ECOEVO 3 SLIM

Be.On

Plug & Play

EC Tecnology

Controlled unit

2 Levels of filtration

25 mm panel

DESCRIPTION

Low-profile heat recovery unit, ECOEVO 3 SLIM model, sound-insulated, for indoor or outdoor installation, with removable side panels for easy maintenance access. Incorporates integrated electrical panel with isolating switch for enhanced safety and ease of operation.

Robust construction with 25 mm double-wall panels, ensuring good thermal and acoustic insulation. The outer face in Magnelis steel with corrosion class C5 ensures high durability even in demanding environments.

Available in 3 sizes, with airflow rates between 1100 and 2600 m³/h, adapting to different ventilation applications. Equipped with EC Plug Fans and heat exchanger with efficiency up to 90%, allowing high energy efficiency and reduced consumption in HVAC systems.

STANDARDS AND CERTIFICATIONS

DIN 17615 · EN 10327 · EN 10192 · Class IE5 · Mechanical Protection IP55

ADVANTAGES

- Compact low-profile modular monoblock Plug & Play unit.
- Double panels with 25 mm insulation.
- Corrosion class C5.
- Low-consumption electronically commutated motor.
- Possible integration of Be.On module with cloud connection and Be.Smart monitoring.
- 3-way valve and actuator included.
- Integrated electrical panel.

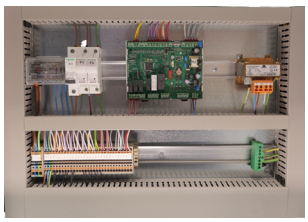
ACCESSORIES

- ePM10 50%/M5 filter
- ePM1 50%/F7 filter
- ePM1 80%/F9 filter
- Protection for rain
- Rain roof
- Heating / cooling coil modules
- Acoustic attenuation module
- Constant airflow control
- CO_2 Control

COMPONENTS

FILTERS

The filtration system includes two filters with filtration classes ePM10 50% (M5), ePM1 50% (F7) or ePM1 80% (F9), in accordance with EN 779 / ISO 16890.
The parallel mounting system uses dedicated rails that ensure airtightness, maintaining bypass leakage within class F9 (EN 1886).



FAN

EC brushless Plug Fan with backward-curved blades, compact design and high available pressures. The aerodynamic rotor geometry, balanced according to ISO 1940 G2.5 and with vibration levels in accordance with AMCA 204, combined with EC motor with insulation class F and IP55 protection, ensures high capacity, efficiency and performance (IE5), even at high resistance levels.

HEAT EXCHANGER

Parallel-flow heat exchangers. Allows recovery of up to 80% of sensible heat from exhaust air to supply air, with efficiency certified by Eurovent. The aluminium plate design with double-fold joints ensures structural integrity and airtightness up to 1500 Pa.

WATER HEATING MODULE

Water heating coil composed of copper tubes with aluminium fins, mechanically expanded to ensure maximum thermal contact. With steel or copper headers and galvanized steel structure, all units are subject to strict quality control, with tightness and integrity tested at 32 bar in factory.

WATER HEATING/COOLING MODULE

Water coil allowing both heating and cooling with the same coil. Composed of copper tubes, aluminium fins mechanically expanded, copper headers and galvanized steel structure. Tightness and integrity are rigorously tested at 32 bar. Module equipped with stainless steel condensate tray. Includes 3-way valve and actuator.

DIRECT EXPANSION MODULE

Direct expansion coil for R32 refrigerant. Composed of copper tubes, aluminium fins mechanically expanded, copper headers and galvanized steel structure. Factory tested at 60 bar. Equipped with stainless steel condensate tray.

ELECTRIC HEATING MODULE

Electric finned heating elements in 8 mm diameter steel tube with 25 x 50 mm fins of the same material, with quick-fix screw and M4 tRHeaded terminals. Designed for air heating applications. Mounted in frame and placed on rails for easy removal.

ACOUSTIC ATTENUATION MODULE

Baffles made of mineral wool, with air-contact surface in non-fragmenting material protected by mesh or micro-perforated sheet, with galvanized steel frame and IP55 mechanical protection.

CHARACTERISTICS

ECOEVO 3 SLIM	11	21	26
Motor Power (kW)	2 x 0,2	2 x 0,5	2 x 0,8
Rotational Speed (rpm)	3000	3080	3600
Power Supply (V | F | Hz)	230 | 1 | 50		
IMAX (A)	2,3	4,5	7,1
Sound Pressure (dB(A)) *	49	44	50

* Sound pressure level at 4 m, measured in open field in accordance with ISO 3744

BATTERY MODULES

WATER HEATING COIL

Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Heating capacity (kW)	Air pressure drop (Pa)	Water airflow (l/s)	Water pressure drop (kPa)
ECOEVO 3 SLIM 11	966	5	34	9	49,2	0,12	9,5
		10	36	9	50,0	0,11	8,2
		15	39	8	50,9	0,10	7,0
	827	5	35	9	37,3	0,10	7,9
		10	38	8	37,9	0,10	6,8
		15	40	7	38,6	0,09	5,8
	690	5	37	8	27,0	0,09	6,4
		10	40	7	27,5	0,09	5,5
		15	42	6	27,9	0,08	4,7
ECOEVO 3 SLIM 21	1863	5	34	18	49,1	0,22	11,9
		10	37	17	49,5	0,21	10,3
		15	39	15	50,0	0,19	9,0
	1597	5	35	17	39,8	0,20	10,0
		10	38	15	40,2	0,19	8,9
		15	41	14	40,5	0,17	8,0
	1330	5	37	15	31,1	0,18	8,5
		10	40	14	31,3	0,17	7,7
		15	42	12	31,6	0,15	6,9
ECOEVO 3 SLIM 26	2273	5	34	23	49,1	0,28	20,3
		10	37	21	49,5	0,26	17,5
		15	39	19	50,0	0,23	14,9
	1948	5	36	20	39,8	0,25	16,9
		10	38	19	40,2	0,23	14,6
		15	41	17	40,6	0,21	12,5
	1623	5	38	18	31,1	0,22	13,6
		10	40	17	31,4	0,20	11,8
		15	43	15	31,7	0,19	10,1

Airflow at velocities: 3.5; 3.0; 2.5 m/s
Water temperature: 80°C / 60°C
RH: 80%

WATER HEATING / COOLING COIL

Heating mode Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Heating capacity (kW)	Air pressure drop (Pa)	Water airflow (l/s)	Water pressure drop (kPa)
ECOEVO 3 SLIM 11	1080	5	31	10	46,8	0,47	53,6
		10	33	8	47,1	0,41	41,6
		15	34	7	47,5	0,35	30,9
	950	5	32	9	39,3	0,43	45,2
		10	34	8	39,6	0,37	35,1
		15	35	7	39,9	0,31	26,1
	780	5	34	8	30,1	0,37	34,6
		10	35	7	30,3	0,32	26,9
		15	36	6	30,5	0,27	20,0
ECOEVO 3 SLIM 21	2150	5	31	19	46,9	0,93	59,2
		10	33	17	47,2	0,81	45,9
		15	34	14	47,6	0,69	34,2
	1890	5	32	18	39,3	0,85	49,9
		10	34	15	39,6	0,74	38,7
		15	35	13	40,0	0,63	28,8
	1550	5	34	15	30,1	0,73	38,0
		10	35	13	30,3	0,64	29,6
		15	36	11	30,5	0,54	22,1
ECOEVO 3 SLIM 26	2550	5	31	23	46,7	1,11	58,5
		10	33	20	47,1	0,96	45,3
		15	34	17	47,5	0,82	33,8
	2250	5	32	21	39,4	1,01	49,6
		10	34	18	39,7	0,88	38,4
		15	35	15	40,1	0,74	28,6
	1840	5	34	18	30,0	0,87	37,7
		10	35	16	30,2	0,75	29,3
		15	36	13	30,5	0,64	21,8

Airflow at velocities: 2,5; 2,2; 1,8 m/s
Water temperature : 45°C / 40°C
RH: 80%

BATTERY MODULES

WATER HEATING / COOLING COIL

Cooling mode Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Cooling capacity (kW)	Air pressure drop (Pa)	Water airflow (l/s)	Water pressure drop (kPa)
ECOEVO 3 SLIM 11	1080	31	19	6	67,8	0,31	29,1
		28	18	5	67,5	0,23	17,6
		25	16	4	60,7	0,18	11,3
	950	31	19	6	58,3	0,28	25,5
		28	17	4	58,1	0,21	15,3
		25	16	3	51,9	0,17	9,8
	780	31	18	5	46,3	0,25	20,4
		28	17	4	46,1	0,19	12,3
		25	15	3	40,8	0,14	8,2
ECOEVO 3 SLIM 21	2150	31	19	13	67,9	0,61	32,1
		28	18	10	67,6	0,46	19,5
		25	16	7	60,8	0,36	12,5
	1890	31	19	12	58,4	0,56	27,9
		28	17	9	58,1	0,42	16,9
		25	16	7	52,0	0,33	10,7
	1550	31	18	10	46,3	0,50	22,5
		28	17	8	46,1	0,37	13,6
		25	15	6	40,8	0,29	8,8
ECOEVO 3 SLIM 26	2550	31	19	15	67,7	0,72	31,9
		28	18	11	67,4	0,54	19,2
		25	16	9	60,7	0,42	12,4
	2250	31	19	14	58,5	0,67	27,7
		28	17	11	58,2	0,50	16,8
		25	16	8	52,1	0,39	10,7
	1840	31	18	12	46,2	0,59	22,3
		28	17	9	46,0	0,44	13,4
		25	15	7	40,8	0,34	8,7

Airflow at velocities: 2,5; 2,2; 1,8 m/s
Water temperature: 7°C / 12°C
RH: 50%

DIRECT EXPANSION COIL

Heating mode Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Heating power (kW)	Air pressure drop (Pa)
ECOEVO 3 SLIM 11	970	5	31	9	43,6
		10	33	7	43,9
		15	34	6	44,3
	850	5	32	8	36,4
		10	33	7	36,7
		15	35	6	37,0
	700	5	33	7	28,0
		10	35	6	28,2
		15	36	5	28,4
ECOEVO 3 SLIM 21	1950	5	32	18	43,6
		10	34	16	44,0
		15	36	14	44,3
	1710	5	33	17	36,5
		10	35	15	36,8
		15	36	13	37,1
	1400	5	35	14	27,8
		10	36	13	28,0
		15	38	11	28,3
ECOEVO 3 SLIM 26	2350	5	33	22	43,5
		10	34	20	43,8
		15	36	17	44,2
	2070	5	34	20	36,6
		10	35	18	36,9
		15	37	16	37,2
	1690	5	35	18	27,8
		10	37	16	28,0
		15	38	13	28,2

Airflow at velocities: 2,5; 2,2; 1,8 m/s
Condensation temperature R32: 50°C
RH: 80%

BATTERY MODULES

DIRECT EXPANSION COIL

Cooling mode Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Cooling capacity (kW)	Air pressure drop (Pa)
ECOEVO 3 SLIM 11	970	31	18	7	62,0
		28	16	6	61,7
		25	15	4	61,5
	850	31	18	6	53,3
		28	16	5	53,0
		25	14	4	52,8
	700	31	17	6	42,1
		28	15	5	41,9
		25	14	4	41,7
ECOEVO 3 SLIM 21	1950	31	18	14	62,1
		28	16	11	61,9
		25	15	9	61,6
	1710	31	18	13	53,5
		28	16	10	53,2
		25	14	8	53,0
	1400	31	17	11	42,2
		28	15	9	42,0
		25	14	7	41,9
ECOEVO 3 SLIM 26	2350	31	18	16	62,3
		28	16	13	62,0
		25	15	11	61,7
	2070	31	18	15	53,5
		28	16	12	53,3
		25	14	10	53,1
	1690	31	17	13	42,2
		28	15	11	42,1
		25	14	9	42,0

Airflow at velocities: 2,5; 2,2; 1,8 m/s
Evaporation temperature R32: 5°C
RH: 50%

ELECTRIC HEATING COIL

Model	Airflow (m³/h)	Air inlet temperature (°C)	Air outlet temperature (°C)	Heating power (kW)
ECOEVO 3 SLIM 11	965	5	23	6
		10	28	
		15	33	
	825	5	27	
		10	32	
		15	37	
	690	5	31	
		10	36	
		15	41	
ECOEVO 3 SLIM 21	1865	5	24	12
		10	29	
		15	34	
	1597	5	27	
		10	32	
		15	37	
	1330	5	32	
		10	37	
		15	42	
ECOEVO 3 SLIM 26	2275	5	21	12
		10	26	
		15	31	
	1950	5	23	
		10	28	
		15	33	
	1625	5	27	
		10	32	
		15	37	

Airflow at velocities: 3,5; 3,0; 2,5 m/s
RH: 80%

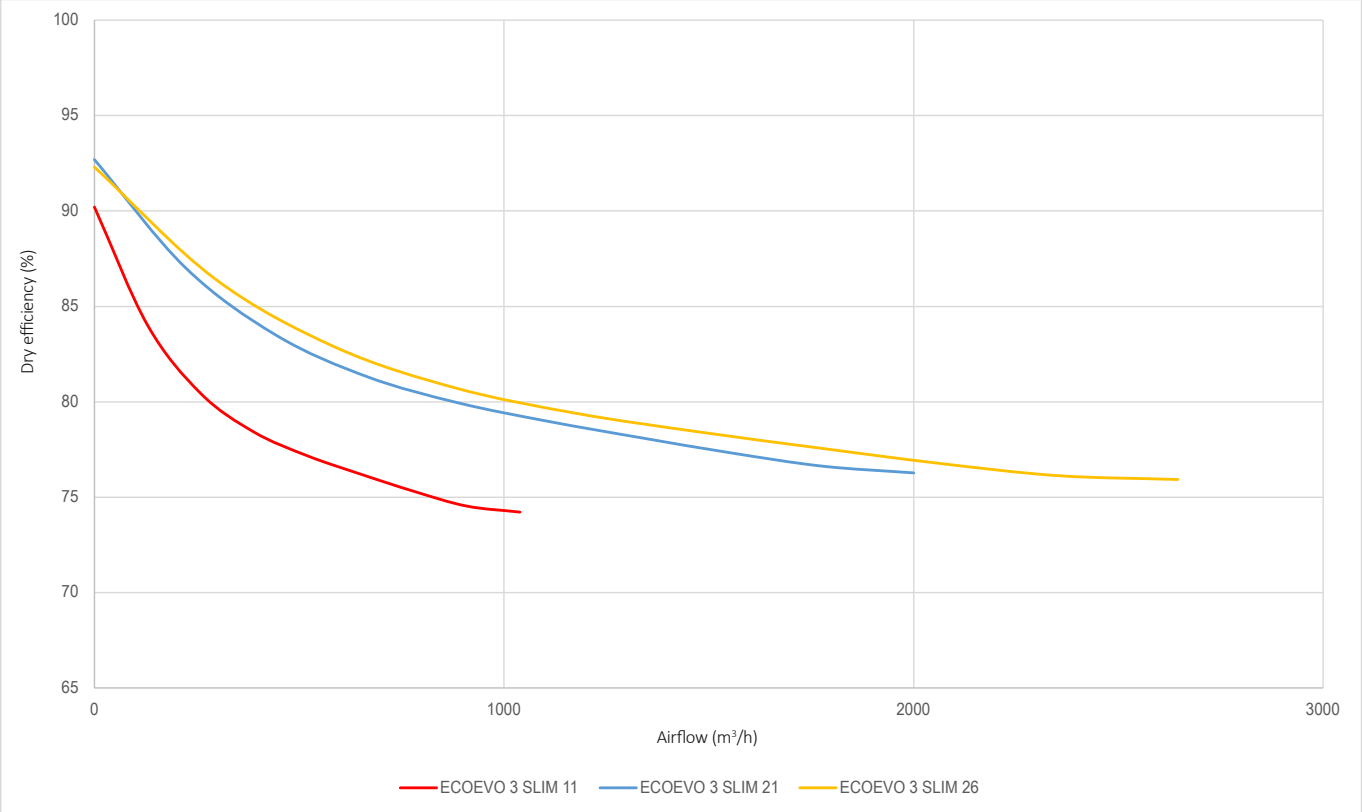
COMPLEMENTARY MODULES

ACOUSTIC ATTENUATION MODULE

Model	Airflow (m³/h)	Air pressure drop (Pa)	Acoustic attenuation - Frequency (Hz)								
			63	125	250	500	1000	2000	4000	8000	Total dB(A)
ECOEVO 3 SLIM 11	500	2	3	6	11	16	23	22	17	14	20
	750	6									
	1000	10									
ECOEVO 3 SLIM 21	1100	9	2	5	10	15	21	20	15	12	20
	1500	14									
	1900	20									
ECOEVO 3 SLIM 26	1500	7	2	5	9	14	19	17	13	10	19
	2000	11									
	2500	16									

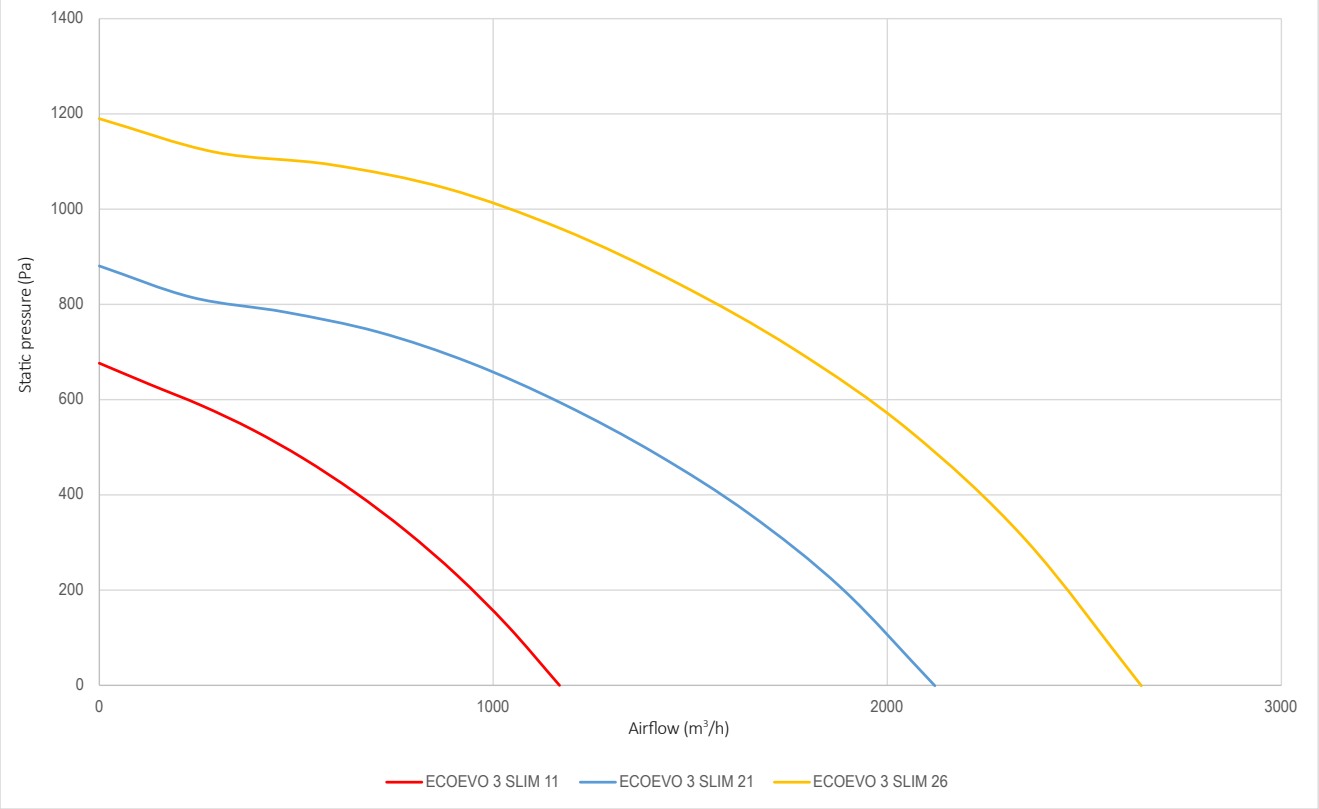
PERFORMANCE CURVES

RECOVERY EFFICIENCY CURVE

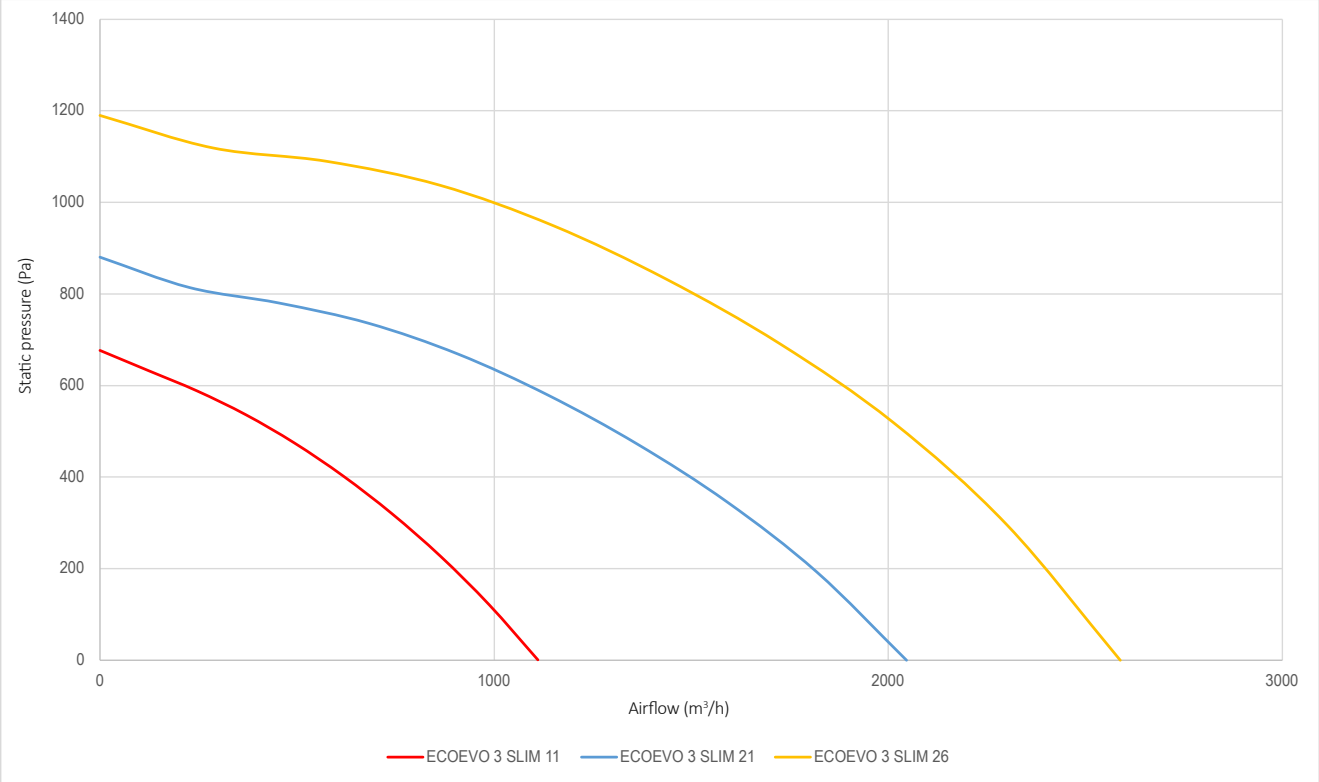


PERFORMANCE CURVES

ECOEVO 3 SLIM ePM10 50%/M5

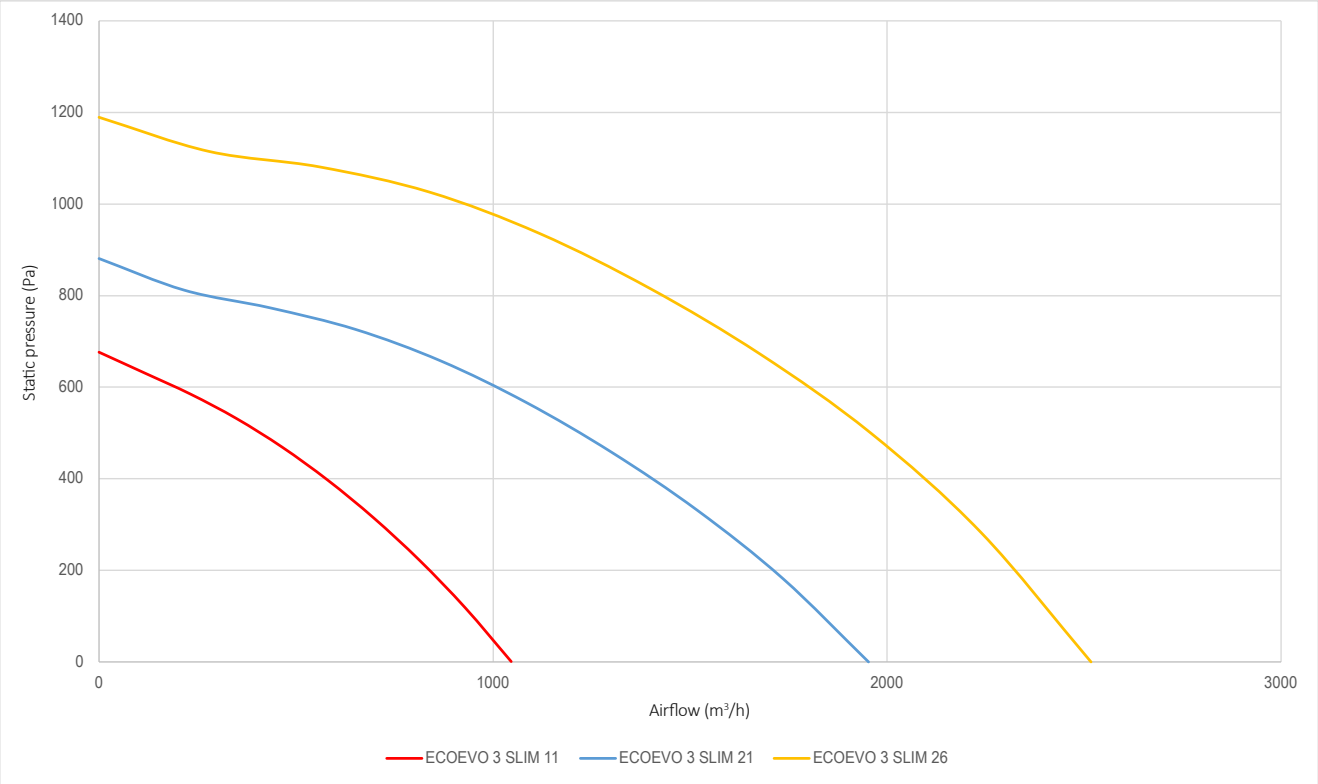


ECOEVO 3 SLIM ePM1 50%/F7

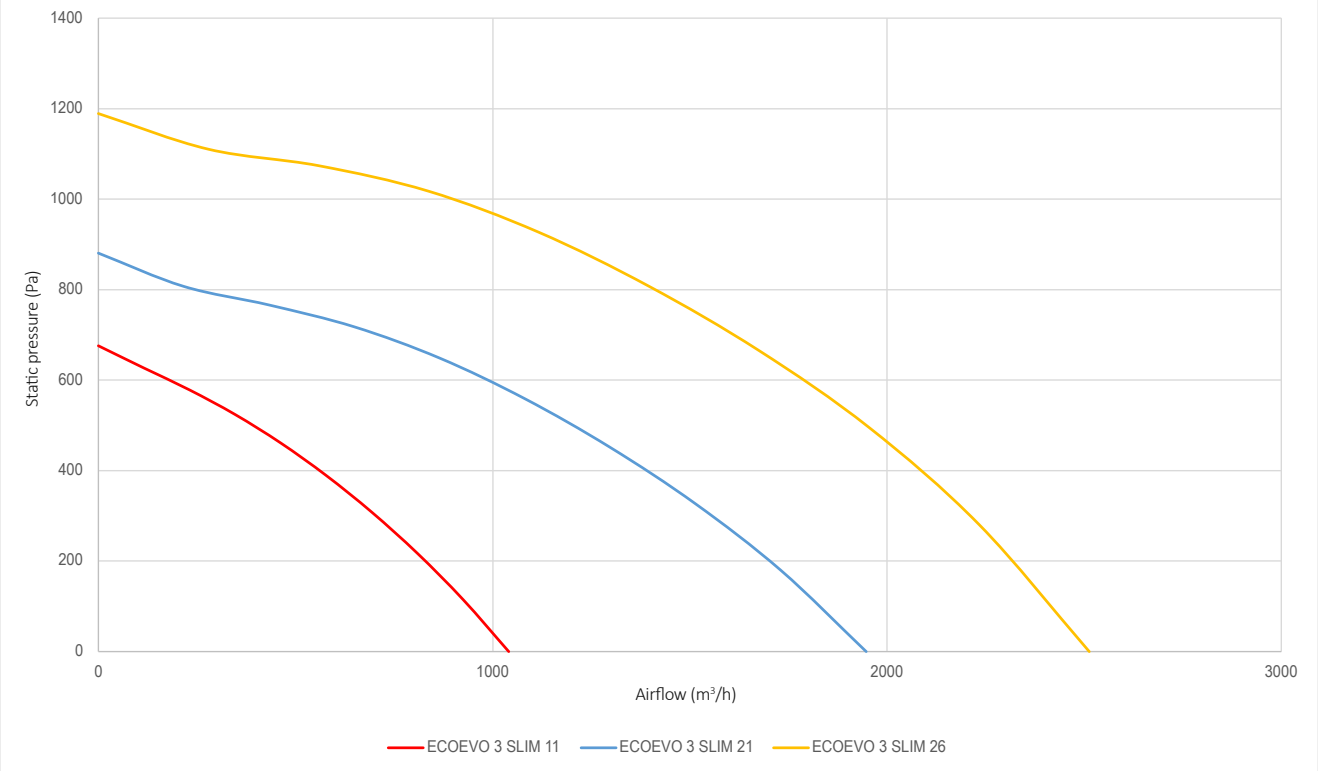


PERFORMANCE CURVES

ECOEVO 3 SLIM ePM1 80%/F9

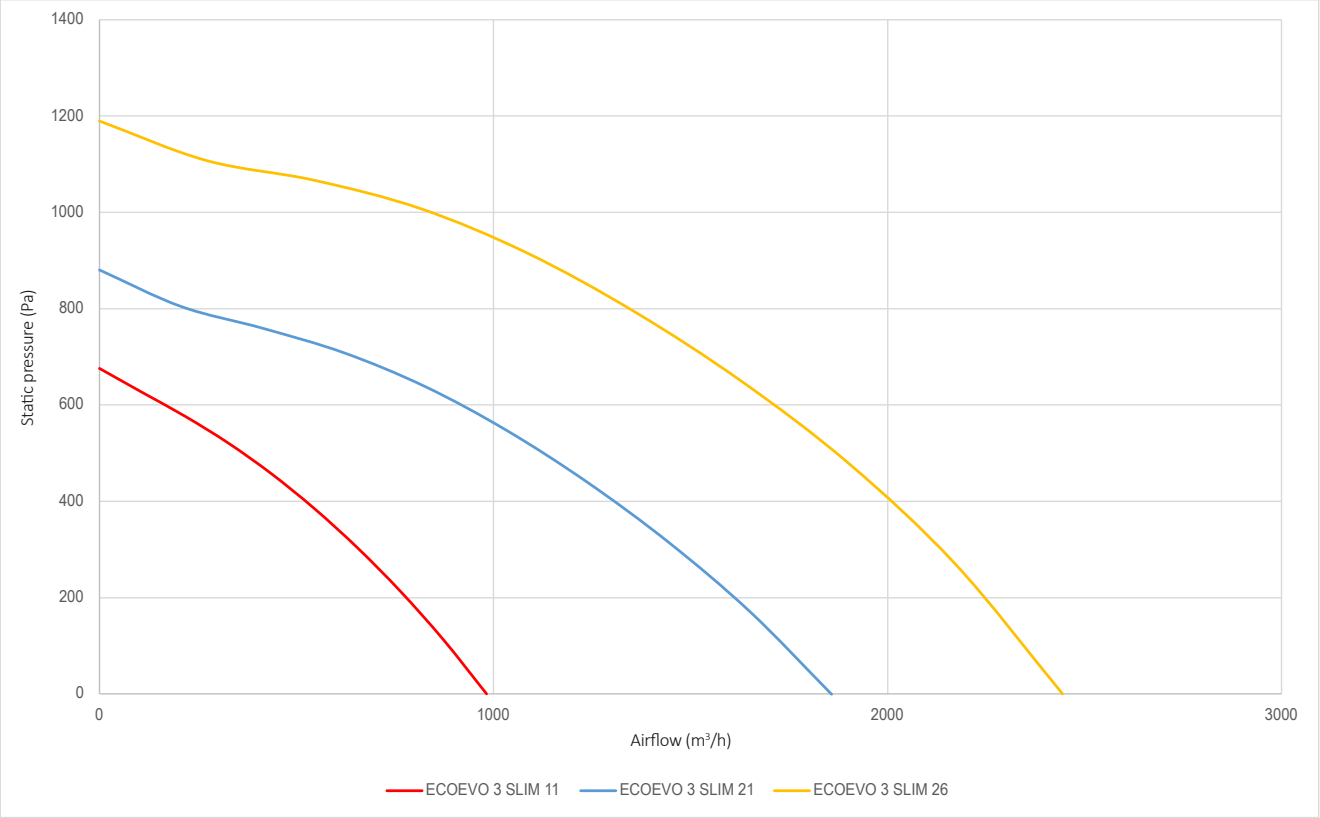


ECOEVO 3 SLIM ePM10 50%/M5 + ePM1 50%/F7

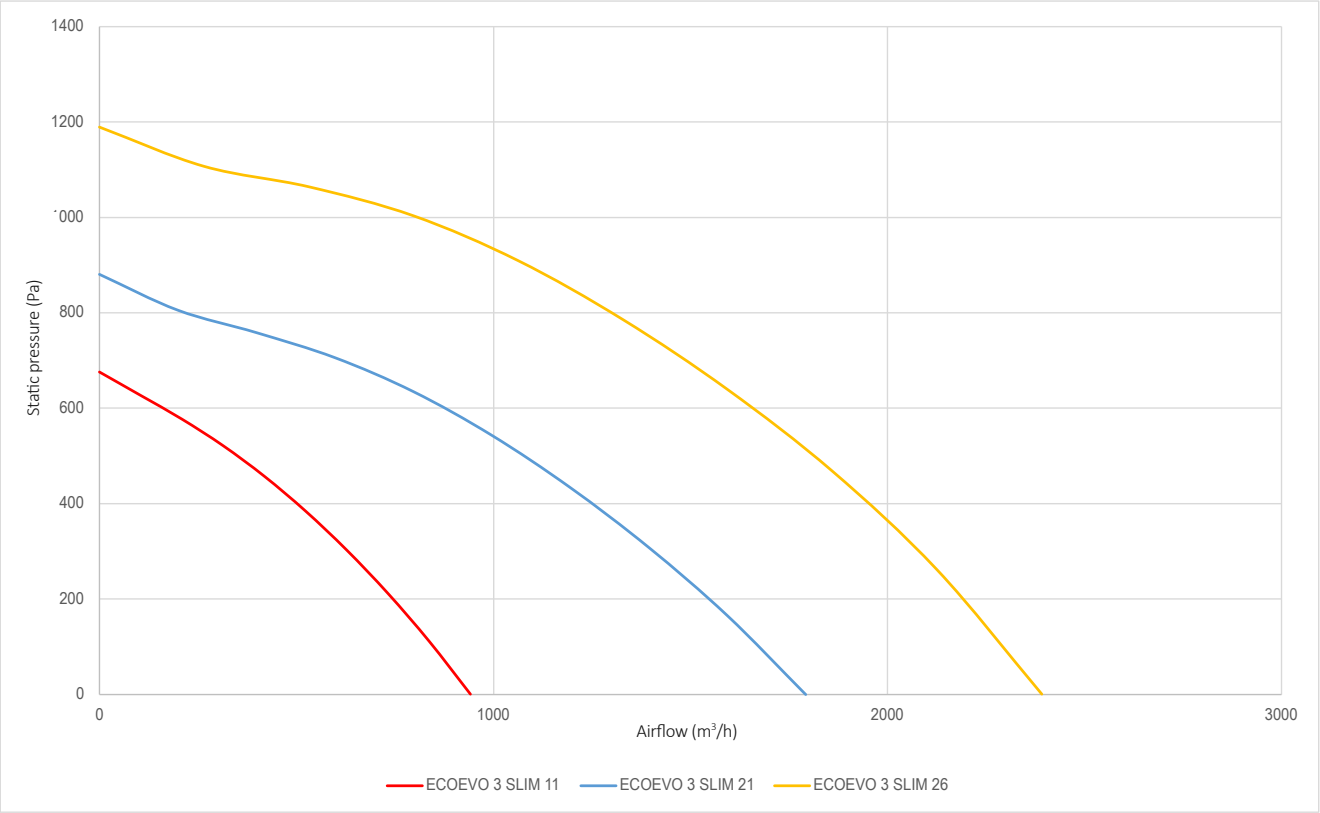


PERFORMANCE CURVES

ECOEVO 3 SLIM ePM10 50%/M5 + ePM1 80%/F9

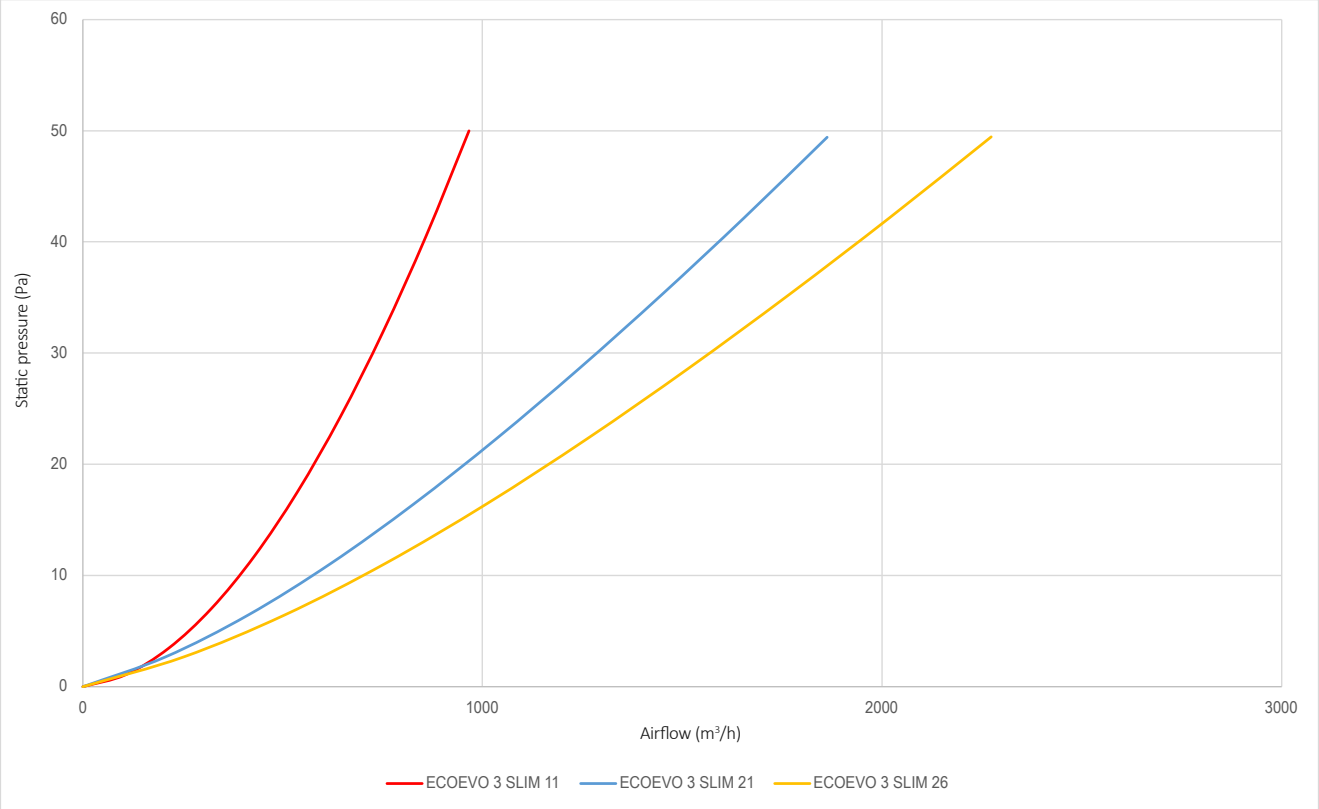


ECOEVO 3 SLIM ePM1 50%/F7 + ePM1 80%/F9

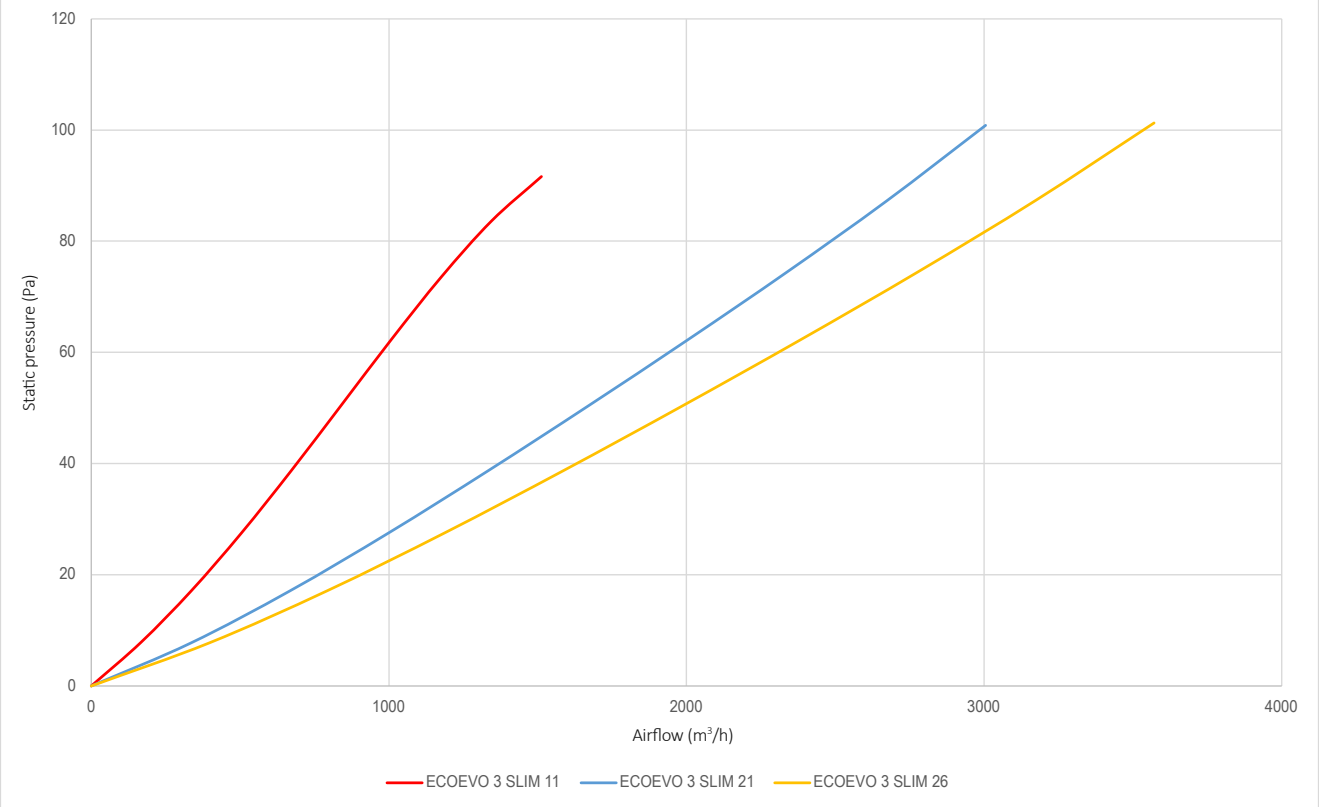


PERFORMANCE CURVES

ECOEVO 3 SLIM WATER HEATING MODULE

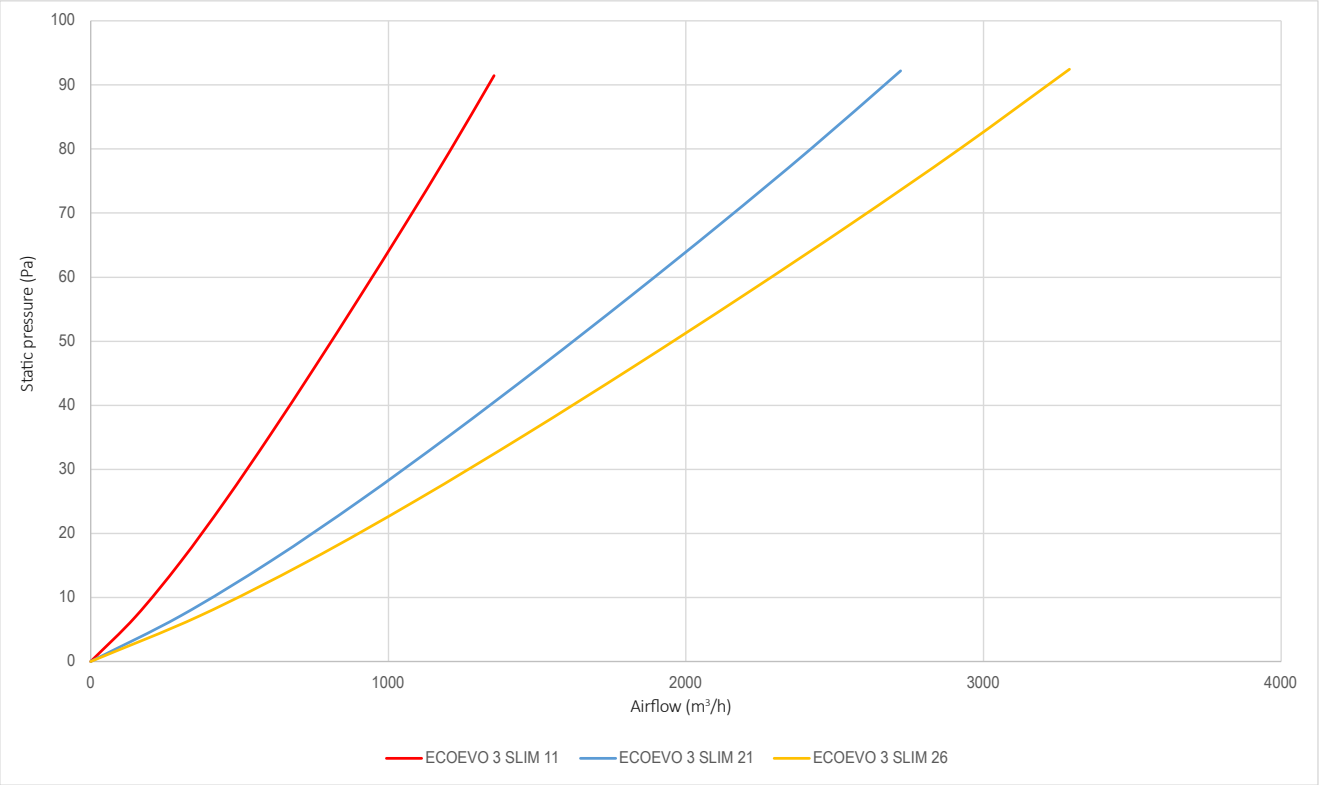


ECOEVO 3 SLIM MÓD BAT AIR CONDITIONING WATER



PERFORMANCE CURVES

ECOEVO 3 SLIM MÓD BAT DX



DX Battery – Direct Expansion Module

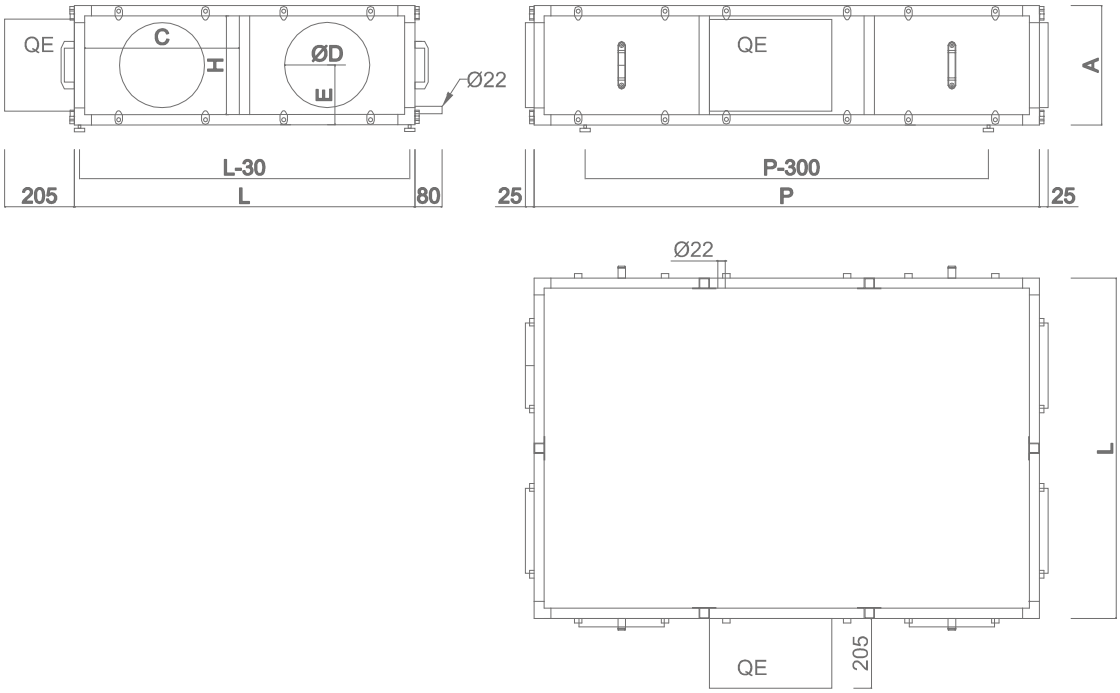
DIMENSIONS

ECOEVO 3 SLIM H	11	21	26
A (mm)	350	450	450
L (mm)	1000	1100	1300
P (mm)	1485	1800	1900
D (mm)	250	355	355
C (mm)	455	505	605
H (mm)	290	390	390
E (mm)	175	225	225
Weight (kg)	137	213	244

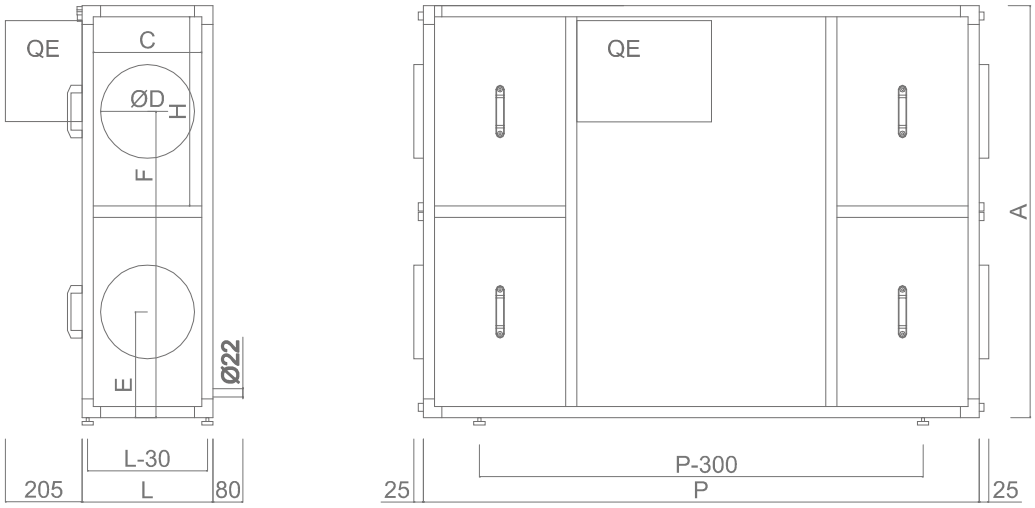
ECOEVO 3 SLIM V	11	21	26
A (mm)	1100	1210	1360
L (mm)	350	450	450
P (mm)	1485	1800	1900
D (mm)	250	355	355
C (mm)	290	390	390
H (mm)	505	560	635
E (mm)	283	310	348
F (mm)	818	900	1013
Weight (kg)	137	213	244

DIMENSIONS

ECOEVO 3 SLIM H



ECOEVO 3 SLIM V



NOTE: MAINTENANCE CLEARANCE AND UNIT ACCESS DISTANCE | 750 MM

DIMENSIONS

WATER HEATING MODULE

ECOEVO 3 SLIM / BAA	11	21	26
A (mm)	350	450	450
L (mm)	550	625	725
P (mm)	350	350	350
Ø Hydraulic Connection (pol.)	1/2"	3/4"	3/4"
Weight (kg)	22	28	31

WATER HEATING / COOLING MODULE

ECOEVO 3 SLIM / BCA	11	21	26
A (mm)	350	450	450
L (mm)	650	700	800
P (mm)	450	620	620
Ø Hydraulic Connection (pol.)	3/4"	3/4"	3/4"
Ø Condensate Outlet (mm)		22	
Weight (kg)	43	63	70

DIRECT EXPANSION MODULE

ECOEVO 3 SLIM / BCR	11	21	26
A (mm)	350	450	450
L (mm)	650	700	800
P (mm)	450	620	620
Ø Liquid (mm)	22	22	22
Ø Steam (mm)	12	12	16
Ø Condensate Outlet (mm)		22	
Weight (kg)	41	62	68

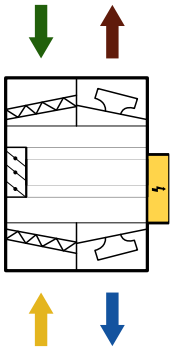
ELECTRIC HEATING MODULE

ECOEVO 3 SLIM / BRE	11	21	26
A (mm)	350	450	450
L (mm)	550	625	725
P (mm)	350	350	350
Weight (kg)	17	23	25

ACOUSTIC ATTENUATION MODULE

ECOEVO 3 SLIM / MAA	11	21	26
A (mm)	350	450	450
L (mm)	500	550	650
P (mm)	700	700	700
Weight (kg)	29	34	36

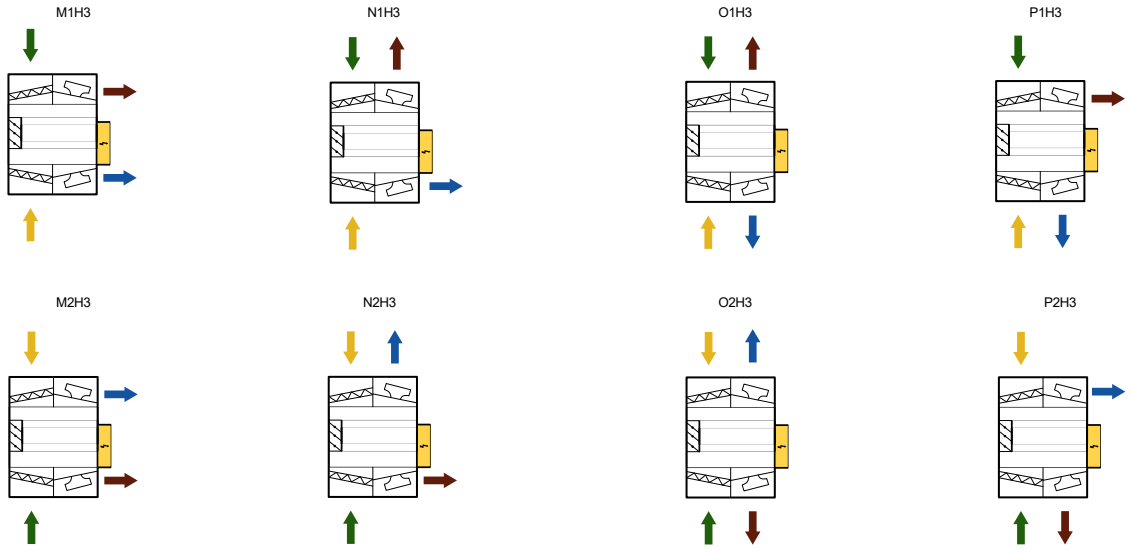
STANDARD CONFIGURATIONS HORIZONTAL MODEL



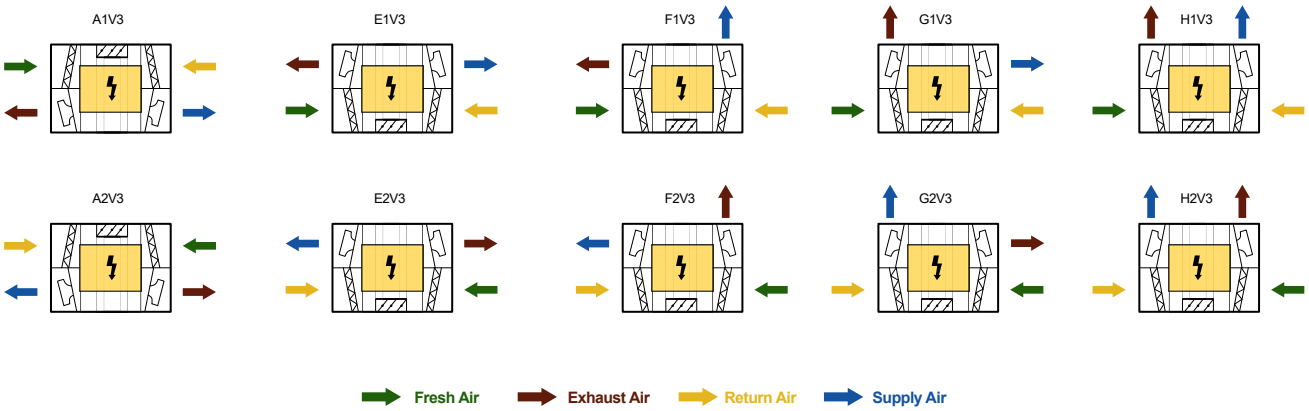
O1H3

Fresh Air
Exhaust Air
Return Air
Supply Air

CONFIGURATIONS HORIZONTAL MODEL



CONFIGURATIONS VERTICAL MODEL



NOTE: FOR VERTICAL MODELS, INSTALLATION OF RAIN ROOF IS NOT POSSIBLE IN CONFIGURATIONS F, G, H

ERP VERIFICATION DOCUMENT

MANUFACTURER		ARFIT AIR CONDITIONING, S.A.		
Model		11	21	26
Type		UVNR UVB		
Transmission Type		Variable Speed	Variable Speed	Variable Speed
Heat Recovery System Type		OTHER		
Heat Recovery Thermal Efficiency	%	74.2	76.5	75.8
Nominal Airflow	m^3/s	0.281	0.538	0.693
Input Power	kW	0.226	0.48	0.717
SPFint	W m^3/s	1104.0	1333.2	1573.5
Frontal Velocity	m/s	5.73	5.44	7.00
Nominal External Pressure	Pa	100	100	105
Decrease in internal pressure VENTILATION	Pa	296	433	462
Static Efficiency of Fans	%	49.2	59.6	54.9
Maximum Declared Internal/External Leakage Rate	%	3.3/4.2	3,4/4,1	3,8/3,9
Filter Classification		F7/M5		
DESCRIPTION: Visual notice regarding FILTERS		The FILTERS warning is displayed on the unit's control system, either via a warning light or on-screen message, depending on the control system used. It is of the utmost importance to replace the FILTERS regularly to improve the unit's performance and energy efficiency.		
Sound Power Level (Lwa)	dB(A)	69	64	70
Website		www.arfit.pt		