

TITAN SKY Hi R0 FC



## TITAN SKY Hi R0 FC

Full inverter free cooling chiller  
with natural refrigerant

**35÷150 kW**

**BlueBox**   
by Swegon

# TITAN SKY FC

THE NATURAL CHOICE

## NATURAL FREE COOLING CHILLER

**Inverter compressor**  
**Natural refrigerant (R290)**  
**Extended Free cooling coil surface**

Unbeatable use of Primary energy thanks to Inverter technology and Free Cooling function • No Ozone Layer impact & Nearly Zero Global warming potential • Optimized Low Refrigerant Charge design • Meets the highest seasonal efficiency standard (European Ecodesign Erp) • Pure water on user side ( NG glycol free version)



### CHILLER

**35÷150 kW** • Min Cold water: **-15°C** • Max T<sub>air</sub>: **52°C** • SEER: up to **4.6**

### FREE COOLING

Full **Free Cooling at 5K** from delivery temperature



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

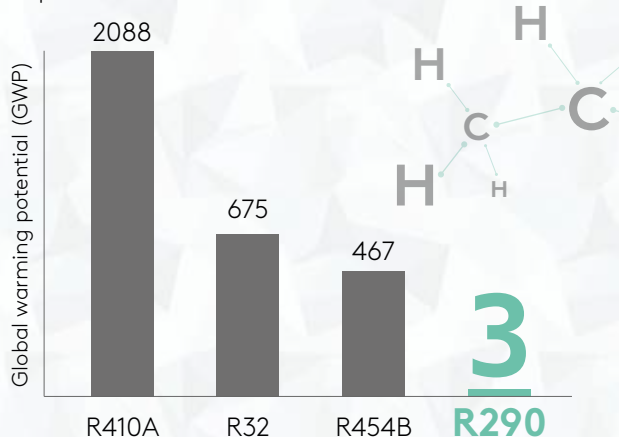
- Nearly zero Global Warming Potential (GWP=3)
- Natural fluid
- Natural non toxic refrigerant
- No Ozone Layer impact
- -40% gas charge compare to R410A

### RELIABLE CHOICE

- Long run reciprocating compressor with 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



## FREE COOLING

A STEP FORWARD SUSTAINABILITY

### MODULAR COILS DESIGN

Condensing and free cooling coils are completely independent:

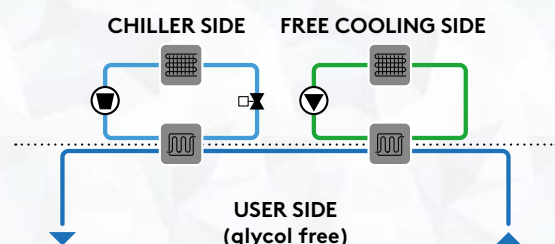
- Each coil is designed independently
- Low air pressure drops, low power absorbed by fan
- Optimized Condensing and Free cooling control
- Easy coils maintenance



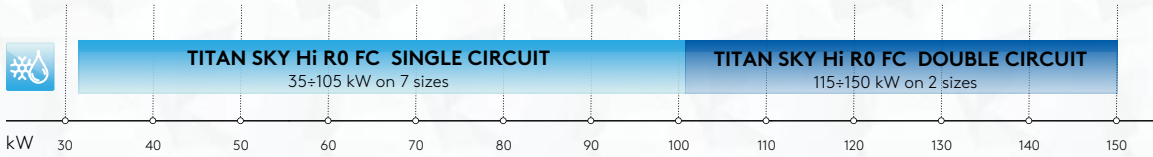
### GLYCOL FREE VERSION

Allows to separate freecooling circuit, with glycol, from user side circuit:

- suitable for plant where glycol mixtures are not allowed
- safe operation e.g. in case of leakages
- cost saving: circuit's filling and safety arrangements



# CAPACITY RANGE

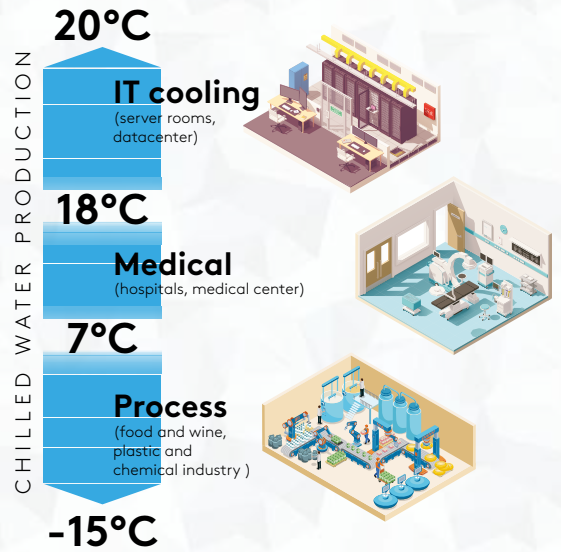


Chiller with **reciprocating full inverter compressors** optimized for R290

**SEER up to 4.6 | SEPR up to 5.9**

EN14511 / EN14825

# FREE COOLING FOR ANY APPLICATIONS

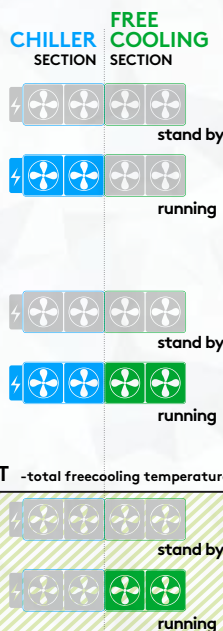


# MULTIFREE

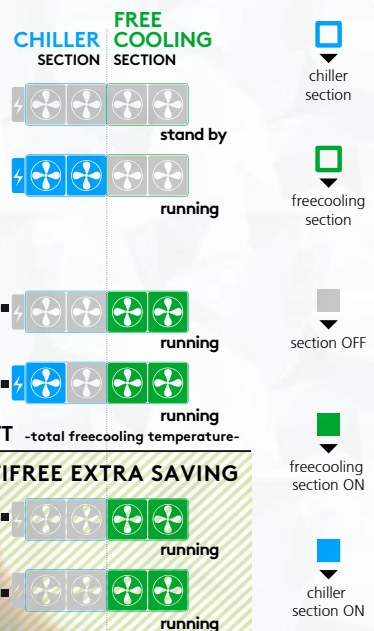
is a specific **function** designed to maximize **free cooling operations** in multiunits plant. It uses the **entire free cooling capacity of all units** before starting any compressors. This means **higher TFT** and **energy saving**.



## TRADITIONAL FREECOOLING N+1 CONFIG



## MULTIFREE N+1 CONFIG.



# 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 **-55%** savings

in the energy consumption of the pumps compared to a traditional fixed flow system

## CWDS

CHILLED WATER DYNAMIC SETPOINT  
System approach with the highest level optimization

**Link freecooling chiller operation to the real IT load requirements**

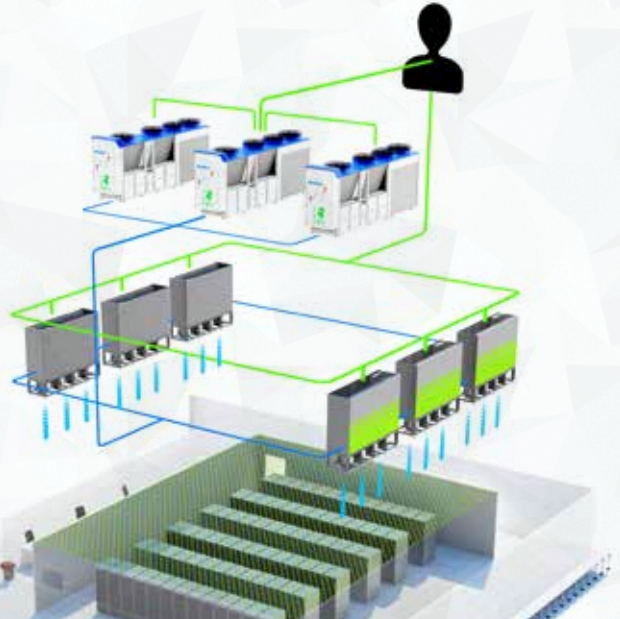
↓

No point producing coldest water and then bypass it, if the load is not 100%

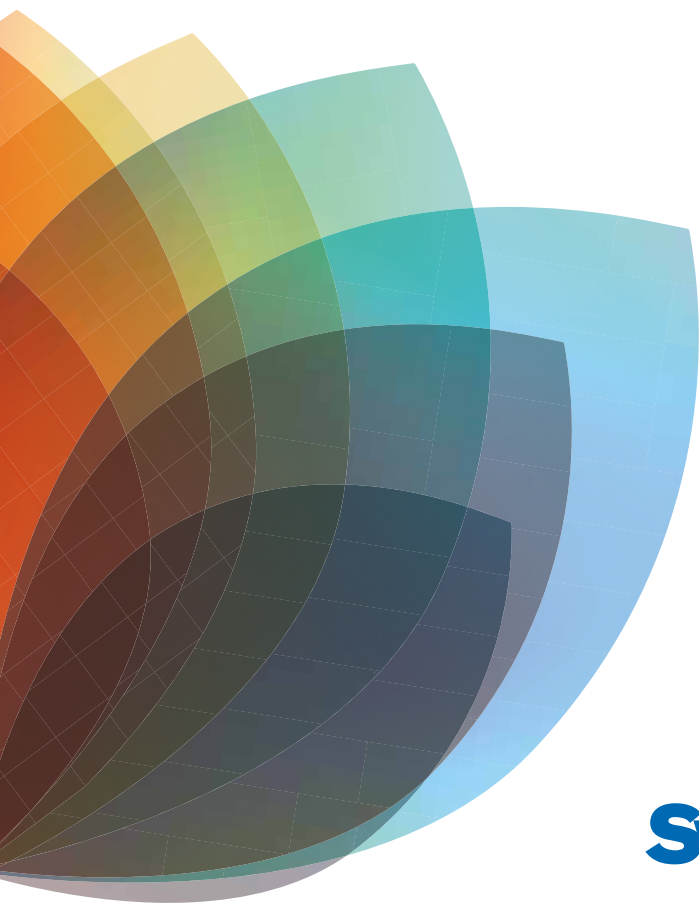
**Energy saving opportunities**

↓

Increased water temperatures means higher evaporation in Chiller Mode, more Free Cooling, lower operating cost



Feel good **inside**



**Swegon** 