



OMEGA SKY Xi

High efficiency water source chillers and heat pumps.
Inverter-driven screw compressor.
250÷940 kW



WESTERNTM
AIRCONDITIONING
WARMTEPOMPEN

BlueBox 
by Swegon

OMEGA SKY Xi

LET'S COOL THE PLANET

Environmentally friendly refrigerants:
R513A default & LGW R1234ze

Cooling capacity range extended on the low end

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

Hybrid Falling Film evaporator:
low refrigerant charge

Bluethink advanced control
Web server
Blueeye supervision
Multilogic function
Flowzer

BLUE BOX PROPRIETARY CONTROL STRATEGY



General

High efficiency water source chillers and heat pumps. Inverter-driven screw compressor. High performance evaporator with low refrigerant charge.

Configurations

base model: cooling only

HPW: heat pump reversible on water side

OH: heating only

LGW: R1234ze refrigerant unit

/XLN: super low noise unit

/LN: low noise unit

/DC: with total recovery



ECODESIGN framework Directive (2009/125/EC)

ENERGY RELATED PRODUCTS > SEASONAL EFFICIENCY > SEER | SEPR | SCOP

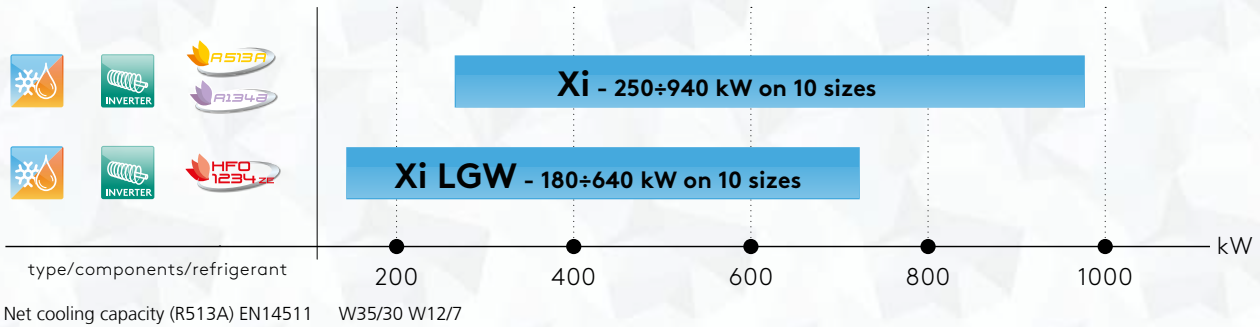
- The **ECODESIGN Directive**, with its Regulations, sets new challenging standards for a more efficient use of energy
- For the European market, all chillers and heat pumps must comply with related seasonal efficiency targets
- **SEER SEPR HT - Regulation 2281/2016: chillers and large heat pumps; mandatory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

All OMEGA SKY Xi models comply to tier 2 • SEER (LT, MT) and SEPR HT.

Also heat pump versions are compliant to Ecodesign.

2021 TIER 2 ECODESIGN COMPLIANT

CAPACITY RANGE | EFFICIENCY



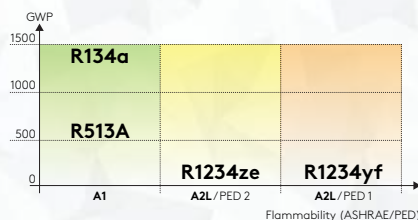
LOW GWP



- 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.

ENVIRONMENTALLY FRIENDLY HEATING

2

versions to satisfy different requirements
HEATING ONLY & REVERSIBLE*
 compressor & inverter optimized for heating



Leaving water temperature up to

65°C



High performance heating coupled with LOW GWP refrigerants

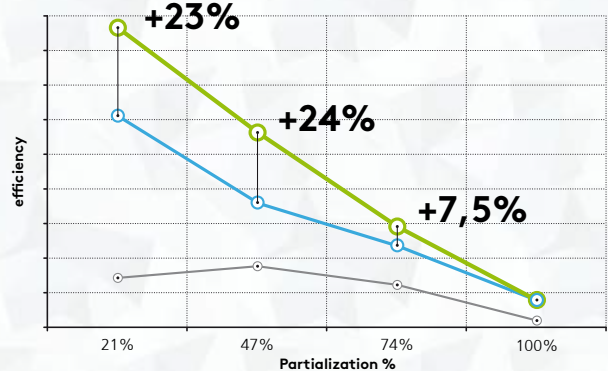
* HPW: reversible water side; Eurovent certified.

HIGH EFFICIENCY AT PART LOAD

SEER up to **8,3***

SEPR up to **9,3***

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



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

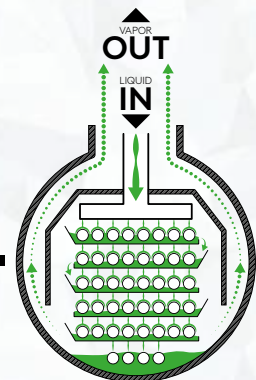
EXTRA HIGH EFFICIENCY
ESPECIALLY AT
LOW CONDENSING TEMPERATURE

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

(*)According to Regulation 2016/2281 and norm EN 14825. SEER / nsc reference: LT / low temperature condition, user-side temperature 12/7°C.

- **High efficiency chiller**
Stepless compressor (dry evaporator) chiller tier1 compliant only
- **Average inverter flooded chiller**
Conventional inverter + flooded chiller tier2 compliant + fixed Vi
- **OMEGA SKY Xi**
Smart control of inverter / variable Vi / hybrid fallin film evaporator

HYBRID FALLING FILM EVAPORATOR



Hybrid combines benefits of different technologies ▾

Specific flow pattern of the refrigerant

Low temperature approach:

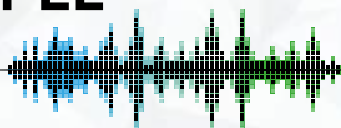
high efficiency refrigerant charge -40%

vs conventional flooded technology.

Hybrid Falling Film & proprietary control

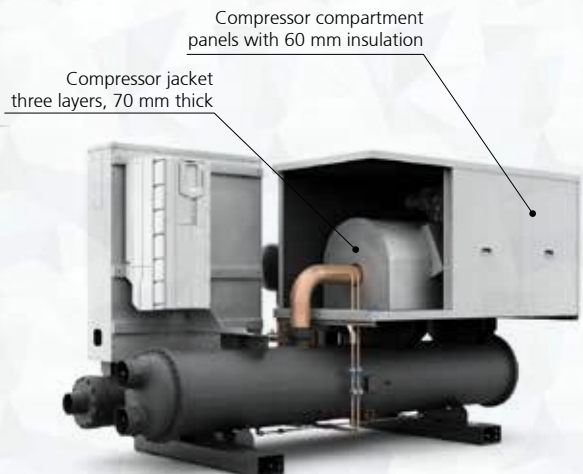
offers also stable operation and excellent fluid distribution vs alternative technologies

MULTIPLE LOW NOISE OPTIONS



/LN up to -5 dB(A)
sound power level

/XLN up to -8 dB(A)
sound power level (not available for LGW model)



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



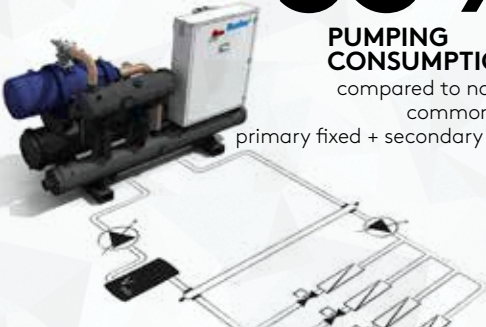
FLOWZER



INVERTER-DRIVEN PUMPS CONTROL
MANAGEMENT FOR DIFFERENT SYSTEM
LAYOUTS

UP TO
-53%

PUMPING CONSUMPTION
compared to nowadays
common layout:
primary fixed + secondary variable




HYZER

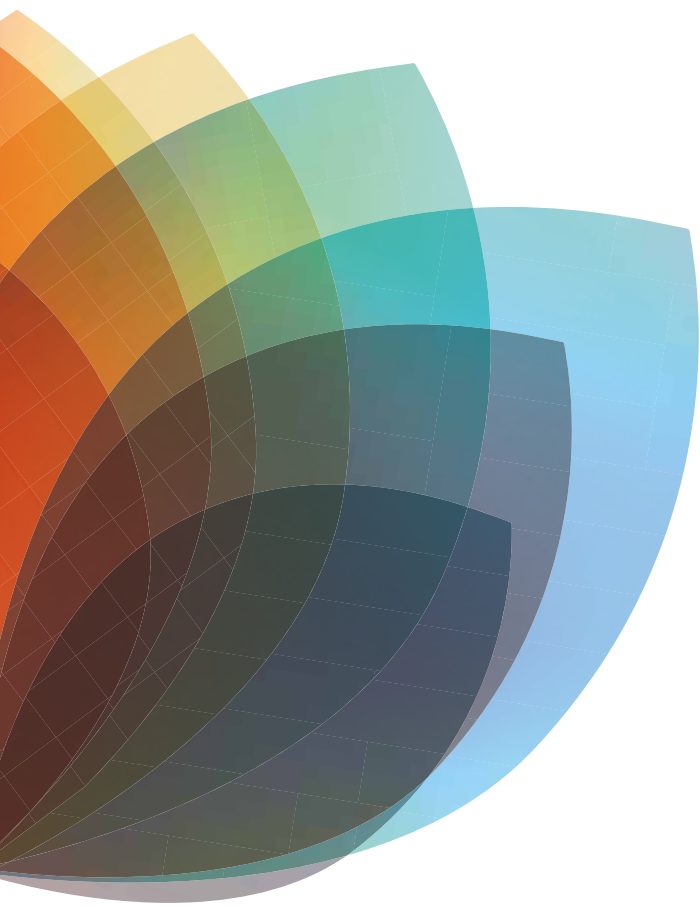
HYDRONIC OPTIMIZER

BLUETHINK solution to manage several units, components and devices and build an optimized System.

- **Advanced algorithms** to maximize system total efficiency
- **Less Opex** thanks to lower energy consumption
- **Flexible management** of multi units, variable water flow and external devices (drycoolers, cooling towers, boilers,..)
- **Real time** energy consumption to obtain advanced structured data analysis
- **Modular design** to perfectly suit any project requirements in terms of application, size and complexity



Feel good **inside**



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