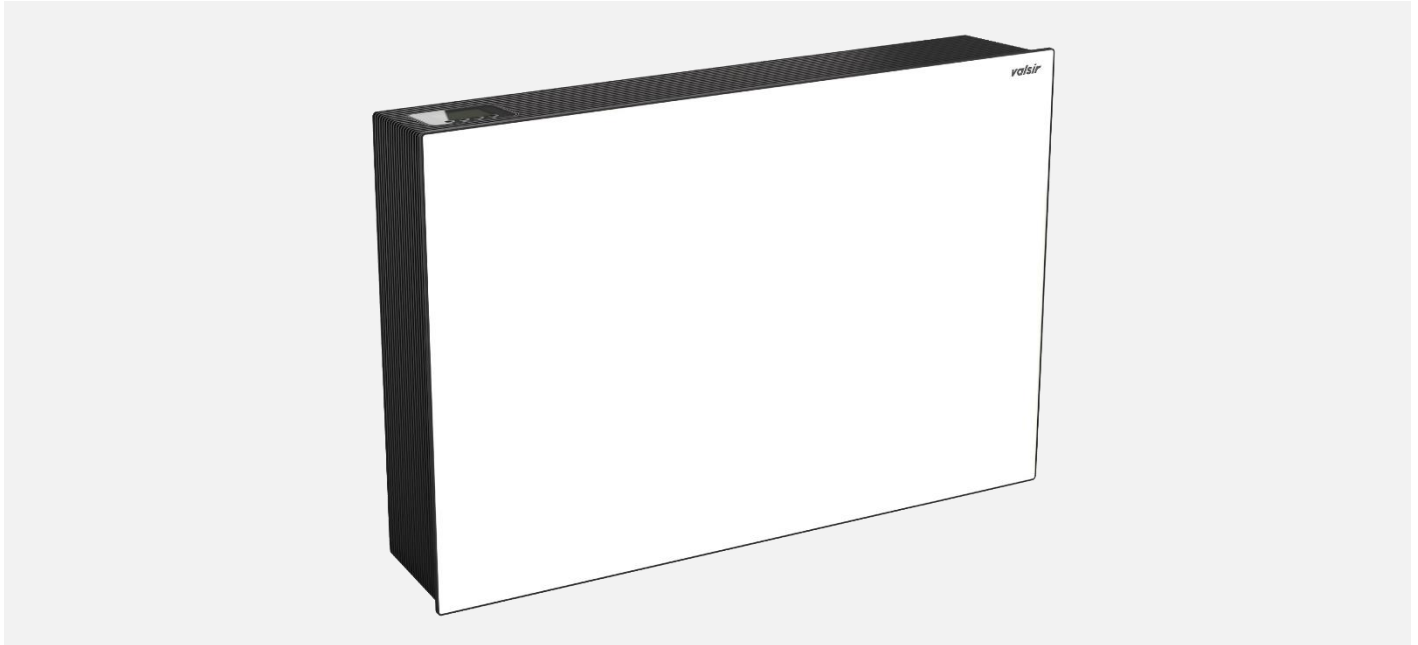


ARIOSIA DOT

HEAT RECOVERY VENTILATION UNIT FOR APPLICATION IN A SINGLE ROOM



ARIOSIA DOT

Heat Recovery Ventilation unit with double flow for residential applications, designed for wall installation, dedicated to air exchange in individual rooms.

Structure made of Expanded Polypropylene (EPP) with internal aerodynamic shaping of the air circuits to minimize pressure losses and noise.

Perimeter aesthetic cover in ABS and painted steel front panel.

Electronic fans with forward blades with a maximum capacity of 100 m³/h, adjustable to 4 speeds (Night, Minimum, Medium, and Maximum).

Synthetic panel filters with ISO Coarse >65% efficiency class (ex G4) on the extraction flow and ISO ePM1 >50% (ex F7) on the supply flow; filter removal through independent cap-type doors equipped with ergonomic handles.

Static air-to-air counterflow heat exchanger with very high efficiency (over 90%) in the sensible version and enthalpy exchanger in the enthalpy version, easily removable for cleaning and complete with a motorized total bypass system.

Electronic control complete with 4 temperature + relative humidity probes onboard the machine for managing ventilation, free-cooling/free-heating.

Remote user interface with an LCD panel for complete management of the machine's functionalities.

Advanced management possible via Modbus or a mobile app.

Refrigeration circuit with R290 natural gas with zero environmental impact (only in the Ariosia DOT HP version) for dehumidification of the primary air entering from outside.

Technical data

ARIOSIA DOT Technical data

Model		ARIOSIA DOT	ARIOSIA DOT E	ARIOSIA DOT HP
Max air flow rate	m ³ /h	100	100	100
Nominal air flow rate ⁽¹⁾	m ³ /h	70	70	70
Working mode	°C	-5°C / +45°C	-5°C / +45°C	-5°C / +45°C
Power supply	V/ph/Hz	220/1/50-60	220/1/50-60	220/1/50-60
Max. current ⁽²⁾	A	1,35	1,35	1,32 * 1,86
Maximum absorbed electric power ⁽²⁾	W	41,3	40,4	44,4 * 327

* values with compressor

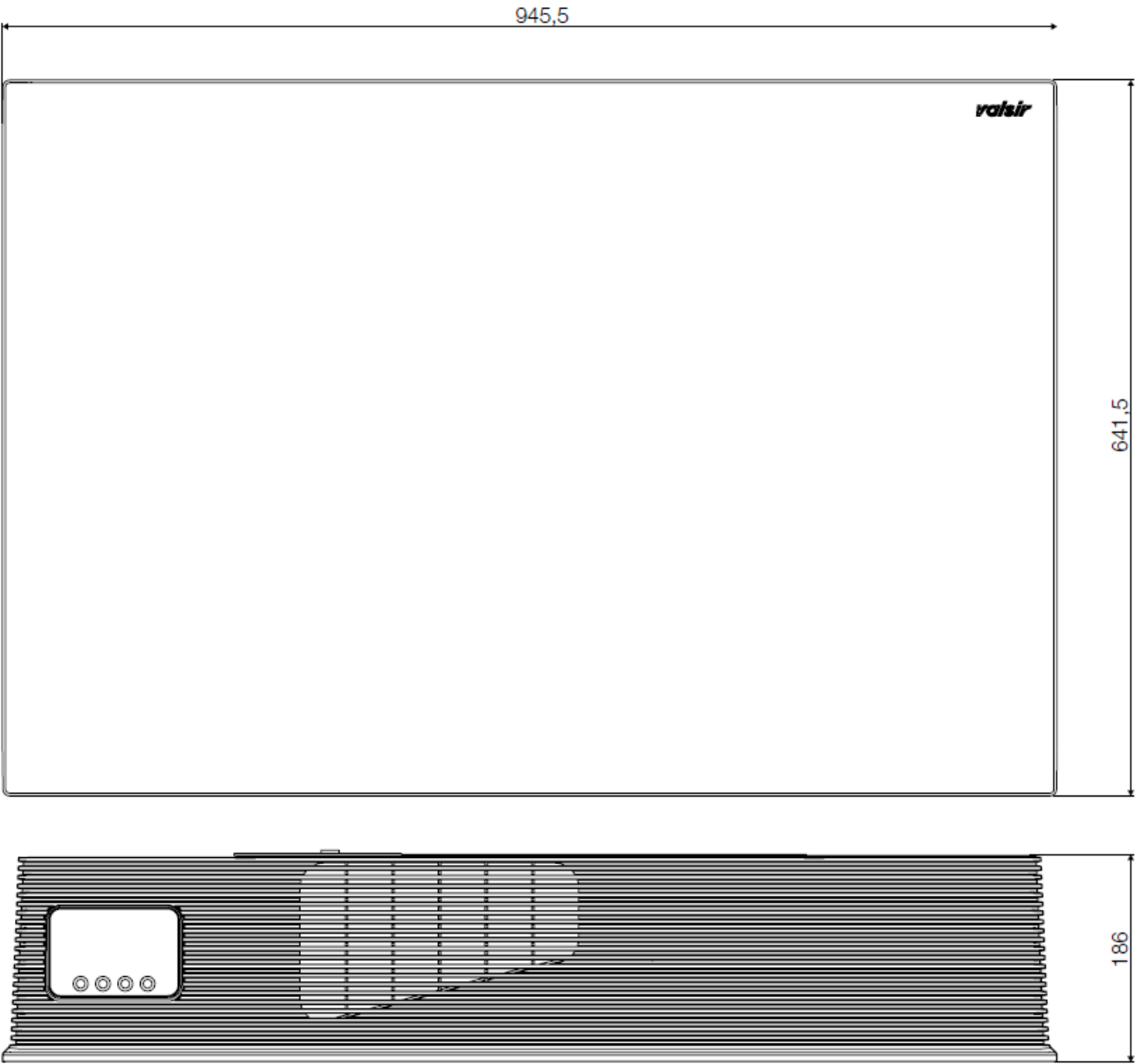
Model		ARIOSIA DOT	ARIOSIA DOT E	ARIOSIA DOT HP
Declared typology			HRC1	
Drive type		>3 Multispeed	>3 Multispeed	>3 Multispeed
Type of recovery system HRS		Recuperative	Recuperative	Recuperative
SEC class temperate climate		A	A	A
Specific energy consumption temperate climate	kWh/(m ² a)	-35.79	-36.93	-34.82
SEC class cold climate		A+	A+	A+
Specific energy consumption Cold climate	kWh/(m ² a)	-64.74	-60.09	-62.83
SEC class warm climate		E	E	E
Specific energy consumption warm climate	kWh/(m ² a)	-11.39	-10.65	-10.91
Dry thermal efficiency of the system	%	88	78	85
Efficiency of humidity transfer	%	-	60	-
Maximum air flow	m ³ /s	0.0289	0.0284	0.0289
Reference air flow	m ³ /s	0.0202	0.0198	0.0202
Specific absorbed power	W/(m ³ /h)	0.361	0.350	0.383
Control factor and typology	Ambience	0.85	0.85	0.85
Annual electricity consumption for 100 m ²	kWh/a	459.79	430.97	462.90
Annual heating savings in temperate climates	kWh	4537.31	4234.71	4446.53
Annual heating savings in cold climates	kWh	8876.17	8284.20	8698.58
Annual heating savings in hot climates	kWh	2051.71	1914.88	2010.66
Air tightness class	-	U1	U1	U1
Maximum external leakage	%	< 1,4%	< 1,9 %	< 1,9 %
Maximum internal leakage	%	< 0,8 %	< 0,8 %	< 0,8 %
Sensitivity	-	S1	S1	S1
Dehumidification max at 32°/60%	l/h	-	-	0.510
Type of refrigerant	-	-	-	R290
Global warming potential	GWP	-	-	3
Maximum operating gas pressure	bar	-	-	12 (aspir.) / 28 (imm.)
Sound power level radiated	dB(A)	55	55	55

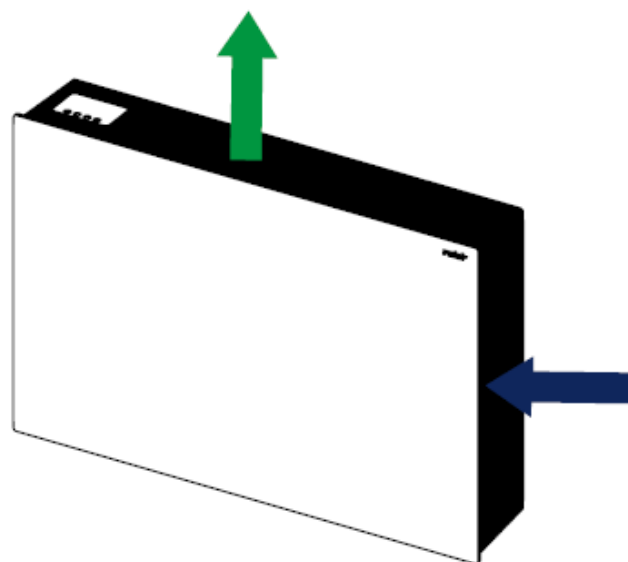
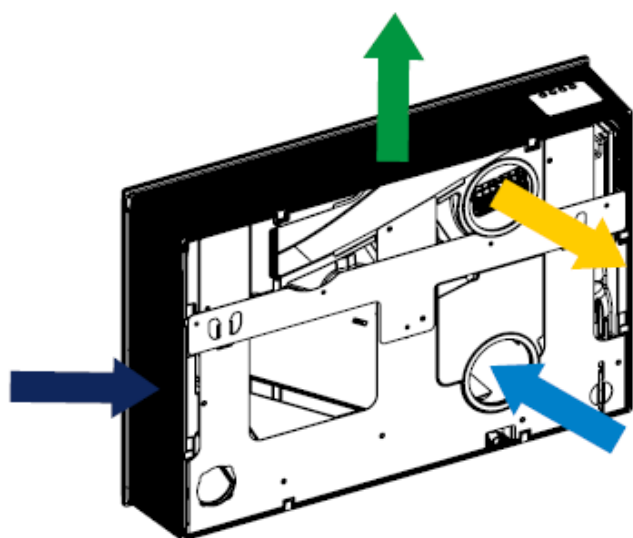
⁽¹⁾ At the reference flow equal to 70% of the maximum value.

⁽²⁾ Maximum total value of the two fans.

⁽³⁾ Data refers to external conditions 32° / 60% (32 / 25.6 DB/WB) and internal 26° / 50% (26 / 18.8 DB/WB)

HRV unit		ARIOSA DOT	ARIOSA DOT HP
Dimensions		ARIOSA DOT E	
Weight	kg	24	28
Package			
Length	mm	946	946
Width	mm	186	186
Height	mm	642	642
Weight	kg	26	30





	External air intake
	Expulsion of air outdoors
	Indoor air extraction
	Delivery of air indoors

Table: Air flow rate and prevalence ARIOS A DOT

Working mode	Air flow rate [l/s]	Air flow rate[m ³ /h]	Prevalence [Pa]
Max speed (100%)	36,50	131,4	0
Max speed (100%)	32,69	117,7	29
Max speed (100%)	30,08	108,3	48
Max speed (100%)	27,78	100,0	64
Max speed (100%)	25,11	90,4	84
Max speed (100%)	23,47	84,5	94
Max speed (100%)	22,14	79,7	100
Max speed (100%)	21,11	76,0	106
Max speed (100%)	21,25	76,5	105
Max speed (100%)	20,69	74,5	108
Max speed (100%)	19,22	69,2	115
Max speed (100%)	18,25	65,7	120
Max speed (100%)	17,58	63,3	123
Max speed (100%)	16,53	59,5	130
Max speed (100%)	14,36	51,7	140
Max speed (100%)	11,61	41,8	153
Max speed (100%)	7,58	27,3	162
Max speed (100%)	0,00	0,0	165
Medium speed (70%)	26,97	97,1	0
Medium speed (70%)	24,50	88,2	16
Medium speed (70%)	22,28	80,2	30
Medium speed (70%)	19,44	70,0	43
Medium speed (70%)	17,58	63,3	53
Medium speed (70%)	16,53	59,5	58
Medium speed (70%)	15,97	57,5	60
Medium speed (70%)	15,39	55,4	63
Medium speed (70%)	14,58	52,5	67
Medium speed (70%)	13,72	49,4	71
Medium speed (70%)	13,06	47,0	74
Medium speed (70%)	11,36	40,9	82
Medium speed (70%)	9,00	32,4	92
Medium speed (70%)	5,33	19,2	100
Medium speed (70%)	0,00	0,0	101
Minimum speed (50%)	20,72	74,6	0
Minimum speed (50%)	18,58	66,9	10
Minimum speed (50%)	16,69	60,1	21
Minimum speed (50%)	14,17	51,0	30
Minimum speed (50%)	13,28	47,8	33
Minimum speed (50%)	12,58	45,3	35
Minimum speed (50%)	12,11	43,6	38
Minimum speed (50%)	11,33	40,8	42
Minimum speed (50%)	10,53	37,9	45
Minimum speed (50%)	9,64	34,7	48
Minimum speed (50%)	7,58	27,3	56
Minimum speed (50%)	4,11	14,8	60
Minimum speed (50%)	0,00	0,0	61
Night speed (30%)	13,72	49,4	0
Night speed (30%)	11,61	41,8	7
Night speed (30%)	9,94	35,8	12
Night speed (30%)	9,33	33,6	15
Night speed (30%)	8,33	30,0	17
Night speed (30%)	7,58	27,3	20
Night speed (30%)	6,78	24,4	23
Night speed (30%)	5,33	19,2	26
Night speed (30%)	2,33	8,4	30
Night speed (30%)	0,00	0,0	33

Graph: Air flow rate and prevalence ARIOSOTA DOT

