SysAer

An **e**fficient **r**ooftop unit

from 49.2 to 216.4

from 49.6 to 210.6

systemair

SysAer 55 to 210
An efficient rooftop unit

This new generation of high efficiency rooftop units have been thought and designed to reach the Ecodesign 2021 threshold and the energy class A.
The SysAer units are available in cooling-only (L) or reversible (H) versions and with a wide range of options.

- **10 Sizes**
- **Cooling capacity : from 49.2 to 216.4 kW**
- **Heating capacity: from 49.6 to 210.6 kW**
- **H version (Cooling and Heating) or L version (Cooling only)**
- **A wide range of options**
- **Compliant with Ecodesign Lot 21 - step 2/2021**
- **R410A refrigerant**
- **In the process of being EUROVENT certified**

Green Ventilation

Available with EC motor

Advantages

- A class
- Ecodesign step 2 ready
- 2 independant circuits & frigorific insulated box
- Many air inlet/outlet configurations
- Double skin as a standard
- AC/EC Plug Fans for supply and extract air
- Removable drain pan
- Leak detection according to BREEAM standard

Options

- EC plug fans
- Sides, Top or Bottom supply/return air
- 2 filters stage G4+F7/F9 flat type
- Hot water coil or Electric Heater
- 2 Dampers mixing section / Freecooling / IAQ (indoor air quality control)
- Food Refrigeration Heat Recovery (FRECO)
- Return fan & 3 Dampers (RECO)
- Return fan & 3 Dampers & Heat Recovery (TRECO)
- Gas burner

Energy performances

SR.H EC	55	65	80
EER	3.33	3.42	3.66
Energy efficiency class	A	A	A

SR.H EC	95	105	120	140
EER	3.30	3.52	3.45	3.29
Energy efficiency class	A	A	A	A

SR.H EC	160	190	210
EER	3.41	3.41	3.19
Energy efficiency class	A	A	A

Quick selection guide

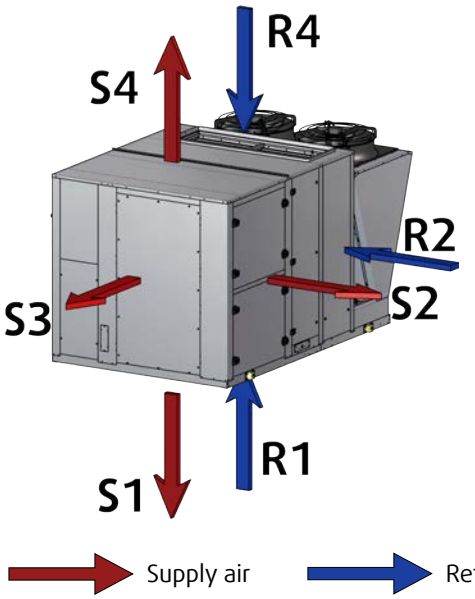
SR.H EC	Sizes	Capacities (kW)		EER	COP	Nominal airflow (m³/h)	Surrounded Acoustic power Lwo - dB(A)
	55	49.2	49.6	33.3	3.57	9720	81.5
	65	62.2	58.4	3.42	3.56	11500	85.0
	80	78.5	73.8	3.66	3.75	14300	82.0
	95	94.4	88.6	3.30	3.62	17500	83.0
	105	110.1	104.7	3.52	3.72	19200	85.4
	120	119.0	114.5	3.45	3.64	21580	87.4
	140	141.0	145.6	3.29	3.67	25500	91.3
	160	163.4	154.7	3.41	3.58	30000	90.5
	190	194.7	183.8	3.41	3.62	32400	91.5
	210	216.4	210.6	3.19	3.54	35000	93.7

Other rooftop ranges

HAN	Sizes	Capacities (kW)		EER	COP	Nominal airflow (m³/h)	Acoustic power Lwo - dB(A)	Dimensions (LxWxH)
	13	13.0	12.1	2.88	2.80	2640	79.7	1345x1320 x905
	15	14.5	14.2	2.95	3.10	2940	79.3	
	17	16.8	15.8	2.80	2.70	3190	79.3	
	19	18.9	19.0	2.90	3.10	3860	79.3	
	25	25.4	24.2	2.95	2.75	4780	82.5	1445x1420 x1320
	31	31.0	30.5	3.10	3.20	5530	86.4	

ROOFTAIR	Sizes	Capacities (kW)		EER	COP	Nominal airflow (m³/h)	Acoustic power Lwo - dB(A)	Dimensions (LxWxH)
	30	32,6	32,7	3.24	3.70	5500	83	2484x1877 x1450
	40	42,1	44,1	3.22	3.84	7650	85	
	50	47,2	51,8	3.10	3.76	9200	88	

Aeraulic configurations



Many possibilities of configurations for Supply and Return air

Supply air	**S1**.Down supply air / with gas burner
	S2.Left supply air
	S3.Front supply air / with gas burner
	S4.Up supply air
Return air	**R1**.Down return air without damper / with 2 dampers / with 3 dampers (RECO or TRECO)
	R2.Left return air without damper / with 2 dampers / with 3 dampers (RECO or TRECO)
	R4.Up return air without damper / with 2 dampers

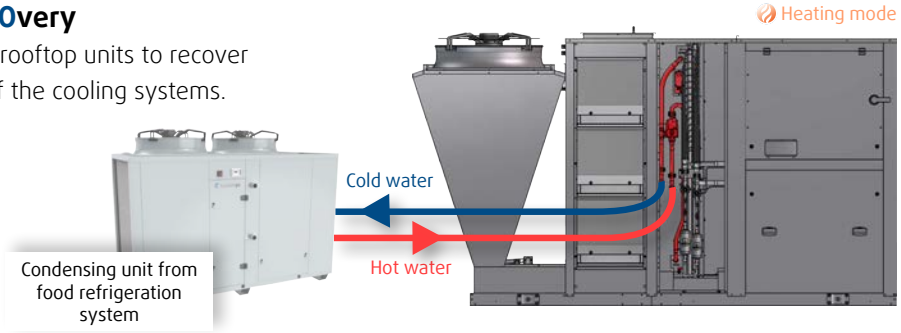
Energy recovery systems

FRECO - Food refrigeration energy RECOvery

In supermarkets, FRECO technology allows our rooftop units to recover the heat generated out from the condensers of the cooling systems.

	Additionnal heating capacity
Mixed air T° = 20°C	+60%
Mixed air T° = 0°C	+130%

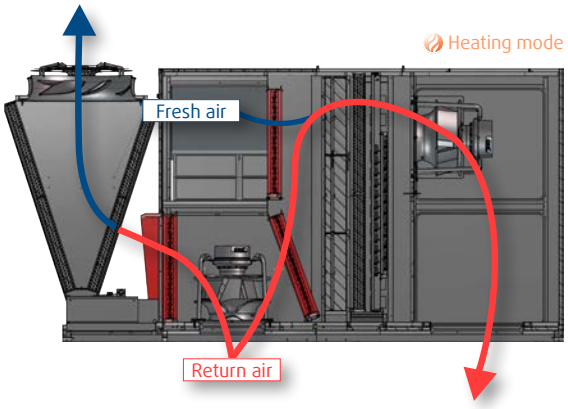
Water +30% Glycol 45/35°C



RECO - Standard energy RECOvery (3 Dampers)

Energy recovery on the exhaust air

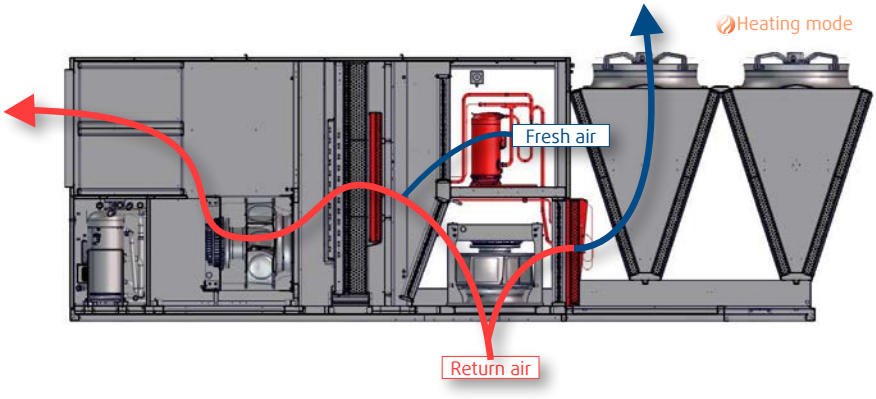
	Pc	EER	Ph	COP
3 dampers + RECO 30% fresh air	+1%	+2%	+7%	+4%
3 dampers + RECO 60% fresh air	+2%	+4%	+14%	+8%



TRECO - Thermodynamic energy RECOvery (3 Dampers)

Active energy recovery between the exhaust air and the fresh air using dedicated thermodynamic system

	Pc	EER	Ph	COP
3 dampers + TRECO 20% fresh air	+21%	0%	+20%	+3%
3 dampers + TRECO 60% fresh air	+20%	-2%	+21%	+4%



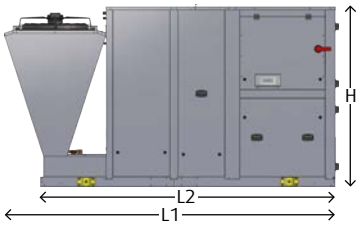
Technical data

SR.H.EC		55	65	80	95	105	120	140	160	190	210
FANS											
Nominal airflow rate	m³/h	9720	11500	14300	17500	19200	21580	25500	30000	32400	35000
Nominal ESP	Pa	220	220	225	240	240	240	240	240	240	240
CAPACITIES											
Nominal cooling capacity (1)	kW	49.2	62.2	78.5	94.4	110.1	119.0	141.0	163.4	194.7	216.4
Nominal power input (1)	kW	14.8	18.2	21.8	28.6	31.3	34.5	42.8	47.9	57.1	67.7
EER (1)		3.33	3.42	3.66	3.30	3.52	3.45	3.29	3.41	3.41	3.19
Energy Efficiency class (EER)		A	A	A	A	A	A	A	A	A	A
PdesignC (2)	kW	49.2	62.2	78.5	94.4	110.1	119.0	141.0	163.4	194.7	216.4
SEER on (2)		3.93	3.92	4.20	3.79	4.01	3.95	3.77	4.34	4.34	4.07
ηsc(2)	%	140	142	152	140	148	146	139	160	160	151
Nominal heating capacity (1)	kW	49.6	58.4	73.8	88.6	104.7	114.5	145.6	154.7	183.8	210.6
Nominal power input (1)	kW	13.9	16.4	19.7	24.5	28.1	31.5	39.7	43.2	50.8	59.6
COP (1)		3.57	3.56	3.75	3.62	3.72	3.64	3.67	3.58	3.62	3.54
Energy Efficiency class (COP)		A	A	A	A	A	A	A	A	A	A
ACOUSTIQUE POWER											
Surrounded - Lwo	dB(A)	81.5	85.0	82.0	83.0	85.4	87.4	91.3	90.5	91.5	93.7
REFRIGERANT											
Type		R410A									
Number of circuits		2	2	2	2	2	2	2	2	2	2
COMPRESSORS											
Type		Scroll									
Number of compressors		2	2	2	2	2	2	2	4	4	4
Step of capacity	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-25-50-75-100	0-25-50-75-100	0-25-50-75-100
CASING											
Glasswool thickness	mm	25	25	25	25	25	25	25	25	25	25
Fire resistance		M0									

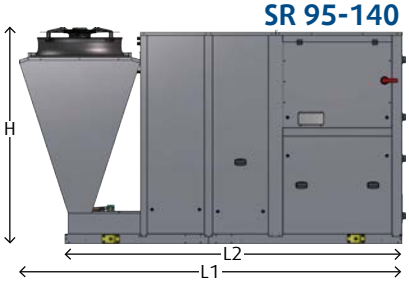
(1) According to Eurovent conditions :
Cooling : • Outdoor temperature = 35°C DB • Entering coil temperature 27°C DB / 19°C WB - Heating : • Outdoor temperature = 7°C DB / 6°C WB • Indoor temperature = 20°C DB
(2) According to EN 14825

Dimensions (mm)

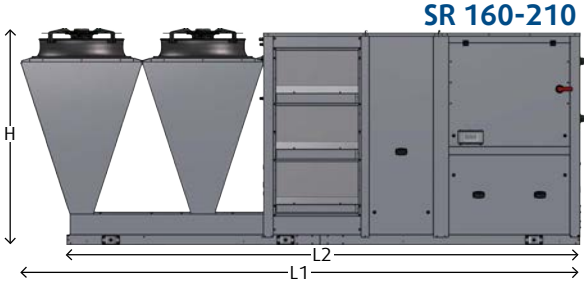
SR 55-80



SR 95-140



SR 160-210



	(L1) Overall length	(L2) Base frame length	Width	(H) Height
STANDARD UNIT				
SR 55-80	3250	2895	2030	1800
SR 95-140	3760	3310	2285	2110
SR 160-210	5450	5000	2285	2110
3 DAMPERS				
SR 55-80	3750	3395	2030	1800
SR 95-140	4300	3850	2285	2110
SR 160-210	5800	5350	2285	2110
GAS BURNER				
SR 55-80	3750	3395	2030	1800
SR 95-140	4300	3850	2285	2110
SR 160-210	5950	5500	2285	2110
3 DAMPERS + GAS BURNER				
SR 55-80	3750	3395	2030	1800
SR 95-140	4300	3850	2285	2110
SR 160-210	6300	5850	2285	2110

Weight (Kg)

		SR 55	SR 65	SR 80	SR 95	SR 105	SR 120	SR 140	SR 160	SR 190	SR 210
Standard unit		1085	1155	1225	1470	1685	1805	1855	2350	2555	2705
Filters	G4	30	30	30	45	45	45	45	45	45	45
	G4+F7	40	40	40	65	65	65	65	65	65	65
	G4+F9	40	40	40	65	65	65	65	65	65	65
2 Dampers		95	95	95	115	115	115	115	165	165	165
3 Dampers RECO		375	385	415	430	430	450	450	515	515	515
TRECO		125	125	125	165	165	165	165	215	215	215
FRECO		25	25	25	30	30	30	30	30	30	30
Electric heater		25	25	25	30	30	30	30	50	50	50
Hot water coil		25	25	25	30	30	30	30	30	30	30
Gas Burner		65	80	80	105	105	105	105	460	460	460

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