



# Zeta Rev



THAL S - FRANCE  
Lab g - France  
ZETA REV / KAPPA V EVO



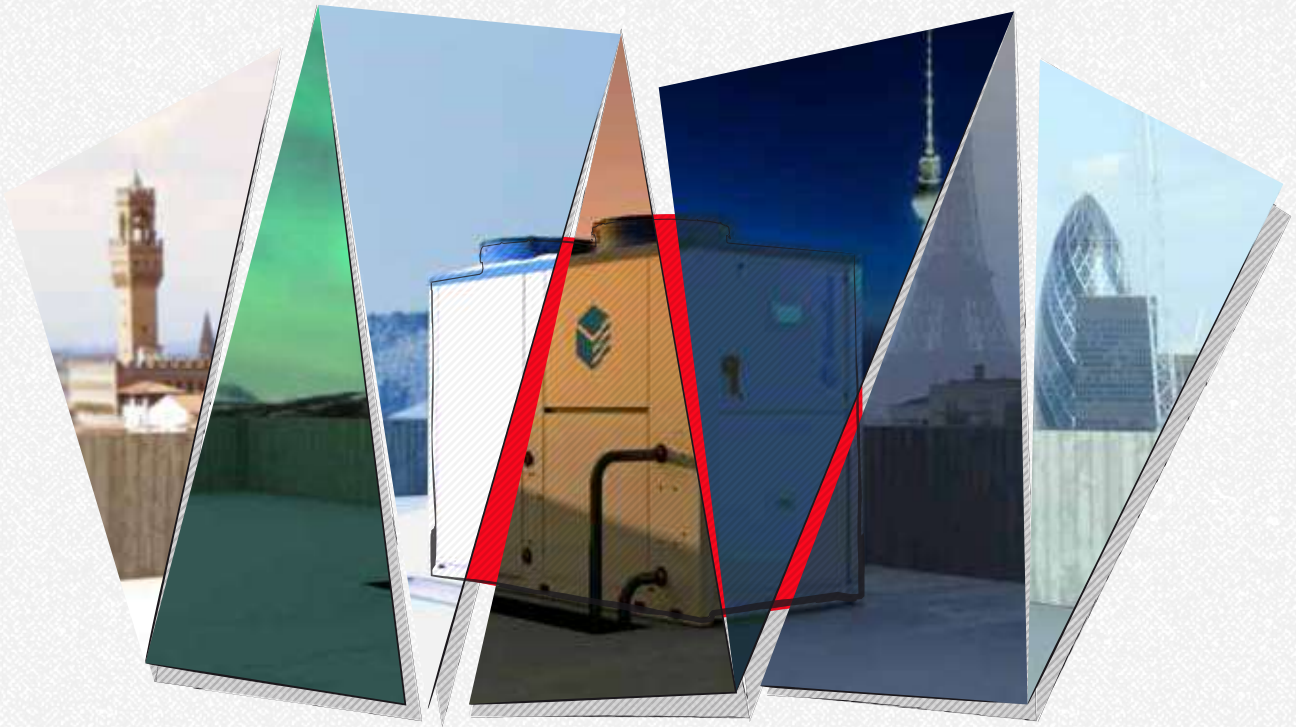
High efficiency air source  
chillers and heat pumps  
cooling **40÷240 kW**





# CHILLER

~~CITIZEN~~ OF THE WORLD



**NIGHTSHIFT  
FUNCTION**

◆ **EER UP TO 3.26**  
● **- 3 dB(A)**

**SEER**  
UP TO **4,45**

**EXTENDED  
OPERATING  
LIMITS**

**BLUETHINK**  
ADVANCED CONTROL

## General

Chillers and reversible units. Extended range, versatile applications.  
Also with inverter-driven brushless compressors.

## Configurations

HE: high efficiency  
SLN: Super Low Noise  
SEi-HEi: inverter-driven compressor  
/HP: reversible heat pump  
LE: with remote user-side heat exchanger

/LN: low noise  
DC: with desuperheater  
DS: with total recovery



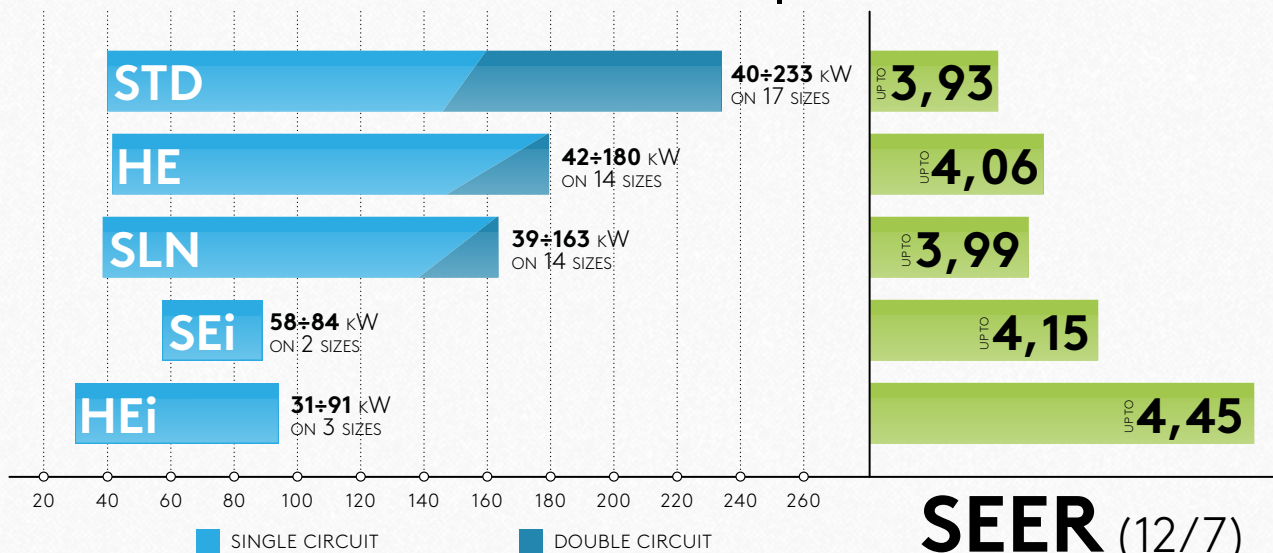
# ECODESIGN framework Directive (2009/125/EC)

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 HT - Regulation 2281/2016: chillers and large heat pumps; mandatory since January 1st, 2018**
- **SCOP - Regulation 813/2013: small heat pumps**

**All ZETA REV models comply to tier 1 • SEER (LT, MT) and SEPR HT.**  
**All ZETA REV heat pumps comply to Ecodesign (SCOP)**

## CAPACITY RANGE | EFFICIENCY



EN14511 - A35W12/7

## HEAT PUMP OPERATING LIMITS

HOT WATER **47°C** < **-10°C**

**FULL** LOAD < **-15°C**

**PART** LOAD < **-17°C**

Values referred to Zeta Rev HE with advanced control.  
 Some sizes can achieve operating limits slightly different.  
 For details, refer to specific documentation.

## HYDRAULIC MODULE

A wide range of options allow to configure the chiller to suit various application. Differentiated levels of pump's useful head are available, with or without buffer tank.

STANDARD ▶ av. **1,5** bars

OVERSIZED ▶ av. **2,7** bars

INDUSTRIAL ▶ up to **5** bars

# SEi·HEi VERSIONS DC INVERTER SCROLL COMPRESSOR



Units with 1, 2 or 3 compressors, of which one brushless inverter DC type:

- higher energy efficiency at part load
- higher cooling capacity at peak load
- more accurate temperature control

## energy saving

up to  
**12% per year**

(compared with standard scroll compressor)

Yearly saving based on Ecodesign's SEER profile, comfort application.

## SMART ANTI-ICE CIRCUIT

REVERSIBLE HEAT PUMP VERSIONS

The defrost cycle can be a critical condition: ZETA 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 temperature - only when necessary.



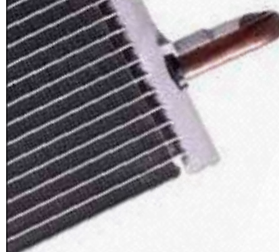
## NIGHT SHIFT FUNCTION

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

Zeta Rev HE →← Zeta Rev SLN

### up to 3 dB(A) of sound power reduction

## MICROCHANNEL ALUMINIUM COIL



Zeta Rev 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**

**1.000 €/y\*** SAVING

(\*2 unit with 3 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

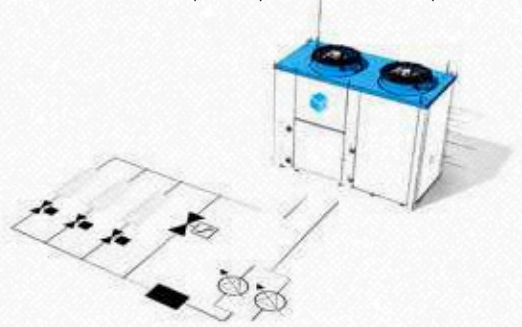
**VPS** **PLUG & PLAY** VARIABLE FLOW  
MANAGEMENT REDUCES YOUR OPEX  
SAVING UP TO 55% OF PUMPING ENERGY

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



VPS / VFPP available only for SEI - HEI versions.

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