

Rev.3.1.b

Messrs.: ----
FAO: ----
Offer No.: 182
Position: 1
Project: CZESTOCHOWA
Date: 2009-11-13

MODEL	EVNY 2280.3/4	EUR	10.840,00
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HEAT EXCHANGER

Tube/fin block manufactured from 12mm dia. OVAL COPPER TUBES staggered from row to row and mechanically expanded into collared holes in high efficiency aluminium fins. The standard fin spacing pitch is of 2,1 mm. The header manifolds are made of copper are equipped with PN10 stainless steel free-floating flanges. The coil end plates and the intermediate tube supports are in aluminium.
Leak and strength tested with dry air (PED 97/23).

CASEWORK AND CASING

Designed and produced according to the kit principle, made from hot dip galvanized steel sheet, powder painted (standard colour: RAL 9002) and corrosion resistant. All operations necessary to manufacture the modular components - punching, drilling, bending - are carried out before painting so that all surfaces are fully protected. All screws, threaded inserts, washers and rivets are in stainless steel. A covering panel prevents the return bends from being hit and damaged.

AC FANSETS

3-phase 400V $\pm 10\%$ / 50Hz; 2 speeds possible: high (Delta configuration) or low (Star configuration); insulation classes B and F; built-in thermal contact; protection class IP54. The wall ring plates are designed to eliminate the air back-flow. The guard grilles respond to the most severe European safety standards. Single fan sound power and pressure levels in free field as attested by the fan manufacturer in compliance with EN13487.

ACCESSORIES

E - Wiring and switchboard with repair switches (1 each fan)	EUR	2.215,00
R - Standard TRIAC speed controller	EUR	1.130,00
A - Anti vibration mounts	EUR	390,00

UNIT PRICE	EUR	14.575,00
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QUANTITY	1
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TOTAL OFFER	EUR	14.575,00
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DESCRIPTION OF THE ACCESSORIES:

E - Wiring and switchboard with repair switches (1 each fan)

Generalities:

- Execution in compliance with CE regulations
- Switchboard box in plastic material resistant to UV rays, box protection class IP55
- Cables suitable for outdoor use
- Factory fitted and wired
- Key-lockable door

Technical features:

- Power supply: 3~ 400V / 50Hz
- Main Switch
- Safety locking key for maintenance
- Power supply green indicator lamp
- Button switches with green indicator lamp (1 each fan)
- Fan alarm red indicator lamp
- By-pass circuit for speed controller malfunction
- Fused protection for the fans (magnetothermic protection and auxiliary N.O. contact for signal with EC fansets)
- Single fan thermal protection by means of thermocontact
- Fused protection for the fan speed controller
- Connector for fan speed controller (TRIAC or inverter)
- Free contacts for by-pass cut off
- Free contacts for ON/OFF remote control
- Free contacts for fans malfunction alarm signal
- Free contacts for controller malfunction signal
- Free contacts for operating remote signal
- Free contacts for remote reset

Options:

- Can be equipped with ON/OFF step controller with external display (accessory "G")

NOTE: The switchboard and the electrical protections are designed for the total absorbed fan current. For the AC fans this value strictly depends on the motor wiring configuration being used (Delta or Star)

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R - Standard TRIAC speed controller

WARNING! WHEN USING THIS TYPE OF FAN-SPEED CONTROLLERS, ELECTROMAGNETIC MOTOR NOISES MAY ARISE AND BECOME DOMINANT IN PART LOAD DUE TO RESONANCES. THIS COULD CAUSE THE FINAL SOUND PRESSURE AND POWER LEVELS OF THE FANS TO BE HIGHER THAN THOSE DECLARED IN THE TECHNICAL DATA SHEET OF THE UNIT.

Purpose:

Assures a continuous regulation of the speed of the fans by varying their input tension current on the base of the signal sent by the temperature/pressure sensor and of the programming of its internal software.

Generalities:

- LCD-Multifunctional display with plain language text
- 2x Analog inputs (0-10V, 0-20mA, 4-20mA, temperature/pressure sensor)
- 1x Output 0-10V, function programmable
- 2x Digital inputs, function programmable
- 2x Relay outputs, function programmable: fault indication/alarm signal, external group control
- Total protection of the motors by means of thermocontact / thermistor connections
- RS485 Interface for MODBUS
- Factory fitted, wired and pre-programmed ready for use
- Temperature or pressure sensor factory fitted and connected

Options:

- Can be equipped with LON card (on request)

Technical features:

- Power supply: 3~ 208-480V (-15% / +10%), 50/60Hz
- Voltage supply for sensors: +24V +20% (Imax 120mA)
- EMC emission EN 61000-6-3; EN 61000-3-2
- EMC immunity EN 61000-6-2
- Max. admitted ambient temperature +40°C (up to +55°C with derating)
- Max. admitted relative humidity to avoid condensation: 85%
- Protection class IP54

Setting modes available:

- Set point 1: refrigerant temperature or pressure (in the case of dual-circuit condensers it's the higher value being measured)
- Set point 2: refrigerant temperature or pressure
- Controller alarm
- Min. and max. output voltage, speed limitation (e.g. for night operation)
- External group control (Adiabatic cooling system)
- Cut-off of fans in low usage (minimum rate of air)
- Other programming modes available on request

NOTE: The size of the speed controller is determined by the total absorbed fan current, which depends on the motor wiring configuration being used (Delta or Star)

A - Anti vibration mounts

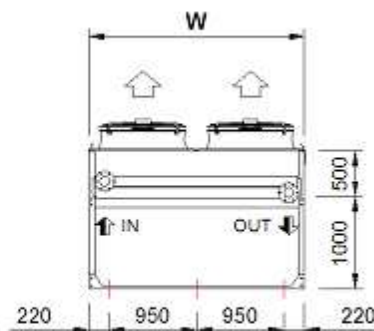
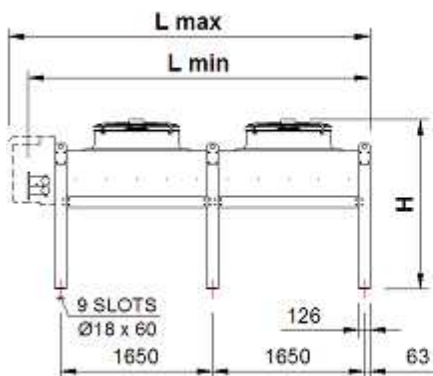
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MODEL EVNY 2280.3/4

TECHNICAL DATA SHEET

Capacity *	115,0 [kW]	Reserve	0,0 [%]
Fluid	Ethilene Glycol 30%		
Fluid in temperature	45,0 [°C]	Flow rate	21,5 [m³/h]
Fluid out temperature	40,0 [°C]	Velocity	1,4 [m/s]
Fluid pressure drops	42,3 [kPa]	Internal volume	63,0 [dm³]
Ambient	35,0 [°C]	Air volume	69 000 [m³/h]
Noise pressure level	45 [dB(A)]	Measured at	10 [m]
Noise power level	77 [dB(A)]	Altitude	0 [m]
Fans power input	4 X 1,23 [kW]	Absorbed fan current	4 X 2,27 [A]
Energy rating	D	Fan speed	705 [rpm]
Surface area	503 [m²]	Dry weight	710 [Kg]



DIMENSIONS	
[mm]	
L min	3 720
W	2 340
L max	3 925
H	1 850
CONNECTIONS	
[mm]	
IN/OUT	2 X DN100