

LAMBDA SKY



## LAMBDA SKY

Packaged Rooftop

Air Handling Heat Pump/Air Conditioner

**20÷300 kW**

**WESTERN**<sup>TM</sup>  
AIRCONDITIONING  
WARMTEPOMPEN

**BlueBox**   
by Swegon

# LAMBDA SKY

THE BEST INDOOR AIR QUALITY FOR LARGE SPACES



## Air Quality

- Various filters options (from G4 to F9)
- Fresh air management with Air Quality Sensors
- Humidity management for the best comfort all year long

## Re-Use of Waste Energy

- Thermodynamic heat recovery
- Cross Flow Heat recovery
- Hot Gas Recovery

## Enhanced Efficiency

- Inverter Plug Fans
- Inverter compressors
- Double Skin Sandwich panel

## Smartness

- Advanced Variable Air flow solutions
- Smart Dampers Management
- Adaptive Defrost
- Cascade control
- Floating Set point compensation
- Remote Web control

## Flexibility & Configurability

- Full Recirculation
- Fresh Air management
- Humidifier
- Auxiliary Heating options
- Flexible air return and delivery layouts

## Use of Free Energy

- Enthalpic Free Cooling
- Free Heating opportunities





Low **GWP** below **700**

**Smart Optimization Functions**  
to exploit the  
**best performance and efficiency**  
in all working conditions

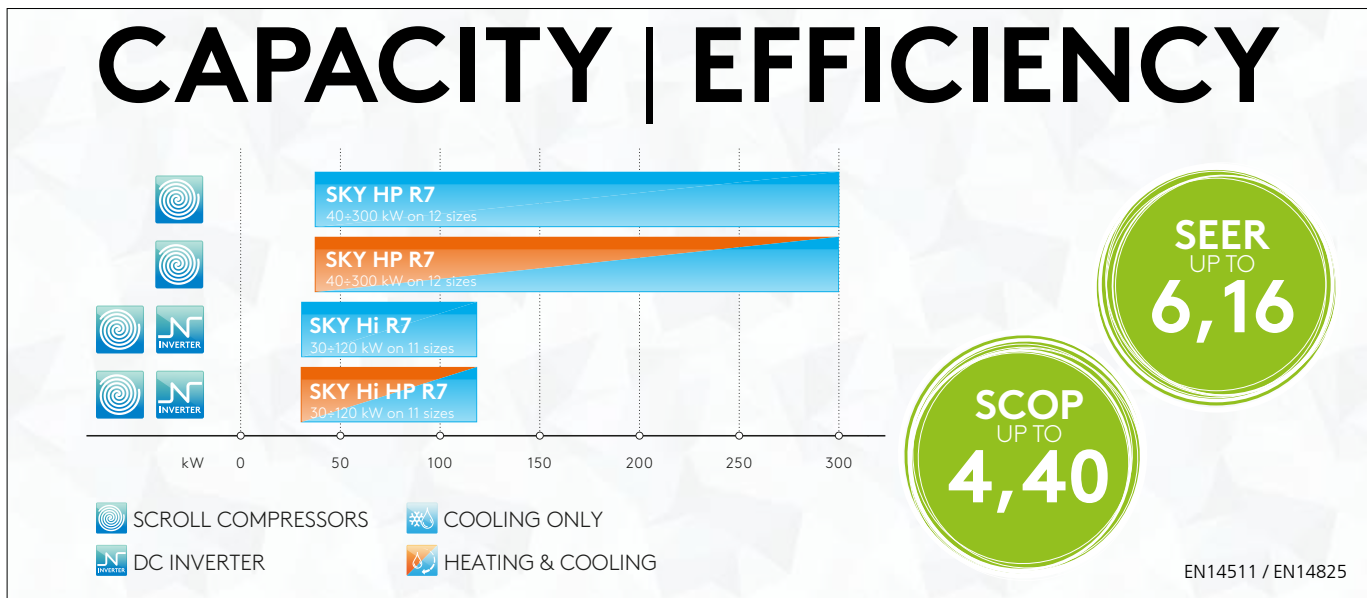
# THE GREENEST ROOFTOP EVER



The **right fresh air**  
in any moment



**INVERTER**



## APPLICATIONS

Lambda SKY can be a real **All in One** solution for those who has space constrains or specific building needs.

Strongly Variable Heat Load

Optimize Consumption in any conditon

Different Layouts


Flexible & Adjustbale air intake and delivery positions

Energy Bills

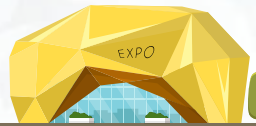
Efficiency far above minimum Tier 2 treshold

Strongly Variable Occupancy


Multiple Variable Airflow Solutions




RETAILS



EXIBITION CENTERS



MALLS



WAREHOUSE INDUSTRIAL BUILDINGS

# CONFIGURABILITY

**FC RS4S**  
Heat Recovery to recover the whole energy from the exhaust air

**FC FC3S**  
Intake & Rejection

**FC FC2S**  
Fresh Air Intake

**BASIC**  
Full Ricirculation

**FC**: free cooling

## HEAT RECOVERY FROM REFRIGERATED CABINETS



Re-use of waste heat energy from cabinets to warm the environment for free.



## THERMODYNAMIC HEAT RECOVERY



Take advantage of the exhaust air to improve condensation in summer and evaporation in winter.

### Cooling

External T°: 35°C | Return T°: 27°C

**+5% EXTRA CAPACITY/EFFICIENCY**

### Heating

External T°: 0°C | Return T°: 20°C

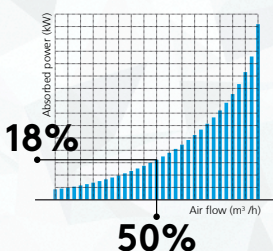
**+10% EXTRA CAPACITY/EFFICIENCY**  
DEFROST CYCLE REDUCTION

## EC PLUG FANS

ELECTRONICALLY COMMUTATED BRUSHLESS MOTOR AS OPTION

Reduced energy consumption and noise, self-adaptation to changes in heat load, air volume or static pressure.

### USER SIDE



### SOURCE SIDE

up to  
**8%**  
SEER & SCOP  
Improvement

## Hi VERSION DC INVERTER SCROLL COMPRESSOR



- Higher efficiency at part load
- Continuous modulation according to the load
- Accurate temperature control and stability

### energy saving

up to  
**30%**  
higher SEER

up to  
**10%**  
higher SCOP

(compared with standard scroll compressor)

## The control platform for air treatment, based on webserver.

Simple & Immediate  
Human Machine  
Interface

Standard Monitoring  
Solutions  
Serial Port Modbus RS485  
Ethernet Port (RJ45):  
Modbus su IP  
Pagina Web



Unique Software  
Features

A Control  
Continuously Evolving  
following the Latest  
Industry  
Requirements



## SET POINT COMPENSATION

Reach the perfect indoor climate comfort  
Let the unit work with the maximum efficiency (lowest  $\Delta T$  between indoor and outdoor conditions)  
Minimize energy expenditure

## BESPOKE SETTINGS

The unit can be programmed with the highest flexibility on the days and timings:

**Boosted fresh air function**

Wash an ambient opening up all the Fresh Air Dampers

**Pre-Heating & Pre-Cooling**

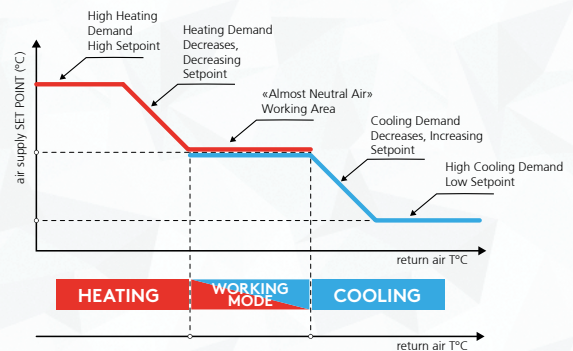
A software routine can be programmed to quickly restore the comfort conditions closing the fresh air and pushing at the maximum cooling/heating sources



## CASCADE CONTROL

**Cascade Control** means the opportunity to act on the supply setpoint based upon the real heat load thus saving energy in most of the operating condition.

**Neutral Air** means avoiding unrequired Cooling/Heating.



## BLUEYE CONNECT

REMOTE ACCESS TO UNIT

SAVE MONEY  
FAST SERVICE



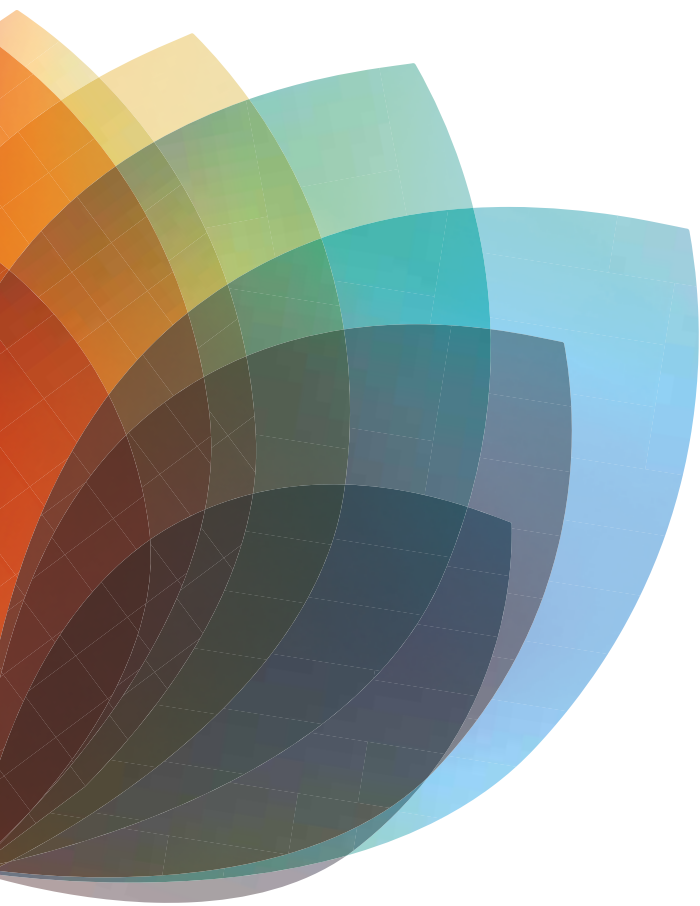
## BLUEYE CLOUD

CLOUD RECORDING DATAPOINTS

PREDICTIVE MAINTENANCE  
CUSTOMER REPORTING  
ANALYSIS



Feel good **inside**



**WESTERN**<sup>TM</sup>  
AIRCONDITIONING  
WARMTEPOMPEN