5 Series
Hybrid Rotary Ventilators

TECHNICAL DATA SHEET

Airocle™

1.0 Product Overview

The Airocle 5 Series Hybrid combines the 5 Series spherical rotary ventilator with a high capacity booster fan. With the fan off, the unit ventilates naturally using wind and stack effect. With the fan on, it delivers a dependable extract rate during still conditions, peak loads or night purge.

Wind acting on a building commonly places roof ventilators under negative pressure, which can significantly reduce the airflow of lighter-duty fans. The 5 Series Hybrid uses a high capacity fan that is highly resistant to wind pressure, providing more consistent airflow as conditions change (see Section 3.0).

Hybrid units must be fitted with the 5AV transition base.

5 Series Hybrid Installations (left & middle image fitted with optional dampers)

2.0 Range Summary

Model	5AV.0400/EC-035-4	5AV.0600/AC-050-4	5AV.0600/EC-045-4	5AV.0900/EC-056-4
Throat diameter (mm)	400	600	600	900
Fan motor type	EC	AC	EC	EC
Airflow @ 0 Pa ESP (L/s)	840	1,780	1,580	3,080
Power supply	Single phase	Single phase	Single phase	Single phase
Nominal input power (kW)	0.21	0.59	0.50	1.00
Nominal current (A)	0.92	2.9	2.2	4.4
Speed control	0–10 V / PWM	Voltage control	0–10 V / PWM, Modbus RTU	0–10 V / PWM, Modbus RTU
Fan protection rating	IP54	IP54	IP54	IP54
Overall height (mm) [1]	723	1,093	1,093	1,420
Base footprint (mm)	500 × 500	800 × 800	800 × 800	1,100 × 1,100
Whirly bird mass (kg) [2]	17.2	33.8	33.8	59.4
Fan mass (kg)	6.9	–	11.0	23.5

ESP = external static pressure. Airflow at full fan speed, still air. [1] Head + flat transition base; sloped and ridge bases vary with roof pitch. [2] Head + transition base, Zincalume fabrication; excludes accessories. Rosenberg fan data sheets are available on request.

3.0 Airflow

Because wind can hold a roof ventilator under negative pressure, airflow at 0 Pa alone does not show how a unit performs on a real building. The table below shows airflow per unit at 20 Pa of external pressure. Every 5 Series Hybrid model retains at least 95% of its rated airflow.

Table 1: Airflow per unit at 0 Pa and 20 Pa external pressure

Model	5AV.0400/EC-035-4	5AV.0600/AC-050-4	5AV.0600/EC-045-4	5AV.0900/EC-056-4
Airflow @ 0 Pa (L/s)	840	1,780	1,580	3,080
Airflow @ 20 Pa (L/s)	800	1,690	1,520	2,990
Airflow retained at 20 Pa	96%	95%	96%	97%

Full fan speed, still air. Calculated from the fan manufacturer's published fan curves and the Airocle ventilator internal pressure loss.

4.0 Performance Curves

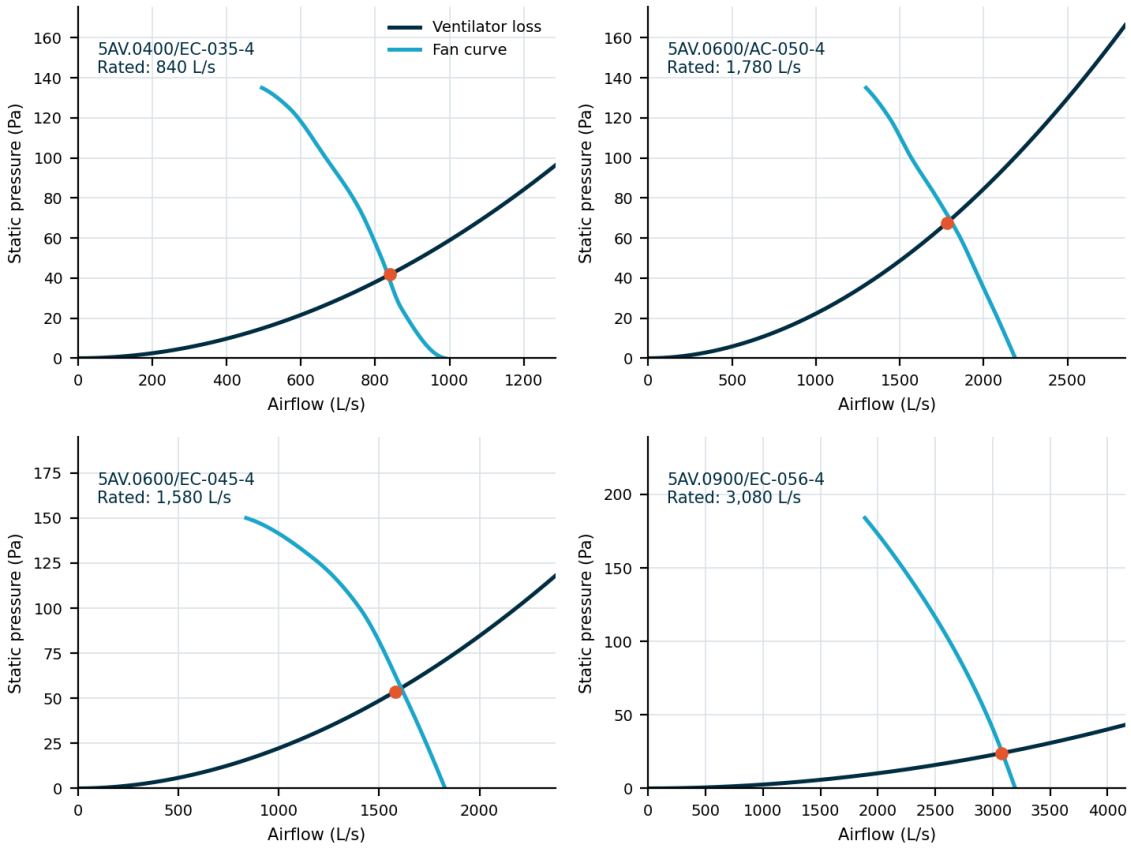

Figure 1: Ventilator internal pressure loss and booster fan curve for each model. The marked point is the rated duty at 0 Pa External Static Pressure (ESP).

5.0 Specification Clause

Description: Hybrid roof ventilator(s) shall be of spherical rotary design with sealed bearings, fitted with a heavy-duty booster fan and a square-to-round transition base. The ventilator shall operate naturally with the fan off.

Proprietary item: Airocle 5 Series Hybrid, Model 5AV._____ / _____.

Performance: Each unit shall achieve not less than _____ L/s at _____ Pa external static pressure in powered mode.

Fan and controls: Rosenberg [EC / AC] axial fan, IP54, controlled by [BMS / time clock / thermostat / switch] [with 0–10 V variable speed].

Fabrication: [Zincalume / Colorbond / aluminium / stainless steel], base to suit roof pitch and profile. Install to Airocle fixing and connection details.

Disclaimer

Technical specifications are subject to change without notice. As Airocle is committed to ongoing product development, dimensions, masses, performance data and specifications may be updated at any time.

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