

STANDARD UNIT SPECIFICATIONS

WSAT-XEE 262 Air cooled water chiller for outdoor installation(R410A-400TN-IOM11X----

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.

An oil heater, which starts automatically, keeps the oil from being diluted by the refrigerant when the compressor stops.

STRUCTURE

Load-bearing structure made of "aluzink" sheet metal capable of offering excellent mechanical characteristics 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, brazed 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

Finned exchanger, made from copper pipes arranged in staggered rows and mechanically expanded for better adherence to the collar of the fins. The fins are made from aluminium with a special corrugated surface, set a suitable distance apart to ensure maximum heat exchange efficiency. The coils are complete with integral subcooling circuit which assures the correct refrigerant feeding of the expansion valve. Available in different options as in optional list.

FAN

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Low speed axial fan directly driven by single phase external rotor motor with incorporated thermal overload. Located in aerodynamically shaped enclosures to increase the efficiency and reduce the noise level. Complete with fan guard in order to help against fortuitous contact with the blades.

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Low speed axial fan directly driven by three phase external rotor motor with incorporated thermal overload. Housed in aerodynamically shaped enclosures to increase the efficiency and reduce the noise level. Complete with fan guard in order to help against fortuitous contact with the blades.

REFRIGERANT CIRCUIT

The refrigeration circuit is complete with:

- filter dryer
- liquid flow and moisture indicator
- High pressure safety pressure switch
- Low pressure safety switch
- liquid receiver
- compressor suction shut-off valve
- cutoff valve on compressor supply
- high pressure safety
- thermostatic expansion valve with equalizer
- pressure probes

ELECTRICAL PANEL

The Capacity Section includes:

- isolating transformer for auxiliary circuit power supply
- main line isolator switch
- compressor overload cutout switch
- fan fuses
- centrifugal pump motor protector
- compressor control contactor
- pump control contactor
- phase cutting fan speed controller (pressure)

The control section includes:

- display of the set values and the error codes
- H2o antifreeze and high refrigerant gas pressure pre-alarm function that reduces cooling capacity to avoid unit shut-down
- compressor overload protection and timer
- antifreeze protection
- Compressor timer / operation signal LED
- possibility of communication with ZONE MASTER system (optional)
- proportional-integral water temperature control
- relay for remote cumulative fault signal
- self-diagnosis system with immediate display of the fault code
- ON/OFF and alarm reset buttons
- UP and DOWN buttons to increase and decrease the values
- display of the set values, the error codes and the parameter index
- compressor operating hour display
- remote ON/OFF control
- water pump control
- function and command buttons
- set point compensation with 4-20 mA signal
- phase cutting fan speed controller (pressure)

WATER CIRCUIT

- water side safety valve
- impurity trap with filter
- Centrifugal pump
- antifreeze heater protection to pumping station
- drain valve
- Closed couple pumps with high efficiency impellers. Maximum operating pressure 1000 kPa. Temperature range from -10 to +80°C. Maximum glycol concentration 40%. Motor: closed type. External ventilation. Protection IP55. Insulation class F. Clockwise rotation looking at the pump from the motor side.

ECONOMIC OFFER**WSAT-XEE 262 Air cooled water chiller for outdoor installation(R410A-400TN-IOM11X----**

UNIT CONFIGURATION		Q.TY
	Unit: WSAT-XEE 262	1
R410A	refrigerant	1
LIQW	Treated fluid	1
400TN	Voltage	1
IOM11X	Installation, use and maintenance manual (Accessory separately supplied)	1
CCS	condensing coil	1
1PUS	user side hydronic assembly	1
MHP	high and low pressure gauges	1
AMRX	reduction of the vibration (Accessory separately supplied)	1
PMX	phase monitor (Accessory separately supplied)	1
RCMRX	Remote controls (Accessory separately supplied)	1
		TOTAL SELECTED UNIT

TECHNICAL DATA**WSAT-XEE 262Air cooled water chiller for outdoor installation(R410A-400TN-IOM11X----****SELECTED OPERATION CONDITIONS**

COOLING		SELECTED
external exchanger air intake	°C	35.0
internal exchanger water outlet	°C	7.00
GENERAL		SELECTED
Internal exchanger thermal head	°C	5.00
glycole % internal exchanger	%	0.000

PERFORMANCE DATA

COOLING		
Cooling capacity	kW	64.1
Compressor power input	kW	22.3
EER compressor	Nr	2.88
Water flow-rate (User Side)	l/s	3.04
Internal exchanger pressure drops	kPa	47.7

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			
EER	(1.3)		2.68
ESEER			3.72
Refrigeration circuits		Nr	1.00
WEIGHT AND DIMENSIONS			
Shipping length		mm	2456
Shipping depth		mm	1150
Shipping height		mm	1743
Shipping weight		kg	556
Operating weight		kg	547
COMPRESSOR			
No. of compressors		Nr	2.00
Type of compressors	(3.7)		SCROLL
Std Capacity control steps		Nr	3.00
Type of oil			POE
F.L.A. - Compressor 1		A	22.7
F.L.A. - Compressor 2		A	30.6
L.R.A. - Compressor 1		A	118
L.R.A. - Compressor 2		A	174
F.L.I. - Compressor 1		kW	13.3
F.L.I. - Compressor 2		kW	17.0
EXTERNAL EXCHANGER			
OPERATING RANGE (COOLING)			
Max entering air temperature	(4.1)	°C	48.5
Max entering air temperature	(4.2)	°C	50.5
Min. entering air temperature	(4.3)	°C	-10.0
EXTERNAL SECTION FANS			
Type of fans	(5.9)		AX
Number of fans		Nr	2.00
Standard airflow	(5.1)	l/s	7196
Installed unit power	(5.10)	kW	0.810
F.L.A. - Single External Fan		A	2.35
F.L.I. - Single External Fan		kW	1.03

INTERNAL EXCHANGER			
OPERATING RANGE (COOLING)			
Max inlet water temperature	(6.4)	°C	23.0
Max. leaving water temperature		°C	18.0
Min. leaving water temperature	(6.5)	°C	5.00
Min. leaving water temperature	(6.6)	°C	-8.00
WATER CIRCUIT			
Max water side pressure		MPa	0.550
Safety valve calibration		kPa	600
F.L.A. - Pump		A	3.15
F.L.I. - Pump		kW	1.84
CONNECTIONS			
Water fittings			2"
ELECTRICAL DATA			
F.L.A. - FULL LOAD CURRENT AT MAX ADMISSIBLE CONDITIONS			
F.L.A. - Total		A	61.5
F.L.I. - FULL LOAD POWER INPUT AT MAX ADMISSIBLE CONDITIONS			
F.L.I. - Total		kW	34.2
M.I.C. MAXIMUM INRUSH CURRENT			
M.I.C. - Value		A	205

power supply 400/3/50 (+ NEUTRAL) +/- 6%

Voltage unbalance: max 2 %

The pump is included in the total values calculation

for non standard voltage please contact Clivet technical office

Caution: Air conditions which are at rest are defined as the absence of air flows to the unit. Weak winds can induce air flows through the exchanger which can cause a reduction in the operating range (see limits with air speed at 0.5 m/s & 1 m/s).

ATTENTION: IN CASE OF PREDOMINANT WINDS, WINDBREAK BARRIERS ARE NECESSARY.

Water thermal head (min / max) are indicated in the section INTERNAL EXCHANGER PRESSURE DROP

(1.3)100% EER

data referred to the following conditions:

internal exchanger water outlet temperature = 7°C

ambient temperature = 35 °C;

(3.7)SCROLL = scroll compressor

(4.1)unit at full load: internal exchanger water 12/7°C

(4.2)internal exchanger water = 12/7°C

capacity-controlled unit (automatic capacity control)

(5.9)AX = axial fan

(5.10)Data referred to the following conditions:

User side entering/leaving water temperature 12/7 °C, external exchanger entering air 35°C

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(6.4)this limit can be exceeded for brief and transitory periods with automatic capacity control of the unit: the maximum limit is 30°C.

capacity-controlled unit (automatic capacity control)

(6.5)standard unit

outdoor air temperature 35°C

(6.6)B = Low Temperature

outdoor air temperature 35°C

Fluid with ethylene glycol of 40%

SOUND LEVELS								Sound pressure level	Sound power level
Sound power level (dB)								dB(A)	dB(A)
Octave band (Hz)									
63	125	250	500	1000	2000	4000	8000		
89	82	79	80	78	73	67	59	65	82