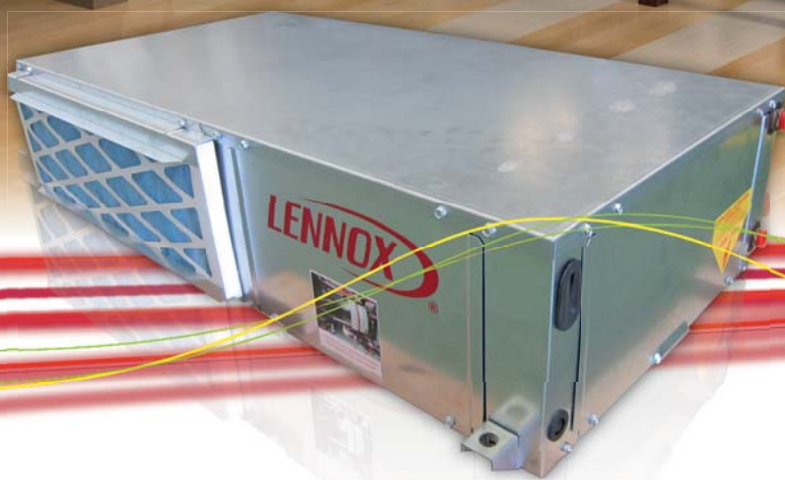


# LENNOX

Think far\*



## AQUALEAN

Horizontal water cooled  
packaged air conditioners

- \_ High efficiency system
- \_ Compact solution and reduced height
- \_ Specially dimensioned for ceiling installation
- \_ Quiet operation
- \_ Low energy consumption
- \_ Wide choice of communication interfaces

Cooling capacity:

2 → 20 kW

Heating capacity:

3 → 22 kW

## General description

**AQUALEAN** is a water source heat pump packaged unit designed to provide high efficiency comfort air conditioning and ventilation for shopping areas and open-plan or cellular offices. Each unit answers to the heating or cooling load of the individual zone. Additionally, it ensures an excellent comfort level for occupants, better control of energy consumption and lower seasonal operating costs.

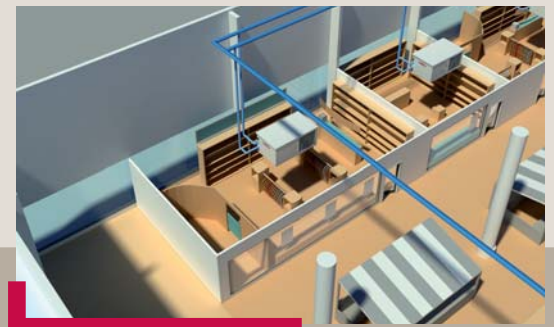
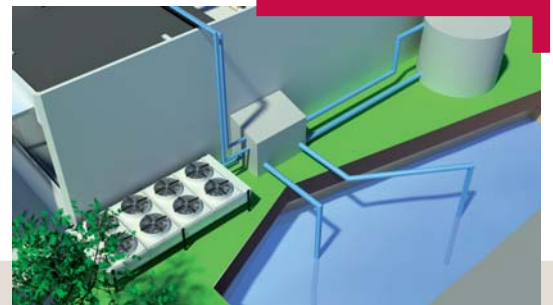
It is generally connected to a closed water loop (boiler/cooling tower or geothermal application) or to an open ground water loop.

This water source heat pump is one of the most efficient, environmentally friendly system available for cooling and heating :

- High efficiency system thanks to scroll/rotary compressor operating with R410A.
- Compact self-supporting casing with very short height to lower dropped ceilings dimension.
- Variable speed direct transmission ventilation system to save energy and lower operational costs.
- Lennox's advanced Climatic controller designed to improve energy efficiency and reliability. Accurate operation is managed by electronic expansion valves, pressure transducers and temperature sensors. This controller integrates master slave capability and a wide choice of communication interfaces.
- Different air configurations are available as option.

## Main components

- R410A compressor
- Advanced microprocessor control
- Electronic expansion valve
- Coaxial water/refrigerant heat exchanger (sizes O2/O3)
- Brazed plates water/refrigerant heat exchanger (sizes O7/O20)
- Copper-Aluminium air/refrigerant heat exchanger
- MO fire-class insulation
- Galvanized steel casing



## Main options

- BMS possibility :  
Modbus, BACnet, LonWorks
- Auxiliary electric heater: 2 to 13 kW
- Flow switch
- Water filter
- Pressostatic valve (AWC only)
- Low noise compressor jacket
- Main switch
- Phase inversion protection
- Return sensor
- Airflow configuration
- Low water temperature kit

AQUALEAN - Cooling mode		AWC	O2	O3	O7	O8	10	12	15	18	20
Net cooling capacity <sup>(1)</sup>	kW		2,0	2,7	6,8	8,0	10,2	11,2	14,5	17,0	19,0
Absorbed power			0,5	0,7	1,7	2,1	2,6	2,8	3,4	4,2	4,8
Net EER			3,8	4,0	4,0	3,8	3,9	4,0	4,3	4,0	4,0
AQUALEAN - Heating mode		AWH	O2	O3	O7	O8	10	12	15	18	20
Net heating capacity <sup>(2)</sup>	kW		2,5	3,6	8,0	9,5	12,3	13,5	17,0	19,5	22,0
Absorbed power				0,6	0,9	2,1	2,5	3,2	3,6	4,6	5,1
Net COP			3,9	4,0	3,8	3,8	3,8	3,8	3,7	3,8	3,7
Ventilation											
Nominal airflow rate	m <sup>3</sup> /h		430	575	1200	1500	1900	2100	2350	2800	3100
Minimum airflow			275	350	960	1250	1520	1680	1750	2240	2500
Maximum airflow			440	650	1400	1600	2300	2400	2600	3400	3500
Nominal available static pressure	Pa		50	50	50	50	50	50	50	70	70
Available static pressure - Minimum/Maximum				25/90	25/110	25/130	25/130	25/140	25/140	25/140	50/140
Water cooled condenser											
Nominal water flow	l/h		495	560	1390	1650	2100	2320	2980	3480	3960
Water pressure drop - Cooling mode	kPa		30	29	25	30	40	48	35	45	55
Water pressure drop - Heating mode				29	26	23	28	38	46	33	43
Auxiliary heating											
Electric heater capacity - S/M/H <sup>(3)</sup>	kW		N/A	N/A	2/3/5	2/3/5	3/6/9	3/6/10	3/6/11	5/9/12	5/9/13
Acoustic data											
Supply ductwork sound power <sup>(4)</sup> - Standard unit	dB(A)		46/48	52/54	62/64	66/69	65/68	67/70	69/72	66/70	69/73

(1) Air inlet temperature : 27°C DB/19°C WB - Water inlet temperature : 30°C at nominal water flow.

(2) Air inlet temperature : 20°C DB - Water inlet temperature : 20°C at nominal water flow.

(3) Available as an option at nominal water flow rate.

S = Standard heat - M = Medium heat - H = High heat

(4) At nominal water flow