Date 26/11/2015
For the attention of:
Reference
Operator

COMMERCIAL UNIT COOLER:CUBIC
Type: F27HC 23 E 7
N. units: 1

Refriger (u) 2015 Ver. 2.1.4.293 - PRICE LIST 1/2015

Inlet air temp. (room)	[°C]	-22,0	
Room relative humidity	[%]	85	
Refrigerant		R448A	
Altitude	[m]	0	
Residual static pressure	[Pa]	0	
DT1 needed for unit cooler	[K]	8,0	
Connection	**230V-1PH-50Hz**		
Actual capacity	**[W]**	**1.430**	
Air flow	[m3/h]	1.000,0	
Air throw	[m]	12	
Outlet air temperature	[°C]	-24,9	
Evaporating temp	[°C]	-30,0	
DT superheating	[K]	5,0	
Temp. before expansion valve	[°C]	9,4	
DT1	[K]	8,00	
DTmlg	[K]	6,45	
Fluid pressure drop	[K]	1,1	
RC factor (Sensible capacity/Total capacity)	[%]	91,9	
Energy efficiency class		D	**(2014 thresholds)**
Fan motor consumpt.	[W]	85	
Power draw	[A]	0,6	
Max fan absorbed current	[A]	0,61	
Fan speed	[1/min]	1450	
Sound pressure level (5m)	[dB(A)]	37	
Sound Power Level	[dB(A)]	62	
Electric defrost (230 V)	[W]	1.220	
COMPRESSOR CAPACITY	**[W]**	**1.430**	(-30,0 / 40,0 °C)
Required condenser capacity	**[W]**	**2.490**	(Type Semi - hermetic)

N° Fans	[mm]	1 x 275	Weight	[kg]	11
Poles	[n]	4	Connections in	[n] x [mm]	1 x 12
Fin spacing	[mm]	7	Connections out	[n] x [mm]	1 x 22
Internal volume	[dm3]	1,30	Drain tray connection	["]	3/4
Surface	[m2]	4,9	Overall dimensions	[mm]	678 x 330 x 415
Max Working pressure	**[bar]**	**24,0**			

Casing material	Powder coated galvanized steel RAL 9003	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.

F27HC

1450 ÷ 9400 W
18 MODELS
72 VERSIONS

Unit coolers for cold rooms.

The dimensional and functional characteristics that distinguish the super compact - super efficient cooler range are:
Super efficient heat exchanger
Reduced dehumidification
Reduced frost formation
Increased air throw
Greatly reduced internal volume
Low noise levels
Low energy consumption
Very compact overall dimensions.

New features of unit coolers F27HC

New strong casing manufactured in galvanised steel, powder coated.
New motors wiring with electrical box IP 55.
New mounting brackets to eliminate the empty space between the unit cooler and the room ceiling.

BENEFIT

Unit coolers range **F27JC** 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.

HITECH

Standard unit coolers range **F27HC**.

New Turbocoil 2 Heat Exchanger

Our 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 **4** = Fin spacing 4,5 mm
Range **6** = Fin spacing 6,0 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 (J): ***JET-O-MATIC®*** distributor.
HITECH range (H): Venturi distributor.

Suction pressure gauge connection

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

Fan Motor Assembly

All models use a new type of high efficiency low consumption fan motor assembly, incorporating internal thermal protection. The fans have been statically and dynamically balanced, fan motor assembly are wired to the unit's electrical box.
275 mm diameter motor assembly
Voltage 1ph 230V 50/60Hz
Insulation class B
Protection IP 42.
Electrical box
Protection IP 55.

Fan Shroud and Grille

The new fan shroud and air directional grills are designed to obtain a homogeneus airflow along with a long air throw. The grill conforms to the strictest of safety norms.

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. For special and particularly aggrevated conditions of applications a heavy-duty electric defrost for both the coil and shroud is available

.**Electrical box**

Protection IP 54.

Casing

Specially designed Steel galvanised casing with **Epoxy-Polyester** powder coating corrosion resistant. The new designed casing is carefully constructed and painted to blend with materials normally used in cold rooms.

Maintenance and Cleaning

Access to all internal parts can be achieved with one tool; the grill, side panels and drip tray are easily detached giving access to fan motor assemblies, electric heater elements, and TEV.

The units are EUROVENT certified

Design standard

The products are provided for incorporation in machines as defined in the EC Machine Directive **89/392/EEC** and subsequent modifications according to the following safety standard references:

– **EN 60/335-1 (CEI 61-50)** Safety of household and similar electrical appliances. General requirements.

– **CEI-EN 60/335-2-40** Safety of household and similar electrical appliances - Part 2: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers.

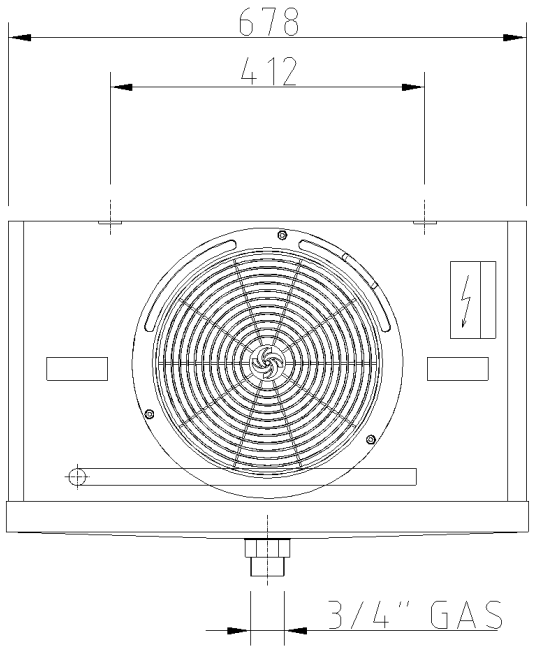
– Machine Directive **89/336 EEC** and subsequent modifications. Electromagnetic compatibility.

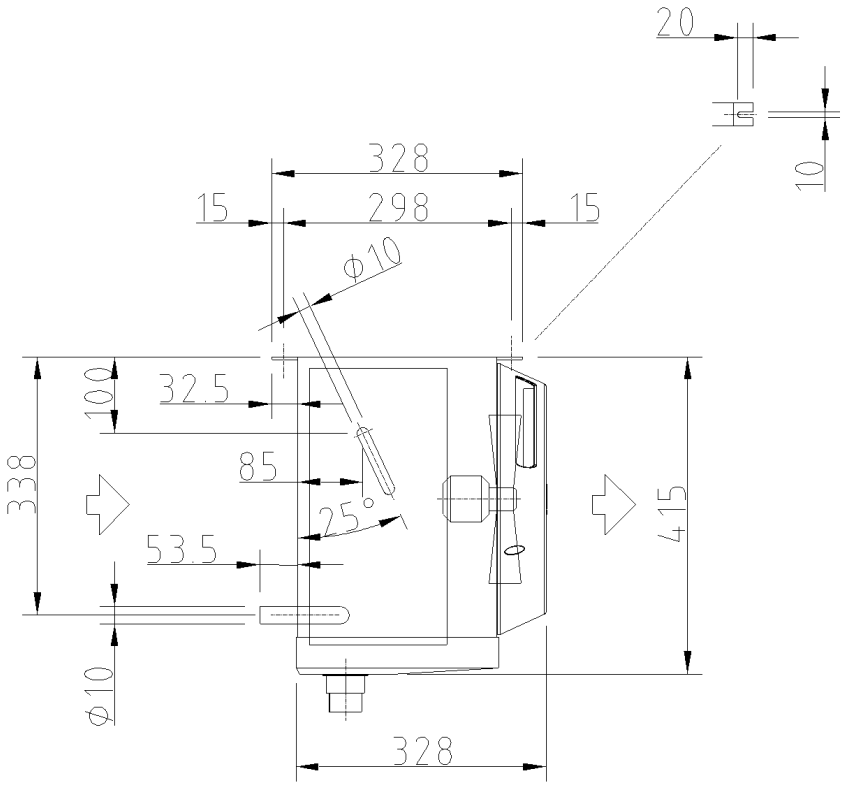
– Directive **73/23 EEC** Low tension.

– **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 2-3-2008	Type: F27HC 23 E 7
Scale 1:1	Code: 10054742

LU-VE exchangers

Drawing refers to a machine in standard configuration, accessories not shown.