

TITAN SKY



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Full inverter reversible heat pump
with natural refrigerant
30÷200 kW

WESTERNTM
AIRCONDITIONING
WARMTEPOMPEN

BlueBox 
by Swegon

TITAN SKY

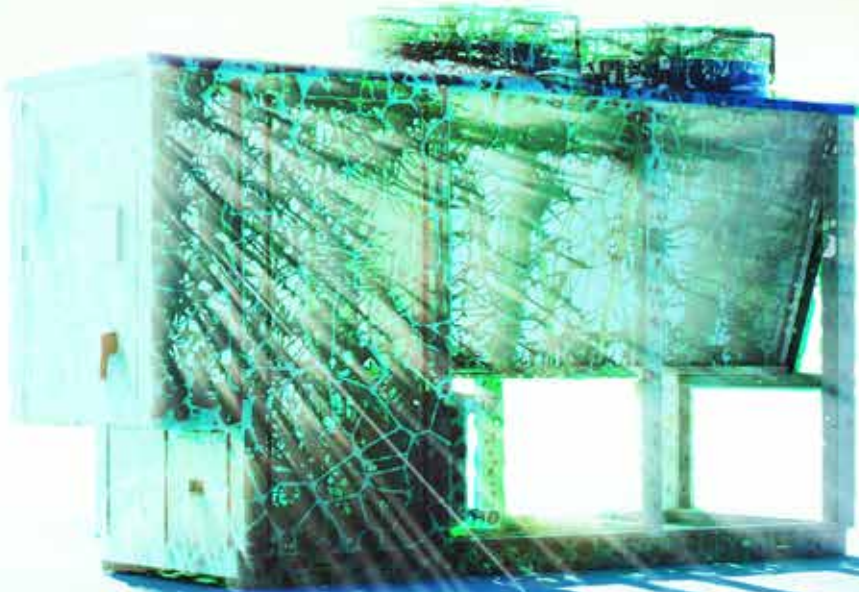


THE NATURAL CHOICE

THE MOST SUSTAINABLE COMMERCIAL AIR SOURCE HEAT PUMP

**Air Source Inverter Heat pump
Natural refrigerant (R290)
Lowest TEWI (Total Equivalent Warming Impact)**

Unbeatable use of Primary energy thanks to Inverter technology • No Ozone Layer impact & Nearly Zero Global warming potential • Optimized Low Refrigerant Charge design • Meets the highest seasonal efficiency standard (European Ecodesign Erp) • Eurovent certification soon available



30-200 kW • Max Hot water: +63°C • Min T_{air}: -20°C • SCOP: up to 4.12



Natural refrigerant



Inverter technology



Advanced control

CLIMATE CHANGE FIGHT

EUROPEAN CLIMATE STRATEGY IS GOING TO BE UPDATED AND REINFORCED

TARGET

Reduction of **55%** Greenhouse Gas emission by **2030**

Increased **renewable energy** (above **32%**) by **2030**

Net-zero Greenhouse Gas Emission by **2050**

HOW?

F-gas regulation Regulation

Renewable Energy Directive

European Performance of Buildings Directive (**EPBD**)

Ecodesign **ERP** Directive



Keep temperature increase below **1.5°C**

Become a **climate neutral economy**

R290

NATURAL REFRIGERANT



SUSTAINABLE CHOICE

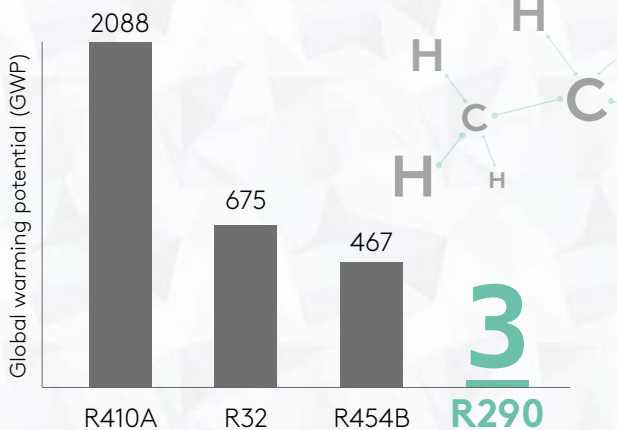
- Nearly zero Global Warming Potential (GWP=3)
- Natural fluid
- Natural non toxic refrigerant
- No Ozone Layer impact
- -40% gas charge compare to R410A

RELIABLE CHOICE

- Availability of optimized, long run reciprocating inverter technology
- Implementation of the highest safety standard

SMART CHOICE

- No carbon tax
- Pushed by incentivation schemes
- Future-proof natural solution. On going HFC phase-out



TEWI

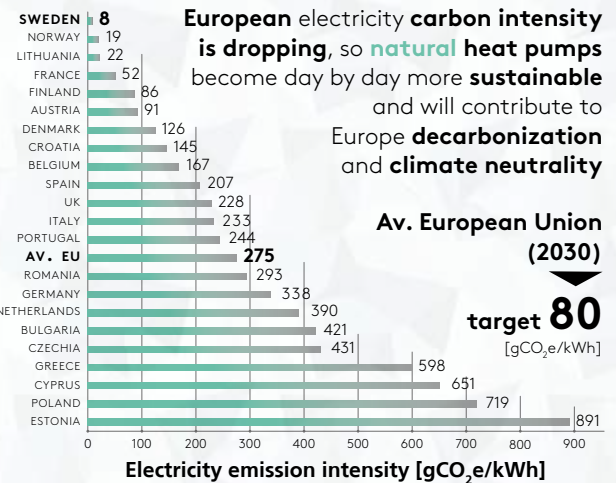
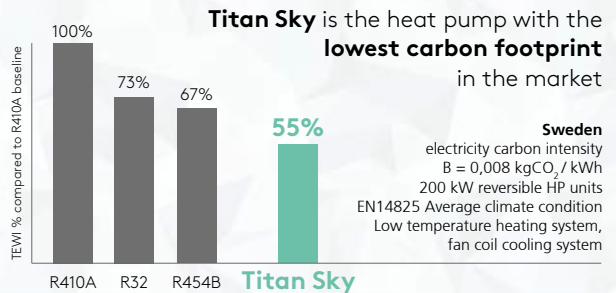
TOTAL EQUIVALENT WARMING IMPACT

TEWI [tons CO₂ eq.]

Direct emissions + Indirect emissions

Leakage rate per year
Service life (years)
Leftover refrigerant after disposal
Global Warming Potential

Plant cooling / Heating load
Heat pump efficiency
Electricity consumption
CO₂ emission intensity



2019 data, Source EEA

CAPACITY RANGE

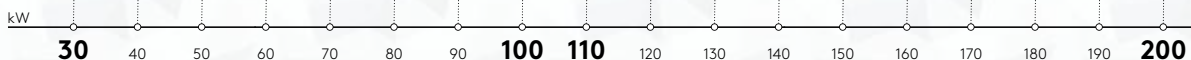


TITAN SKY Hi HP R0 SINGLE CIRCUIT

30÷100 kW on 5 sizes, av. 15kW gap

TITAN SKY Hi HP R0 DOUBLE CIRCUIT

110÷200 kW on 4 sizes, av. 25kW gap



Reversible heat pump with **reciprocating full inverter compressors** optimized for R290

▶▶▶ **SCOP** UP TO **4.12*** ◀◀◀

* with EC fans and inverter driven pumps

EN14511 / EN14825

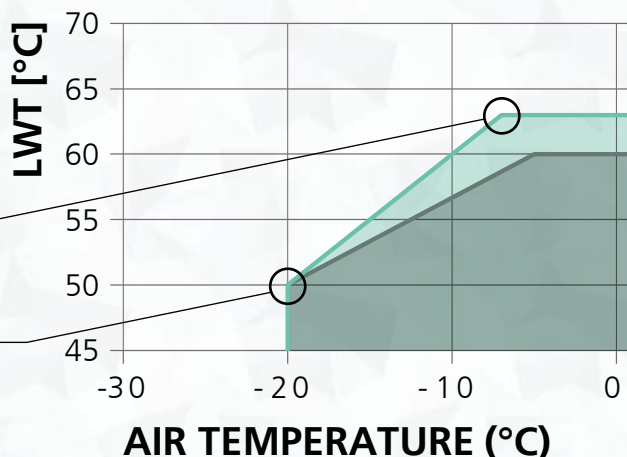
OPERATING LIMITS

Leaving water T°



63°C at **-7°C** outside air T°

50°C at **-20°C** outside air T°



Titan Sky Hi HP R0

R290 heat pumps market

COMPACT



COMPACT AND NARROW FRAME

(1130 mm full range)

PLENTY OF ROOM

for hydronics circuits and recovery exchangers below the coils

TOTALLY INDEPENDENT CIRCUITS

- Management of independent defrost on each circuit for higher supplying stability
- Aeraulic separation provides complete redundancy of the refrigeration circuits




Only for double circuit units

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

- **CONSTANT FLOW**
 - Simpler site's settings to achieve a real constant flow
- **CONSTANT HEAD PRESSURE**
 - The right pressure to the users in any condition
- **VARIABLE FLOW**
 - Full control of one unique hydraulic loop
 - Primary/Secondary Loop, the right solution for any layout

UP TO **-53%**
compared to nowadays common layout:
primary fixed + secondary variable



HYZER

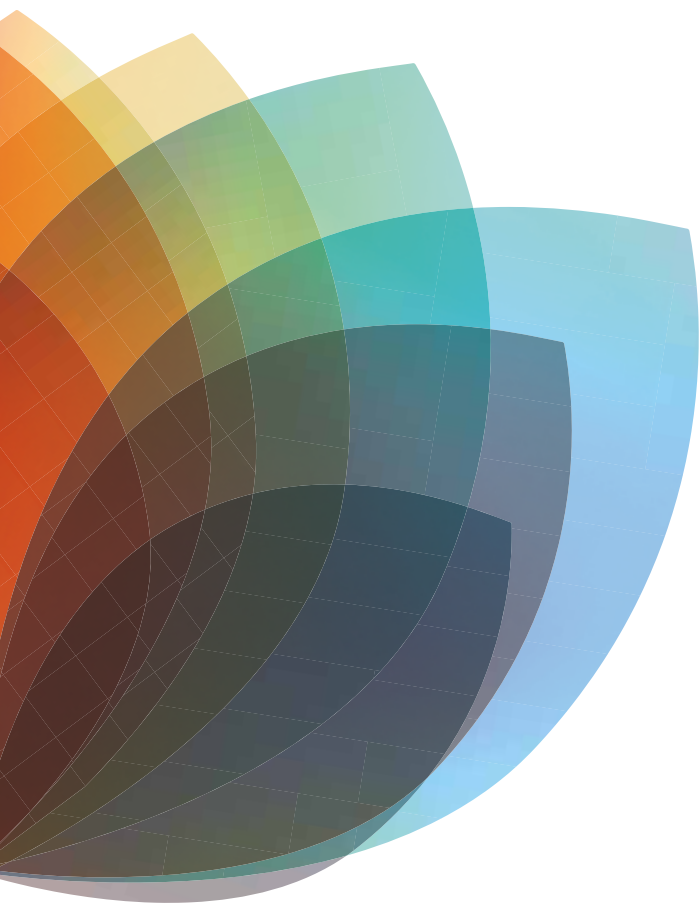
HYDRONIC OPTIMIZER

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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