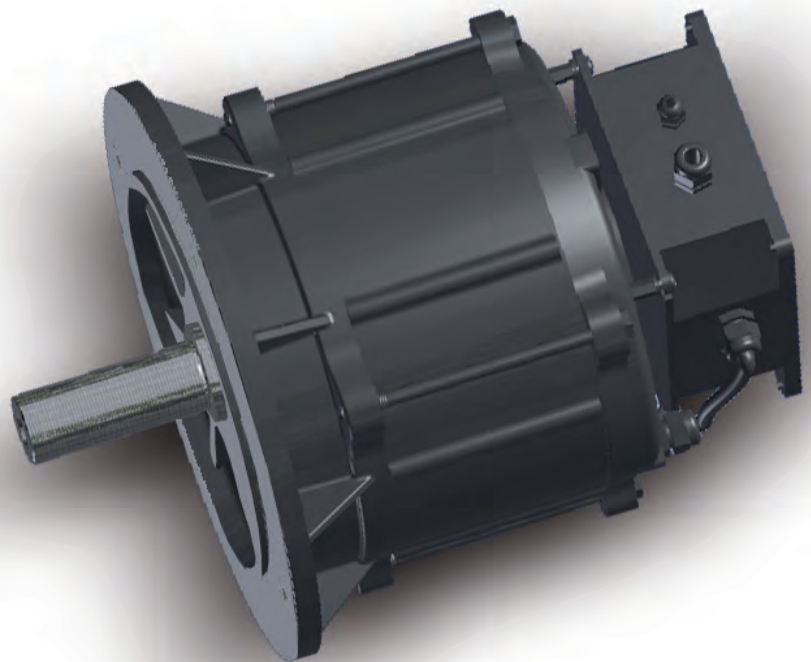


BIG FAN RANGE

INTEGRATED DIRECT DRIVE
FAN MOTOR (IFM SERIES)



BROCHURE 2015





BIG FAN SYSTEM

Ventilation systems can be designed in many different ways to produce an effective and efficient system. For use in those buildings that have spacious halls or rooms, a new economical way is available to secure an even temperature distribution and correct cooling. A new concept is to use **low speed Permanent Magnet Synchronous IE4 Motors** running fans with big diameters (up to 7 m) and reduce energy consumption.

The innovative low speed Permanent Magnet Synchronous IE4 Motors, specifically designed for fans with big diameters are offered under the name **INTEGRATED DIRECT DRIVE FAN MOTOR (IFM) – BIG FAN**. The fan speed can be controlled by a **built in drive or stand-alone drive** and because the system is completely gearless, efficiency is increased and maintenance significantly reduced.

GO BIG - REALISE BIG SAVINGS

Low speed BIG FANs offer the advantage of moving a significant amount of air whilst consuming less energy compared to traditional ventilation systems. In many cases **more than 50 % energy saving** is expected. Low speed BIG FANs also offer the advantage of very low noise levels and improve the environment, making conditions cooler and more comfortable.

It has been proven that air speed > 3 m/s offers insignificant added cooling. There by the most economical solution to distribute the temperature and secure cooling is to install low speed BIG FAN with **air speed < 3m/s**.

MAIN APPLICATIONS

Buildings or construction's requiring the cooling and mixing of air to improve the environment.

- Reception Areas
- Shopping Centres
- Hotel Lobby Areas
- Sport Centres
- Industrial Production Facilities
- Stables

ADVANTAGES

Permanent Magnet rotor design achieving IE4 Super Premium Efficiency level

Temperature distribution

Zone control - Avoid cold and hot zones

Secure better utilisation of the air conditioning system

Since BIG FAN are variable speed the air flow speed can be controlled according to the temperature condition

In case of power supply' failure the drive has the ability to catch the rotating fan (wind milling) in order to prevent system alarms

Drive integrated on the motor or as stand-alone

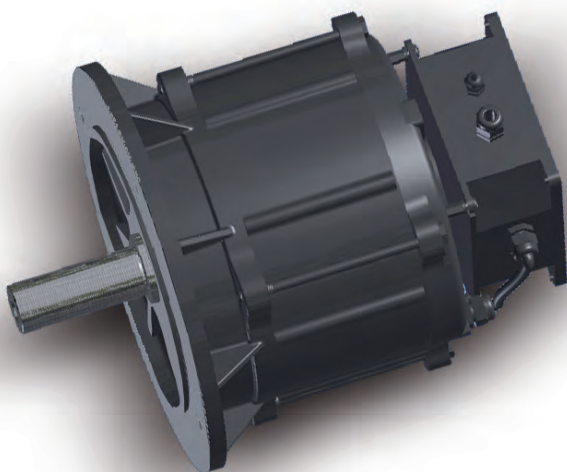
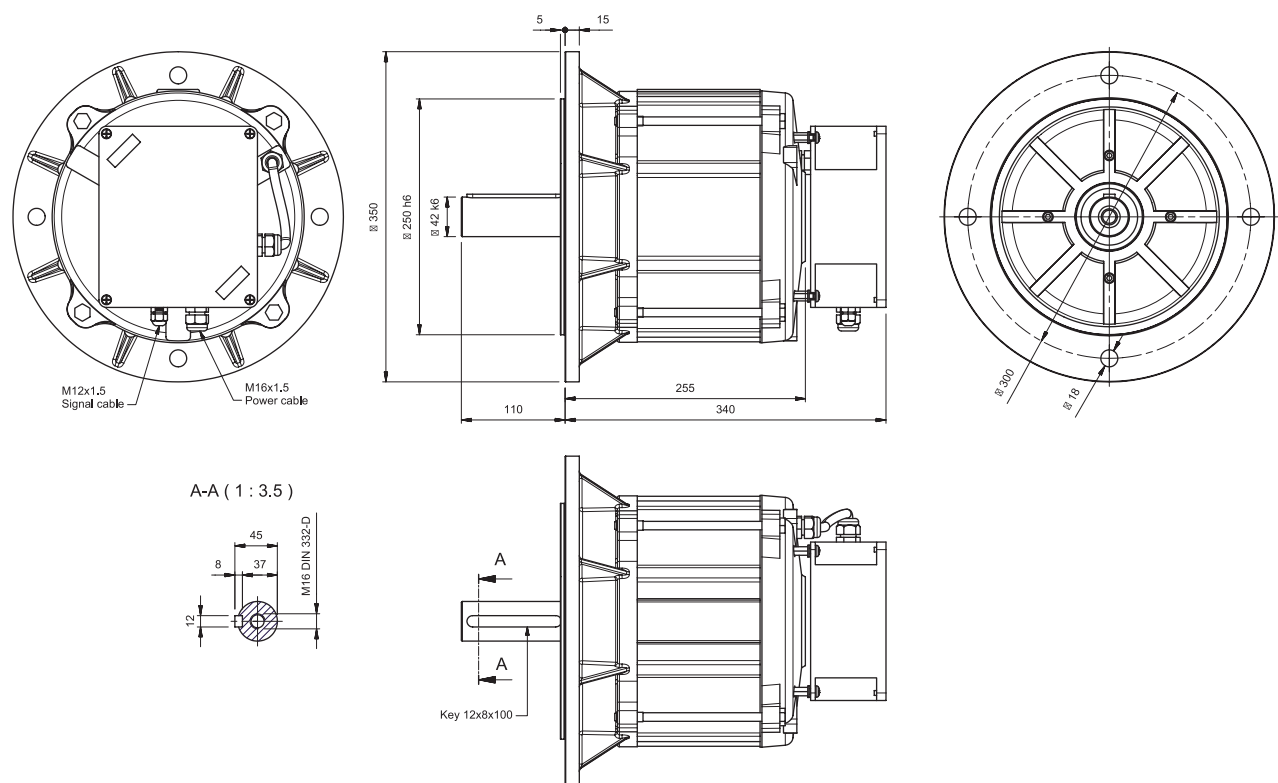
Built into the drive temperature sensor avoids external mounted sensors

No gearbox to maintain due to direct driven fan

Improved environment

Low noise operation

Compliance to Electromagnetic Compatibility Directive - EMC 2004/108/EC



DRIVE
STAND-ALONE



MOTOR SPECIFICATIONS

	Size A	Size B
	80 Nm @ 150 rpm (1,3 kW)	120 Nm @ 100 rpm (1,3 kW)
Electrical Design		
Speed Range	60 ÷ 150 rpm	40 ÷ 100 rpm
Rated Current (In)	2,9 Amp	2,9 Amp
Rated Speed (n)	150 min-1	100 min-1
Rated Power	1,26 kW	1,26 kW
Mechanical Design		
Mounting	IMB5 o B14 come opzione	IMB5 o B14 come opzione
Bearing DE (locked)	3212 2RS	3212 2RS
Bearing NDE	6309 2RS	6309 2RS
Shaft	42 x 110	42 x 110
IP Protection	IP55	IP55
Corrosion Protection	C3-H	C3-H
Weight	50 kg	60 kg

DRIVE SPECIFICATIONS

Power Supply	Three-phase 400 ÷ 480V 50/60Hz
Control	Sensorless PM
Network Filter	EMC Filter, Harmonic filter (both built in)
	External Analogic Signal 0-10 Vdc (Connector COM, V1)
Speed / Position Control	External Pot (V+, V1, COM)
	Serial (Terminal S-, S+, Protocol MOD-BUS)
Temperature Sensor integrated	Optional
	IP67
Drive Mounting	Integrated in the NDE side (see drawing)
	Stand-alone

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