

# Duplexvent ROTARY-N

Side Entry Commercial MVHR –  
Up to 16,700m<sup>3</sup>/hr air volume



2016 / 2018

## KEY FEATURES

- Outdoor installation
- Weather protection hoods and a roof
- Highly efficient, certified by Eurovent rotary heat exchanger, up to 85% thermal efficiency
- Versatile unit with various mounting options
- Low SFP and energy saving EC fans
- Digital touchscreen or simple manual controller
- BMS connection
- VAV control compatibility
- G4 filters standard. Optional M5 / F7 filters available
- Optional equipment: recirculation damper, heating or cooling coils, purge chamber
- Optional constant flow / pressure mode
- BREEAM and ErP 2016 / 2018 compliant
- 2 year warranty+

## PERFORMANCE

Duplexvent Rotary-N		DV1500-N	DV2500-N	DV4000-N	DV5000-N	DV8000-N	DV12000-N	DV15000-N
Supply air - max. <sup>1</sup>	(m <sup>3</sup> /hr) / (l/sec)	1550 / 431	2750 / 764	4600 / 1278	6600 / 1833	11200 / 3111	14100 / 3917	16700 / 4639
Extract air - max. <sup>1</sup>	(m <sup>3</sup> /hr) / (l/sec)	1500 / 417	2700 / 750	4650 / 1292	6650 / 1847	11100 / 3084	14000 / 3889	16600 / 4611
Heat recovery efficiency <sup>2</sup>	%	to 85%						
Heat exchanger		Thermal rotary wheel						
Max power consumption (W)	W	800	1700	2900	5100	9900	10200	11300
Voltage	V	230	230	400	400	400	400	400
Frequency	Hz	50						
Fan type		EC (backward curved impeller)						
RPM - max	min <sup>-1</sup>	3,50	2960	3000	2980	2570	2130	1860
Heating output T - max. <sup>3</sup>	kW	17	22	42	50	70	100	120
Cooling output CHW - max. <sup>3</sup>	kW	10	18	35	39	50	61	80
Cooling output CHF - max. <sup>3</sup>	kW	17	24	36	40	47	60	85
Mounting		Floor Standing						
Weight <sup>4</sup>	kg	345 - 390	350 - 395	560 - 630	565 - 635	840 - 1050	1130 - 1350	1330 - 1660
Part Number		90000728	90000729	90000730	90000731	90000571	90000572	90000573

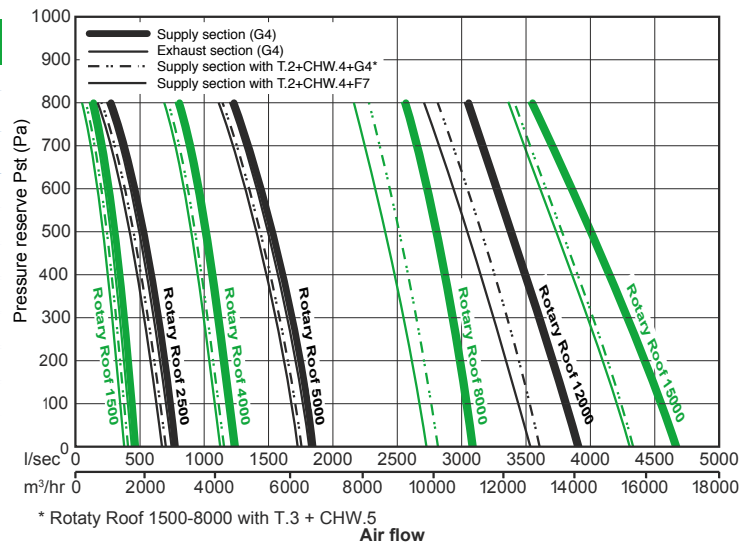
1. Maximum flow rate at zero external pressure
2. According to air volume
3. Depending on register type, liquid and flow rates
4. Depending on equipment

T - Water heating coil  
CHW - Water cooling coil  
CHF- DX (direct expansion) coil

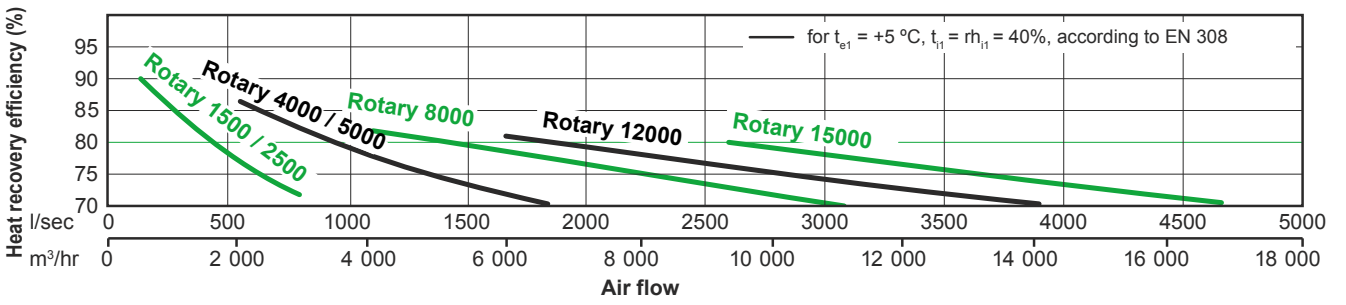
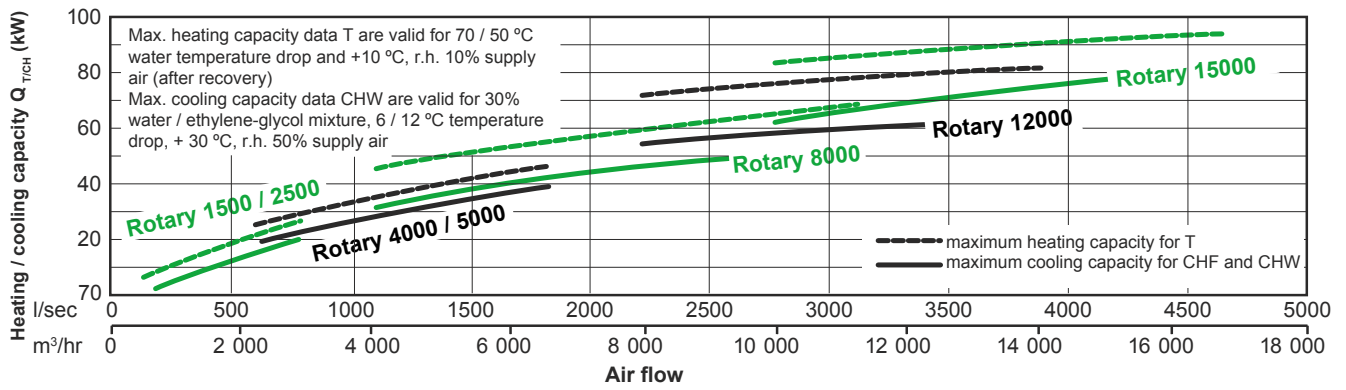
+ excludes motors. Motor warranty 1 year from date of the purchase.

## ACOUSTIC POWER $L_w$ AND PRESSURE $L_p$

Type	Working point	Acoustic power $L_w$ [dB(A)]					Acoustic pressure $L_p$ [dB(A)] at 3 m
		inlet e <sub>1</sub>	inlet i <sub>1</sub>	inlet e <sub>2</sub>	inlet i <sub>2</sub>	unit	
Duplexvent Rotary-N DV1500-N	1300m <sup>3</sup> /h at 200Pa	63	62	81	81	54	34
Duplexvent Rotary-N DV2500-N	2300m <sup>3</sup> /h at 200Pa	68	68	83	83	61	40
Duplexvent Rotary-N DV4000-N	3500m <sup>3</sup> /h at 200Pa	69	69	87	87	68	48
Duplexvent Rotary-N DV5000-N	5000m <sup>3</sup> /h at 200Pa	67	66	91	91	65	45
Duplexvent Rotary-N DV8000-N	8000m <sup>3</sup> /h at 200Pa	81	81	97	96	76	56
Duplexvent Rotary-N DV12000-N	10000m <sup>3</sup> /h at 200Pa	80	80	99	99	69	49
Duplexvent Rotary-N DV15000-N	15000m <sup>3</sup> /h at 200Pa	81	81	97	97	72	52

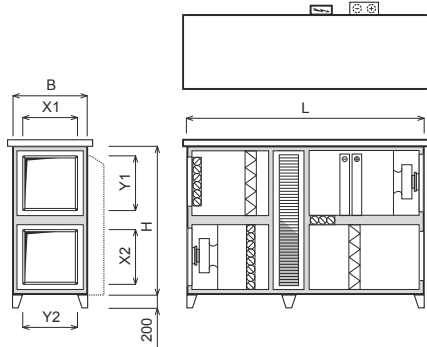


# PERFORMANCE

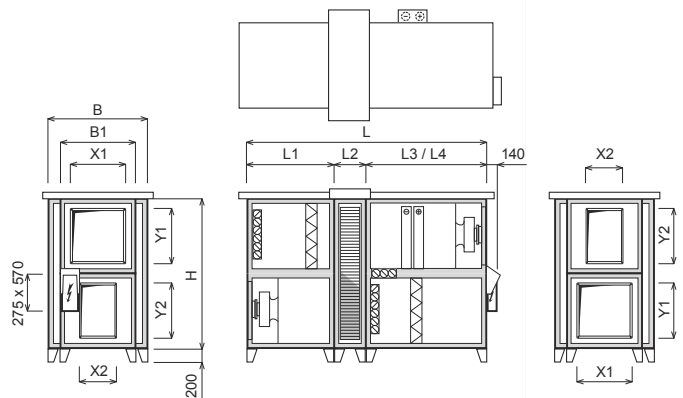


# DIMENSIONS

**ROOFTOP (front view)**  
1500 to 5000 Rotary

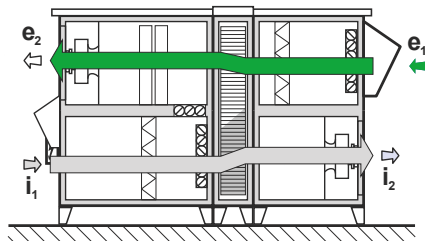


**ROOFTOP (front view)**  
8000 to 15000 Rotary

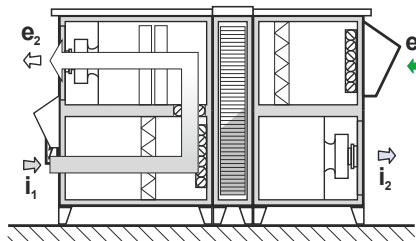


Duplexvent Rotary-N		DV1500-N	DV2500-N	DV4000-N	DV5000-N	DV8000-N	DV12000-N	DV15000-N
Depth (B)	mm	880	880	1200	1200	1600	1780	1930
Depth (B1)	mm					1160	1430	1705
Height (H)	mm	1150	1150	1760	1760	1820	2100	2250
Length (L) (without/with mixing damper)	mm	2030 / 2030	2030 / 2030	2250 / 2250	2250 / 2250	2665 / 2965	2830 / 3130	2970 / 3270
Length (L1)	mm	-	-	-	-	1000	1055	1125
Length (L2)	mm	-	-	-	-	530	530	530
Length (L3) (without mixing damper)	mm	-	-	-	-	1135	1245	1315
Length (L4) (with mixing)	mm	-	-	-	-	1435	1545	1615
Condensate drain	mm	ø32 (only when equipped with cooling coils)						
<b>Connecting ports</b>								
X1 x Y1 (standard $e_2, i_2$ )	mm	400 x 400	400 x 400	710 x 710	710 x 710	900 x 710	1000 x 900	1200 x 900
X2 x Y2 (standard $e_1, i_1$ )	mm	400 x 400	400 x 400	710 x 710	710 x 710	500 x 700	710 x 900	900 x 900

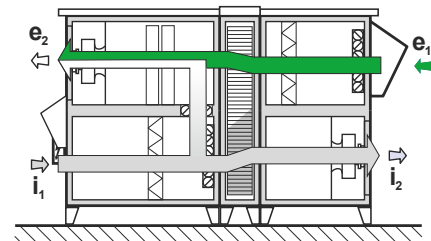
## OPERATING MODES



Ventilation with heat recovery with re-heating (with cooling)



Circulation heating or cooling



Combined mode (ventilation with circulation)

→ e<sub>1</sub> ...Fresh outdoor air suction  
 ⇨ e<sub>2</sub> ...Fresh filtered air outlet

⇨ i<sub>1</sub> ...Exhaust air suction  
 ⇨ i<sub>2</sub> ...Exhaust air outlet

T ...Central heating connection  
 CH ...Cooling connection

## DUPLEXVENT ROTARY-N

The Duplexvent ROTARY-N is a range of all-purpose commercial MVHR units that are suitable for all commercial premises that require ventilation up to 16,700m<sup>3</sup>/hr. The highly efficient rotary wheel heat exchanger recovers up to 85% of otherwise wasted heat to pre-warm the incoming supply air; reducing ongoing energy costs for the building.

Rotary units offer outstanding performance, with low SFP and high end thermal insulation to minimise heat loss. You can control your ROTARY-N unit with ease thanks to a wide range of control options, which enables adjustment of the unit's ventilation with or without a BMS via an internet connected device such as smartphone, computer or Duplexvent digital controller.



## SYSTEM CONTROL

BMS control interface is standard with Modbus TCP, (KNX and BACnet optional) protocols.

Alternatively the Duplexvent Web control system with internet connectivity may be specified to control remote equipment from a PC, Tablet or Smart phone





## A NEW GENERATION IN MECHANICAL VENTILATION WITH HEAT RECOVERY

Duplexvent Rotary-N units provide outstanding performance within a compact shape. The system comprises of separate supply and extract backward curved EC fans. Duplexvent Rotary-N units are easy to transport and install on site and provide excellent MVHR performance for a range of commercial and industrial applications.

The casing is twin skin construction with high insulation and transfer characteristic of 0.037 W/mK. It is rated to Thermal Insulation class T2 and thermal bridging class TB1 / TB2 (depending on the unit). Access doors are provided for ease of filter maintenance. Thanks to the highly efficient EC motors, Rotary-N units achieve extremely low SFP values from 0.45 W/m<sup>3</sup>/h.

Rotary-N units are designed to be installed outdoors. Thanks to the steel hood found on all units which cover the supply air inlet and the extract air inlet, the Duplexvent Rotary-N is protected against the weather. This protection helps to extend the life of the unit and maintain its long term optimal performance.



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