

OMEGA SKY Xi



## OMEGA SKY Xi

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

**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  
Blueye 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

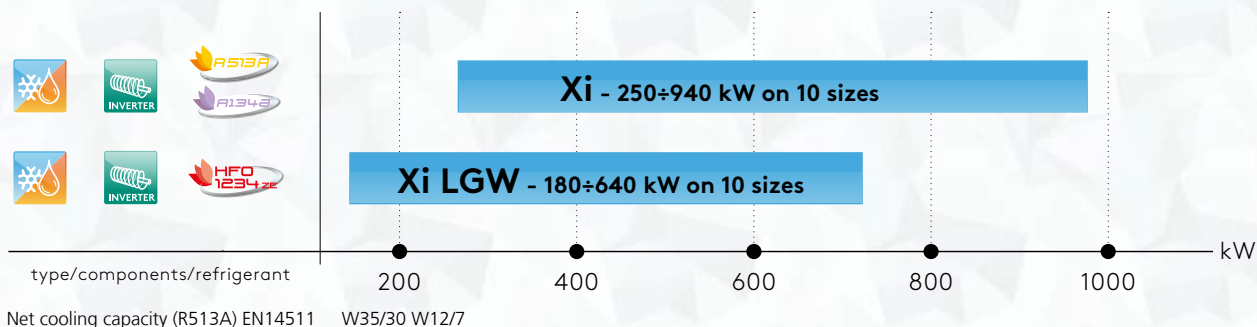
- The **ECODESIGN Directive**, with its Regulations, sets new challenging standards for a more efficient use of energy
- For the European market, all chillers and heat pumps must comply with related seasonal efficiency targets
- **SEER SEPR HT - Regulation 2281/2016: chillers and large heat pumps; mandatory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



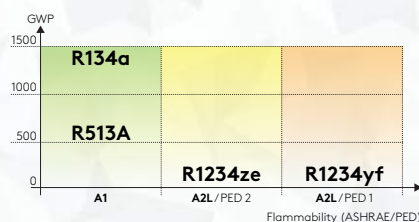
## LOW GWP



- 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



(\*) 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

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

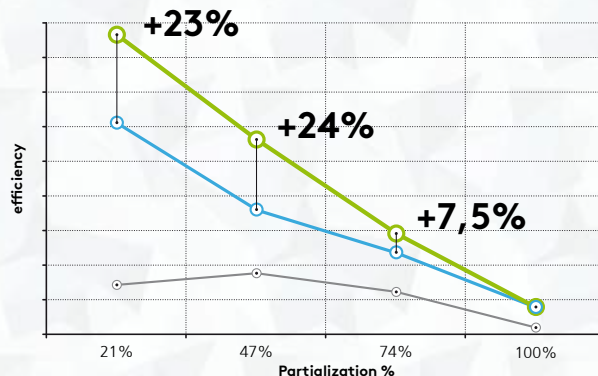
Partialization % associated to different conditions as per SEER calculation (reference: Regulation 2016/2281).

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

SEER up to  
**8,3**

SEPR up to  
**9,3**

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

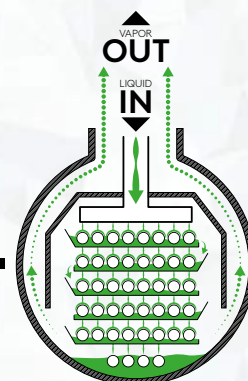


**High efficiency chiller** ●  
Stepless compressor (dry evaporator) chiller tier1 compliant only

**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.

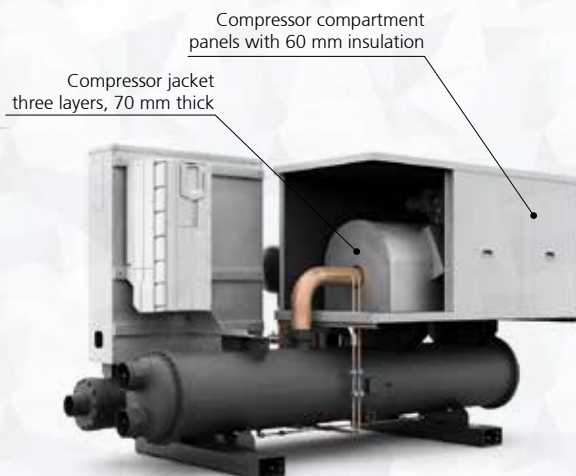
**Hybrid Falling Film & proprietary control**

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**

