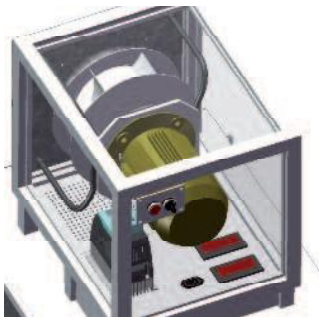


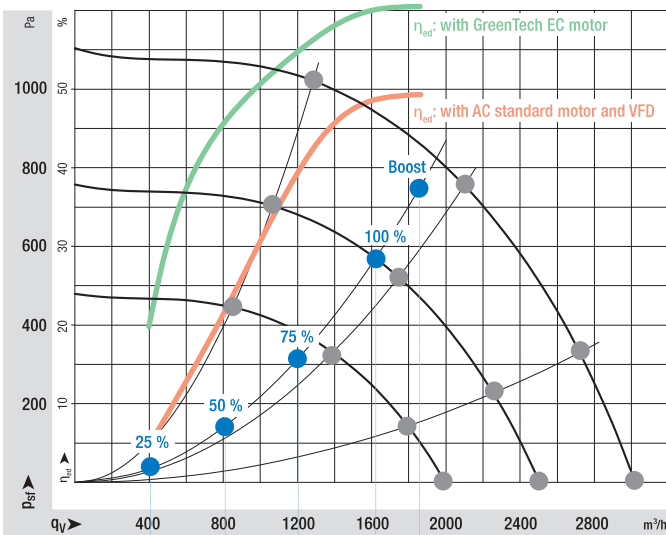
Comparison: Centrifugal fans, size 250

with AC standard motor and VFD <> with GreenTech EC motor

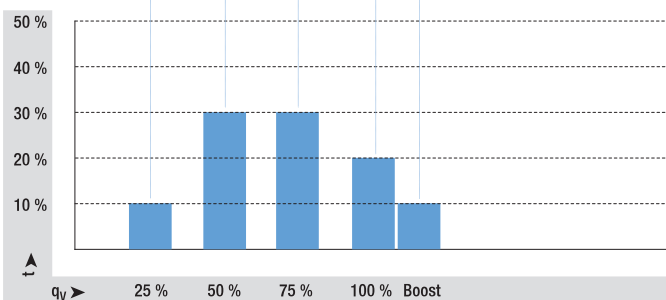


Motor	IEC standard motor IM B5, Size 80M 3~ 230/400 VAC D/Y, shaft power 0.75 kW, 2850 rpm	GreenTech EC motor (Permanent Magnet Motor) External rotor design with integrated drive 1~ 200-277 VAC, max. input power 0.7 kW, IP 54
Drive	External VFD 1~ 200-240 VAC, 0.75 kW, IP 20	
Impeller	High efficient welded aluminium impeller for elevated speed, with rotating diffuser, Ø 250	High efficient welded aluminium impeller for elevated speed, with rotating diffuser, Ø 250
Features	<ul style="list-style-type: none"> – Drive needs parameterising – Needs additional devices to limit THD – Needs additional devices to fulfil EMC requirements – May need shielded cables between drive and motor – Creates humming noise at low rpm 	<ul style="list-style-type: none"> – Plug-and-Play design – Approved drive/motor/impeller combination – Tested and balanced as complete unit – High efficiency also at part load – Compact design – Low weight – Active power factor control – No rare earth magnets involved

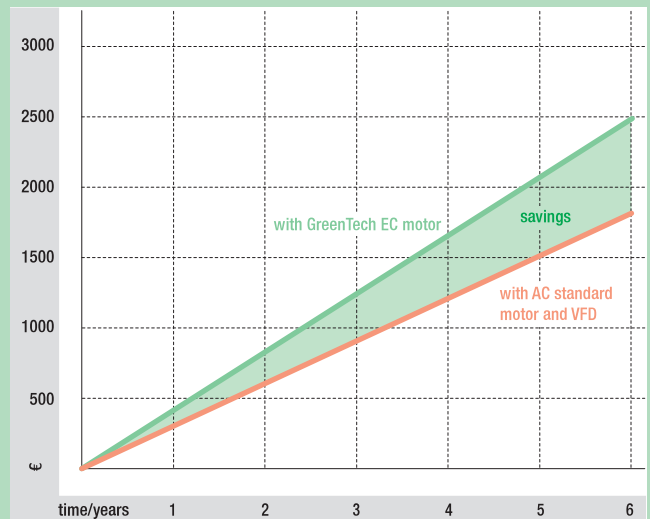
1,850 m³/h @ 750 Pa, Boost and operation at part load



Load profile



Result



The advantage of a GreenTech EC motor compared with a AC standard motor and VFD (with equal performance rating) is about 28 % in the mentioned load profile.

Beside the energetic advantages there are clearly lower costs for installation, lower weight and a space-saving design.

1 fan in continuous operation according to load profile
Energy costs 0.15 € per kWh