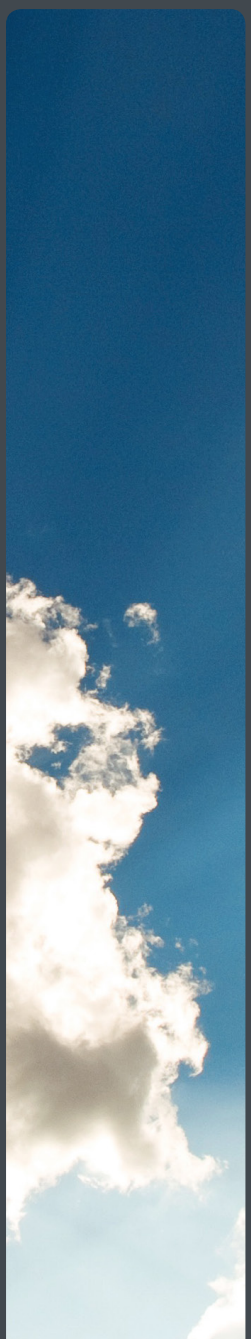
SRC - V

VENTILATOR UNIT



SOLUZIONI AEROMECCANICHE S.p.A.

SRC-V
Non-residential ventilator unit with dual flow and high yield heat recovery.

PERFORMANCE
Equipped with counter current heat exchanger in aluminum (Eurovent certified) and electronic backward blade ventilators. The total bypass as standard allows favorable climatic conditions to be taken advantage of outside the building for free cooling (or free heating) in automatic mode.

STRUCTURE
SRC-V is manufactured using a profiled extruded aluminum frame and 36 mm thick sandwich panels, insulated in polyurethane foam. The panels and inner parts are manufactured in Aluzinc®, material that ensures high strength against corrosion and oxidation. A panel with shutter opening eases access to the filters (F7 for the renewed air flow and G4 for the extraction air flow). CRHE V is prepared for installation outdoors (with an optional, specific protective roof) and indoors; it is supplied with 100 mm high aluminum bases for installa- tion on the floor. Available in 6 sizes, it can be equipped with air post-treatment systems (inside the unit) such as: hot/cold water battery, electrical heater or direct expansion battery. SRC-V was designed to enable easy configuration of the connection to the air distribution/captation ducts. It is also possible and easy to install post-air treatment devices after sale.

CONTROLS
SRC-V was supplied with an electric box and control system; it is available in a version equipped with CM-EVO control and a version equipped with CM-EVO-IP control prepared for complete integra- tion in home automation systems (Modbus protocol with Ethernet connection or, on request, with the addition of connection RS485). The new version of our control systems enables extremely easy and rapid passage from a control system to another, even after installa- tion with the single replacement of the remote panel.

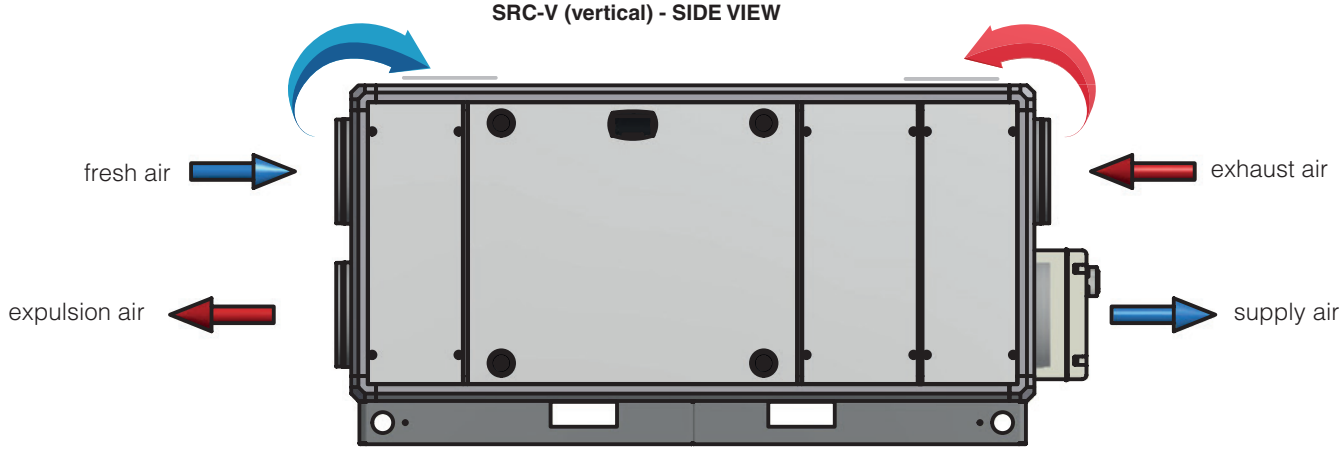
The CM-EVO control has a colored, backlit touch screen interface with intuitive viewing of the working status of the machine. It enables precise adjustment of ventilator speed and has a weekly , time schedule for automatic management of the ventilators. It can be controlled by an external switch to activate the booster function, it can automatically adjust the air flow rate if connected to an air quality probe, it can manage any air post treatment accessories, it automatically manages the bypass and prevents heat exchanger freezing by managing the speed of the ventilators or, if installed, an electrical pre-heating resistor (optional accessory outside the machine); it signals to the user the need to replace the filters (the clogging status of the filters is monitored by a pair of different pressu- re switches, supplied as standard) or an anomaly, indicating the origin. With the addition of optional accessories (COP kit and CAV kit installed on the channel) you can manage the ventilation machi- ne in constant pressure or constant flow rate mode.

The CM-EVO-IP control has the same characteristics as the CM-EVO version with the addition of Modbus communication protocol which allows full control of the machine by the supervision software of the home automation system. The implemented webserver allows interaction with the machine, even with an internet browser of a device connected (even from remote) to the home automation system in which the machine is inserted.

ACCESSORIES
SRC-V can be equipped with other accessories such as:
. R.H. of probe, CO2 or CO2 / VOC
. Operating kit pressure or constant flow
. protection roof for outside installation
. grilles and damper

For a more complete view of the characteristics of the control panels, please read the specific manuals.

SRC-V (vertical) - SIDE VIEW

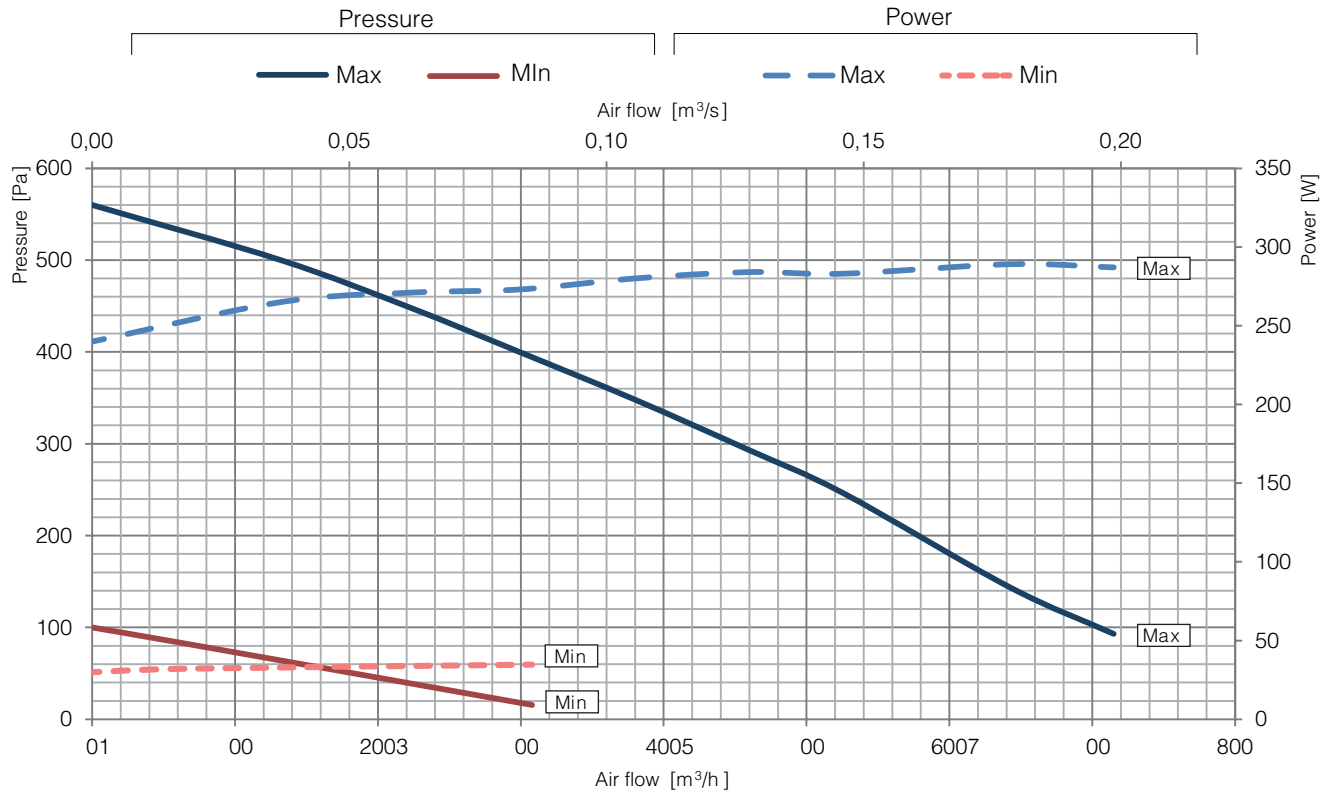


Counterflow heat exchanger made of aluminum manufactured by RECUTECH
RECUTECH participates in the Eurovent Certification Program

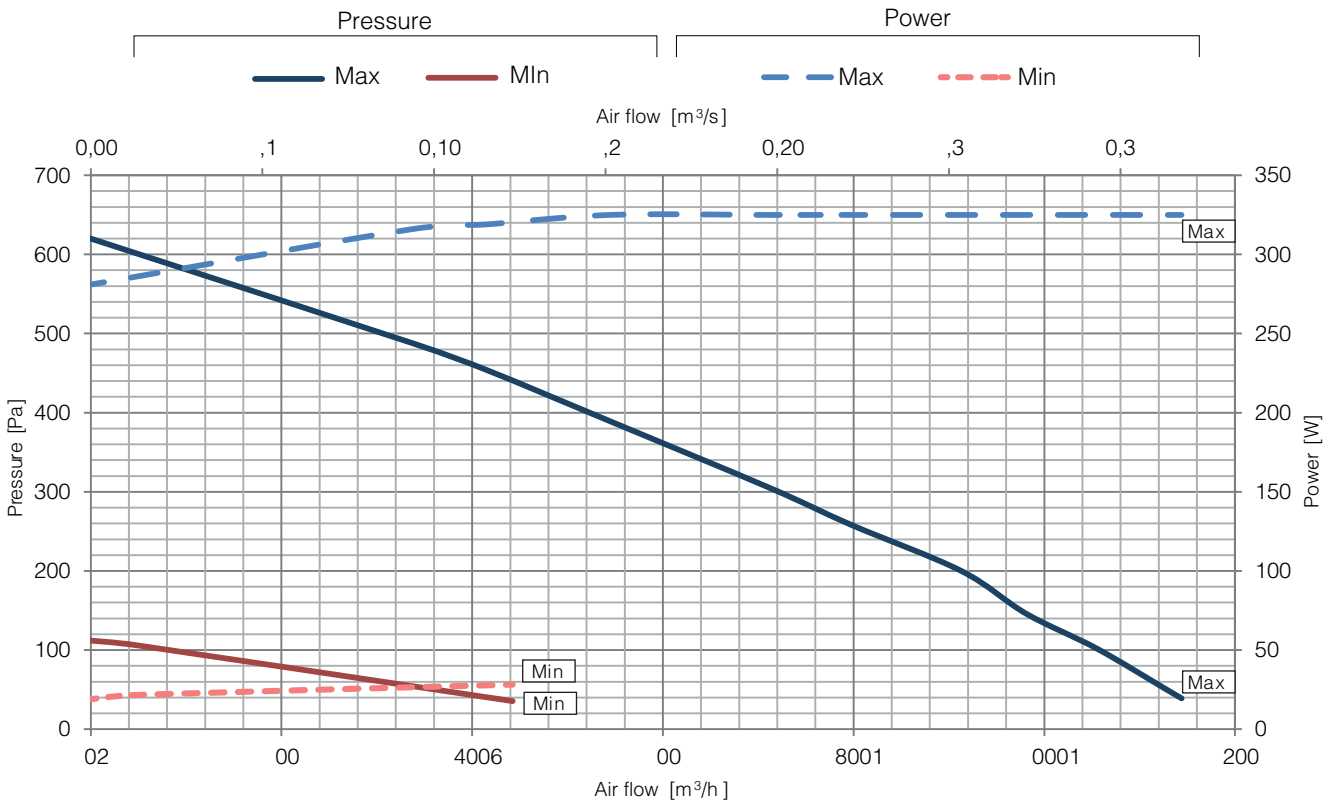
PERFORMANCES (UNI EN 13141-7)

The unit must be ducted properly: SAMP authorizes the use only according to its performance diagram shown into this catalogue.
The declared performances are with CLEAN filters, and guaranteed ONLY with the original filters SAMP low pressure drop.

SRC-V 7



SRC-V 11



PERFORMANCES (UNI EN 13141-7)

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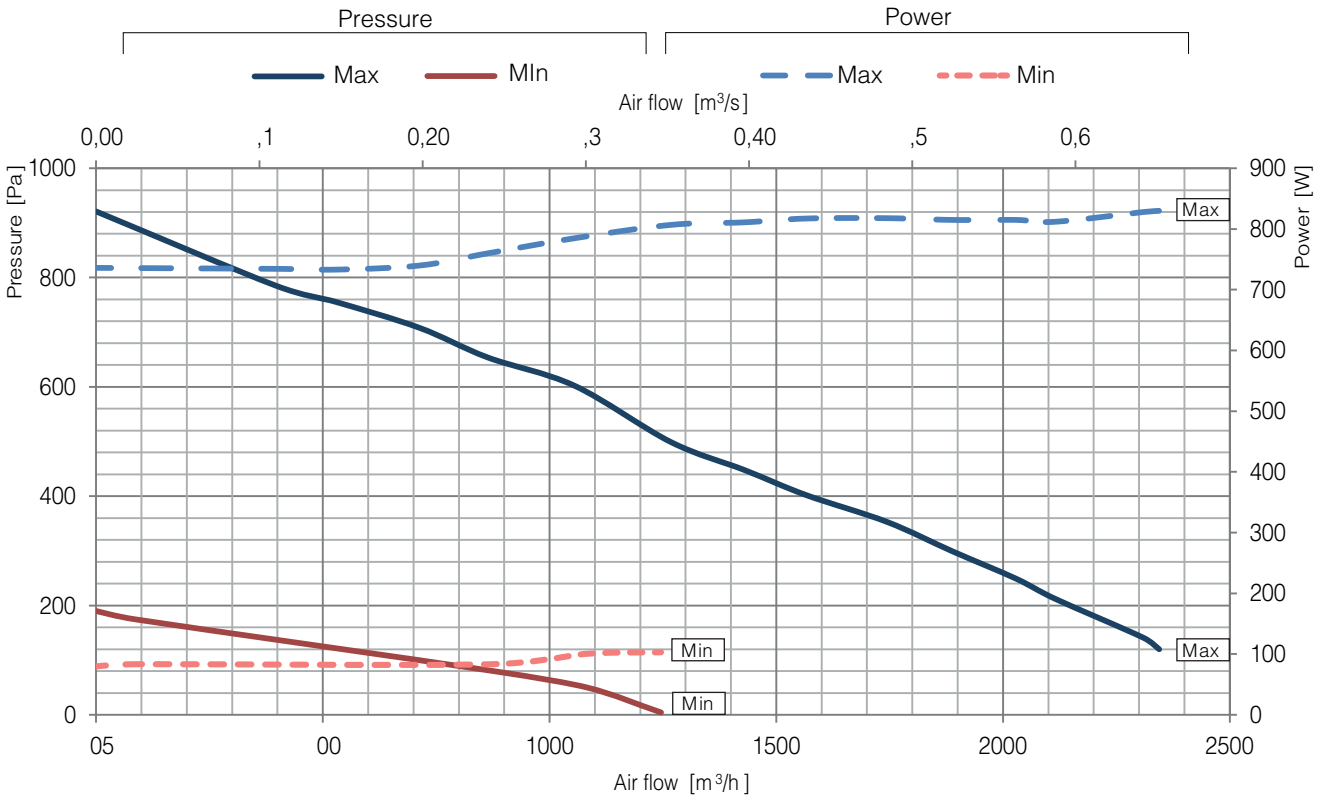
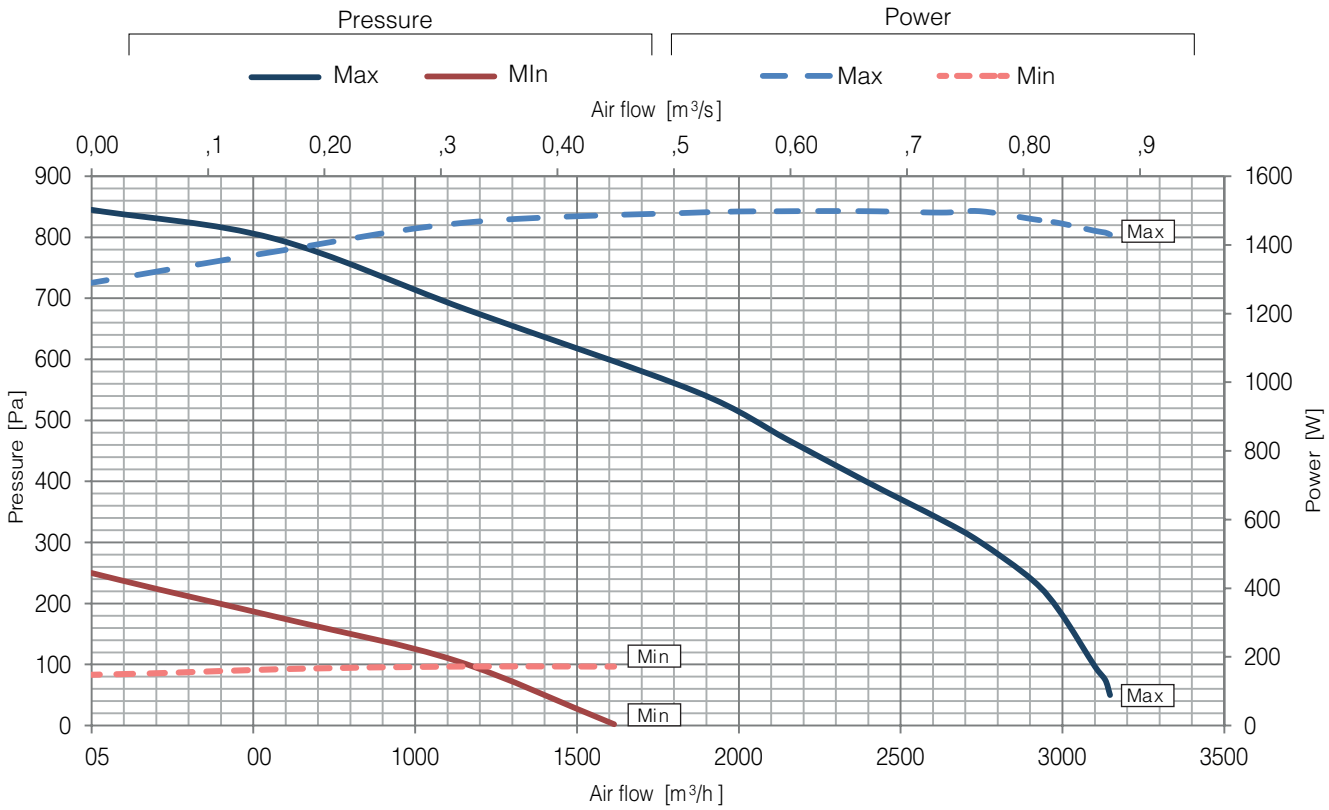
SRC-V 25



SRC-V 32



PERFORMANCES (UNI EN 13141-7)

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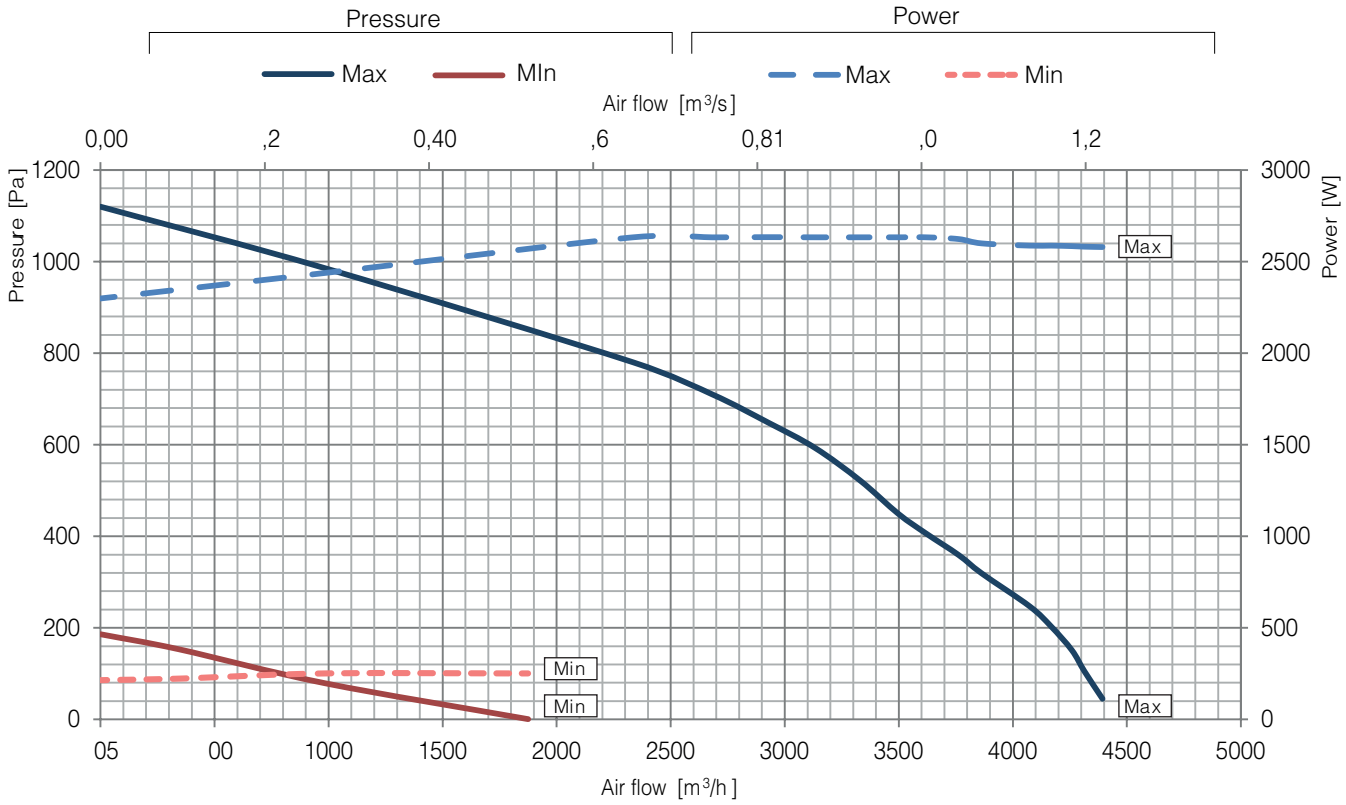
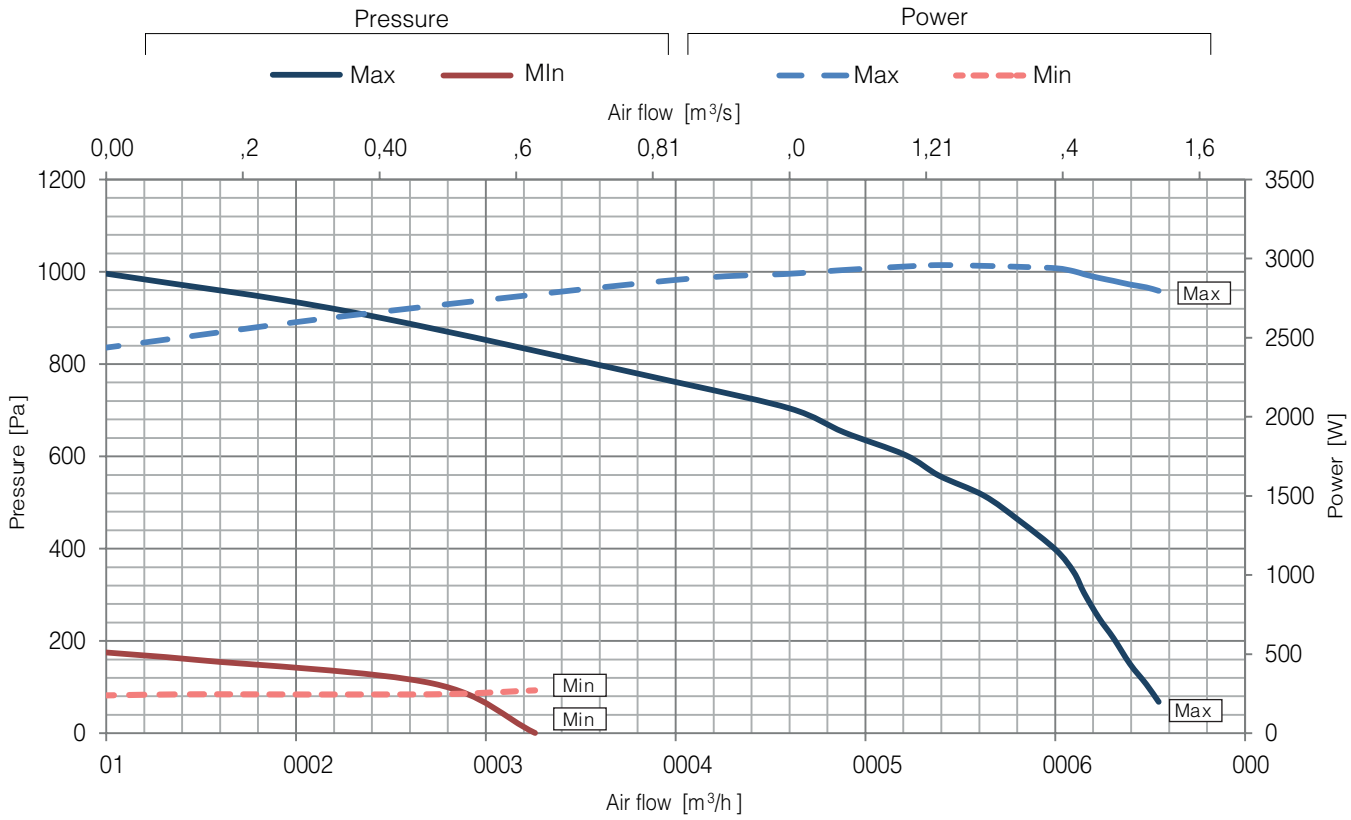
SRC-V 45

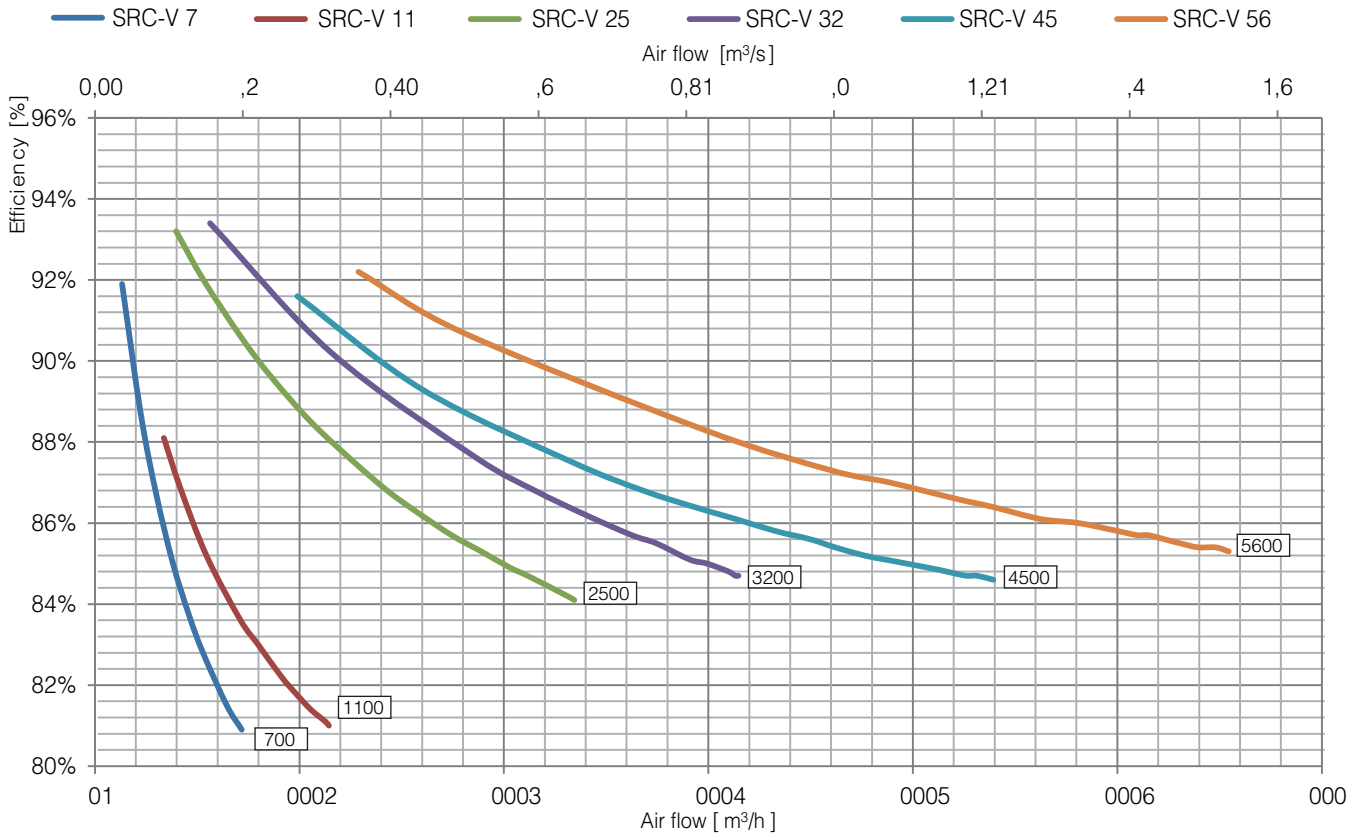


SRC-V 56



HEAT RECOVERY PERFORMANCE (sensible efficiency)

Values refered to the following conditions (UNI EN 13141-7): Tbs external air 5°C; U.R. esternal 72%; Tbs enviorment 25°C; U.R. environment 28%



ECODESIGN

MOD.	η_{t_nvru} [%]	q_{nom} [m³/s]	$\Delta p_{s,ext}$ [Pa]	P [kW]	SFPint [W/ (m³/s)]	SFPint_lim 2016 [W/ (m³/s)]	SFPint_lim 2018 [W/ (m³/s)]	FACE VELOCITY[m/ s]	$\Delta p_{s,int}$ [Pa]	η_{Fan} [%]	*Internal LEAKAGE [%	*External LEAKAGE [%
SRC-V 7	82,2	0,16	200	0,29	843	1472	1202	1,21	475	56,5	9,5	5,4
SRC-V 11	82,2	0,25	200	0,33	460	1458	1188	1,31	278	58,5	7,1	4,6
SRC-V 25	84,6	0,60	200	0,81	568	1479	1209	1,52	344	55,4	4,6	4,0
SRC-V 32	85,0	0,83	200	1,47	694	1457	1187	1,49	299	48,3	3,5	4,2
SRC-V 45	84,9	1,132	50	2,59	1040	1408	1138	2,00	480	51,4	2,8	3,6
SRC-V 56	85,6	1,45	250	2,88	782	1380	1110	1,80	370	54,0	2,3	3,0

* Compared to q_{nom}

VALUES ACCORDING UNI EN 1886: 2008

UNIT	CASING STRENGTH	CASING LEAKAGE	FILTER CLASS	THERMAL TRANSMITTANCE	THERMAL BRIDGE
SRC-V 7	D1 (M)	L3 (M)	F7 (M)	T4 (M)	TB3 (M)
SRC-V 11	D1 (M)	L3 (M)	F7 (M)	T4 (M)	TB3 (M)
SRC-V 25	D1 (M)	L3 (M)	F7 (M)	T4 (M)	TB3 (M)
SRC-V 32	D1 (M)	L3 (M)	F7 (M)	T4 (M)T	B3 (M)
SRC-V 45	D1 (M)	L3 (M)	F7 (M)	T4 (M)	TB3 (M)
SRC-V 56	D1 (M)	L3 (M)	F7 (M)	T4 (M)T	B3 (M)

TEST LEAKAGE

		LEAKAGE CLASSIFICATION					
LEAKAGE	TEST CONDITION	SRC-V 7	SRC-V 11	SRC-V 25	SRC-V 32	SRC-V 45	SRC-V 56
OUTDOOR	Positive pressure 400 Pa	A2	A2	A2	A2	A2	A2
OUTDOOR	Negative pressure 400 Pa	A2	A2	A2	A2	A1	A1
INDOOR	Pressure difference 250 Pa	A3	A3	A2	A2	A2	A2

NOISE LEVEL

Lw Sound level taken in accordance to UNI EN ISO 3747
(ΔLfA ≥ 7 dB for each measurement position,class accuracy 2)

SRC-V 7	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	59	59	45	42	38	32	29	52,2

SRC-V 7	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	65	59	48	49	46	44	42	55,9

SRC-V 11	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	60	57	44	44	39	27	18	51,4

SRC-V 11	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	64	62	48	49	45	35	31	56,2

SRC-V 25	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	63	64	53	55	49	42	30	59,8

SRC-V 25	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	67	69	57	60	55	50	43	64,8

SRC-V 32	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	64	68	56	58	52	46	36	63,2

SRC-V 32	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	68	73	61	63	59	55	49	68,4

SRC-V 45	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	70	74	61	64	56	49	38	68,4

SRC-V 45	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	74	78	66	69	62	57	51	73,4

SRC-V 56	NOISE FROM THE CASE (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	72	81	61	62	54	47	37	73,3

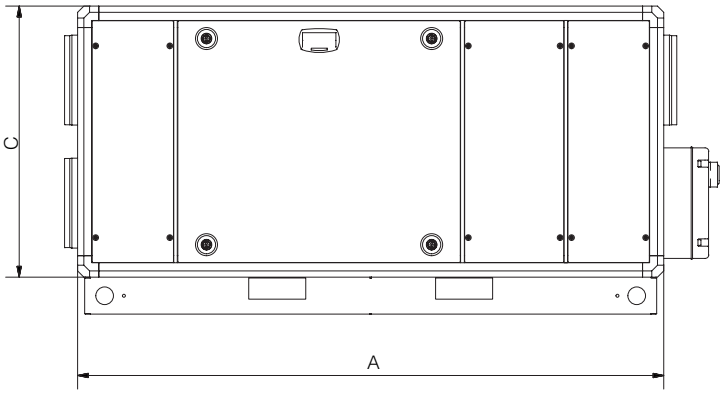
SRC-V 56	NOISE IN THE DUCTS (dB)							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	L_w dB(A)
	76	86	66	67	61	56	50	77,9

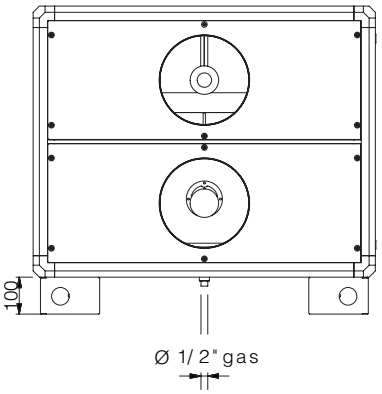
ELECTRICAL DATA

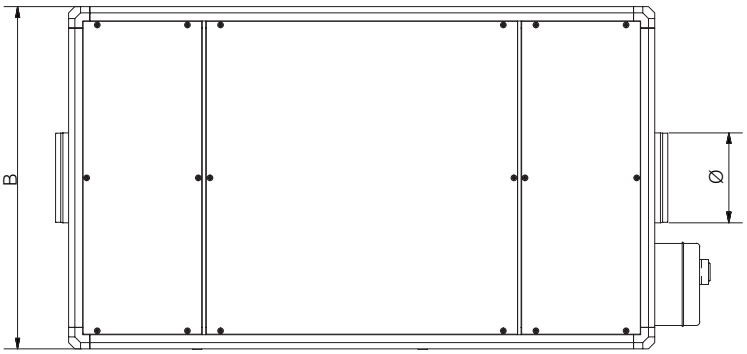
MATCHING	FANS				UNIT SRC-V		
	Power [W]	Supply	Current max.[A]	Insulation class	Supply	Current max.[A]	Insulation class
SRC-V 7	2 x 14 5	230V 50/60 Hz 1F	2 x 1,20	IP54 CLASS B	230V 50 Hz 1F	2,5	IP 20
SRC-V 11	2 x 17 0	230V 50/60 Hz 1F	2 x 1,40	IP54 CLASS B	230V 50 Hz 1F	2,9	IP 20
SRC-V 25	2 x 44 8	230V 50/60 Hz 1F	2 x 2,80	IP54 CLASS B	230V 50 Hz 1F	5,7	IP 20
SRC-V 32	2 x 71 5	230V 50/60 Hz 1F	2 x 3,10	IP54 CLASS B	230V 50 Hz 1F	6,3	IP 20
SRC-V 45	2 x 127 0	230V 50/60 Hz 1F	2 x 5,60	IP54 CLASS B	230V 50 Hz 1F	11,3	IP 20
SRC-V 56	2 x 140 0	230V 50/60 Hz 1F	2 x 6,00	IP54 CLASS B	230V 50 Hz 1F	12,1	IP 20

DIMENSIONS (mm) and WEIGHT (kg)

UNIT	Dimensions [mm]				
	A	B	C	Ø	Weight [kg]
SRC-V 7	1475	760	660	200	104
SRC-V 11	1645	960	760	250	140
SRC-V 25	2150	1060	1180	355	268
SRC-V 32	2305	1460	1180	450	352
SRC-V 45	2465	1360	1320	500	406
SRC-V 56	2545	1910	1320	560	674







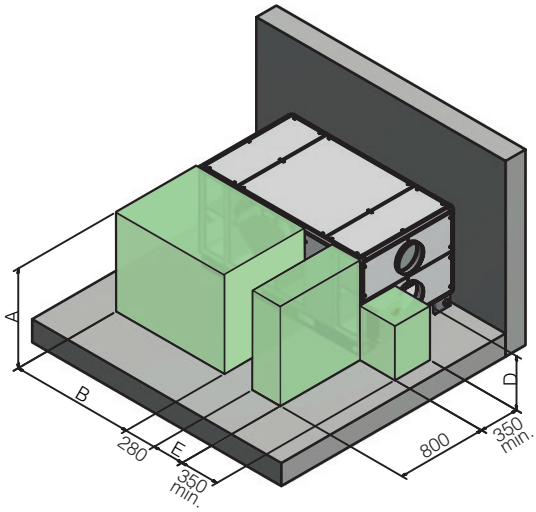
INSTALLATION

FLOOR INSTALLATION

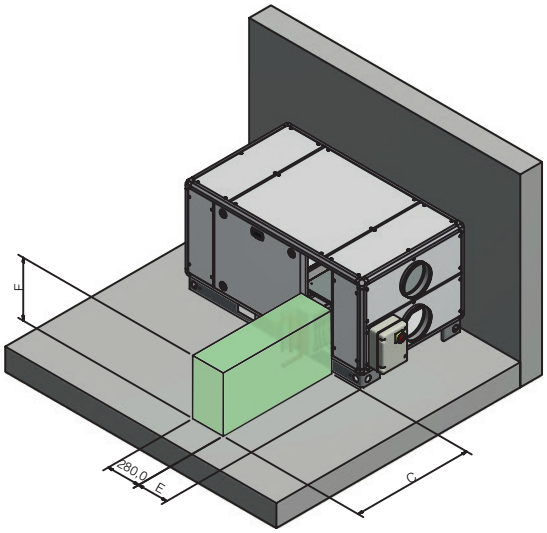
Minimum required space for maintenance (mm)

UNIT	Dimensions [mm]			
	A	B	D	E
SRC-V 7	760	985	420	240
SRC-V 11	860	1125	4702	70
SRC-V 25	1280	1550	680	350
SRC-V 32	1280	1625	680	430
SRC-V 45	1420	1785	750	430
SRC-V 56	1420	1865	750	430

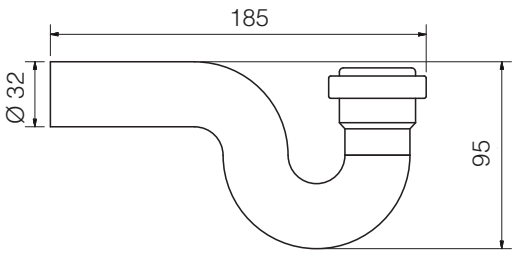
UNIT	Dimensions [mm]		
	C	E	F
SRC-V 7	800	240	460
SRC-V 11	850	270	510
SRC-V 25	950	350	720
SRC-V 32	1320	430	720
SRC-V 45	1320	430	790
SRC-V 56	1830	430	790

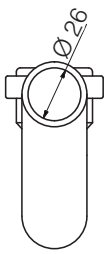


maintenance and replacement of water coil or electric heater



STANDARD SIPHON (MM)

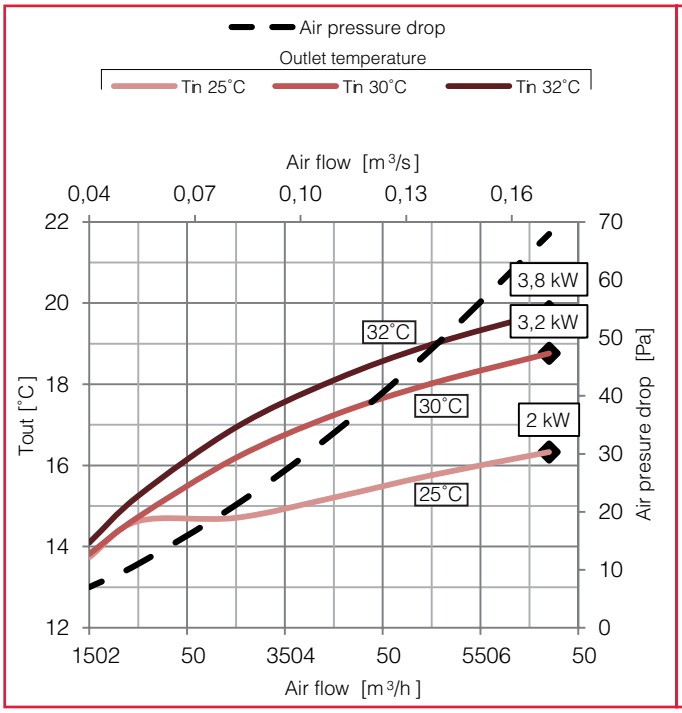


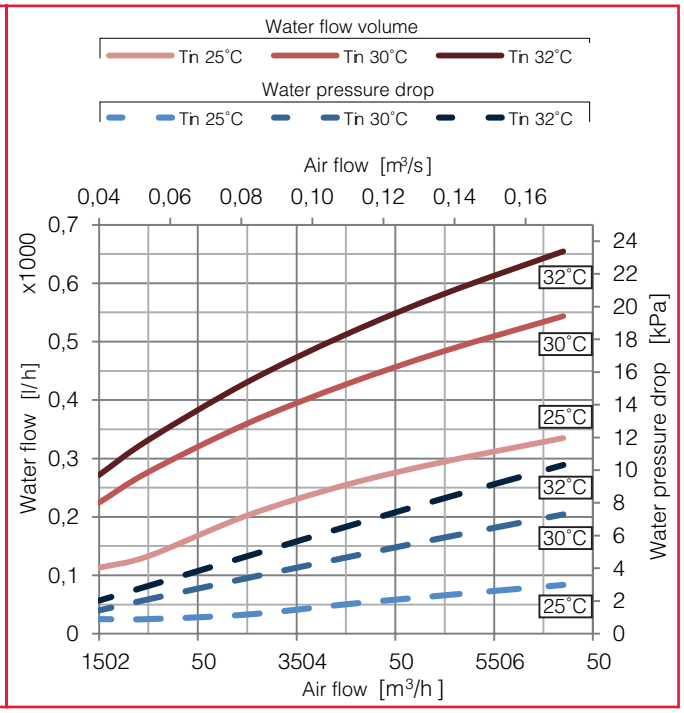


COILS SRC-V 7

Cooling water coil (7°C/12°C)

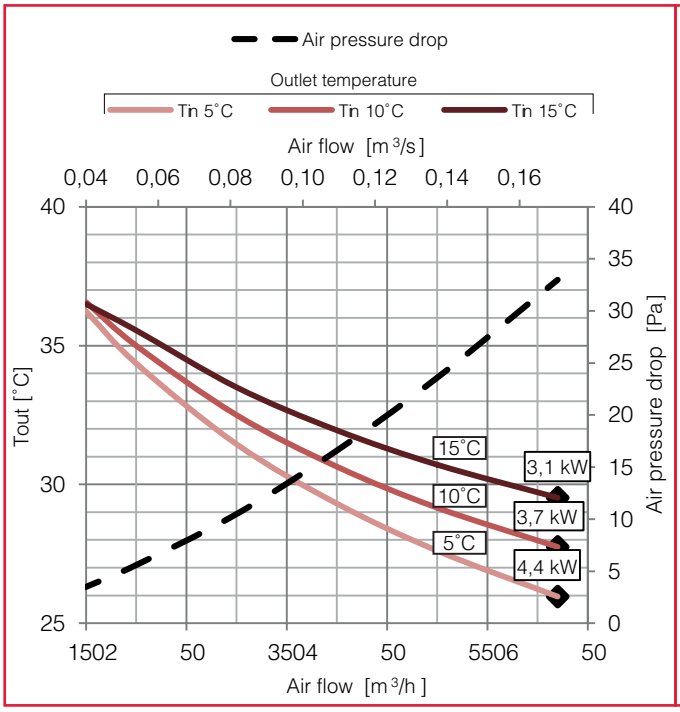
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
1/2"	4	2,5	2	Cu	Al	Fe Zn

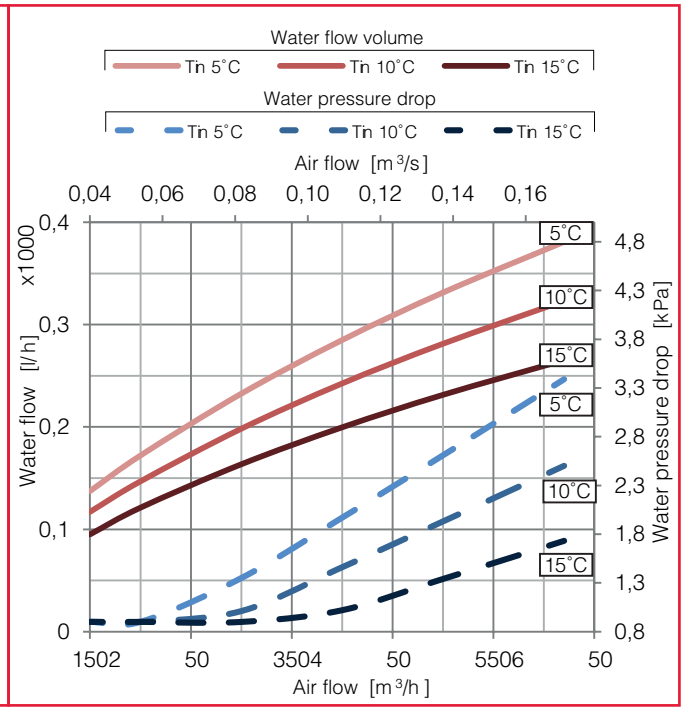




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]	TUBES	FINS	FRAME
1/2"	4	2,5	2	Cu	Al	Fe Zn

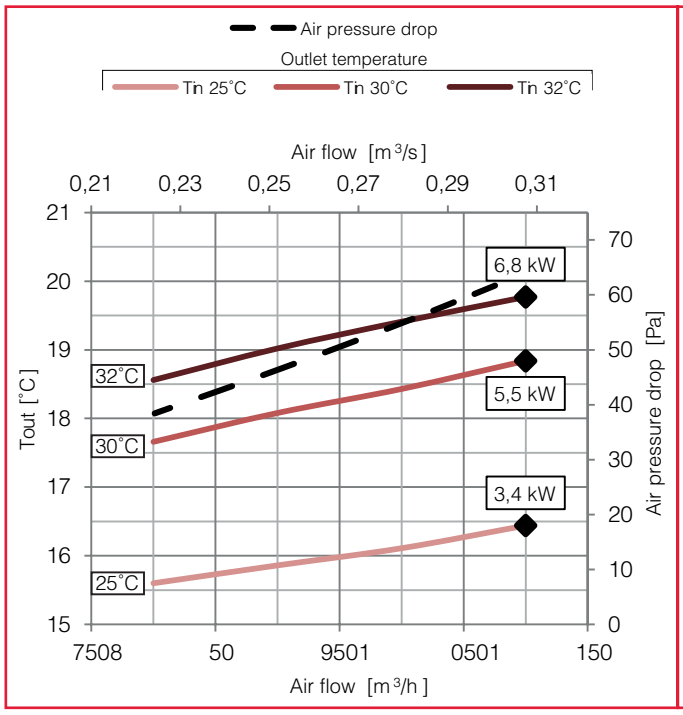


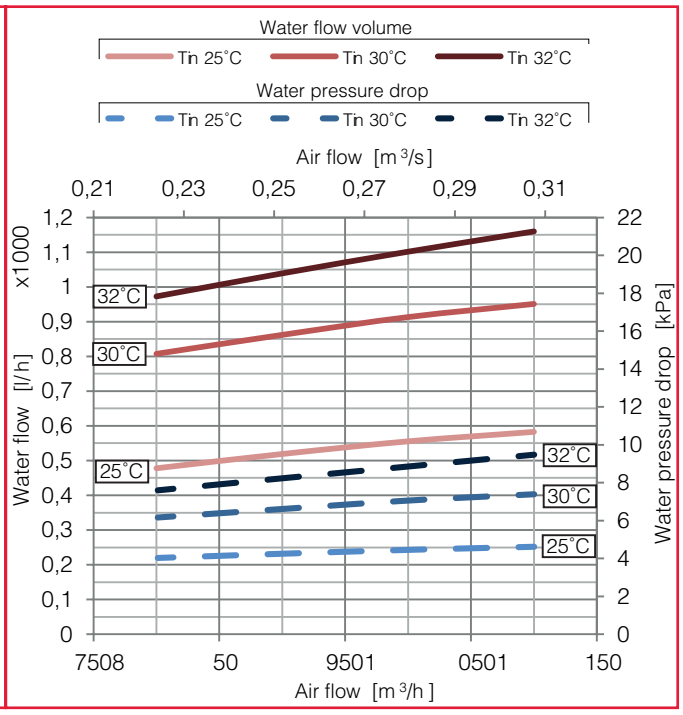


COILS SRC-V 11

Cooling water coil (7°C/12°C)

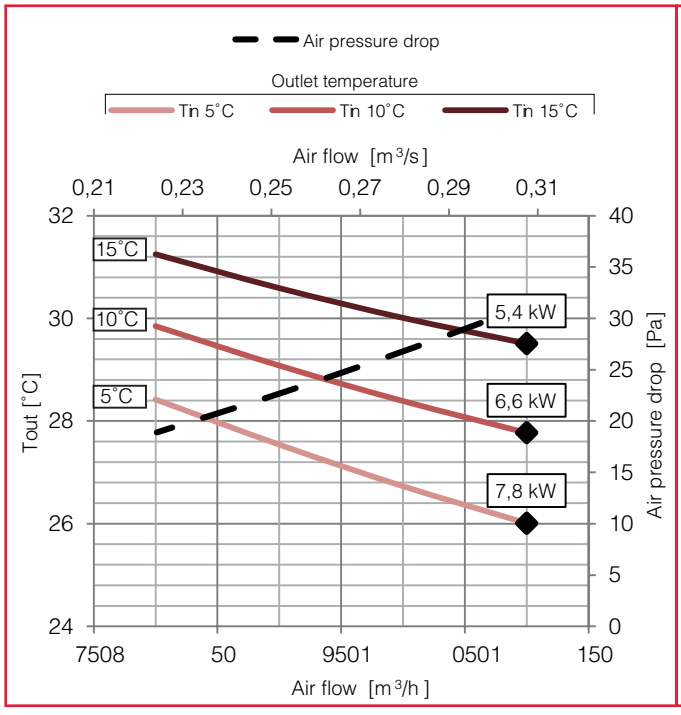
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
3/4"	4	2,5	3	Cu	Al	Fe Zn

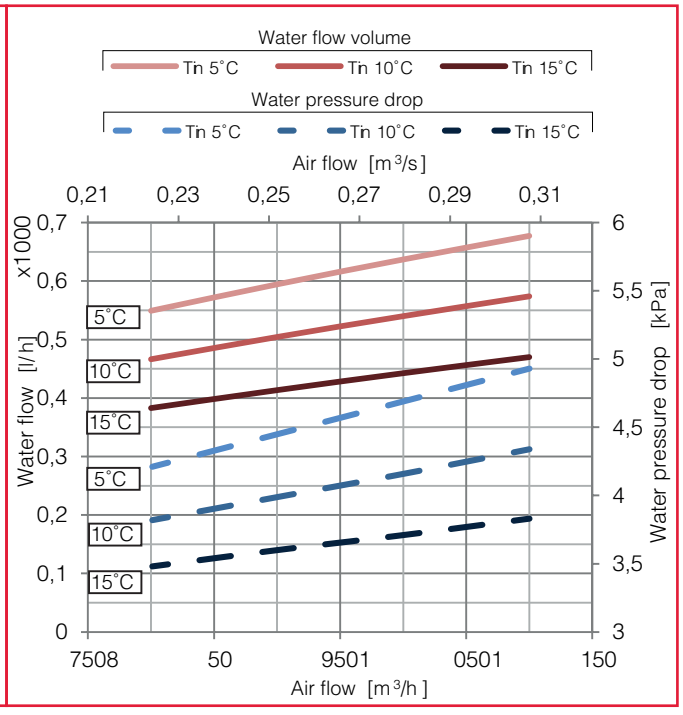




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]	TUBES	FINS	FRAME
3/4"	4	2,5	3	Cu	Al	Fe Zn

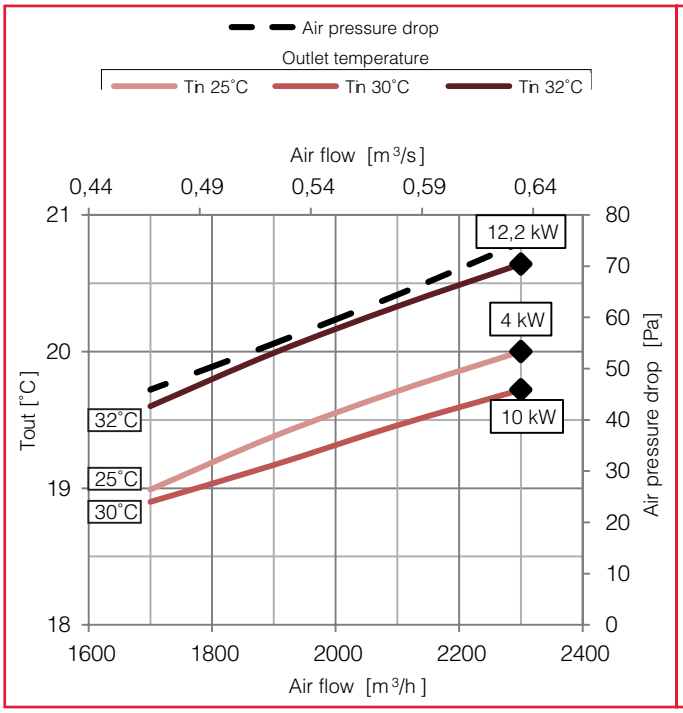


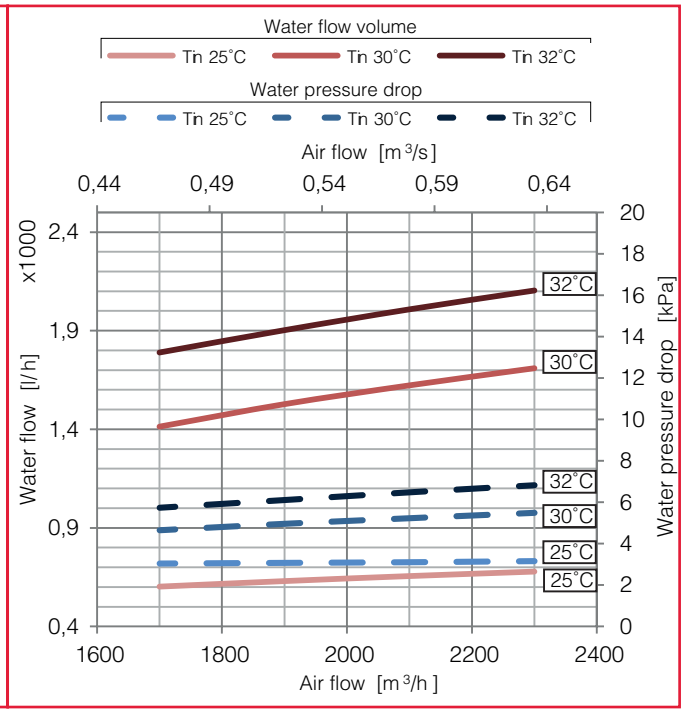


COILS SRC-V 25

Cooling water coil (7°C/12°C)

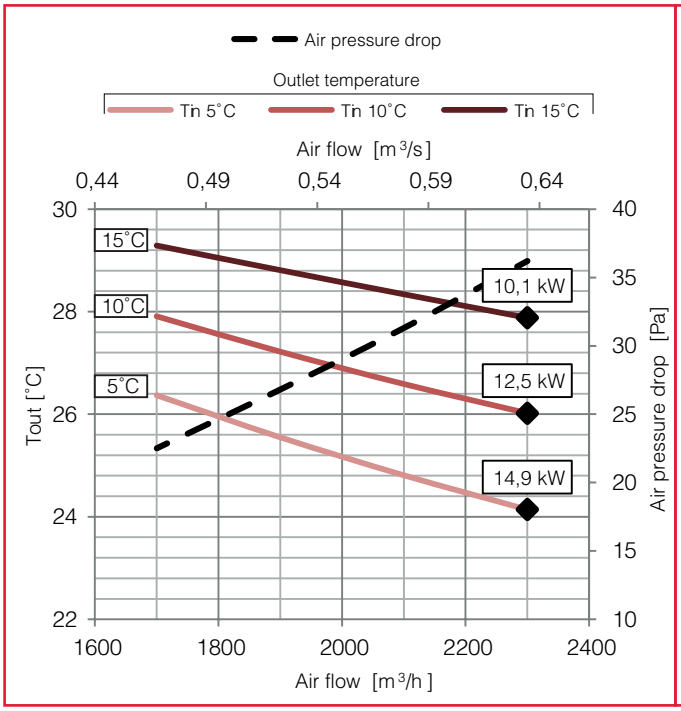
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
3/4"	4	2,5	6	Cu	Al	Fe Zn

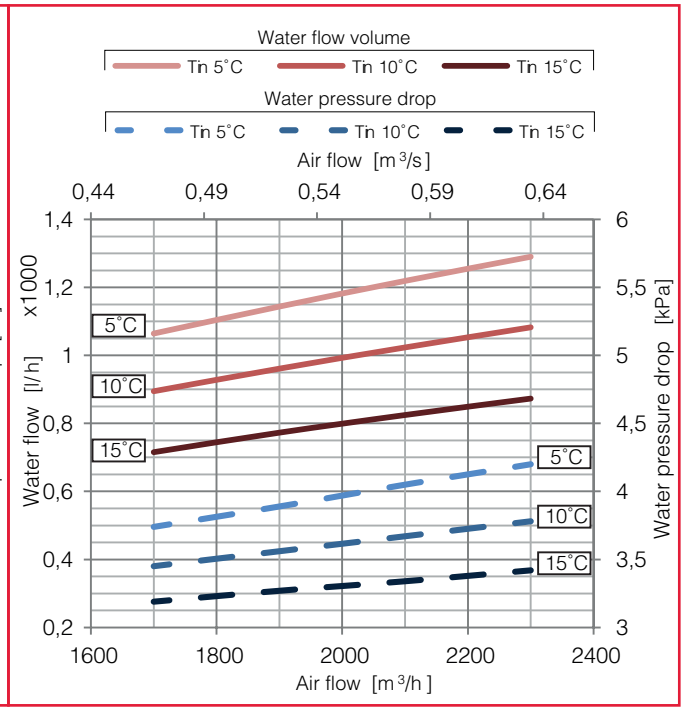




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]	TUBES	FINS	FRAME
3/4"	4	2,5	6	Cu	Al	Fe Zn

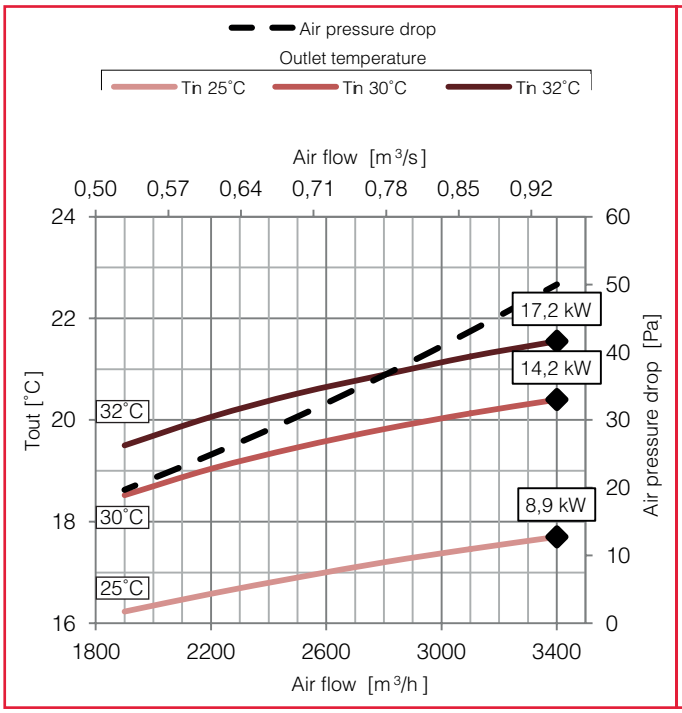


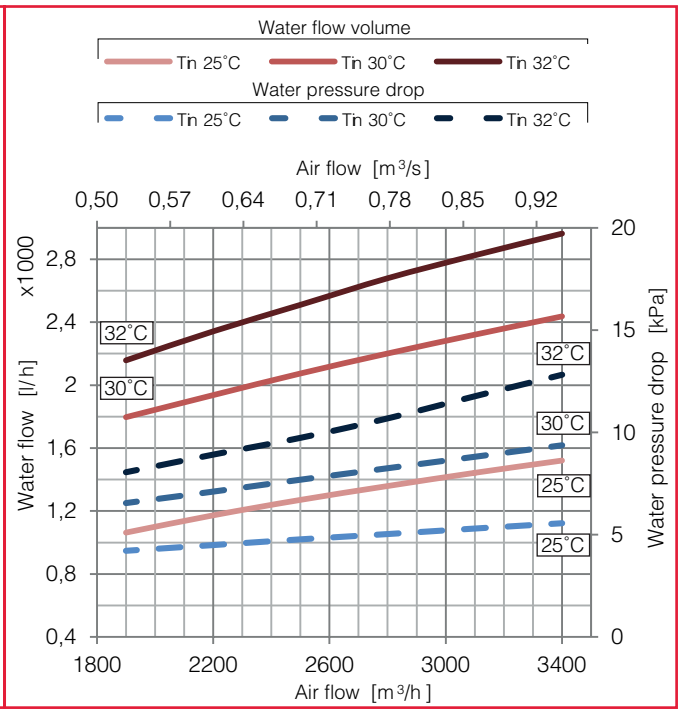


COILS SRC-V 32

Cooling water coil (7°C/12°C)

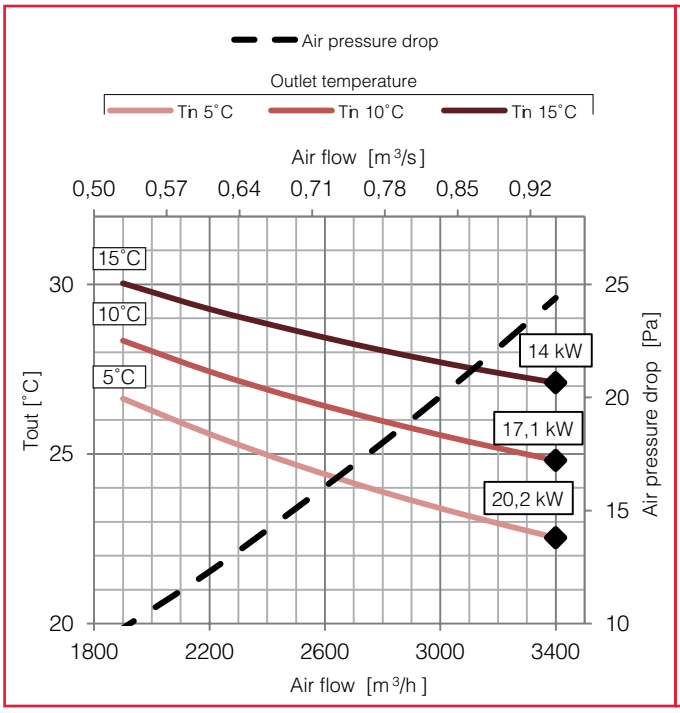
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINSF	RAME
1"	3	2,5	7	Cu	Al	Fe Zn

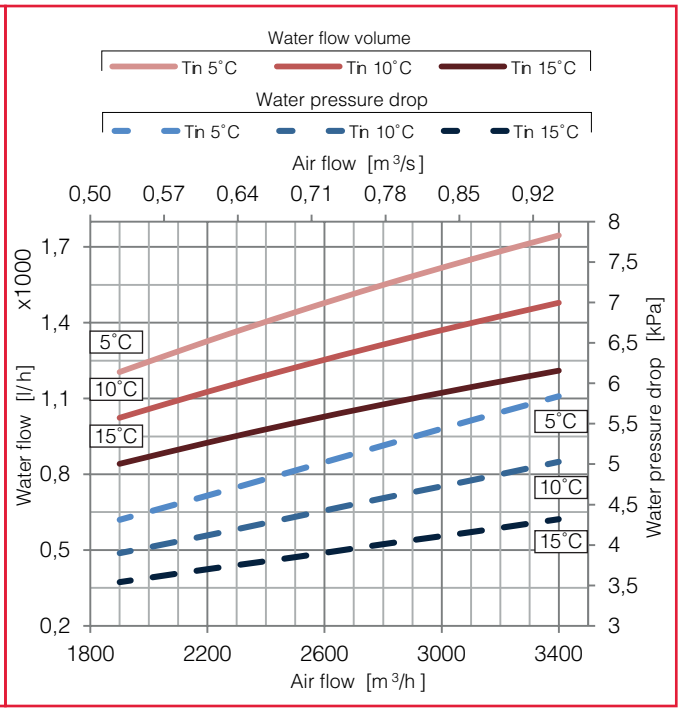




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
1"	3	2,5	7	Cu	Al	Fe Zn

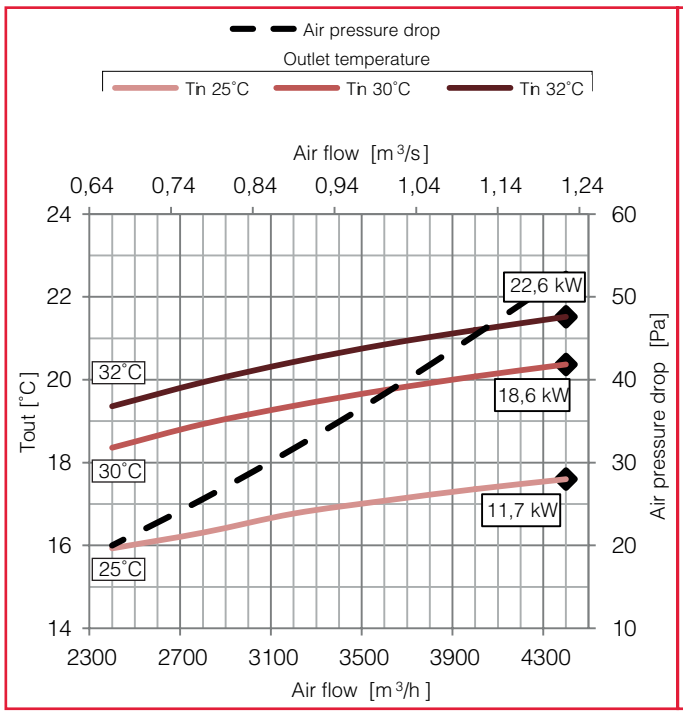


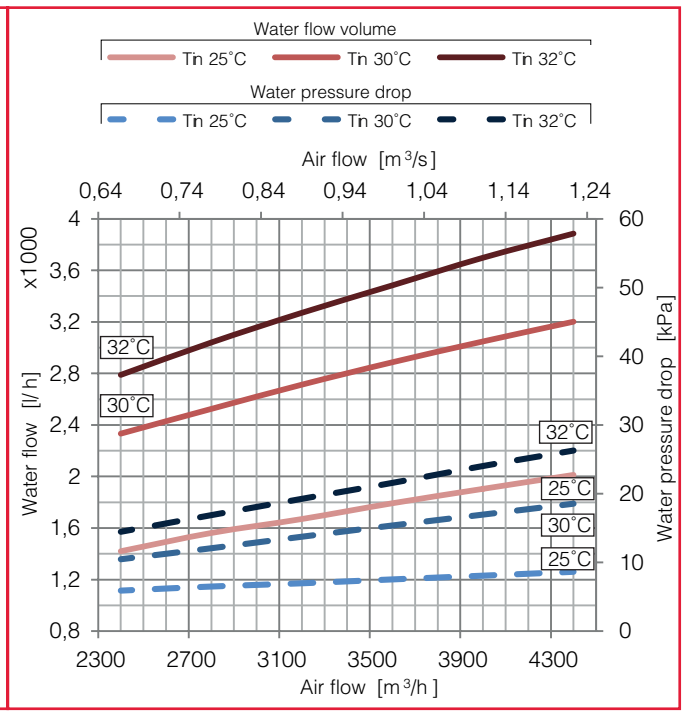


COILS SRC-V 45

Cooling water coil (7°C/12°C)

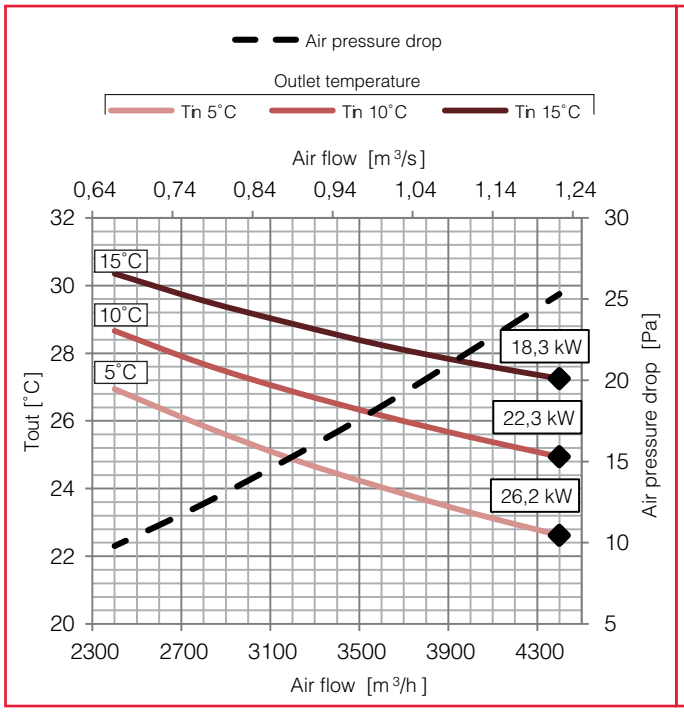
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINSF	RAME
1"	3	2,5	8	Cu	Al	Fe Zn

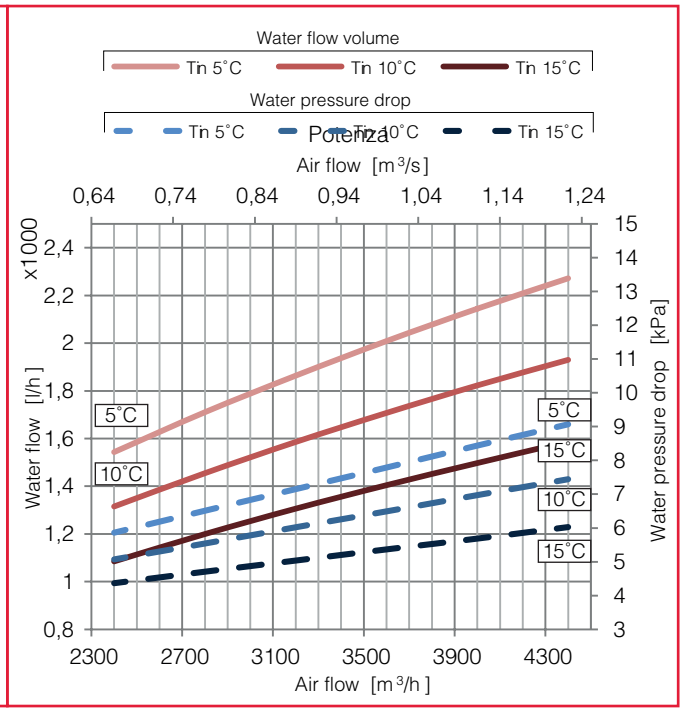




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
1"	3	2,5	8	Cu	Al	Fe Zn

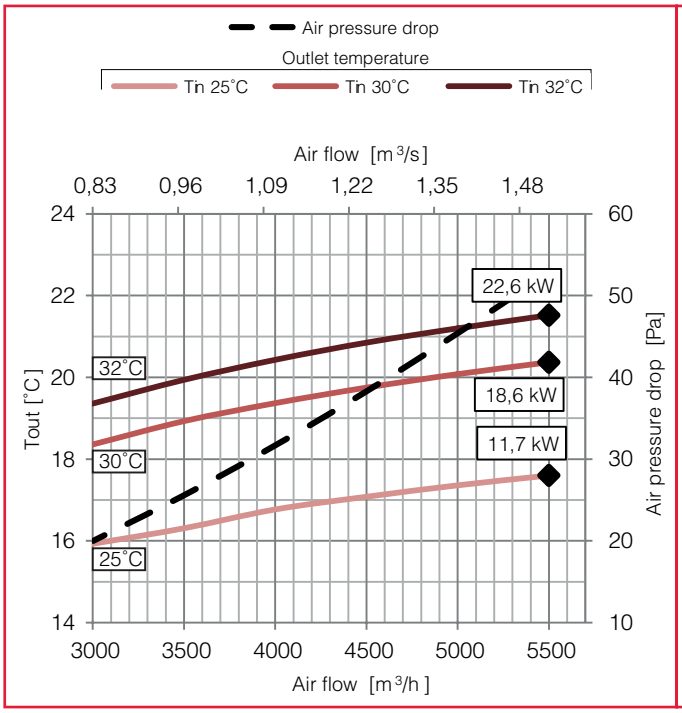


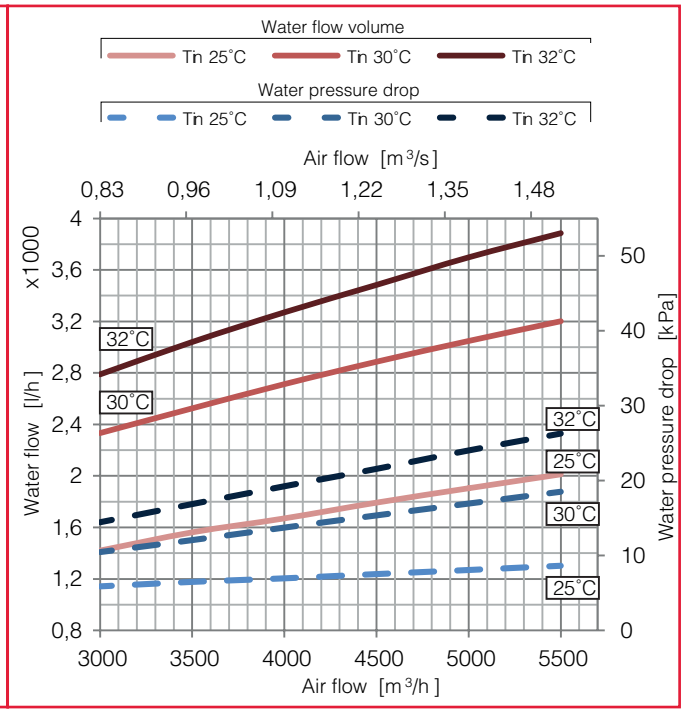


COILS SRC-V 56

Cooling water coil (7°C/12°C)

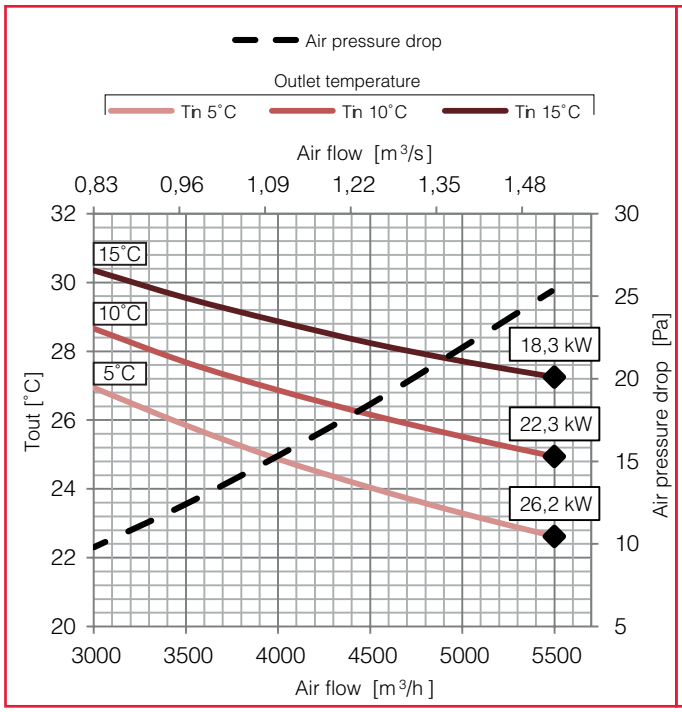
				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
1"1/4	3	2,5	12	Cu	Al	Fe Zn

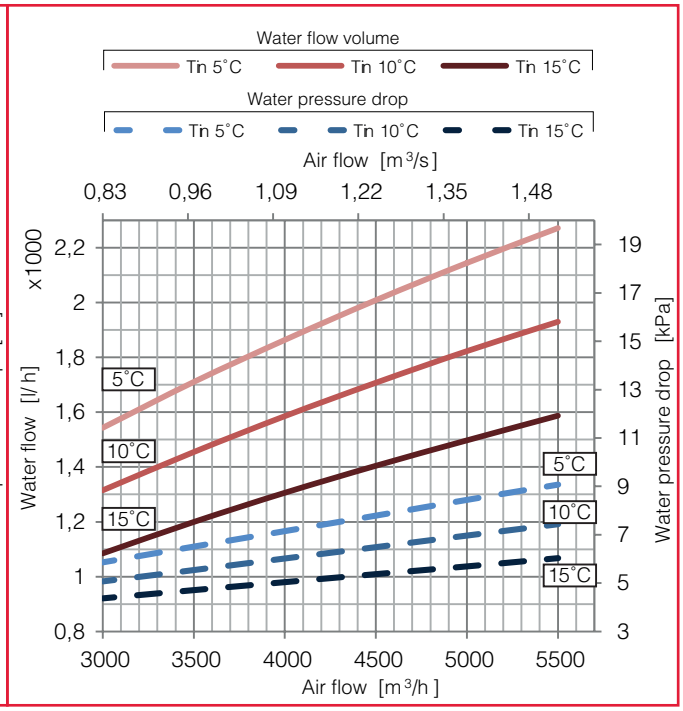




Heating water coil (45°C/35°C)

				MATERIALS		
Ø WATER ["gas]	N. ROWS	FIN PITCH [mm]	INT.VOL. [dm³]T	UBES	FINS	FRAME
1"1/4	3	2,5	12	Cu	Al	Fe Zn





DX coil SRC-V 7

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
700	28	68	4,8	18	91	60

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
22-12	4,0	4	2	5	50

DX coil SRC-V 11

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
1100	28	28	8	18	92	47

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
22-12	4,0	4	3	5	50

DX coil SRC-V 25

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
2500	28	68	17	19	94	70

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
28-28	2,5	3	5	5	50

DX coil SRC-V 32

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
3200	28	68	22	19	94	60

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
28-22	2,5	3	6	5	50

DX coil SRC-V 45

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
4500	28	68	35	18	92	101

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
42-28	2,5	4	10	5	50

DX coil SRC-V 56

DIRECT EXPANSION COIL (R410A) TECHNICAL DATA						
Air flow [m 3/h]	Tin [C°]	R.H in [%]	Power [kW]	Tout [°C]	R.H: out [%]	Air pressure drop [Pa]
5600	29	70	44	18,5	95	51

Ø Connection [mm]	Fin pitch [mm]	N. Rows	Int.Vol. [dm3]	T evap [°C]	T cond [°C]
42-35	2,5	3	11	5	50

Electrical heater

PRE-POST ELECTRICAL HEATER TECHNICAL DATA				
Unit	Power supply	Power [kW]	Current [A]	N. stages
SRC-V 7	230V, 50Hz,1F	2	8,7	1
SRC-V 11	230V, 50Hz,1F	3	13,0	1
SRC-V 25	230V, 50Hz,1F	6	26,0	1
SRC-V 32	230V, 50Hz,1F	8	34,7	1
SRC-V 32	400V, 50Hz,3F	8	11,5	1
SRC-V 45	400V, 50Hz,1F	12	17,3	1
SRC-V 56	400V, 50Hz,3F	16	23,0	1

N.B. – for other batteries PRE or POST treatment see the Techno-list of ACCESSORIES

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