

redge[®]



EVIO

Air cooled rooftop units



AIR COOLED R32

-  29 - 250 kW
-  29 - 247 kW
-  4000 - 49500 m³/h



- # **Flexibility** in capacity and airflow rates, ventilation options, energy sources and design (configurations and roof curbs) to best fit your application's needs.
- # **Optimized design** and integration of highly efficient components, allowing significant energy savings.
- # **Low noise level** thanks to several sound attenuation options available.
- # **Installation and replacement** made easy thanks to the unit's compactness, same footprint and weight than previous models.

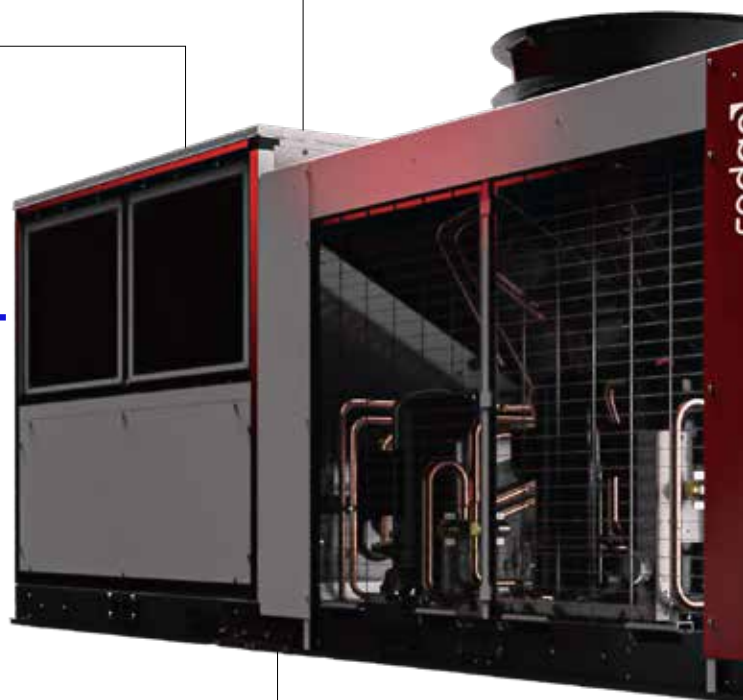
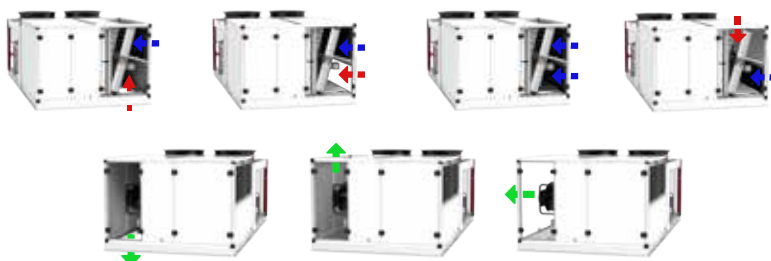
AIR TREATMENT

- # EC motor fans ensure a precise temperature for better comfort and energy savings.
- # IAQ kits for improved indoor air quality within the building:
 - Media filters (M5/ePM10 50%, F7/ePM1 50%, F9/ePM1 85%).



AIRFLOW

- # Several available airflow configurations: top, bottom or horizontal, to fit each building's need.
- # Adaptable roof curb to fit the building's architecture.
- # Frame adaptation for replacement market.



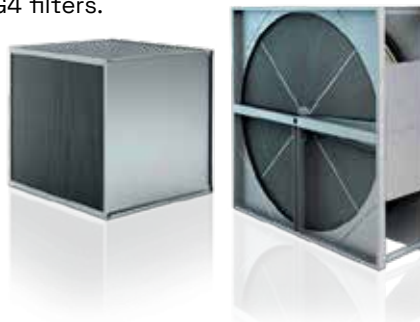
AUXILIARY HEATING DEVICES

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



HEAT RECOVERY

- # Water coil recovery, to recover free heat or free cool produced by external water systems climates.
- # Plate heat exchanger, to improve the system's efficiency in colder climates by preheating the fresh air stream.
- # Heat recovery wheel, with both fresh and return air sections protected by G4 filters.

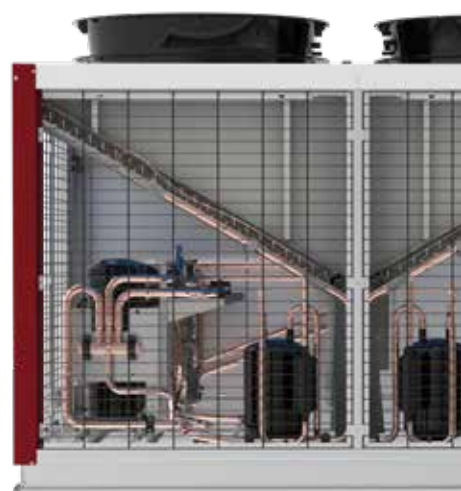


CASING & DESIGN

- # New design.
- # Pre-coated steel panels painted in RAL 9003 color, specially designed for corrosion resistance and to ensure long operation lifetime.
- # Compact design for perfect integration in its environment.
- # Same footprint as previous models for plug & play replacement.
- # Inclined removable drain pan in aluminum for easy disinfecting.
- # Double skin panels.

THERMODYNAMIC SYSTEM

- # R32 refrigerant (GWP = 675) enabling a decrease of the carbon dioxide equivalent for potential tax savings.
- # Tandem scroll compressors allowing capacity modulation.
- # Variable refrigerant control with electronic expansion valve.
- # Heat transfer efficiency thanks to new coil design.
- # Easy access to compressors enabling faster maintenance operations.
- # Fan with variable speed EC motor and swept blades, enabling control of the high and low floating pressure for optimum operation.
- # Integrated safety devices for peace of mind.



CONTROL

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

REMOTE MONITORING

- # Connectivity through **RedgeCloud** (REDGE WEB PORTAL for Multi sites / Multi units).
- # BMS through: **e-savvy**



eCLIMATIC



DS

Service display



Touchscreen display



DC

Comfort display



Ev_(A) **125**_(B) **A**_(C) **H**_(D) **055**_(E) **S**_(F) **P**_(G) **F**_(H) **1**_(I)

(A) **Ev** = Evio

(B) **B** = Maximum air flow (x 100 m³/h)

(C) **A** = Air cooled

(D) **H** = Heat pump

(E) **055** = Commercial cooling capacity in kW

(F) **S** = 1 circuit - **D** = 2 circuits

(G) **P** = R32

(H) **F** = Scroll

(I) **1** = Revision



Air cooled version

Heat pump units

		100AH			125AH	185AH			
Evio		25	35	45	55	55	60	65	70
Nominal thermal performances - Cooling mode									
Cooling capacity ⁽¹⁾	kW	28.60	38.50	45.00	52.60	53.30	58.80	67.00	68.70
Total Power Input	kW	9.32	13.05	15.90	16.91	15.96	20.56	21.68	24.54
EER net ⁽¹⁾		3.07	2.95	2.83	3.11	3.34	2.86	3.09	2.80
Nominal thermal performances - Heating mode									
Heating capacity ⁽²⁾	kW	29.10	40.90	47.30	53.60	53.40	56.40	66.40	63.40
Total Power Input	kW	7.58	9.78	12.85	14.68	13.09	15.33	19.19	18.17
COP net ⁽²⁾		3.84	4.18	3.68	3.65	4.08	3.68	3.46	3.49
Seasonal efficiencies - Cooling mode									
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4.68	4.78	4.65	4.63	4.98	4.93	4.78	4.88
Seasonal energy efficiency - η_{s,c} ⁽⁴⁾	%	184.20	188.20	183.00	182.20	196.20	194.20	188.20	192.20
Eurovent energy efficiency class - Part load operation		B	A	B	B	A	A	A	A
Seasonal efficiencies - Heating mode									
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3.73	4.03	4.05	3.58	3.75	3.88	3.43	3.86
Seasonal energy efficiency - η_{s,h} ⁽⁶⁾	%	146.20	158.20	159.00	140.20	147.00	152.00	134.20	151.00
Eurovent energy efficiency class - Part load operation		A	A+	A+	B	A	A+	B	A+
Ventilation data									
Minimum airflow rate	m³/h	4000	5500	6500	7500	7500	9000	9500	10500
Nominal airflow rate		5000	7000	8000	9500	9500	11000	12000	13000
Maximum airflow rate		10000	10000	10000	12500	18500	18500	18500	18500
Boosted airflow rate		13500	13500	13500	13500	22000	22000	22000	22000
Acoustic data - Standard unit									
Outdoor sound power	dB(A)	75	75	84	79	78	85	85	85
Indoor blower outlet sound power		69	78	82	87	71	75	77	79
Electrical data									
Maximum power	kW	11,2	13,2	23,4	21,2	23,6	47,3	30,4	37
Starting current	A	79,7	81,1	116,4	114,1	118	177,4	162,7	216,4
Maximum current	A	20,2	23	38,5	36,7	40,6	52,5	51,4	59,8
Short circuit current	kA	10	10	10	10	10	10	10	10
Refrigeration circuit									
Number of circuits		1	1	1	2	2	1	2	1
Number of compressors		2	2	2	3	3	2	3	2
Refrigerant load	kg	6,5	10	9,9	6,6/6,6	6,6/6,6	9,6	6,1/6,1	9,3

(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.

Ev_(A) 125_(B) A_(C) H_(D) 055_(E) S_(F) P_(G) F_(H) 1_(I)

(A) Ev = Evio

(B) B = Maximum air flow (x 100 m³/h)

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(F) S = 1 circuit - D = 2 circuits

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Air cooled version

Heat pump units

		185AH			270AH					
Evio		75	85	95	85	95	105	115	130	145
Nominal thermal performances - Cooling mode										
Cooling capacity ⁽¹⁾	kW	74.80	83.90	91.20	89.90	94.40	104.30	113.70	122.20	134.80
Total Power Input	kW	25.79	29.75	32.69	28.45	31.16	34.54	39.34	45.26	50.30
EER net ⁽¹⁾		2.90	2.82	2.79	3.16	3.03	3.02	2.89	2.70	2.68
Nominal thermal performances - Heating mode										
Heating capacity ⁽²⁾	kW	76.50	86.80	94.00	86.60	93.30	103.60	108.40	114.20	133.70
Total Power Input	kW	21.79	25.38	28.66	23.41	25.84	29.10	32.65	37.32	42.04
COP net ⁽²⁾		3.51	3.42	3.28	3.70	3.61	3.56	3.32	3.06	3.18
Seasonal efficiencies - Cooling mode										
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		4.73	4.58	4.50	5.03	4.98	4.98	4.95	4.90	4.90
Seasonal energy efficiency - $\eta_{s,c}$ ⁽⁴⁾	%	186.20	180.20	177.00	198.20	196.20	196.20	195.00	193.00	193.00
Eurovent energy efficiency class - Part load operation		A	B	B	A	A	A	A	A	A
Seasonal efficiencies - Heating mode										
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3.83	3.63	3.58	3.85	3.80	3.90	3.80	3.73	3.65
Seasonal energy efficiency - $\eta_{s,h}$ ⁽⁶⁾	%	150.20	142.20	140.20	151.00	149.00	153.00	149.00	146.20	143.00
Eurovent energy efficiency class - Part load operation		A+	A	B	A+	A+	A+	A+	A	A
Ventilation data										
Minimum airflow rate	m³/h	11000	13000	13500	13000	13500	14000	16000	18000	21500
Nominal airflow rate		14000	16000	17000	16000	17000	19000	21000	24000	27000
Maximum airflow rate		18500	18500	18500	27000	27000	27000	27000	27000	27000
Boosted airflow rate		22000	22000	22000	32500	32500	32500	32500	32500	32500
Acoustic data - Standard unit										
Outdoor sound power	dB(A)	86	88	88	87	88	87	88	88	88
Indoor blower outlet sound power		81	85	88	77	78	81	83	87	92
Electrical data										
Maximum power	kW	40,3	44,3	52,4	50,5	49,6	52,6	58,2	64,2	77,6
Starting current	A	186,2	198,6	206,2	207,3	201,9	200,1	221,8	263,9	286,3
Maximum current	A	66,7	74,1	86,7	82,8	82,4	88,9	97,4	107,7	130,1
Short circuit current	kA	10	10	10	10	10	10	10	10	10
Refrigeration circuit										
Number of circuits		2	2	2	2	2	2	2	2	2
Number of compressors		3	3	3	3	3	4	4	4	4
Refrigerant load	kg	10/10	9,9/9,9	9,7/9,7	10/10	9,9/9,9	10/10	9,7/9,7	9,5/9,7	13/13,1

(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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(A) Ev = Evio

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Air cooled version

Heat pump units

		360AH					
Evio		115	130	145	160	180	200
Nominal thermal performances - Cooling mode							
Cooling capacity ⁽¹⁾	kW	117.10	129.40	139.80	162.10	171.40	193.90
Total Power Input	kW	38.90	44.16	47.71	55.51	62.33	70.00
EER net ⁽¹⁾		3.01	2.93	2.93	2.92	2.75	2.77
Nominal thermal performances - Heating mode							
Heating capacity ⁽²⁾	kW	106.20	113.50	133.90	159.40	186.90	199.90
Total Power Input	kW	30.96	34.92	38.59	49.81	54.17	58.79
COP net ⁽²⁾		3.43	3.25	3.47	3.20	3.45	3.40
Seasonal efficiencies - Cooling mode							
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		5.25	5.20	5.18	5.00	4.78	5.08
Seasonal energy efficiency - ηs,c ⁽⁴⁾	%	207.00	205.00	204.20	197.00	188.20	200.20
Eurovent energy efficiency class - Part load operation		A+	A+	A+	A	A	A
Seasonal efficiencies - Heating mode							
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		3.93	3.88	3.80	3.63	3.98	4.20
Seasonal energy efficiency - ηs,h ⁽⁶⁾	%	154.20	152.20	149.00	142.20	156.20	165.00
Eurovent energy efficiency class - Part load operation		A+	A+	A+	A	A+	A+
Ventilation data							
Minimum airflow rate	m³/h	15000	16000	21500	24000	26500	29000
Nominal airflow rate		21000	24000	27000	30000	33000	36000
Maximum airflow rate		36000	36000	36000	36000	36000	36000
Boosted airflow rate		43500	43500	43500	43500	43500	43500
Acoustic data - Standard unit							
Outdoor sound power	dB(A)	88	88	89	91	91	91
Indoor blower outlet sound power		78	81	84	87	91	94
Electrical data							
Maximum power	kW	60,6	66,6	72,2	85,1	102	109,4
Maximum current	A	225,8	267,8	277,9	297,2	326,4	421,8
Starting current	A	101,3	111,6	121,7	141	170,2	180,6
Short circuit current	kA	10	10	10	10	10	10
Refrigeration circuit							
Number of circuits		2	2	2	2	2	2
Number of compressors		4	4	4	4	4	4
Refrigerant load	kg	9,9/9,9	9,5/9,7	13,1/13,1	12,7/12,7	20,9/20,9	20,9/20,3

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Air cooled version

Heat pump units

		415AH			
Evio		180	200	225	250
Nominal thermal performances - Cooling mode					
Cooling capacity ⁽¹⁾	kW	180.00	194.70	222,2	247,1
Total Power Input	kW	62.07	69.78	81,9	87,3
EER net ⁽¹⁾		2.90	2.79	2,71	2,83
Nominal thermal performances - Heating mode					
Heating capacity ⁽²⁾	kW	183.00	199.30	222,2	247,1
Total Power Input	kW	51.12	58.27	81,9	87,3
COP net ⁽²⁾		3.58	3.42	2,71	2,83
Seasonal efficiencies - Cooling mode					
Seasonal Energy Efficiency Ratio - SEER ⁽³⁾		5.10	5.23	5	4,53
Seasonal energy efficiency - ηs,c ⁽⁴⁾	%	201.00	206.20	197	178
Eurovent energy efficiency class - Part load operation		A	A+	-	-
Seasonal efficiencies - Heating mode					
Seasonal Coefficient of Performance - SCOP ⁽⁵⁾		4.18	4.30	4,08	3,63
Seasonal energy efficiency - ηs,h ⁽⁶⁾	%	164.20	169.00	160	142
Eurovent energy efficiency class - Part load operation		A+	A+	-	-
Ventilation data					
Minimum airflow rate	m³/h	26500	29000	33500	36500
Nominal airflow rate		33000	36000	41500	41500
Maximum airflow rate		41500	41500	41500	41500
Boosted airflow rate		49500	49500	49500	49500
Acoustic data - Standard unit					
Outdoor sound power	dB(A)	91	91	93	93
Indoor blower outlet sound power		91	94	98	93
Electrical data					
Maximum power	kW	102	109,4	122,1	136
Starting current	A	326,4	421,8	443,5	465,2
Maximum current	A	170,2	180,6	202,3	224,1
Short circuit current	kA	10	10	10	10
Refrigeration circuit					
Number of circuits		2	2	2	2
Number of compressors		4	4	4	4
Refrigerant load	kg	21,2/20,9	21,2/20,4	20,5/20,3	20,3/20

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Air cooled version

		100AH			125AH	185AH							270AH		
Evio		025	035	045	055	055	060	065	070	075	085	095	085	095	105
A	mm	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248
B		2909	2909	2909	3916	4468	3461	4468	3461	4468	4468	4468	4468	4468	4468
C		1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	2122	2122	2122
Weight of standard units															
Basic unit	kg	676	705	736	910	1025	891	1068	894	1126	1162	1179	1261	1267	1318

		270AH			360AH						415AH			
Evio		115	130	145	115	130	145	160	180	200	180	200	225	250
A	mm	2248	2248	2248	2248	2248	2248	2248	2248	2248	2248	2301	2301	2248
B		4468	4468	5030	5030	5030	5030	5030	5030	5454	5454	5454	5454	5454
C		2122	2301	2122	2122	2301	2301	2301	2301	2301	2301	2248	2248	2301
Weight of standard units														
Basic unit	kg	1366	1544	1496	1518	1681	1811	1922	1974	2063	2089	2114	2204	2204

