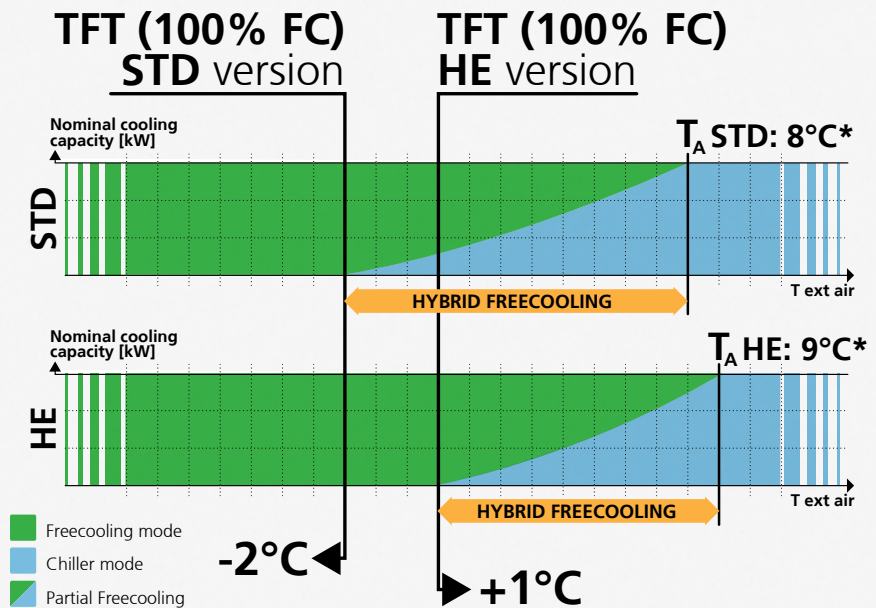
Glycol free on user side



HYBRID FREECOOLING

Tetris W Rev FC/NG combines all the advantages of high efficiency water-cooled chiller with the hybrid freecooling integrated system

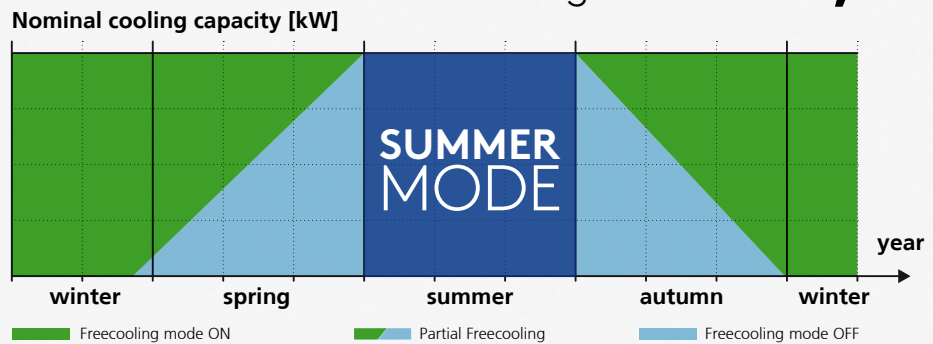
- **Hybrid free Cooling**
Unit performs full nominal capacity with compressors operating at part load with reduced power consumption.
- **100% Free Cooling (Winter)**
Unit performs full nominal capacity only using Dry Cooler fans and with compressors OFF.



FREECOOLING

NOT ONLY

Thanks to high performance of the chiller side, **Tetris W Rev FC/NG** ensures high efficiency of the plant during all the year. The product adapts and optimises itself to the seasons, providing a high return all year round.

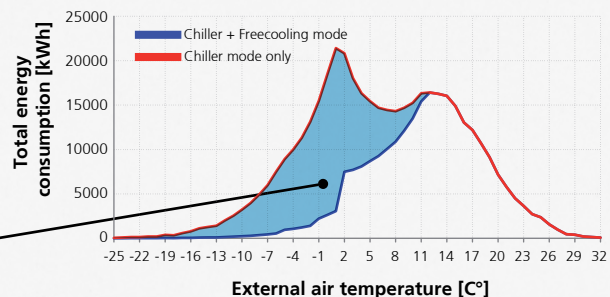


High efficiency in summer mode

average **EER 4,7***

LOWER BILLS AND CARBON EMISSIONS

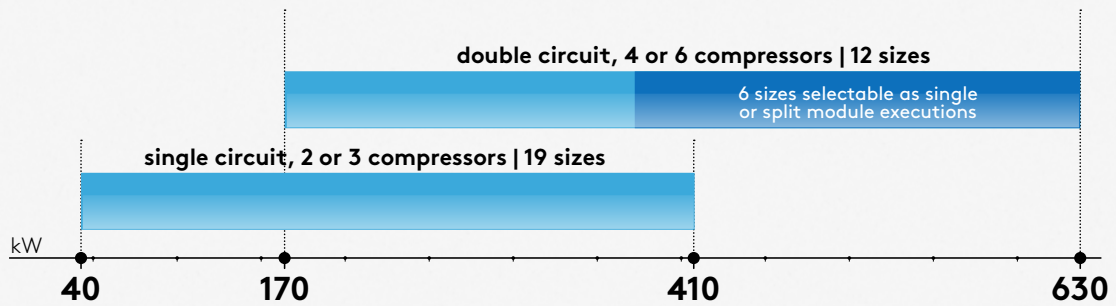
Tetris W Rev FC/NG HE 26.4
Example for Stockholm
Energy saving= **41%**



Energy savings achieved by **TETRIS W REV FC/NG HE** in comparison to a water cooled standard unit, assuming constant cooling load throughout the year.

* Evaporator inlet-outlet water temperature 15-10°C; condenser inlet-outlet water temperature 30-35°C (e.g. 30%)

COOLING CAPACITY



Cooling: e.g. 30% 30/35°C; water 15/10°C



EASY INSTALLATION

Tetris W Rev FC / NG provides a lot of options and pumping configurations to suit every requirements.

The footprint is designed for indoor installation (max width below 900 mm).

For larger capacities, the units can be supplied as either split or single structure, allowing to choose the best solution for transport, indoor movement and connections.

This means:

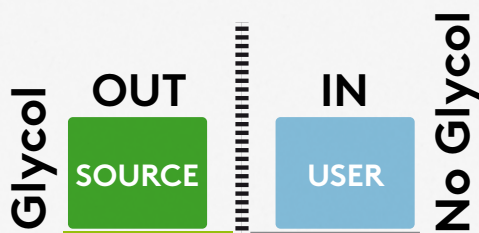
- **Less design time**
- **Quicker and less cost for installation team**
- **Few connections**

GLYCOL FREE

Thanks to the built-in **decoupling heat exchanger** Tetris W Rev FC/NG is Glycol free on user side.

This means:

- better heat exchange properties and less energy for pumping
- suitable for systems where glycol mixtures are not allowed
- safe operation e.g. in case of leakages
- cost saving from circuit's filling and safety arrangements



FLEXIBLE MATCHING UNIT / DRY-COOLER

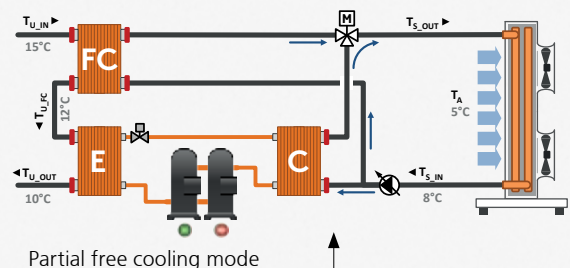
INDOOR UNIT

► unobtrusive solution

DRY-COOLER

► selectable from catalogue according to:

- Overall performance: climate profile, load pattern
- Noise limits
- Dimensions / architectural prescriptions





BLUE ● ● ● ●

● ● ● ● THINK

control platform

Integrated web server main features



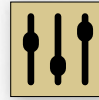
Set point
operating set point



Alarms
alarm history



Unit
visual status of unit
(circuits, compressors..)



Input/Output
status of inputs / outputs
(digital and analogic)



Graphs
real time diagrams
of main variables
(temperatures, pressure..)

- > USB, RS485 and Ethernet ports as standard
- > Recording of unit parameters one month long

MULTILOGIC FUNCTION

Management of multiple units of a system / hydraulic loop.

- > Specific operational logics to satisfy different installation requirements
- > Maximized energy efficiency
- > Feature fully embedded in the control resources and factory-preset
- > Fast commissioning. Simple LAN connection between units. No external devices required.

BLUEYE

Remote supervision via web by Blue Box.

It offers, for one or more units / systems:

- > operation status monitoring
- > access to unit's settings and parameters
- > data recording via cloud, with options about data displaying, graphs, etc.
- > differentiated access profiles and privileges to ensure a safe and efficient interaction
- > also the status of system's additional components can be monitored, e.g. pumps, energy meters, valves



FLOWZER

HYDRAULIC MANAGEMENT OPTIONS
BASED ON INVERTER-DRIVEN PUMPS

The new family of scalable options associated to the wide range of built-in pump modules.

For each application layout, FLOWZER offers the best-fitting solution about the water distribution to the system:

- Pumping energy saving; minimized operational cost
- No external devices required.

> **Flowzer VP**

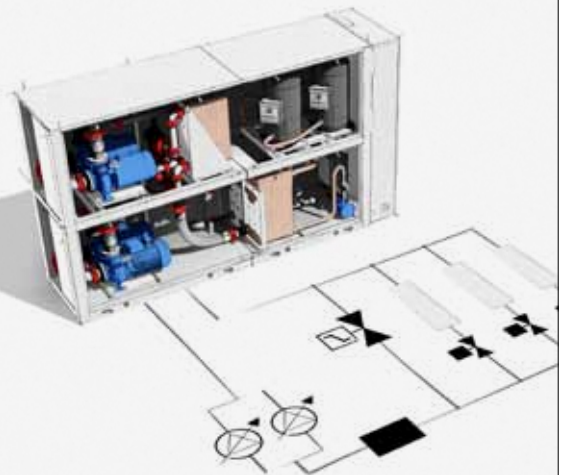
Operation at fixed speed setpoint

> **Flowzer VD**

Management of constant ΔP

> **Flowzer VPS**

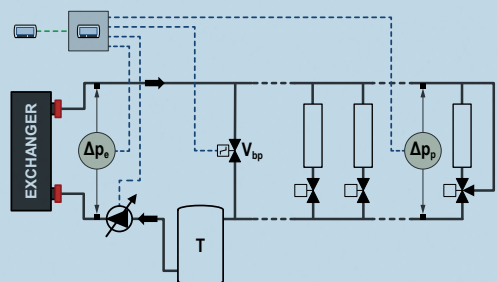
Management of constant ΔT on Primary/Secondary pump circuit



> **Flowzer VFPP**

Management of constant ΔT on primary pump circuit
Simplified system's circuit, as additional external pumps of secondary circuit are not required.

up to -80%
pumping energy consumption*



*Based on 4000 hours of operation in cooling mode (0,15 €/kWh).

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 FC > 44÷143 kW

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



Tetris 2 FC > 97÷518 kW

Modular free-cooling chillers for large systems. Wide range; multiple combinations of high-efficiency, low-noise versions. Selectable independent free-cooling module.



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.



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