



Kappa Rev



DÜRR SYSTEMS GMBH (Automotive Industry)
Bietigheim - Germany
KAPPA REV HEI 55.2 ST2PS LN
supply 550 kW



Air cooled modular screw
chillers and heat pumps
cooling **286÷1983** kW



Revolutionary Freecooling

modular freecooling



SLN

super low noise



HAT

high ambient temperature



HE

high efficiency



HEi

hybrid inverter



XEi

full inverter



LGW

low GWP

100%

Mechanical cooling

STD ▶ ESEER up to 3.6

HE ▶ ESEER up to 3.9

HEi ▶ ESEER up to 4.6

XEi ▶ ESEER up to 5.1

100%

freecooling

(TFT: Total freecooling temperature)

Basic ▶ TFT up to -2°C

Custom ▶ TFT up to 1,5°C

Extra ▶ TFT up to 3°C



EFFICIENCY

modular freecooling



modular freecooling uses
less yearly energy

up to -14%

compared to common
freecooling method

The common method of freecooling 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.

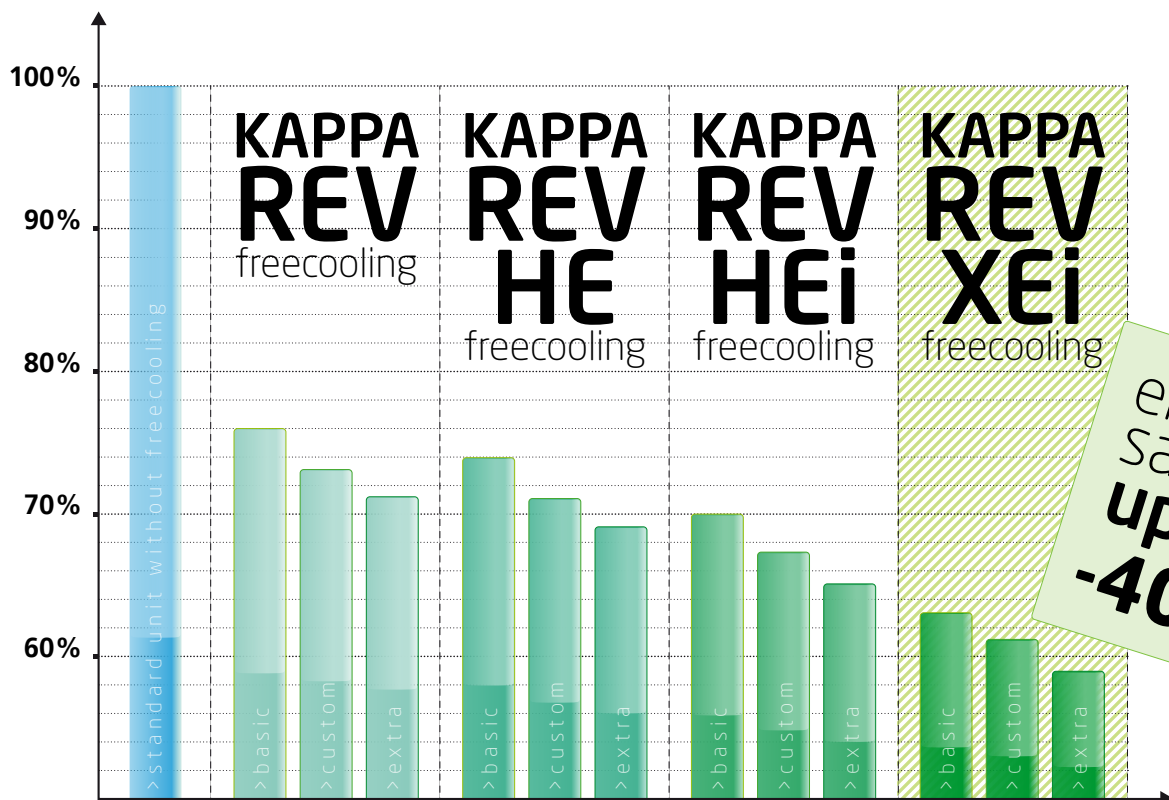
- Summertime EER is lower than non freecooling units.
- All fans need to operate all time.

Kappa Rev 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 freecooling mode, or stopped fans when 100% freecooling is achieved.
- **Designed structure** allows more configurations with 3 different freecooling levels.

ENERGY SAVING



Energy analysis calculated in Frankfurt with constant cooling demand during 1 year

Total energy absorbed from standard unit ▶ 1379203 [kWh]

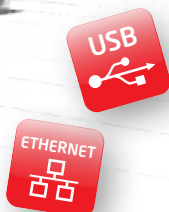
Total cost per year ▶ € 151.712,00 (0,11 €/kW)

Energy saving referred to KAPPA REV FC, in comparison to the KAPPA REV

(nominal cooling capacity 820+840 kW - inlet/outlet water temperature 15/10 °C; e.g. 30%)



ADVANCED CONTROL FUNCTIONS



SMART CONTROL

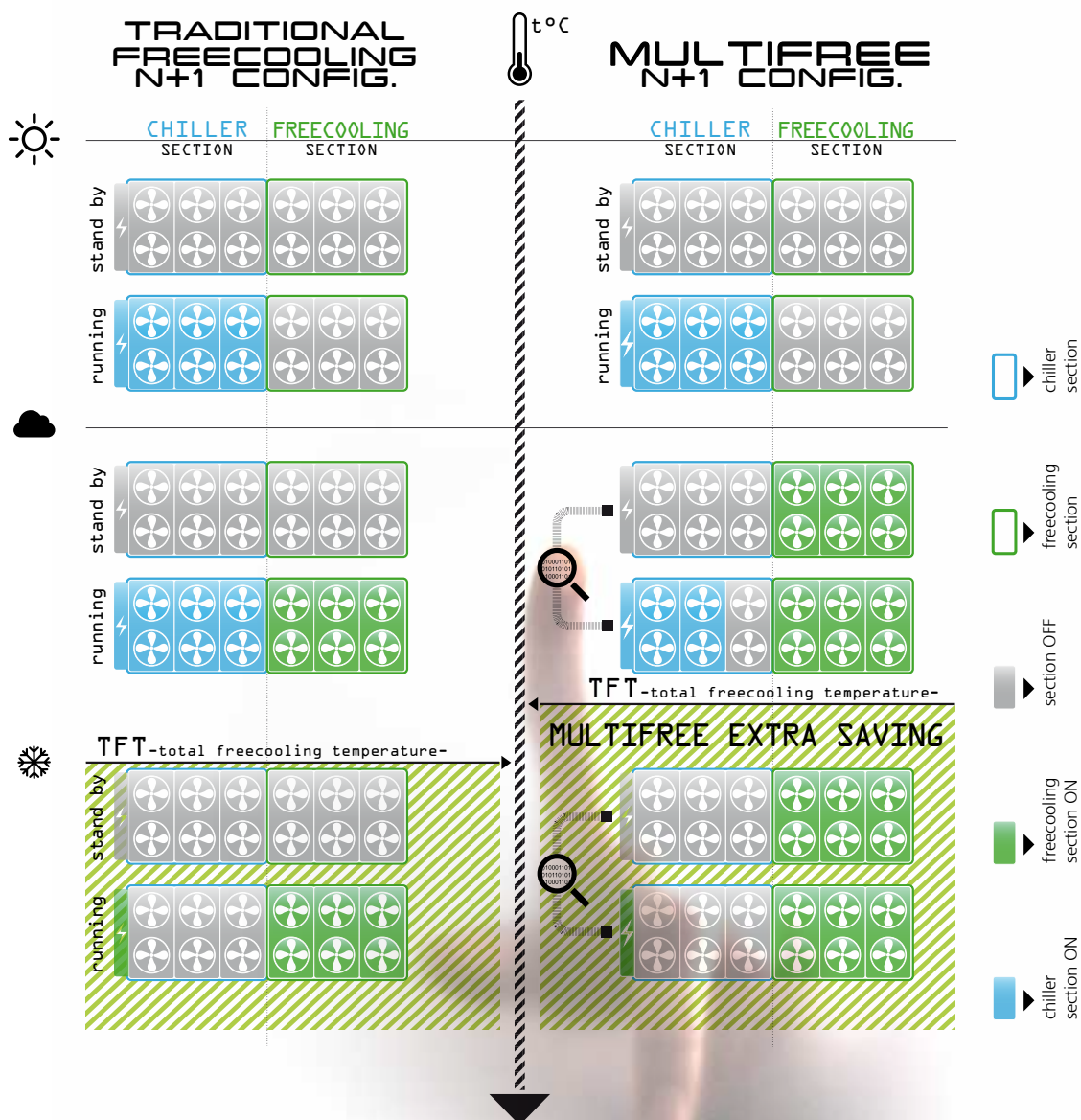
- > Unit management by integrated web page
- > Data logging of all units parameters one month long
- > User friendly interface based on visual icons
- > RS485 and Ethernet ports as standard
- > Fast restart procedure in case of power supply interruptions

MULTILOGIC FUNCTION

- > Up to 32 units (1 Master e 31 Slave) connected to the same hydronic circuit
- > Management of units with different logics and priority levels

MULTIFREE FUNCTION

- > Maximise the efficiency using the freecooling from stand-by unit in n+1 configuration



Atlantic Haus
Hamburg - Germany
2x screw air cooled freecooling chillers
Supply -> 1,1 MW



Blue Box technological product range

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



Zeta Rev .Ei > 32÷91 kW

High efficiency air cooled chillers with brushless DC inverter scroll compressor.



Zeta Rev FC > 44÷143 kW

High efficiency air cooled free cooling chillers. Patented system. Available also with brushless DC inverter compressor.



Tetris FC > 97÷518 kW

High efficiency air cooled free cooling modular chillers.



Kappa Rev .Ei > 286÷1451 kW

High efficiency air cooled modular chillers with inverter screw compressors.



Kappa V Evo FC > 325÷1178 kW

Air cooled freecooling chiller.



Tetris W FC/NG > 39÷634 kW

High efficiency water cooled free cooling chillers with integrated hydronic module.



Kappa Rev LGW > 240÷1020 kW

Low GWP, high efficiency air cooled modular chillers, also with free-cooling module.



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