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We hope that this is to your satisfaction. Sincere regards

STANDARD UNIT SPECIFICATIONS

WSAN-XEE 502 Air to water heat pump for outdoor installation (R410A-400T-PED-CREFP-IOM2-DSP)

COMPRESSOR

Hermetic orbiting scroll compressor complete with motor over-temperature and over-current devices and protection against excessive gas discharge temperature. Fitted on rubber antivibration mounts and complete with oil charge

A oil heater is automatically switched on at the compressor shut-down to prevent oil dilution by the refrigerant.

STRUCTURE

Supporting structure realised in galvanised steel sheet able to supply excellent mechanical features and long-lasting resistance to corrosion.

PANELLING

external panels in prepainted aluminium especially indicated in outdoor installation due to its superior resistance to corrosion avoiding periodic painting. Side panels are easily removable and allow complete access to unit components. Internal sound proof lining reduces sound pressure levels.

INTERNAL EXCHANGER

Direct expansion heat exchanger, braze-welded AISI 316 stainless steel plates with large exchange surface and complete with external heat and anti-condensate insulation.

The exchanger comes complete with:

- differential pressure switch, water side
- antifreeze heater to protect the water side exchanger, preventing the formation of frost if the water temperature falls below a set value.

EXTERNAL EXCHANGER

Direct expansion finned exchanger, made from copper pipes in staggered rows and mechanically expanded to the fin collars. The fins are made from aluminium with a corrugated surface and adequately distanced to ensure the maximum heat exchange efficiency.?

The coils are complete with integral subcooling circuit which assures the correct refrigerant feeding of the expansion valve. This circuit prevents the formation of frost on the exchanger during winter operation. Available in different options as per optional list.

FAN

Helical fans with sickle-shaped blades with "Winglets" at the end, coupled directly to a three phase electric external rotor motor with thermal protection incorporated in version IP 54. Housed in aerodynamically shaped nozzles to increase efficiency and minimize noise levels. They are fitted with protective safety guard grilles.

REFRIGERANT CIRCUIT

The circuit is complete with:

- replaceable anti-acid solid cartridge dehydrator filter
- sight glass with moisture indicator
- liquid receiver
- electronic expansion valve (see details further on)
- non-return valve
- 4-way reverse cycle valve
- high pressure switch
- low pressure switch
- high pressure safety valve
- low pressure safety valve
- compressor suction shut-off valve
- liquid line shut-off valve
- compressor discharge shut-off valve

ELECTRICAL PANEL

The Power Section includes:

- main door lock isolator switch
- isolating transformer for auxiliary circuit power supply
- compressor circuit breaker
- fan overload circuit breakers
- compressor control contactor
- fan control contactors
- phase-cutting fan speed control

The control section includes:

- Master-Slave function
- antifreeze protection
- compressor overload protection and timer
- self-diagnosis system with immediate display of the error code
- compressor operating hour display
- remote ON/OFF control
- Remote HEAT/COOL control
- automatic compressor start rotation control
- relay for remote cumulative fault signal
- proportional + integral water temperature control
- CLIVET/BUS serial converter kit
- input for demand limit (absorbed power limit according to an external signal 0÷10V or 4÷20mA)
- ON/OFF and alarm reset buttons
- prealarm function for water anti-ice and high refrigerant gas pressure
- interface terminal with graphic display
- display of the set values, the error codes and the parameter index

TEST

All the units are factory-tested in specific steps, before shipping them. After the approval, the moisture contents present in all circuits are analyzed, in order to ensure the respect of the limits set by the manufacturers of the different components.

ECONOMIC OFFER

WSAN-XEE 502 Air to water heat pump for outdoor installation (R410A-400T-PED-CREFP-IOM2-DSP)

UNIT CONFIGURATION		Q.TY	
	Unit: WSAN-XEE 502	1	
R410A	Refrigerant R-410A	1	
LIQW	Handled fluid made of only water	1	
400T	Supply voltage 400/3/50 without neutral	1	
SC	Acoustic configuration with compressor soundproofing	1	
T	Energy efficiency for temperate climate	1	
PED	Heat exchangers certified CE = PED - according to European PED Directive	1	
CREFP	Device for fan consumption reduction of the external section with variable speed (phase-cutting)	1	
PU3	Type 3 pump	1	
IFWX	Water steel mesh strainer (separately supplied accessories)		Optional Accessorie
A300	300 litre storage tank		Optional Accessorie
IOM2	English Installation and Operation Manual	1	
CCS	Standard condenser coil	1	
AMMX	spring antivibration mounts (separately supplied accessories)		Optional Accessorie
PGFC	finned coil protection grill.		Optional Accessorie
CCP	condensate collection tray	1	
PM	phase monitor		Optional Accessorie
CMSC9	Serial communication module to MODBUS supervisor	1	
CLSCLR	Free contacts compressor state and local / remote management	1	
MHP	high and low pressure gauges		Optional Accessorie
SDV	compressor discharge and suction shut-off valve	1	
DSP	double set point	1	
OHE	Limit extension kit in heating up to -10 °C (W.B.)	1	
ABU	Flush hydraulic connections	1	
KRIX	Kit to remote the control interface by microprocessor (separately supplied accessories)		Optional Accessorie
2PM	Hydropack with 2 pumps		Optional Accessorie

TECHNICAL DATA**WSAN-XEE 502 Air to water heat pump for outdoor installation (R410A-400T-PED-CREFP-IOM2-DSP)****SELECTED OPERATION CONDITIONS**

GENERAL		SELECTED
internal exchanger thermal head	°C	5.00
COOLING		SELECTED
external exchanger air intake	°C	33.0
internal exchanger water outlet	°C	7.00
HEATING		SELECTED
internal exchanger water outlet	°C	45.0
External exchanger inlet temperature D.B. (°C)	°C	-1.00
external exchanger inlet temperature W.B. (°C)	°C	6.00
GENERAL		SELECTED
glycole % internal exchanger	%	0.000

PERFORMANCE DATA

COOLING		SELECTED
Cooling capacity	kW	124
Compressor power input	kW	42.9
EER		2.51
Water flow rate (Internal Exchanger)	l/s	5.90
internal exchanger pressure drop	kPa	28.0
HEATING		SELECTED
Heating capacity	kW	142
Compressor power input	kW	42.2
COP		3.07

THE TECHNICAL DATA ARE APPROXIMATE AND MAY BE MODIFIED BY THE MANUFACTURER WITH NO REQUIREMENT FOR ADVANCE NOTICE

TECHNICAL DATA REFER TO THE TECHNICAL BULLETIN

GENERAL			
ESEER (Eurovent)			3.71
COP			3.07
EER			2.51
Refrigerant circuits		Nr	1.00
WEIGHT AND DIMENSIONS			

Shipping weight		kg	1372
Shipping length		mm	3175
Shipping depth		mm	1207
Shipping height		mm	1805
Length		mm	3075
Depth		mm	1097
Height		mm	1805
COMPRESSOR			
No. of Compressors		Nr	2.00
Type of compressors			SCROLL
Std Capacity control steps		Nr	3.00
EXTERNAL EXCHANGER			
OPERATING LIMITS (COOLING)			
Max air intake temperature	(4.1)	°C	44.0
Max air intake temperature	(4.2)	°C	50.0
Min. air intake temperature	(4.3)	°C	-10.0
Min. air intake temperature	(4.4)	°C	-7.00
Min. air intake temperature	(4.5)	°C	-2.00
Min. air intake temperature	(4.6)	°C	11.0
EXTERNAL EXCHANGER			
Quantity		Nr	2.00
Front surface		m2	6.30
EXTERNAL SECTION FANS			
Type of fans	(5.8)		AX
Number of fans		Nr	2.00
Standard air flow		l/s	12631
INTERNAL EXCHANGER			
Water content		l	8.90
OPERATING LIMITS (COOLING)			
Max water inlet temperature		°C	24.0
Min. water outlet temperature	(6.7)	°C	5.00
Min. water outlet temperature	(6.8)	°C	-8.00
CONNECTIONS			
Water fittings			2" 1/2
ELECTRICAL DATA			
F.L.A. - FULL LOAD CURRENT AT MAX ADMISSIBLE CONDITIONS			

F.L.A. - Total		A	113
F.L.I. FULL LOAD POWER INPUT AT MAX ADMISSIBLE CONDITION			
F.L.I. - Total		kW	68.8
M.I.C. MAXIMUM INRUSH CURRENT			
M.I.C. - Value		A	384

voltage unbalance: max 2 %

power supply: 400/3/50 Hz +/-6%

Electrical data refer to standard units; according to the installed accessories, the data can suffer light variations.

(4.1)Max inlet temperature - unit at full load

(4.2)Max inlet air temperature - capacity-controlled unit with standard limit device

(4.3)Min inlet air temperature - unit at full load and motionless ambient air

(4.4)Min inlet air temperature - unit at partial load and motionless ambient air

(4.5)Min inlet air temperature - unit at partial load and air speed of 0.5 m/s.

(4.6)Min inlet air temperature - unit at partial load and air speed of 1 m/s.

(5.8)AX = axial-flow fan

(6.7)standard unit

external exchanger air intake 35 °C

(6.8)B = Low Temperature

external exchanger air intake 35 °C

Fluid with ethylene glycol of 40%

SOUND LEVELS									
Sound Power Level (dB)								Sound pressure level	Sound power level
Octave band (Hz)									
63	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
66	77	86	83	78	79	72	69	67	85

Measures according to UNI EN ISO 9614-2 regulations, with respect to the EUROVENT 8/1 certification.

the sound levels refer to the unit at full load, in the rated test conditions.?

The sound pressure level refers to a distance of 1m from the external surface of the units operating in an open field.

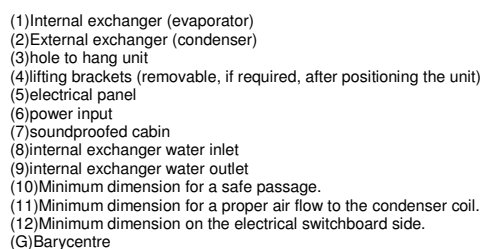
Data referred to the following conditions:

internal exchanger water = 12/7 °C

outdoor air temperature 35 °C

the sound levels EN version is valid within the operation limits relative to these acoustic versions; make reference to the noise data relative to SC version for higher external air temperature and in any case included within the operation limits of SC version.

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<i>DIMENSIONS (mm)</i>							
M	N	O	P	OD	Length	Depth	Height
2016	1059	586	511	76.1	3075	1097	1805

WEIGHT DISTRIBUTION (Kg)							
W1 Supporting Point	W2 Supporting Point	W3 Supporting Point	W4 Supporting Point	W5 Supporting Point	W6 Supporting Point	Shipping weight	Operating weight
170	433	184	339	-	-	1117	1126