

# **HMR EVO**

A mixed-flow fan **30% more efficient and quieter** than an axial fan

TERTIARY AND INDUSTRIAL





# MEDIUM PRESSURE MIXED-FLOW FAN

### **HMR EVO**

Mixed-flow fan 30% more efficient and quieter than an axial fan

#### THE BEST OF BOTH WORLDS

The HMR EVO from Casals Ventilación is the helical-centrifugal tubular fan designed to offer the best of both worlds: greater **energy efficiency** and **less noise**.

If your installation has a high pressure loss, the HMR EVO is the ideal solution for transporting air efficiently and quietly.

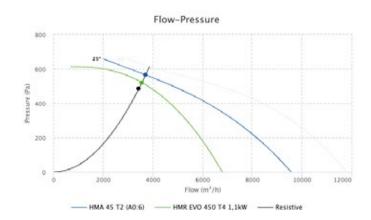
## HIGH PRESSURE LEVELS AT LOWER SPEED

Although its shape is similar to a tubular axial fan, the HMR EVO stands out for its performance as a medium-pressure centrifugal fan. This means that it can offer **high pressure levels**, comparable to those of an axial fan, but operating at **half the revolutions per minute** (rpm), which reduces wear and improves durability.



#### MORE PERFORMANCE AND LESS NOISE

Designed to perform at its best in high-pressure areas, the HMR EVO is **30% more efficient** than a axial fan such as the HMA, and also produces up to 30% less noise, making it the preferred choice for spaces where acoustic comfort is key.

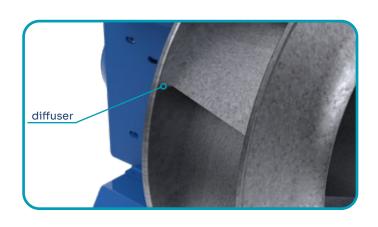


#### **HIGHLIGHTS**

- **Up to 1,200 Pa** of pressure compared to the 700 Pa of an axial fan like the HMA, doubling the optimal working pressure in demanding areas.
- Silent operation, especially at medium and high pressure levels.
- **High efficiency impeller with built-in diffuser**, which eliminates the need to use a scroll or spiral casing to obtain performance.
- See technical data sheet at Fanware

#### THE IMPORTANCE OF THE DIFFUSER

The HMR EVO's built-in diffuser optimises airflow, reducing turbulence and improving system efficiency. Thanks to this technology, the fan can operate more efficiently without the need for a spiral casing, which in addition to saving space, means improved aerodynamic performance, reducing energy consumption and noise.





### HMR EVO MEDIUM PRESSURE MIXED-FLOW FAN



#### MANUFACTURING FEATURES

- Cased fan made of laminated sheet steel. Protected from corrosion by polyester resin powder coating. Motor access hatch for easy connections and main-
- Centrifugal fan with self-cleaning system and high-efficiency backward impeller made of sheet steel, statically and dynamically balanced in origin.
- Impeller with built-in diffuser to work without scroll or spiral casing.
- Models with AC motor and within the air flow. Standard asynchronous squirrel cage motor with IP-55 protection and Class Finsulation. Standard voltages 230V 50Hz 230/400V and 400/690V 50Hz for single-speed three-phase motors and 400V 50Hz for two-speed motors.
- Maximum continuous working temperature 60°C.

#### **APPLICATIONS**

Designed for in-line installation, they are suitable for:

- Air renewal in buildings and industries.
- Smoke extraction.



#### **INSTALLATION EXAMPLES**

#### INDUSTRIAL INSTALLATIONS

- Factory ventilation systems with long ducts and multiple air outlets with high pressure loss.
- Food processing plants, where controlled environments are needed, removing fumes and vapours generated in different areas of the facility.
- Industrial warehouses and logistics centres, where efficient ventilation is needed in large spaces, with ducts distributing air to different sections of the buildina.
- Industrial paint booths, where airflow control is crucial to maintain proper drying and ventilation conditions, with high levels of obstruction from filters or extractors.
- Recycling facilities, which require ventilation through long, winding ducts, where the build-up of dust and debris increases resistance to airflow.

#### **TERTIARY INSTALLATIONS**

- Shopping centres with centralised air conditioning systems, distributing cooled air through long duct runs.
- Office buildings, where ventilation systems must overcome pressure losses caused by multiple floors and branching ductwork.
- Hospitals and healthcare centres, requiring controlled and efficient ventilation in HVAC systems and air extraction, preventing the spread of contaminants through long duct systems.
- Hotels and large residential complexes, where ventilation must be efficiently distributed to all rooms through extensive ductwork.
- Cinemas or theatres, where adequate airflow must be maintained in auditoriums and halls, despite the pressure loss in long ducts and obstacles.



## HMR EVO MEDIUM PRESSURE MIXED-FLOW FAN



### RANGE 50HZ

#### **SINGLE PHASE RANGE**

Model	R.P.M.	Rated I. (A) 230V	Rated power (kW)	Max. Airflow (m³/h)	Weight (kg)
HMR EVO 315 M4 0,25kW	1410	1,6	0,25	2.080	35
HMR EVO 355 M4 0,25kW	1410	1,6	0,25	2.980	40,50
HMR EVO 400 M4 0,75kW	1400	5,21	0,75	4.550	52

#### **THREE PHASE RANGE**

Model	R.P.M.	Rated I (A)		Rated power	Max. Airflow	Weight
		230V	400V	(kW)	(m³/h)	(kg)
HMR EVO 315 T2 1,1kW	2800	4,05	2,33	1,10	4.150	36
HMR EVO 315 T4 0,25kW	1400	1,38	0,79	0,25	2.080	35
HMR EVO 355 T4 0,25kW	1400	1,38	0,79	0,25	2.980	40,50
HMR EVO 400 T4 0,75kW	1390	3,5	2,00	0,75	4.550	52
HMR EVO 450 T4 1,1kW	1450	4,33	2,49	1,10	6.790	68
HMR EVO 500 T4 1,5kW	1450	5,67	3,26	1,50	8.930	89
HMR EVO 560 T4 3kW	1420	10,7	6,17	3,00	12.670	120
HMR EVO 630 T4 5,5kW	1460	-	10,5	5,50	18.760	170
HMR EVO 500 T6 0,55kW	925	3,39	1,95	0,75	5.860	90
HMR EVO 560 T6 0,75kW	910	3,79	2,18	0,75	8.320	118
HMR EVO 630 T6 1,5kW	940	6,45	3,71	1,50	12.490	164

#### **THREE PHASE RANGE 2 SPEEDS**

Model	R.P.M.	Rated I (A)		Rated power	Max. Airflow	Weight
Model		230V	400V	(kW)	(m³/h)	(kg)
HMR EVO 315 T4/T8 0,25/0,03kW	1370	1,13/0,37	0,25	2.080	35	36
HMR EVO 355 T4/T8 0,25/0,03kW	1370	1,13/0,37	0,25	2.980	40,50	35
HMR EVO 400 T4/T8 0,75/0,12kW	1400	2,03/0,68	0,75	4.550	52	40,50
HMR EVO 450 T4/T8 1,1/0,18kW	1400	2,67/1,08	1,10	6.790	68	52
HMR EVO 500 T4/T8 1,5/0,25kW	1400	3,46/1,27	1,50	8.930	89	68
HMR EVO 560 T4/T8 3/0,55kW	1430	6,53/2,33	3,00	12.670	120	89
HMR EVO 630 T4/T8 5,5/1,1kW	1450	10,73/3,82	5,50	18.760	170	120

### **RANGE 60HZ**

#### **SINGLE PHASE**

Model	R.P.M.	Rated I. (A) 230V	Rated power (kW)	Max. Airflow (CFM)	Weight (kg)
HMR EVO 315 M4 0,25kW	1700	1.52	0.25	1,430	35
HMR EVO 355 M4 0,55kW	1680	3.98	0.55	2,166	41.50

#### **THREE PHASE**

Model	R.P.M.	Rated I. (A)		Rated power	Max. Airflow	Weight
		230V	400V	(kW)	(CFM)	(kg)
HMR EVO 315 T4 0,25kW	1680	1.38	0.79	0.25	1,430	35
HMR EVO 355 T4 0,55kW	1680	2.57	1.49	0.55	2,166	41.50
HMR EVO 400 T4 1,1kW	1670	4.33	2.49	1.10	3,231	53
HMR EVO 450 T4 1,5kW	1728	5.67	3.26	1.50	4,767	68
HMR EVO 500 T4 3kW	1680	10.7	6.17	3.00	6,304	92
HMR EVO 500 T6 0,75kW	1090	3.39	1.95	0.75	4,138	90
HMR EVO 560 T6 1,5kW	1128	6.45	3.71	1.50	5,933	120
HMR EVO 630 T6 3kW	1152	12.7	7.3	3.00	8,829	170