

Date 15/1/2019
 For the attention of:
 Reference
 Operator



DUAL DISCHARGE UNIT COOLER:CEILING
Type: FHD 932 N 7
N. units: 1

Refriger (u) 2017 Ver. 2.1.4.316 - PRICE LIST 11/2017

Inlet air temp. (room)	[°C]		10,0
Room relative humidity	[%]		85
Refrigerant			R448A
Altitude	[m]		0
Residual static pressure	[Pa]		0
DT1 needed for unit cooler	[K]		7,0
Connection	230V-1PH-50Hz		EC FANS
Actual capacity	[W]		9 800
Air flow	[m3/h]		6 000,0
Air throw	[m]		15
Outlet air temperature	[°C]		6,3
Evaporating temp	[°C]		3,0
DT superheating	[K]		5,0
Temp. before expansion valve	[°C]		30,0
DT1	[K]		7,00
DTmlg	[K]		4,91
Fluid pressure drop	[K]		0,4
RC factor (Sensible capacity/Total capacity)	[%]		62,5
Energy efficiency class			B (2014 thresholds)
Fan motor consumpt.	[W]		246
Power draw	[A]		2,1
Max fan absorbed current	[A]		2,19
Fan speed	[1/min]		1100
Sound pressure level (5m)	[dB(A)]		50
Sound Power Level	[dB(A)]		75
COMPRESSOR CAPACITY	[W]		9 800
Required condenser capacity	[W]		12 700 (3,0 / 40,0 °C) (Type Semi - hermetic)
N° Fans	[mm]	3 x 350	Weight [kg] 48
Poles	[n]	EC FANS	Connections in [n] x [mm] 1 x 16
Fin spacing	[mm]	7	Connections out [n] x [mm] 1 x 35
Internal volume	[dm3]	6,10	Drain tray connection ["] 3/4
Surface	[m2]	26,2	Overall dimensions [mm] 1 998 x 886 x 263
Max Working pressure	[bar]	24,0	
Casing material	Safeshell plastic material, white		Fin material Al
Header material	Cu		Tube material Cu

* Refer to LU-VE S.p.A catalogues for details, presentation of data and standards. Noise level in 5m free field. The current may increase according to temperature frost quantity, external static pressure. The weight and dimensions are not valid for all possible configurations. All fans are ErP 2015-compliant (Directive 2009/125/EC Energy-related products). LU-VE S.p.A. reserves the right to modify and correct at any time, with or without notice, the specifications and prices listed in the Refriger software.

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FHD

2200 ÷ 19800 W

18 MODELS

168 VERSIONS

Dual discharge unit coolers with standard air volume for cold rooms (S connection) and with low air velocity and low noise for laboratories, processing and preparation rooms.

The dimensional and functional characteristics that distinguish the new range are:
Greatly reduced electrical consumptions by using EC fan motors with permanent magnets
Super efficient heat exchanger
Reduced dehumidification
Reduced frost formation
Greatly reduced internal volume
Low noise levels
Very compact overall dimensions.

BENEFIT

Unit coolers range **FHD** with new patented **JET-O-MATIC**[®] distributor LU-VE Contardo.

JET-O-MATIC[®]

Maximum unit cooler capacity at every condition of heat load, room temperature, temperature difference and refrigerant type, specially with the new refrigerants characterized by a mixture with high gas/liquid ratio after the expansion valve.

SUPER

Standard unit coolers range **Fhd**

New Turbocoil 2 Heat Exchanger

The super efficient Turbocoil 2 heat exchanger has a high ratio of capacity/cost, that has been achieved by the following:

Tubes

New small diameter inner grooved helical, high efficiency copper tubes specially developed for the new refrigerants.

Turbofin 2

New aluminium high efficiency fins with special turbulence, reducing dehumidification and frost formation.

Fin Spacing

To satisfy all refrigeration requirements in High, Medium and Low temperature application and in different humidity conditions three new ranges of unit coolers are available

Range **3** = Fin spacing 3,0 mm

Range **4** = Fin spacing 4,5 mm

Range **7** = Fin spacing 7,0 mm

Distributor and Refrigerant Circuit

Distributors and refrigerant circuits optimised to ensure maximum efficiency of the heat exchanger in various applications of the unit cooler.

BENEFIT range : **JET-O-MATIC**[®] distributor.

SUPER range : Venturi distributor.

Suction pressure gauge connection

This allows for the checking of suction pressure and correct performance of the unit cooler.

Fan Motors

All models use a new type of high efficiency low consumption (EC) electronic fan motors with permanent magnets, with double velocity ("S" connection 1100 rpm, "L" connection 870 rpm); incorporated internal thermal protection. The fans have been statically and dynamically balanced, fan motor assembly are wired to the unit electrical box.

350 mm diameter motor assembly

Voltage 1ph 230V 50Hz (220V 60Hz)

Insulation class B

Protection IP 54.

Electrical box

Protection IP 54.

Fan guard

Special attention has been given to the air flow path to provide uniform and aerodynamic air flow through the coil. All fan guards conform to the most severe European Safety Standards, thus guaranteeing maximum protection

Electric Defrost

The stainless steel electric heater element permits a quick and efficient defrost of the coil. The heater elements are connected to the unit's electrical box.

Electrical box

Protection IP 54.

Casing

The new designed casing is carefully constructed and painted to blend with materials normally used in cold rooms. The forms have been designed to limit the damage caused by accidental impacts. Fan guards, shrouds and side casing are manufactured in a white reinforced material which is suitable for use in low temperature coldrooms.

Maintenance and Cleaning

Access to all internal parts can be achieved with one tool: all panels fitted to the unit cooler are easily removable to give all round accessibility and to make installation, cleaning or service much easier than traditional unit coolers.

Test

All coils are degreased, cleaned and tested to 30 bar test pressure.

The units are EUROVENT certified

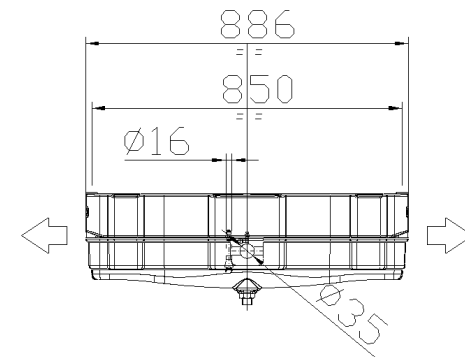
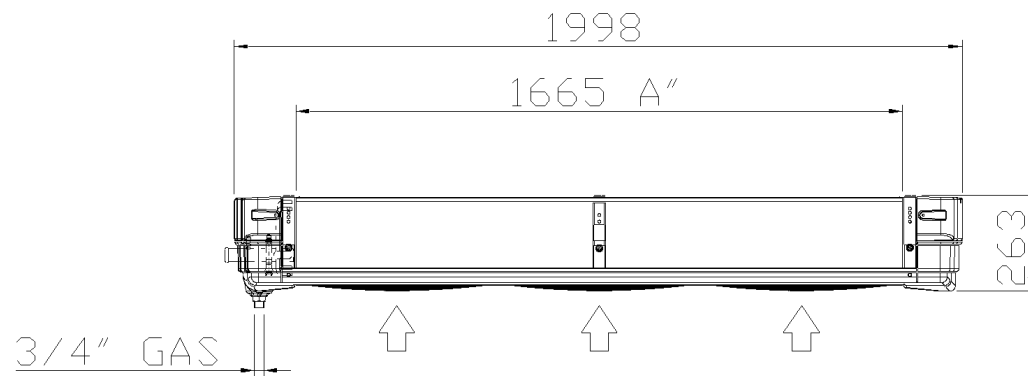
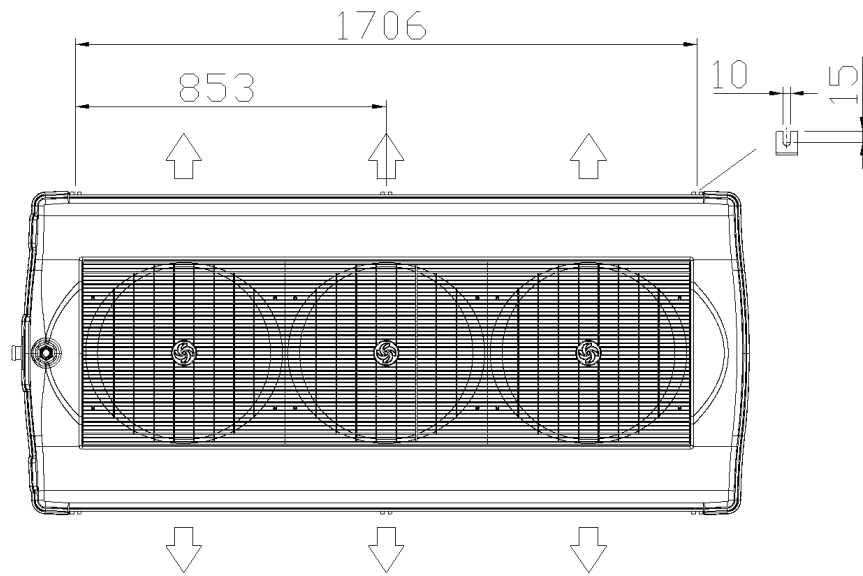
Design standard

The products are provided for incorporation in machines as defined in the EC Machine Directive **2006/42/EC** and subsequent modifications according to the following safety standard references:

- Machine Directive **2004/108/EC** and subsequent modifications. Electromagnetic compatibility.
- Directive **2006/95/EC** Low tension.
- PED Directive **97/23/EC**
- **EN 294** Fan guards.

Quality Assurance

LU-VE is a certificated company to UNI EN ISO9001:2000, which is the most important Quality Assurance qualification, covering Development, Testing, Production method and Inspection procedures.



Date	19-10-15	Type: FHD 932 N 7
Scale	1:1	Code: 10125863

Standard unit without accessories. For the connections please refer to the data sheet.