

FRIGA-BOHN

NEOSTAR

Axial fan condenser
Commercial and industrial range



HFC



|||| 18 - 1280 kW



- # To best meet the needs of your application, two versions of NEOSTAR are available:
 - **NEOSTAR "Power"**: available up to 1,250 kW, it guarantees **optimized heat exchange** and **reduced size!**
 - **NEOSTAR "Silence"**: the selection of its components optimizes its power consumption and makes it an **efficient** product with a **low noise level**.
- # **Adaptability**: more than 870 possible models to suit your project.
- # Whatever the model chosen, the NEOSTAR guarantees:
 - **Easy installation** (the motors are wired and connected in the factory).
 - **Easy maintenance** (quick access to the coil).

CASING

- # Robust, made of white pre-painted galvanized sheet steel.
- # The use of stainless steel fasteners gives it excellent corrosion resistance and long-lasting aesthetics.
- # The Neostar is delivered screwed on a wooden base.
- # The raised support feet available up to 1,840 mm to best meet installation constraints.



OPTIONS

RAL	Special colour polyester paint.
REH	Feet raised by 240 mm KIT TO INSTALL (ground clearance 800 mm)
RE2	Feet raised by 840 mm KIT TO INSTALL (ground clearance 1,400 mm).
RE3	Feet raised by 1,340 mm KIT TO INSTALL (ground clearance 1,900 mm).
RE4	Feet raised by 1,840 mm KIT TO INSTALL (ground clearance 2,400 mm).
ECB	Wooden crate packaging.

Select your coil treatment to extend your unit cooler's lifespan!
Contact us.

COILS

- # Aluminium fins with 1.9 mm spacing.
- # Combined with staggered, grooved copper tubes, the coils are very efficient and compact.

OPTIONS

MCI	Multi-circuit.
AAS	Advanced Adiabatic System: adiabatic sprinkler system. CONTACT US

VENTILATION

The NEOSTAR range of air-cooled condensers is equipped as standard with two-speed external rotor motor fans (triangle and star coupling).

NEOSTAR POWER

- # The Neostar Power range of motor fans is equipped with motors:
 - Ø 800 mm (PN): 06P (D/Y) = 885/685 rpm
 - Ø 910 mm (PU): 06P (D/Y) = 880/670 rpm,

NEOSTAR SILENCE

- # The Neostar Silence range of motor fans is equipped with motors:
 - Ø 800 mm : 08P (D/Y) = 680/540 rpm,
 - Ø 800 mm : 12P (D/Y) = 440/330 rpm (special motor fan),
 - Ø 800 mm : 16P (Y) = 255 rpm.
- # These motors are 400V/3/50Hz, protected by an enclosed casing, IP54, class F. When the heated air temperature exceeds 60 °C, contact us.
- # The motor fans are wired as standard and connected in the factory, as follows:
 - 1 to 3 electrical boxes for L models (in-line motors),
 - 2 to 8 electrical boxes for P models (parallel motors).
- # Special voltage ventilation:
 - M60 : Motor fans 400 V/3/60Hz, IP54, class F, version 06P Ø 910 mm
 - M26 : Motor fans 230 V/3/60Hz, IP54, class F, version 06P Ø 910 mm

OPTIONS

M26

Motor fans 230V/3/60Hz.

[CONTACT US](#)

IRP

Rotary proximity switch(es).

AC MOTORS

M60

Motor fans 400V/3/60Hz.

[CONTACT US](#)

MTH

Motors equipped with protection thermostat.

Option necessary with high starting frequency (more than 30 starts per hour) or use of variable speed drives.

C2V

Factory wiring 2 speeds in one electrical box.

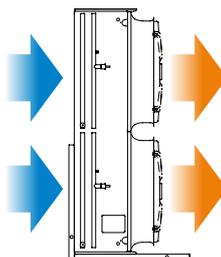


Opt for an EC motor in order to optimize the operation of your installation. Do you need an energy balance to make your decision? Contact us.

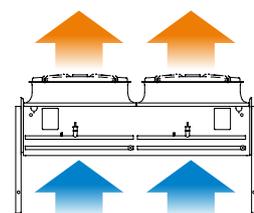


Both horizontal and vertical installation are possible with the standard feet!

In case of installation with horizontal air direction, remember to take into account the direction of the prevailing winds to avoid any risk of recirculation of hot air!



Horizontal air position



Horizontal air position

TECHNICAL DETAILS OF OPTIONS ON AC MOTORS

AC MOTOR possible options			
WIRING AND BOX	Power	Standard:	Power wiring on terminals (no protection option integrated into this option).
		SCU	Without motor wiring (note that no regulation is possible with this option).
	Protection	CMP	Motor protection box IP54 , including one circuit breaker per motor, a fault summary and a main switch. Possibility of floor mounting support kit (MSK).
MSK		Floor support for cabinets above H = 800 x W = 1,000	
REGULATION	Simple cascade on/off	RP1 (including CMP)	<p>Pressure regulation in cascade in an IP54 enclosure allowing different regulation stages to be managed:</p> <p>From 1 to 4 regulation stages > possibility of managing 2 circuits.</p> <p>From 4 to 10 regulation stages</p> <ul style="list-style-type: none"> • Configuration of day/night operation possible. • Integrated clock. <p>1 or 2 pressure sensors depending on the number of separate circuits present.</p>
	Advanced control by variation	RP3 (including CMP) Variable frequency drive	An IP54 ventilated control cabinet with a variable frequency drive including its fuse protection. A pressure sensor to manage a circuit.

TECHNICAL DETAILS OF OPTIONS ON EC MOTORS

EC MOTOR possible options			
WIRING AND BOX	Power	Standard:	Power wiring on terminals. The power, fault, bus and control wiring is carried out.
		SCM	Without motor wiring.
		CCE	Power wiring in IP54 box and protection by stage included (in L for each fan and in P for 2 fans). The power, fault, bus and control wiring is carried out.
REGULATION	Simple	SE1 *	Direct control of the motors by customer 0-10 V signal: only one circuit possible (contact us in case of multiple circuits, or 4-20 mA control signal).
		SE2	Automatic speed control by pressure (setpoint can only be changed via a computer): pressure sensor included. Only one circuit possible.
	Advanced control	CE4	Automatic speed control by pressure (setpoint can be changed via the PLC) / 1 circuit: a pressure sensor and a single circuit possible (contact us in case of multiple circuits).
		CE5	Automatic speed control by pressure (setpoint can be changed via the PLC) / 2 circuits: 2 pressure sensors and 2 separate circuits possible (contact us in case of multiple circuits).
		CE6	Automatic speed control by pressure (setpoint can be changed via the PLC) / signal comparison: 2 pressure sensors and signal comparison (contact us in case of multiple circuits).
ADDITIONAL FUNCTIONS	VMA	Maximum speed setting (configuration done on each fan, via a computer). Only with standard or CCE.	
	MJN	Possibility of setting a maximum night speed (clock by signal 0/10). Only with SE1 or CE4.	

* Default option if no customer choice.

PN_(A) 06_(B) D_(C) P_(D) 08_(E) A2_(F)

- (A) **PN** (Power Normal) - **PU** (Power Ultra)
SN (Silence Normal) - **SE** (Silence Extra) - **SU** (Silence Ultra)
- (B) Number of poles
- (C) **D** = triangle coupling
Y = star coupling
- (D) Fan arrangement:
L = in-line fans
P = fans in parallel
- (E) Number of fans
- (F) Module type: **A - B - D**

The NEOSTAR range offers hundreds of possible configurations with:

- **2 versions:** Power or Silence,
- **2 designs:** In-Line or Parallel,
- **3 module sizes:** 1,200 mm; 1,500 mm and 2,000 mm,
- **numerous** ventilation options, etc.

Contact your sales representative to select the right model for your application.

1.9 mm

CONDITIONS		REFRIGERANTS	NEOSTAR	
DT = 15K (1)		R449A	kW	18,3 > 1281,6
Surface area			m²	68 > 3399
Circuit tube volume			dm³	9 > 424
Fan	Airflow		m³/h	4980 > 365530
			Nb x mm	1 x 800 mm > 16 x 910 mm
Acoustics	Lp (2)		dB(A)	16 > 67
	Lw (3)		dB(A)	48 > 100
Actual power consumption (4)			W total	105 > 39680
Energy class				A+ > E
Net weight			kg	150 > 2390

(1) DT = difference between the ambient temperature and the condensing temperature considered to be equal to the pressure equivalent at the condenser inlet.
 (2) Sound pressure in dB(A) measured at 10 m, parallelepiped measuring surface, in a free field over a reflecting plane, given as an indication only.
 Values measured under nominal operating conditions, with clean coil, at rated voltage.
 (3) Sound power level in dB(A), obtained in accordance with standard NF EN 13487 (parallelepiped reference surface).
 (4) Power consumption of all motors.

