

eNeRGy

High efficiency packaged air treatment units



R410A

AIR COOLED

 **53 - 170 kW**
 **50 - 175 kW**
 **13500 - 27000 m³/h**

AIR COOLED *Inverter*

 **97 - 160 kW**
 **102 - 164 kW**
 **15500 - 27000 m³/h**

R32

AIR COOLED

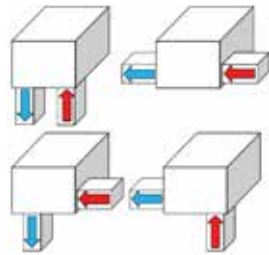
 **109 - 163 kW**
 **112 - 168 kW**
 **18900 - 27000 m³/h**

LENNOX participates in the ECP programme for RT.
Check ongoing validity of certificate :
www.eurovent-certification.com

- # Optimised design and integration of highly efficient components enabling **energy savings**.
- # **Modular concept** that allows various combinations of thermodynamic circuits and air treatment sections, ensuring high adaptability with different building requirements.
- # Tunnel flow design allows larger sections with more filtration options to improve **indoor air quality**.
- # **Low noise level** thanks to availability of several sound attenuation options.

AIRFLOW

- # Several available airflow configurations: top, bottom or horizontal, to fit each building's need.
- # Adjustable roof curb to fit the building's architecture.
- # Extraction and/or recovery section(s) integrated in the indoor section of the unit offering compactness and easy installation.



THERMODYNAMIC SYSTEM

- # Tandem or inverter scroll compressors allowing capacity modulation.
- # Variable refrigerant control with electronic expansion valve.
- # Fan with variable speed EC motor and swept blades, enabling control of the high and low floating pressure for optimum operation.
- # Large surface exchangers for highly efficient heat transfer.
- # Easy access to compressors enabling faster maintenance operations.



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.

REMOTE MONITORING

- # Connectivity through **LennoxCloud** (LENNOX WEB PORTAL for Multi sites / Multi units).
- # BMS through:
 - **LennoxOneWeb**.
 - **ADALINK II*** (LENNOX WEB SERVER One site / Several units).
 - **LennoxTouch.***

* Check the availability of this feature in your country.

eCLIMATIC



DS

Service display



DM

Multi-Rooftop display



DC

Comfort display



CASING & DESIGN

- # Modular concept with various combinations of thermodynamic circuits and air treatment sections.
- # Structure built with 50mm aluminum profile for high rigidity and reduced weight.
- # Double skin panels with 50 mm of Rockwool insulation, built with pre-painted aluminum panels for high corrosion resistance.
- # Inclined removable drain pan in aluminum for easy disinfecting.
- # Easy Lock on the panels permits right or left hand opening or complete dismounting, allowing easy disinfecting and maintenance.

AIR TREATMENT

- # EC motor fans ensuring a precise temperature for better comfort and energy savings.
- # Analogue filter detection informs when the filters must be changed.
- # IAQ kits for improved indoor air quality within the building:
 - G4 (standard)
 - G4+F7 (ePM1 85%)
 - G4+F7+F9 (ePM1 95%)
 - UV-C lamps.
 - Ionization.



AUXILIARY HEATING DEVICES

- # Different options depending on the energy source available on site:
 - Hot water coil.
 - Condensing gas burner.
 - Electric heater.
 - Electric preheater.

HEAT RECOVERY

- # Thermodynamic heat recovery, ideal for mild climates.
- # Heat recovery wheel, with both fresh and return air sections protected by G4 filters.
- # eRecovery, to recover free heat produced by food refrigeration systems.



E_(A) 014_(B) A_(C) H_(D) 85_(E) F_(F)

- (A) **E** = eNeRGy
- (B) **014** = Airflow (x 1000 m³/h)
- (C) **A** = Air cooled condensation
- (D) **H** = Heat pump - **N** = No condensing unit
- (E) **85** = Cooling capacity in kW
- (F) **F** = Standard scroll compressor



Air cooled version



Heat pump units

eNeRGy	014AH			016AH		019AH					
	055	065	075	085	105	066	076	086	106	124	
Nominal thermal performances - Cooling mode											
Cooling capacity ⁽¹⁾	kW	52,3	65,2	72,7	84,0	102,0	67,7	76,7	86,9	107,8	111,8
Total Power Input	kW	14,80	19,47	22,89	25,43	32,34	21,37	24,07	26,94	33,96	38,07
EER net ⁽¹⁾		3,53	3,35	3,18	3,30	3,15	3,17	3,19	3,23	3,18	2,94
Nominal thermal performances - Heating mode											
Heating capacity ⁽²⁾	kW	48,2	63,0	68,4	80,9	97,7	66,8	76,6	87,0	106,8	107,2
Total Power Input	kW	11,09	16,65	17,98	21,70	28,60	16,93	18,96	22,68	31,00	30,34
COP net ⁽²⁾		4,35	3,78	3,81	3,73	3,41	3,94	4,04	3,84	3,45	3,54
Seasonal efficiencies - Cooling mode											
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4,63	4,62	4,93	4,48	4,26	4,42	4,28	4,30	4,31	4,21
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	182	182	194	176	167	174	168	169	169	165
Eurovent energy efficiency class - Part load operation		B	B	B	B	B	B	B	B	B	B
Seasonal efficiencies - Heating mode											
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3,66	3,52	3,52	3,41	3,25	3,64	3,39	3,32	3,28	3,32
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	143	138	138	133	127	143	132	130	128	130
Eurovent energy efficiency class - Part load operation		B	B	B	B	B	B	B	B	B	B
Auxiliary heating											
Gas heating capacity - Standard / High	kW	82 / 100									
Electric heater capacity - Standard / High		36 / 108									
Electric pre-heater capacity - Standard / High		36 / 108									
Hot water coil capacity Air inlet 20°C/Water		69,6 / 122,2	69,6 / 122,2	69,6 / 122,2	74,5 / 132	74,5 / 132	81,9 / 146,9	81,9 / 146,9	81,9 / 146,9	81,9 / 146,9	81,9 / 146,9
Ventilation data											
Minimum airflow rate	m ³ /h	9500	9500	9500	10500	10500	13000	13000	13000	13000	13000
Nominal airflow rate		13500	13500	13500	15500	15500	18900	18900	18900	18900	18900
Maximum airflow rate		16000	24000	24000	24000	24000	20000	24000	24000	24000	24000
Acoustic data - Standard unit											
Outdoor sound power	dB(A)	76,4	77,8	76,5	79,1	80,9	81,9	81,4	82,0	83,0	82,7
Indoor blower outlet sound power		78,9	78,9	78,9	82,5	82,5	90,0	90,0	90,0	90,0	87,6
Electrical data											
Maximum power	kW	29,3	37,3	37,7	42,4	44,5	37,3	37,7	42,4	44,5	48,9
Maximum current	A	135,8	124,4	148,8	171,4	183,7	124,4	148,8	171,4	183,7	187,9
Starting current	A	49,1	61,4	77,0	88,9	76,8	61,4	77,0	88,9	76,8	82,4
Short circuit current	kA	10	10	10	10	10	10	10	10	10	10
Refrigeration circuit											
Number of circuits		2	2	2	2	2	2	2	2	2	2
Number of compressors		3	4	4	4	4	4	4	4	4	4
Refrigerant load	kg	18	18	33,8	33,8	34,2	20	33	33	32,8	33,7

(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.

E_(A) 014_(B) A_(C) H_(D) 85_(E) F_(F)

- (A) E = eNeRgy
- (B) Airflow (x 1000 m³/h)
- (C) A = Air cooled condensation
- (D) H = Heat pump - N = No condensing unit
- (E) Cooling capacity in kW
- (F) F = Standard scroll compressor



Air cooled version



Heat pump units

eNeRgy	022AH				024AH				027AH			
	077	087	107	140	078	088	108	126	141	160	180	
Nominal thermal performances - Cooling mode												
Cooling capacity ⁽¹⁾	kW	75,3	86,1	106,9	132,0	79,0	89,8	111,9	122,4	137,5	154,7	165,7
Total Power Input	kW	24,36	27,06	34,05	42,35	24,59	27,33	34,51	36,93	43,59	51,34	58,97
EER net ⁽¹⁾		3,09	3,18	3,14	3,12	3,21	3,29	3,24	3,31	3,15	3,01	2,81
Nominal thermal performances - Heating mode												
Heating capacity ⁽²⁾	kW	75,8	87,7	107,6	129,1	76,9	89,3	109,9	121,0	135,9	148,3	178,5
Total Power Input	kW	18,88	22,61	30,49	37,89	18,39	22,05	29,28	30,72	39,22	41,55	56,13
COP net ⁽²⁾		4,01	3,88	3,53	3,41	4,18	4,05	3,75	3,94	3,46	3,57	3,18
Seasonal efficiencies - Cooling mode												
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4,22	4,28	4,28	3,95	4,38	4,43	4,41	4,43	4,35	4,02	4,00
Seasonal energy efficiency - η _{s,c} ⁽⁴⁾	%	166	168	168	155	172	174	173	174	171	158	157
Eurovent energy efficiency class - Part load operation		B	B	B	B	B	B	B	B	B	B	B
Seasonal efficiencies - Heating mode												
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3,40	3,38	3,35	3,34	3,51	3,50	3,51	3,49	3,29	3,30	3,28
Seasonal energy efficiency - η _{s,h} ⁽⁶⁾	%	133	132	131	130	137	137	137	137	129	129	128
Eurovent energy efficiency class - Part load operation		B	B	B	B	B	B	B	B	B	B	B
Auxiliary heating												
Gas heating capacity - Standard / High	kW	100 / 200										
Electric heater capacity - Standard / High		54 / 144										
Electric pre-heater capacity - Standard / High		54 / 144										
Hot water coil capacity Air inlet 20°C/Water		111,4 / 176,5	111,4 / 176,5	111,4 / 176,5	111,4 / 176,5	117,9 / 188	117,9 / 188	117,9 / 188	117,9 / 188	117,9 / 188	123,9 / 198,6	123,9 / 198,6
Ventilation data												
Minimum airflow rate	m ³ /h	15000	15000	15000	15000	17000	17000	17000	17000	17000	18500	18500
Nominal airflow rate		21600	21600	21600	21600	24300	24300	24300	24300	24300	27000	27000
Maximum airflow rate		24000	24000	24000	24000	28000	28000	32000	32000	32000	32000	32000
Acoustic data - Standard unit												
Outdoor sound power	dB(A)	83,8	84,2	84,8	85,1	79,7	80,6	81,9	81,3	82,2	83,6	84,9
Indoor blower outlet sound power		90,5	90,6	90,6	90,9	85,3	85,5	85,5	85,9	85,9	88,8	88,8
Electrical data												
Maximum power	kW	37,7	42,4	44,5	64,8	41,5	46,2	48,3	52,2	68,6	81,4	89,7
Maximum current	A	148,8	171,4	183,7	239,3	154,9	177,5	189,8	193,6	245,4	264,6	317,0
Starting current	A	77,0	88,9	76,8	106,6	83,1	95,0	82,9	88,1	112,7	131,9	149,3
Short circuit current	kA	10	10	10	10	10	10	10	10	10	10	10
Refrigeration circuit												
Number of circuits		2	2	2	2	2	2	2	2	2	2	2
Number of compressors		2	2	4	4	2	2	4	4	4	4	4
Refrigerant load	kg	31,9	32,1	32,7	43,6	27,7	27,9	28,2	42,6	43,4	44,2	44,2

(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.

E^(A) 014^(B) A^(C) H^(D) 85^(E) F^(F)

- (A) **E** = eNeRGy
- (B) **014** Airflow (x 1000 m³/h)
- (C) **A** = Air cooled condensation
- (D) **H** = Heat pump - **N** = No condensing unit
- (E) **85** Cooling capacity in kW
- (F) **F** = Standard scroll compressor



Air cooled version



Heat pump units

eNeRGy+		016AH	019AH	027AH
		105	124	160
Nominal thermal performances - Cooling mode				
Cooling capacity ⁽¹⁾	kW	102,7	121,6	172,7
Total Power Input	kW	31,84	40,49	57,98
EER net ⁽¹⁾		3,23	3,00	2,98
Nominal thermal performances - Heating mode				
Heating capacity ⁽²⁾	kW	96,7	118,0	166,5
Total Power Input	kW	29,26	37,86	53,68
COP net ⁽²⁾		3,30	3,12	3,10
Seasonal efficiencies - Cooling mode				
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4,93	4,71	4,72
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	194	186	186
Eurovent energy efficiency class - Part load operation		B	B	B
Seasonal efficiencies - Heating mode				
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3,61	3,54	3,49
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	141	139	137
Eurovent energy efficiency class - Part load operation		B	B	B
Auxiliary heating				
Gas heating capacity - Standard / High	kW	82 / 100		100 / 200
Electric heater capacity - Standard / High		36 / 108		54 / 144
Electric pre-heater capacity - Standard / High		36 / 108		54 / 144
Hot water coil capacity Air inlet 20°C/Water		74,5 / 132	81,9 / 146,9	123,9 / 198,6
Ventilation data				
Minimum airflow rate	m ³ /h	10500	13000	18500
Nominal airflow rate		15500	18900	27000
Maximum airflow rate		24000	24000	32000
Acoustic data - Standard unit				
Outdoor sound power	dB(A)	85,3	86,8	89,9
Indoor blower outlet sound power		81,0	86,1	87,3
Electrical data				
Maximum power	kW	29,3	37,3	37,7
Maximum current	A	135,8	124,4	148,8
Starting current	A	49,1	61,4	77,0
Short circuit current	kA	10	10	10
Refrigeration circuit				
Number of circuits		2	2	2
Number of compressors		3	3	3
Refrigerant load	kg	34,2	33,7	44,2

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(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.

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- (A) **EE** = e-eNeRGy
- (B) **014** = Airflow (x 1000 m³/h)
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- (D) **H** = Heat pump - **N** = No condensing unit
- (E) **85** = Cooling capacity in kW
- (F) **F** = Standard scroll compressor



R32 benefits:

- # low GWP: 675.
- # low cost.
- # pure substance.
- # many providers due to no patent.



Air cooled version



Heat pump units

e-eNeRGy		019AH	024AH	027AH
		110	140	170
Nominal thermal performances - Cooling mode				
Cooling capacity ⁽¹⁾	kW	108,6	138,7	163,4
Total Power Input	kW	38,16	48,12	55,38
EER net ⁽¹⁾		-	-	-
Nominal thermal performances - Heating mode				
Heating capacity ⁽²⁾	kW	111,8	142,4	167,9
Total Power Input	kW	33,10	41,44	50,48
COP net ⁽²⁾		-	-	-
Seasonal efficiencies - Cooling mode				
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4.35	4.47	4.4
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	171	175.8	173
Eurovent energy efficiency class - Part load operation		B	B	B
Seasonal efficiencies - Heating mode				
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3.31	3.44	3.22
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	129.4	134.6	125.8
Eurovent energy efficiency class - Part load operation		B	B	B
Auxiliary heating				
Gas heating capacity - Standard / High	kW	82 / 100	100 / 200	100 / 200
Electric heater capacity - Standard / High		36 / 108	54 / 144	54 / 144
Electric pre-heater capacity - Standard / High		36 / 108	54 / 144	54 / 144
Hot water coil capacity Air inlet 20°C/Water		74,5 / 132	123,9 / 198,6	123,9 / 198,6
Ventilation data				
Minimum airflow rate	m ³ /h	13000	17000	18500
Nominal airflow rate		18900	24300	27000
Maximum airflow rate		24000	32000	32000
Acoustic data - Standard unit				
Outdoor sound power	dB(A)	82	84,2	84,9
Indoor blower outlet sound power		87,6	88,5	88,8
Electrical data				
Maximum power	kW	56	73,5	83,6
Maximum current	A	213,4	238,8	279,1
Starting current	A	93,9	117,6	134,7
Short circuit current	kA	10	10	10
Refrigeration circuit				
Number of circuits		2	2	2
Number of compressors		4	4	4
Refrigerant load	kg	27,6	35,6	36

(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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Air cooled version

eNeRGy		014AH	016AH	019AH	022AH	024AH	027AH
A	mm	2270	2270	2270	2270	2270	2270
B		4601	4601	4601	5202	5202	5202
C		2024	2024	2024	2275	2275	2275
D		450	450	450	612	612	612

