

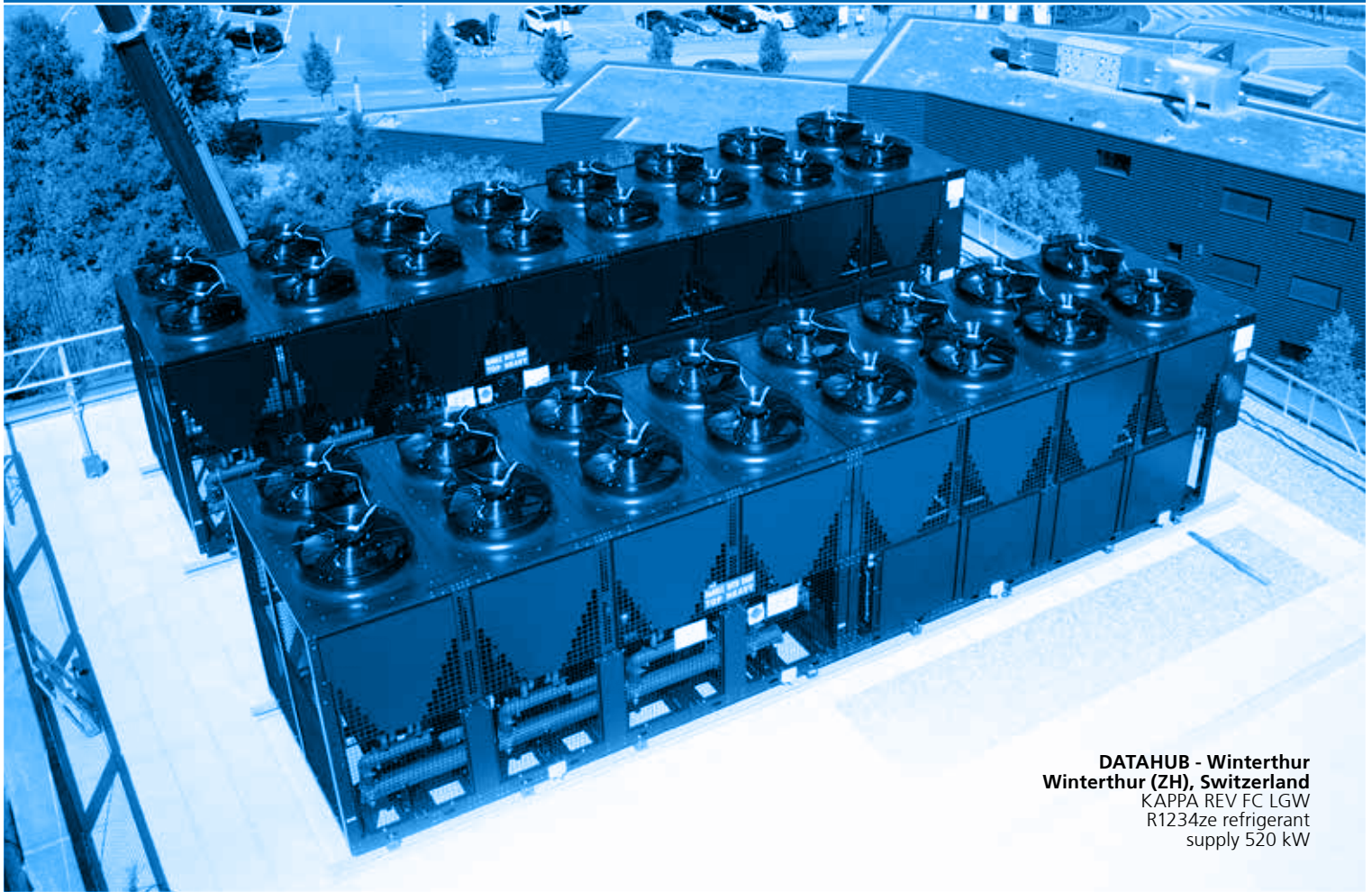


BlueBox

Kappa Sky

R513A

HFO
1234 ZE



DATAHUB - Winterthur
Winterthur (ZH), Switzerland
KAPPA REV FC LGW
R1234ze refrigerant
supply 520 kW

Modular air source chillers
for large systems
Inverter-driven screw
compressors
260 ÷ 1360 kW*



*cooling capacity-R513A

KAPPA SKY

LET'S COOL THE PLANET

Environmentally friendly refrigerants: R513A default & LGW R1234ze

Cooling capacity range extended on the low end

Quiet operation & two low-noise versions

Performance vs compactness with 4 choices

Dedicated combination of external **inverter** and **variable Vi** reserved screw compressor

Bluethink advanced control
Web server
Blueye supervision
Multilogic function
Flowzer

BLUE BOX PROPRIETARY CONTROL STRATEGY



General

Modular air source chillers for large systems. Inverter-driven screw compressors. Wide capacity range with multiple versions. Free-cooling models available.

Configurations

Xi: high efficiency with full inverter compressors
Xh: high efficiency with hybrid compressors
Si: compact version with full inverter compressors
Sh: compact version with hybrid compressors
Xi LGW: R1234ze refrigerant full inverter compressors

/SLN: super low noise unit
/LN: low noise unit
/DS: with desuperheater
/DC: with total recovery



ECODESIGN framework Directive (2009/125/EC)

ENERGY RELATED PRODUCTS > SEASONAL EFFICIENCY > SEER | SEPR

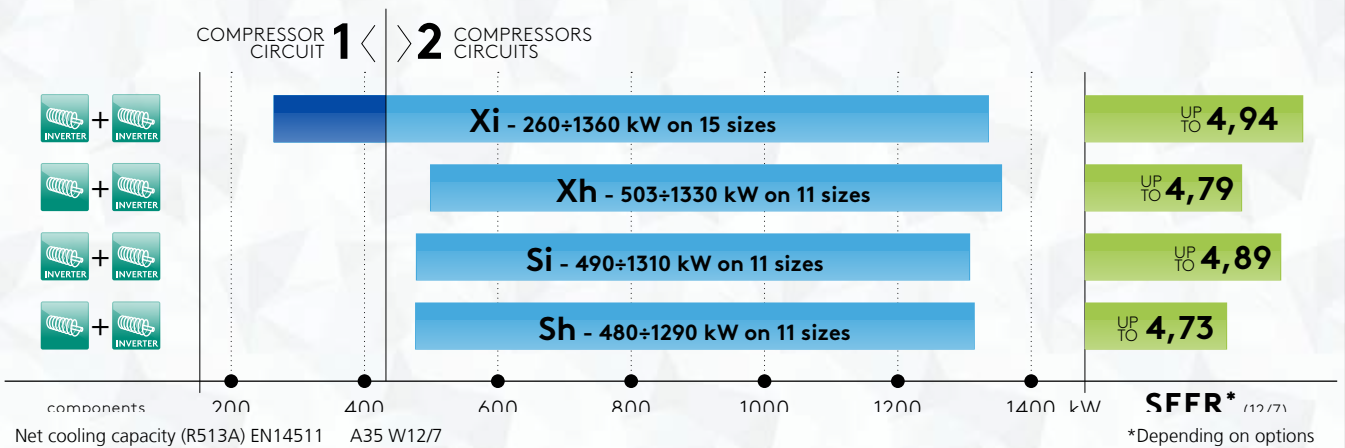
- The **ECODESIGN Directive**, with its Regulations, sets new challenging standards for a more efficient use of energy
- For the European market, all chillers and heat pumps must comply with related seasonal efficiency targets
- **SEER SEPR - Regulation 2281/2016: chillers and large heat pumps. Mandatory since January 1st, 2018: tier 1.**

All models comply to tier 2* SEER (LT,MT) and SEPR HT.

2021 TIER 2 ECODESIGN COMPLIANT

*= selected sizes may require EC fans

CAPACITY RANGE | EFFICIENCY



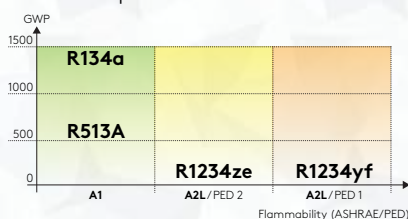
LOW GWP



- Default for full line-up
- **Smart GWP 573 (*)**
- Not subject to shortage or price hikes
- May be promoted by local incentive schemes
- R134a remains as option into pricelist



- **Lowest GWP < 1 (*)**
- Not subject to shortage or price hikes
- Totally exempted by local taxation/bans
- Best future-proof choice



Performances related to all three refrigerants are certified by Eurovent.

(*) GWP (AR5) according to IPCC V time horizon 100 years.

SMART FOR ANY APPLICATIONS

WATER TEMPERATURE FROM **-8°C TO +23°C** ▼
IDEAL FOR PROCESS-TECHNOLOGICAL USES

+ 50°C*

Xi/Xh EFFICIENT VERSIONS ▼
MATCHING GREEN REQUISITES AS
LOWEST GWP & LOW NOISE

HIGH TEMPERATURE COOLING

COMFORT UP TO **46°C OAT** (WITH OPTIONS)

Si/Sh COMPACT VERSIONS ▼
UP TO **44°C OAT** > COMFORT APPLICATION
IDEAL FOR REFURBISHMENT PROJECTS

*Part load operation

ECO-FRIENDLY SOLUTION

LOWEST GWP
AVAILABLE FROM | **240** kW



EXTENDED OFFER OF
LOW NOISE VERSIONS
BASE/LN /SLN INCLUDING BUILT-IN LEAK DETECTOR

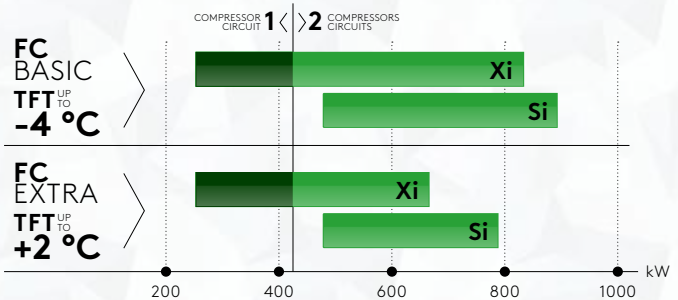


FREE COOLING VERSION

All free cooling units manufactured and shipped in a single assembly

GLYCOL FREE on user side also available

- suitable for systems where glycol mixtures are not allowed
- safe operation e.g. in case of leakages
- cost saving: circuit's filling and safety arrangements



Net cooling capacity (R513A) EN14511 A30 W15/10 gl.30%

HIGH EFFICIENCY AT PART LOAD

Combined benefit of:

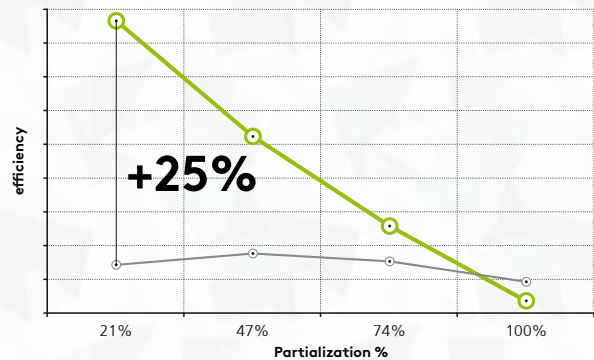
- **INVERTER COMPRESSOR** ▾
high efficiency at part load
- **VARIABLE Vi FEATURE** ▾
Vi: suction volume / discharge volume ratio
Variable: automatically adapted based on operating conditions



EXTRA HIGH EFFICIENCY

Partialization % associated to different conditions as per SEER calculation (reference: Regulation 2016/2281).

Benefit of variable Vi, part-load efficiency values (SEER)



- High efficiency chiller (stepless compressor)
- KAPPA SKY Xi (Smart control of inverter / variable Vi)

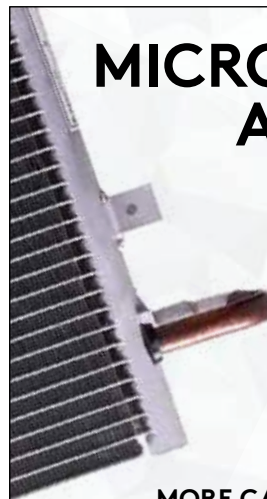
MULTIPLE LOW NOISE OPTIONS



/LN up to -4 dB(A)
sound power level

/XLN up to -7 dB(A)
sound power level (Xi-Xh model only)

MICROCHANNEL ALUMINIUM COIL



Kappa Sky chillers use the new generation of high performance microchannel aluminium coils as standard. Treatments for specific applications available.

**MORE CAPACITY / CROSS SECTION
SMART EFFICIENCY VS FOOTPRINT**

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

BLUEYE CONNECT
REMOTE ACCESS TO UNIT

**SAVE MONEY
FAST SERVICE**

BLUEYE CLOUD
CLOUD RECORDING DATAPOINTS

**PREDICTIVE MAINTENANCE
CUSTOMER REPORTING
ANALYSIS**

FLOWZER 

INVERTER-DRIVEN PUMPS CONTROL
MANAGEMENT FOR DIFFERENT SYSTEM
LAYOUTS

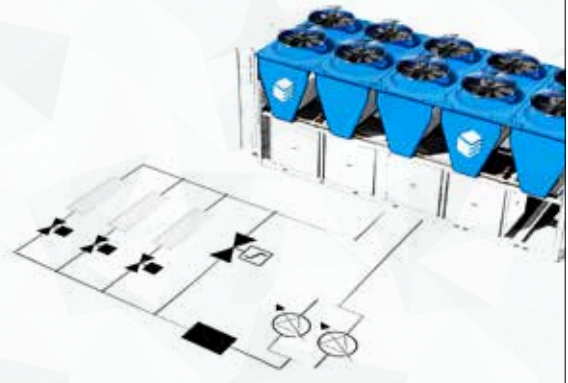
VPS PLUG & PLAY
VARIABLE FLOW MANAGEMENT REDUCES YOUR
OPEX SAVING UP TO 55% OF PUMPING ENERGY

Dedicated hardware and software to manage inverter primary pumps for plants with primary + secondary circuits. Algorithm based on deltaT control strategy.

VFPP REDUCTION
VARIABLE FLOW MANAGEMENT
REDUCES OPEX & CAPEX

Dedicated hardware and software to manage inverter primary pumps for plants with primary circuit only. Algorithm based on deltaP control strategy.

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



*Ecodesign SEER profile (Average climate), comfort application.

Blue Box applied product range

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



Zeta Rev > 40÷240 kW

Reversible heat pumps. Extreme heating envelope. Smart configuration options.



XT



Zeta Rev HP XT > 40÷200 kW

Reversible heat pumps. Extreme heating envelope. Smart configuration options.



Tetris 2 > 84÷913 kW

Modular chillers and reversible units for large commercial systems. Wide range; multiple combinations of high-efficiency, low-noise versions.



Tetris W Rev > 32÷615 kW

Water-source chillers, with heating and reversible versions. Extensive range, versatile applications.



Omega Sky > 436÷1564 kW

Water source chillers and heat pumps.



Omega Sky Xi > 260÷970 kW

High efficiency water source chillers and heat pumps. Inverter-driven screw compressor.



Kappa Rev > 296÷1983 kW

Modular air source chillers and reversible units.



Omicron Rev S4 > 100÷860 kW

Modular multifunctional units for large 4-pipe systems. Smart configuration options.

