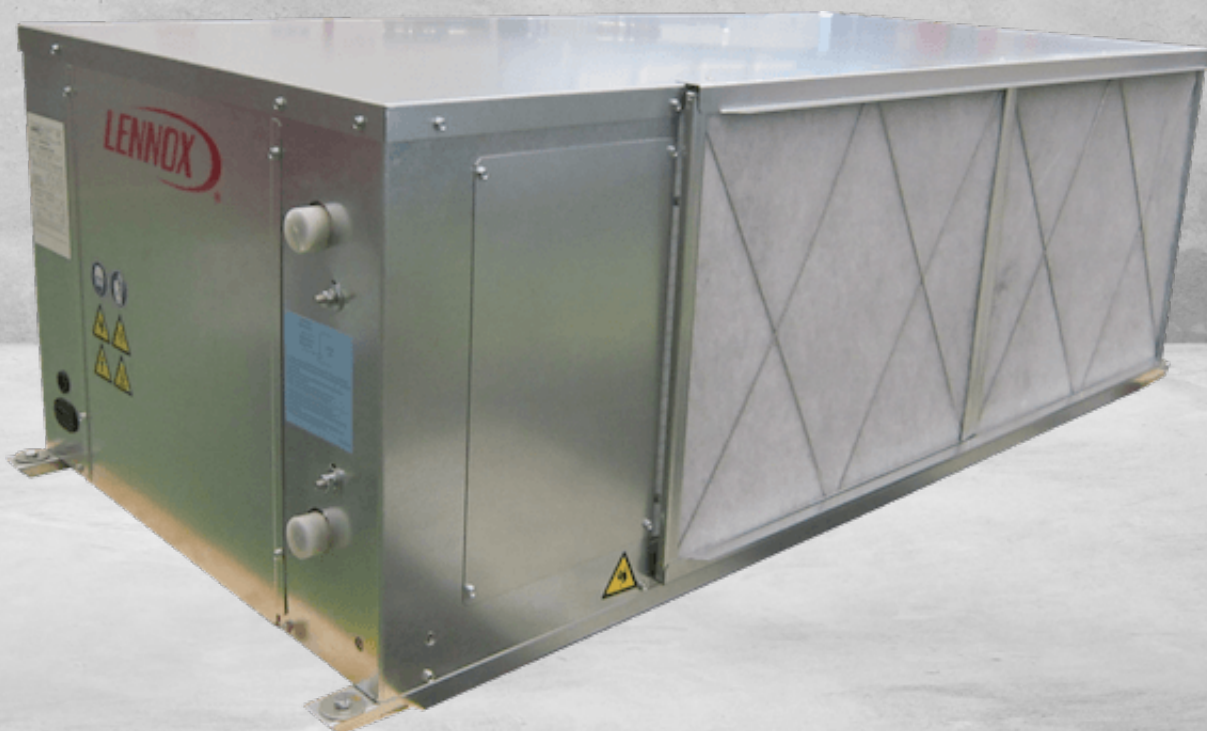


AQUALEAN

Horizontal water-cooled packaged air conditioners



R410A



AIR COOLED

-  **2 - 40 kW**
-  **2,6 - 50 kW**
-  **285 - 7500 m³/h**

- # **Compact solution** with reduced height for ceiling installation.
- # Each unit responds to heating or cooling loads of different individual zones, improving overall **comfort**.
- # Water source heat pump able to reach very **high efficiency** in cooling and heating modes.
- # Variable speed direct transmission ventilation to **save energy** and lower operating costs.

AUXILIARY HEATING DEVICES

- # Electric heater as option on units 007 to 040.
Available in three different sizes:
 - Standard capacity
 - Medium capacity
 - High capacity (only available on models 012 to 040).

AIR TREATMENT

- # EC motor fans ensuring a precise temperature for better comfort and energy savings.
- # Analogue filter detection to inform when the filters must be changed.
- # IAQ kits for improved indoor air quality inside buildings:
 - G2 (standard)
 - M5 (ePM10) + F7 (ePM1) available as an option on models 020 to 040.

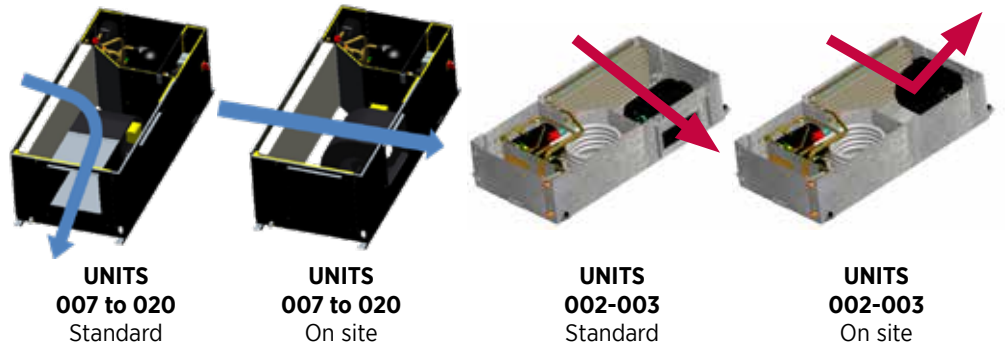


THERMODYNAMIC SYSTEM

- # Rotary compressor on models 002 and 003.
- # Scroll compressor on models 007 to 020.
- # Tandem scroll compressors on models 020 to 040.
- # Variable refrigerant control with electronic expansion valve.
- # Variable speed fans with optimized blade geometry to improve efficiency and reduce noise level.
- # Large surface exchangers for highly efficient heat transfer.

AIRFLOW

- # Horizontal return air on all models.
- # Models 002 to 020: In-line or perpendicular supply air configuration (both horizontal).
- # Models 025 to 040: horizontal or vertical supply air configuration.



WATER SYSTEM

- # Coaxial heat exchanger on units 002 and 003.
- # Brazed plate heat exchanger made of stainless steel on units 007 to 040.
- # Water threaded connections F-G on units 002 to 020.
- # Victaulic connections on units 025 to 040.

CONTROL

- # eClimatic electronic controller and intelligent control parameters optimising part-load efficiency.
- # Integrated communication solutions offering flexibility (master/slave, Modbus, BACnet LonWorks®).
- # Several display solutions for different access levels.

CLIMATIC 60



DS

Service display



DM

Multi-unit display



DC

Comfort display



CASING & DESIGN

- # Compact self-supporting casing with very low height to reduce dropped ceilings dimension.
- # Casing built with galvanized steel.
- # Thermal-acoustic insulation is installed in the compressor area to reduce noise level:
 - Units 007 to 020: 25mm A2, s1, d0 (M0) in the air treatment area.
 - Units 002-003, 025 to 040: 10mm (M1) insulation in air section.

AW^(A) C^(B) 007^(C) S^(D) N^(E) M^(F) 1^(G) M^(H) LWT^(I)

- (A) **AW** = AQUALEAN
- (B) **C** = Cooling only - **H** = Heat pump
- (C) Approximate cooling capacity in kW
- (D) **S** = 1 circuit
- (E) ---
- (F) **M** = R-410A
- (G) Revision number
- (H) **T** = 230V/1/50Hz - **M** = 400V/1/50Hz
- (I) Low water temperature version (units 002-003)



Water cooled version

Cooling only units

AQUALEAN - AWC		007	008	010	012	015	018	020
Nominal thermal performances - Cooling mode								
Cooling capacity ⁽¹⁾	kW	6,8	8,0	10,2	11,2	14,5	17,0	19,0
Total Power Input	kW	1,7	2,1	2,6	2,8	3,4	4,2	4,8
EER net ⁽¹⁾		4,00	3,81	3,92	4,00	4,26	4,05	3,96
Nominal thermal performances - Heating mode								
Heating capacity ⁽²⁾	kW	-	-	-	-	-	-	-
Total Power Input	kW	-	-	-	-	-	-	-
COP net ⁽²⁾		-	-	-	-	-	-	-
Seasonal efficiencies - Cooling mode								
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		-	-	-	-	-	-	-
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	160,50	152,50	150,70	150,40	168,10	159,70	154,30
Eurovent energy efficiency class - Part load operation		-	-	-	-	-	-	-
Seasonal efficiencies - Heating mode								
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		-	-	-	-	-	-	-
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	-	-	-	-	-	-	-
Eurovent energy efficiency class - Part load operation		-	-	-	-	-	-	-
Auxiliary heating								
Gas heating capacity		-	-	-	-	-	-	-
Electric heater capacity - Standard / High	kW	2 / 5	2 / 5	3 / 9	3 / 9	3 / 9	5 / 12	5 / 12
Electric pre-heater capacity - Standard / High		-	-	-	-	-	-	-
Hot water coil capacity Air inlet 10°C/Water		-	-	-	-	-	-	-
Ventilation data								
Minimum airflow rate	m ³ /h	1010	1250	1550	1620	1850	2060	2450
Nominal airflow rate		1250	1500	1900	2000	2450	2800	3100
Maximum airflow rate		1430	1620	2100	2200	2610	3100	3500
Acoustic data ⁽⁷⁾								
Sound pressure level - Low speed	dB(A)	49	50	48	49	49	46	47
Sound pressure level - High speed		51	52	51	51	53	51	54
Electrical data								
Maximum power	kW	2,7	3,3	4,1	4,9	5,7	6,3	7,6
Maximum current	A	14,4	17,6	24,6	28,6	12,9	14,7	17,9
Starting current	A	61,6	68,6	100,6	130,6	54,1	66,9	77,9
Short circuit current	kA	10	10	10	10	10	10	10
Water cooled condenser								
Nominal water flow rate	l/h	1450	1730	2190	2410	3070	3640	4090
Water pressure drop	kPa	25	30	40	48	40	45	55
Refrigeration circuit								
Number of circuits		1	1	1	1	1	1	1
Number of compressors		1	1	1	1	1	1	1
Refrigerant load	kg	1,3	1,3	1,9	1,9	2,4	2,9	2,9

(1) **Cooling mode** : According to EN14511 nominal conditions - Outdoor temperature 35°C DB - Indoor temperature 27°C DB / 19°C WB

(2) **Heating mode** : According to EN14511 nominal conditions - Outdoor temperature 7°C DB / 6°C WB - Indoor temperature 20°C DB

(3) SEER in accordance with standard EN14825.

(4) Space cooling energy efficiency following Ecodesign regulation EU 2016/2281

(5) SCOP in accordance with standard EN 14825 (average climate conditions).

(6) Space heating energy efficiency following Ecodesign regulation EU 2016/2281.

(7) Sound pressure level has been tested at a distance of 2m from the unit, with duct in aspiration and air discharge, normal absorption in accordance with room size and unit capacity.

AW^(A) C^(B) 007^(C) S^(D) N^(E) M^(F) 1^(G) M^(H) LWT^(I)

- (A) **AW** = AQUALEAN
 (B) **C** = Cooling only - **H** = Heat pump
 (C) Approximate cooling capacity in kW
 (D) **S** = 1 circuit
 (E) ---
 (F) **M** = R-410A
 (G) Revision number
 (H) **T** = 230V/1/50Hz - **M** = 400V/1/50Hz
 (I) Low water temperature version (units 002-003)



Water cooled version

Heat pump units

AQUALEAN - AWH		002	003	007	008	010	012	015	018	020	025	030	040
Nominal thermal performances - Cooling mode													
Cooling capacity ⁽¹⁾	kW	2,0	2,8	6,8	8,0	10,2	11,2	14,5	17,0	19,0	24,8	30,8	41,0
Total Power Input	kW	0,47	0,6	1,7	2,1	2,6	2,8	3,4	4,2	4,8	5,20	6,70	9,50
EER net ⁽¹⁾		4,34	4,55	4,00	3,81	3,92	4,00	4,26	4,05	3,96	4,77	4,60	4,32
Nominal thermal performances - Heating mode													
Heating capacity ⁽²⁾	kW	2,6	3,8	8,0	9,5	12,3	13,5	17,0	19,5	22,0	28,3	36,7	49,7
Total Power Input	kW	0,6	0,8	2,1	2,5	3,2	3,6	4,6	5,1	6,0	6,50	7,80	10,90
COP net ⁽²⁾		4,48	4,68	3,81	3,80	3,84	3,75	3,70	3,82	3,67	4,35	4,71	4,56
Seasonal efficiencies - Cooling mode													
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		-	-	-	-	-	-	-	-	-	-	-	-
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	149,80	156,10	160,50	152,50	150,70	150,40	168,10	159,70	154,30	259	253	225
Eurovent energy efficiency class - Part load operation		-	-	-	-	-	-	-	-	-	-	-	-
Seasonal efficiencies - Heating mode													
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		-	-	-	-	-	-	-	-	-	-	-	-
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	113,50	120,90	103,30	102,50	108,80	105,30	106,30	105,60	99,00	158	166	161
Eurovent energy efficiency class - Part load operation		-	-	-	-	-	-	-	-	-	-	-	-
Auxiliary heating													
Gas heating capacity		-	-	-	-	-	-	-	-	-	-	-	-
Electric heater capacity - Standard / High	kW	-	-	2 / 5	2 / 5	3 / 9	3 / 9	3 / 9	5 / 12	5 / 12	10 / 20	10 / 20	10 / 20
Electric pre-heater capacity - Standard / High		-	-	-	-	-	-	-	-	-	-	-	-
Hot water coil capacity Air inlet 10°C/Water		-	-	-	-	-	-	-	-	-	-	-	-
Ventilation data													
Minimum airflow rate	m ³ /h	285	335	1010	1250	1550	1620	1850	2060	2450	1800	2800	7500
Nominal airflow rate		440	515	1250	1500	1900	2000	2450	2800	3100	3700	5800	7500
Maximum airflow rate		465	550	1430	1620	2100	2200	2610	3100	3500	4500	6200	3700
Acoustic data ⁽⁷⁾													
Sound pressure level - Low speed	dB(A)	41	43	49	50	48	49	49	46	47	50	52	56
Sound pressure level - High speed		43	46	51	52	51	51	53	51	54	56	61	63
Electrical data													
Maximum power	kW	0,7	0,9	2,7	3,3	4,1	4,9	5,7	6,3	7,6	11,5	13,9	17,4
Maximum current	A	3,6	4,9	14,4	17,6	24,6	28,6	12,9	14,7	17,9	20,2	24,8	34,3
Starting current	A	15,3	17,3	61,6	68,6	100,6	130,6	54,1	66,9	77,9	55,2	66,0	94,3
Short circuit current	kA	10	10	10	10	10	10	10	10	10	10	10	10
Water cooled condenser													
Nominal water flow rate	l/h	480	560	1450	1730	2190	2410	3070	3640	4090	4970	6200	8300
Water pressure drop	kPa	19	24	25	30	40	48	40	45	55	32	32	39
Refrigeration circuit													
Number of circuits		1	1	1	1	1	1	1	1	1	1	1	1
Number of compressors		1	1	1	1	1	1	1	1	1	1	1	1
Refrigerant load	kg	0,6	0,7	1,3	1,3	1,9	1,9	2,4	2,9	2,9	5,2	5,2	9,0

(1) **Cooling mode** : According to EN14511 nominal conditions - Outdoor temperature 35°C DB - Indoor temperature 27°C DB / 19°C WB

(2) **Heating mode** : According to EN14511 nominal conditions - Outdoor temperature 7°C DB / 6°C WB - Indoor temperature 20°C DB

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(7) Sound pressure level has been tested at a distance of 2m from the unit, with duct in aspiration and air discharge, normal absorption in accordance with room size and unit capacity.



Water cooled version

Cooling only units

AQUALEAN - AWC		07	08	10	12	15	18	20
A	mm	886	886	1180	1180	1180	1600	1600
B		492	492	623	623	623	703	703
C		441	441	491	491	491	531	531
Weight of standard units								
Basic unit	kg	69	70	109	111	113	148	148



Water cooled version

Heat pump units

AQUALEAN - AWH		02	03	07	08	10	12	15	18	20	25	30	40
A	mm	1000	1000	886	886	1180	1180	1180	1600	1600	2049	2049	2049
B		500	500	492	492	623	623	623	703	703	895	895	895
C		230	230	441	441	491	491	491	531	531	770	770	770
Weight of standard units													
Basic unit	kg	53	56	71	72	111	113	116	151	151	370	375	380

