RHOSS – NEWS 2017

News 2017 by Rhoss

Applied & Air Treatment

- **FullPOWER and FullPOWER VFD**
  - The New generation of SCREW chillers
- **TurboPOWER**
  - Turbo put the power
- **EasyPack HT65**
  - A complete range for hot water production up to 65°C
- **Next Air – Regulation**
  - ADV Next Air: the tangible solution to the evolving air handling requirements
- **Compact-ID**
  - Air cooled with EC Plug-Fan Scroll INVERTER compressors

FullPOWER
FullPOWER VFD INVERTER

The New generation of SCREW chillers

“ Power and efficiency under control”

Double compressors/double circut air-cooled chillers with screw and inverter screw compressors

RHOSS
CREATING YOUR COMFORT

FullPOWER range

Main Advantages

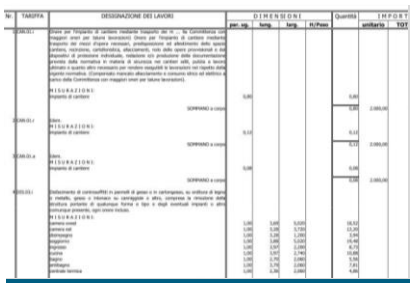
- **The POWER: same structure, different technologies**
  - On the same structure, the entire POWER of the Screw, Scroll and Turbo technologies
- **A complete range for the Screw technology**
  - The Screw technology made by stepless regulation, full inverter regulation, hybrid inverter regulation (coming Q1 2018)
- **Erp – ready 2021**
  - A technology that looks to the future

A winning range!

FullPOWER

FullPOWER is innovative!

Customers' advantages



Specifications

FullPOWER

It's the new winning platform designed by RHOSS to satisfy the needs of our customers

Customers' advantages

Plug&play units with excellent components to obtain maximum efficiency and high installation and application flexibility.

FullPOWER is innovative and Eco-friendly!

Many accessories for an intelligent and energy saving management

Low refrigerant charge

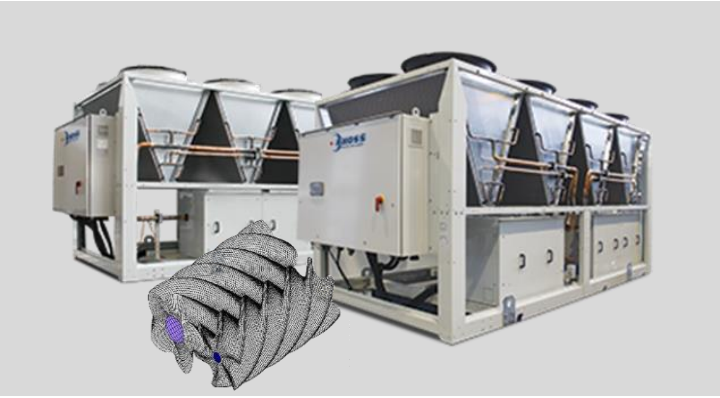
High efficiency and low consumption

Specifications

3 different ranges (HE-A, SE e VFD) to have competitiveness in traditional offerings and new opportunities for specifications

FullPOWER
FullPOWER VFD

OVERWIEW



EFFICIENCY

- Different options: SE standard version, HE-A high efficiency version and high partial load efficiency with VFD range
- EC fans option

FLEXIBILITY

- Market oriented versions: performances - operating limits - low noise
- Hydraulic equipment for easy management
- Accessories for energy saving logic

TECHNOLOGY

- **FNR** - noise management
- **EEO** - EER optimization
- **VPF** - variable primary flow
- **SIR** - Integrated Master/Slave sequencer up to 4 units
- Compressors with inverter regulation

ECO-FRIENDLY UNITS

- Low refrigerant charge
- Low GWP option - HFO gas (as special request)

RELIABILITY

- Stress test new components in Lab.
- Leak detector-accessory

PERFORMANCES

- EUROVENT certification
- Leed compliant
- High perfomances
- Extended operating limits

TurboPOWER

The New generation of chiller

R134a

HFO 1234ze

“ .. The choice of A class”

Air cooled LIQUID CHILLER with turbocor compressors:
300÷1100 kW

TurboPOWER range

Main Advantages

- **The POWER: same structure, different technologies**

  - On the same structure, the entire POWER of the Screw, Scroll and Turbo technologies

- **The Turbocor technology for the best efficiencies**

  - The Screw technology made by stepless regulation, full inverter regulation, hybrid inverter regulation (coming Q1 2018)

- **New refrigerants and environment protection**

  - A complete range for the use of the new environmental refrigerants, with the use of the «spray» technology

Winning product range

TurboPOWER

TurboPOWER is innovative !

Advantages for the customers

Specifications

TurboPOWER

It's the new winning platform designed by RHOSS to satisfy the needs of our customers

Advantages for the customers

Energy saving and consequent economical saving, with higher installation and application flexibility

TurboPOWER is innovative !

Thanks to the technology, the main components installed and the new functions introduced

Specifications

Competitiveness in traditional offerings and new opportunities for specifications

Designed for You

Rhoss efficiency design

- Chiller in **A class** with **ESEER up to 5,66**
- **Turbocor** Technology to increase the energy saving
- **Excellent temperature control** thanks to the continuous modulation of cooling capacity
- **Silent operation** specially at part load
- **Wide range of accessories** to meet the customer requests
- low **inrush current**

Environment protection

New range developed with HFO refrigerant gas - R1234ze at 0 environmental impact

Flooded evaporator “spray type“ to minimize refrigerant charge

HFO 1234ze

GREEN LINE

RHOSS

A/W and W/W heat pumps
for hot water production up to 65°C

R410A

HT65 range

Main Advantages

- **EasyPack HT65: the completion of the HT65 range**
  - A complete range for the hot water 65°C production
- **The best comfort, for all temperatures**
  - Wider range for the operating temperatures, down to -20°C in Winter

- **Integrated management logics**
  - Set-point compensation, Pump energy saving management, Management of diverter 3-way valve, Management of additional heater, SIR – Sequencer integrated Rhoss.

Liquid injection **scroll compressors** for high temperature water production

Large operating field
Down to -20°C of external air
Up to 65°C of hot water

Compact-Y/EasyPack HT65
Y-Flow HT65

Comfort
Heating/cooling and DHW production.
Management of an external additional generator

Efficiency

Plug&Play
Easy installation thanks to the many hydraulic equipments

Application
Ideal in the renovation buildings in case of replacement of centralized boilers with the possibility of maintaining the existing distribution system based on radiators

The Rhoss proposals: ADV and Next Air

Next Air Range

General features

- Top mechanical features according to Eurovent
- Modular Air Handling Units
- Wide Range: 16 sizes of machines
- Big versatility thanks to the many functional options available
- Range ErP 2018 ready
- Plug and play control system
- A new comfort level thanks to Air suite filters
- Lower lead time thanks to robotic production line

Next Air Range

Mechanical features

Next Air Range

Eurovent classification EN1886

EUROVENT CERTIFIED PERFORMANCE
AHU -09.07.361
Range -ADV
www.eurovent-certification.com

D1	4	←
D2	10	
D3	>10	

Mechanical resistance

Competitors average reference value D1

L1	0,22	←
L2	0,63	
L3	1,9	

Air leackage

Competitors average reference value **L2**

F9	0,5	←
F8	1	
F7	2	
F6	4	

Filters bypass

Competitors average reference value **F8**

T1	<0,5	
T2	1<<0,5	←
T3	1,4<<1	
T4	2<<1,4	

Thermal trasmittance

Competitors average reference value **T3**

TB1	1<<0,75	←
TB2	0,75<<0,6	
TB3	0,6<<0,45	
TB4	0,45<<0,3	

Thermal bridge factor

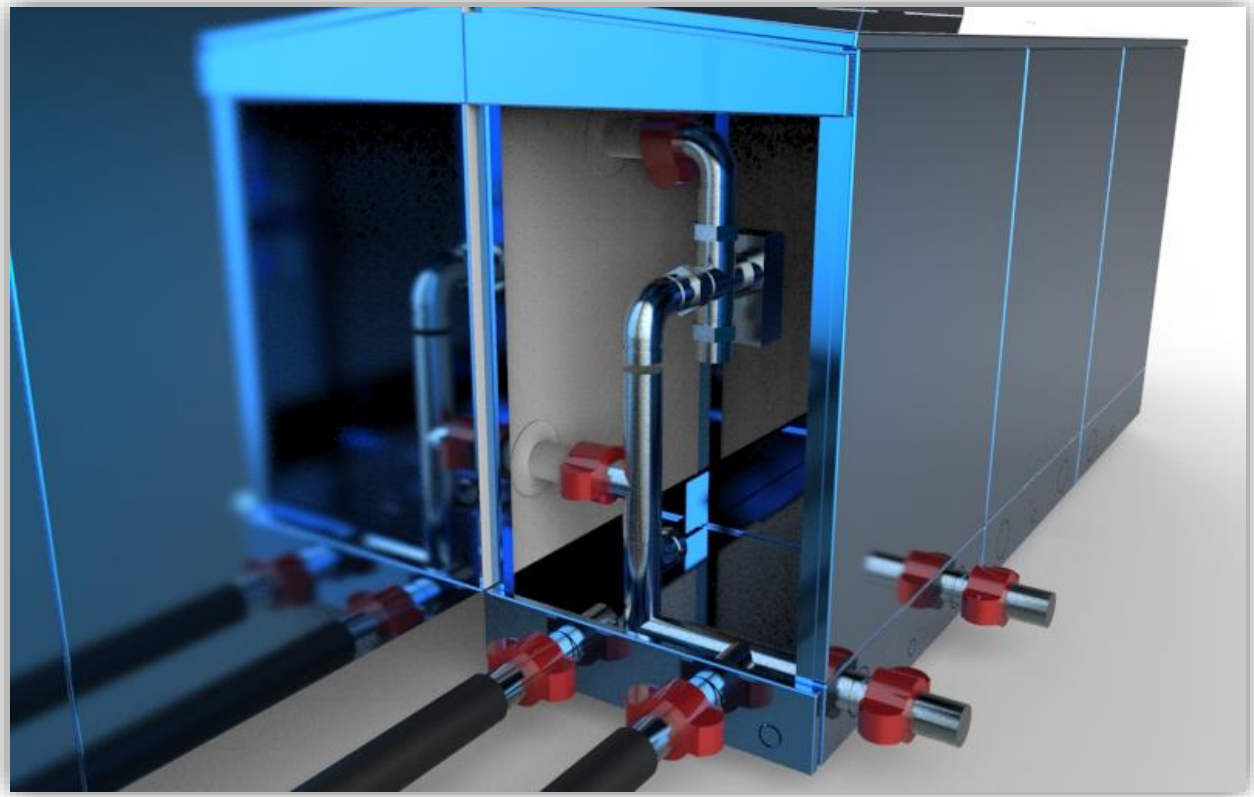
Competitors average reference value **TB3**

RHOSS CREATING YOUR COMFORT

Next Air Regulation

Next Air Regulation

Technical space for regulation components



Low consumption COMPACT-ID 117÷128 range

EC Plug-Fan

EC INVERTER Compressor

EC Pump

FULL INVERTER

TOTAL COMFORT

Seasonal high efficiency, close control of temperature and comfort

- Radial Plug-Fan with EC motor
- Possibility to configure the unit with EC circulator >

> Version PI0

Compact-ID

Main Advantages

- **The full inverter technology**
  - *EC Plug fans, EC inverter scroll compressors, EC pumps*
- **The best performance**
  - *The best efficiencies, the widiest temperatures, the highest pressure*
- **Erp – ready 2021**
  - *A technology that looks to the future*

Compact-ID

Total comfort

- Heating/Cooling and DHW production
- Management of additional or auxiliary generator

BLDC scroll compressor
inverter driven

Efficiency

High nominal and seasonal efficiency

ErP READY 2021 — APPLIES TO EUROPEAN DIRECTIVE FOR ENERGY RELATED PRODUCTS

Large operation limits

- Down to -20°C external air
- Up to 60°C of hot water

Silent

Plug&Play Unit

Pumping group with

- EC circolator 3 velocity speed selector
- EC circolator with variable flow
- Pump

→Tank and pump option with integrated inertial tank

EC Plug-fans (accessory)

- Continuous speed modulation by 0-10V signal.
- High available static pressure adaptable to different needs of ductwork installation.
- EC motor directly coupled with high efficiency and low power consumption

Thanks for your attention!