



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



REVOLUTION CARRIES ON

FLOWZER
INVERTER DRIVEN
PUMP MANAGEMENT
VPS-VFPP

BLUETHINK-BASED SOLUTIONS
VARIABLE FLOW
SMART OPTIONS FOR BOTH
REFURBISHMENTS AND NEW SYSTEMS

SMART REFRIGERANT
OPTIONS
LOW CHARGE

BLUETHINK
ADVANCED CONTROL
INTEGRATED
WEB SERVER

SUPPLY
UP TO **2 MW**

BLUEYE REMOTE
SUPERVISION

ESEER
UP TO
5,1

EXTENDED
OPERATING LIMITS

MULTILOGIC
MULTIPLE UNITS' SYSTEM

General

Modular chillers and reversible units for large systems. Wide range: high efficiency multiple combinations and low noise versions. Screw compressors, also with integrated inverter for selected models.

Configurations

HE: high efficiency unit

HEi: with hybrid compressors

XEi: with full inverter compressors

HP: reversible heat pump

/HAT: for high external air temperature

/HWT: for production of high temperature water

SLN: super low noise unit

/LN: low noise

/DS: with desuperheater

/DC: with total recovery



ECODESIGN framework Directive (2009/125/EC)

ENERGY
RELATED
PRODUCTS

SEASONAL
EFFICIENCY

SEER | SEPR | SCOP

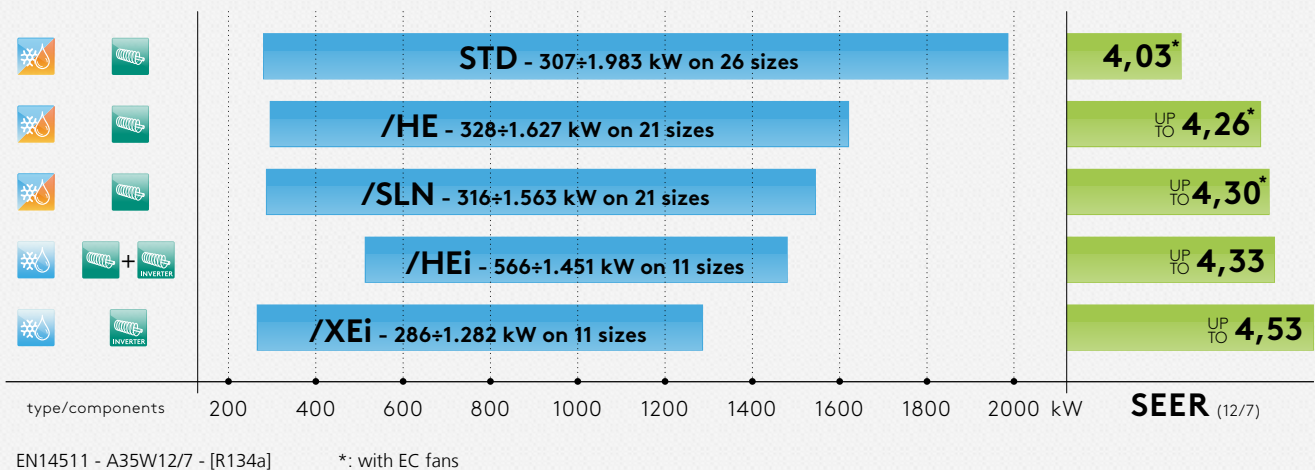
- The **ECODESIGN Directive**, with its Regulations, sets new challenging standards for a more efficient use of energy
- For the European market, all chillers and heat pumps must comply with related seasonal efficiency targets
- **SEER SEPR - Regulation 2281/2016: chillers and large heat pumps. Mandatory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

All chillers comply to **SEPR HT** and **SEER MT**.

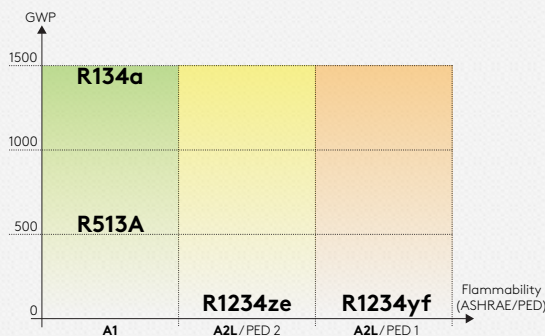
All chillers (except base version) are also compliant to **SEER LT**.

Heat pumps can achieve compliance to applicable Ecodesign regulations, depending on sizes/versions.

CAPACITY RANGE | EFFICIENCY



LOW GWP



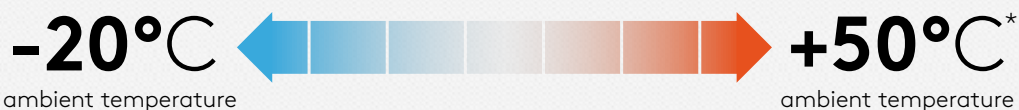
- non-flammable (A1 according to ASHRAE classification) and non-toxic
- low environmental impact with GWP=573 (*)
- as a novel substitute for R134a, R513A is not subject to shortage or price hikes
- R513A offers a smart & future-proof approach to systems designed for low refrigerant charge

(*) GWP (AR5) according to IPCC V time horizon 100 years; GWP (AR4) = 631

All **KAPPA REV** chillers are available with **R513A** or **R134a**.
All models are **EUROVENT** certified.



EXTENDED OPERATING LIMITS



*: Limits depend on model / version. For ambient temperature above 46°C, HAT option is required, allowing to extend operation up to 52°C. Ambient temperatures up to indicatively 55°C can be reached with dedicated setup.

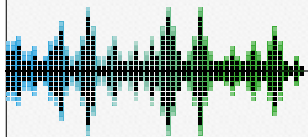
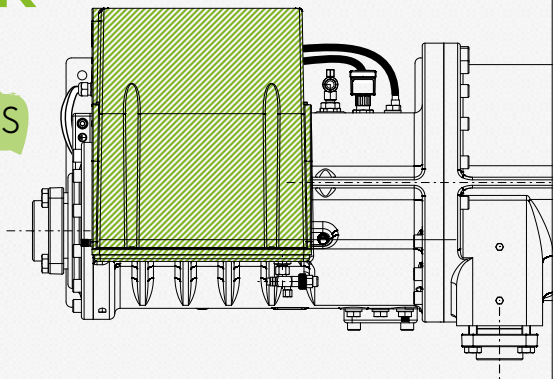
INTEGRATED INVERTER SCREW COMPRESSOR

HEI HYBRID • XEi FULL VERSIONS

COMPARED TO
STEPLESS SCREW
COMPRESSOR
UNITS

CLOSER CONTROL
OF WATER TEMPERATURE

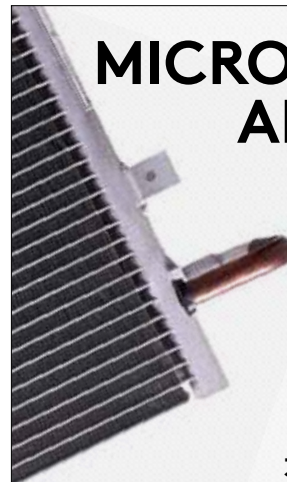
YEARLY
ENERGY
SAVING ► **-12,5%**



NIGHT SHIFT FUNCTION

The unit (HE 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

Kappa Rev chillers
use this new generation
of condensing coil
as standard.

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

SMART ANTI-ICE CIRCUIT

REVERSIBLE HEAT
PUMP VERSIONS

The defrost cycle can be a critical condition:
KAPPA REV features the **Smart Anti-Ice Circuit**, to
avoid ice forming on the bottom part of exchanger: the
function is efficiently activated according to air tem-
perature - only when necessary.



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

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 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 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.



Zeta Rev HP XT > 40÷200 kW

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



Beta Rev > 40÷240 kW

Chillers and reversible units for indoor installation. Extensive range, also with self-adaptive high-efficiency fans.



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 > 444÷1589 kW

Water-source chillers with heat pump reversible versions for indoor installations.



Omicron Rev S4 > 100÷860 kW

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



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