

# IFM RANGE

## HVLS APPLICATIONS

INTEGRATED DIRECT DRIVE FAN MOTORS





## IFM 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 Motors** running fans with big diameters (up to 7 m) and reduce energy consumption.

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

## GO BIG - REALIZE BIG SAVINGS

Low speed IFM 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 IFM also offer the advantage of very **low noise levels** and improve the environment, making conditions cooler and more comfortable.

## TARGET APPLICATIONS

Buildings and constructions with need for cooling and mixing of air to improve the **environment for humans and animals**.

- Shopping centers
- Hotel lobby
- Reception areas
- Sport centers
- Industrial production facilities
- Stables

## ADVANTAGES

Permanent Magnet rotor design achieving the highest efficiency values

Distribute the temperature and zone control

Secure the optimisation of the air condition system

Since IFM are variable speed, the air flow speed can be controlled according to the temperature condition

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

No gearbox to maintain due to direct driven fan

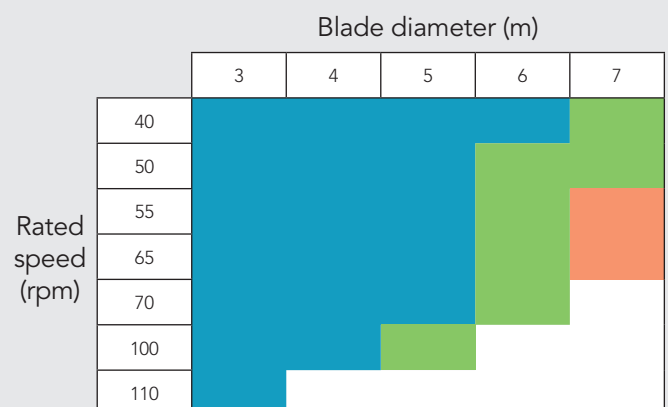
Compliance to Electromagnetic Compatibility Directive - EMC 2014/30/EC

## MAIN FEATURES

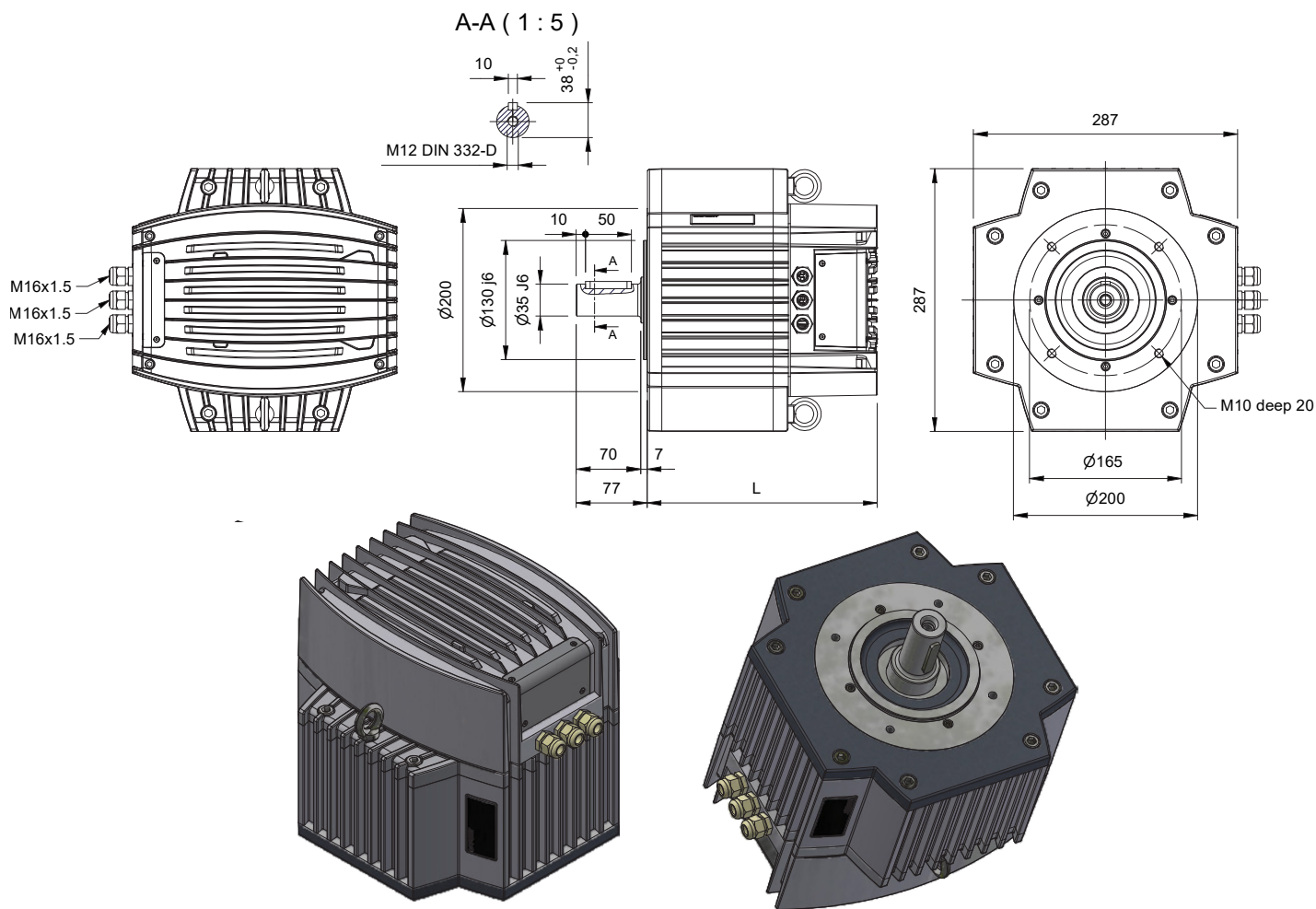
- 400 Vac three-phase, 230 Vac single-phase
- Motor control at low speed down to 1-2 rpm
- Compliance to Electromagnetic Compatibility Directive - EMC 2014/30/EC
- ETL Certification

## THE RANGE

- **TYPE IFM 10:** up to 40 Nm
- **TYPE IFM 20:** up to 80 Nm
- **TYPE IFM 30:** up to 110 Nm



## DIMENSIONS IM B14



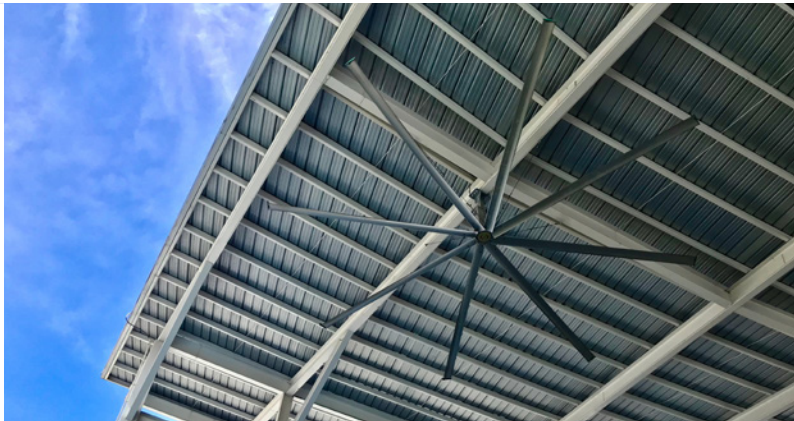
### MOTOR SPECIFICATIONS

Mounting	IMB14		
Bearing DE (locked)	6310 2RS		
Bearing NDE	6309 2RS		
IP Protection	IP55		
Bearing lifetime	>20.000h		
Corrosion Protection	C3-H		
TYPE	IFM10	IFM20	IFM30
Rated torque	40 Nm	80 Nm	110 Nm
Length*	250 mm	292 mm	313 mm
Weight*	36.5 kg	47.8 kg	54 kg

\*Drive included

### DRIVE SPECIFICATIONS

Power Supply	380 ÷ 480V ± 10 %, 3 φ 200 ÷ 240V ± 10 %, 1 φ
Control	Sensorless PM
Line Filter	EMC Filter, Harmonic filter (both built in) Active PFC built in for Single Phase release
Speed / Position Control	External Analogic Signal 0-10 Vdc External Pot Serial (Protocol MOD-BUS, CAN)
Drive IP Rating	IP66 / Nema 4x
Drive Mounting	Integrated in the NDE side UL Certified





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