

Order line: 10

Specification of: PFP A1-0560 4.1kW 400V-3F M6H6

Direct driven high-performance centrifugal fan PFP

Motorized impeller with high system efficiency, with matching inlet nozzle, loose, suitable for horizontal or vertical installation, specifically developed and optimized for use without a scroll case. Equipped with flow measuring device IMV as a standard feature. Aluminium-made centrifugal impeller with 7 backward inclined welded blades. The wheel is directly fitted to a brushless external-rotor motor, with no transmission losses. The complete unit is dynamically balanced according to DIN ISO 21940-11. Light-weight motor frame cast from corrosion-resistant aluminium. A three-phase sensorless driver is fully integrated into the motor. Continuous speed variation control Drive System by 0 ... 10 V analogue signal, or with Modbus RS485 compliant interface. All the drive system is protected according to class IP 54. Power supply 400 V – 50/60 Hz. Air performance ratings according to AMCA 210-07 (Fig. 12) and ISO 5801:2007 (Fig. 41 and par. 30.3).

Technical data of the fan: PFP A1-0560 4.1kW 400V-3F M6H6

fulfills the ErP requirements 2015

Description	Value Dimension
Installation acc. DIN 24163 Part 1	A
Reference density (Rho1)	1.20 kg/m ³
Medium temperature (t)	20 C
Air flow rate (V)	11642 m ³ /h
Total pressure rise (dp _t)	724 Pa
Dynamic pressure at discharge (pd ₂)	49 Pa
Static pressure rise (dp _{ra})	675 Pa
Possible increase to max. speed (f _R)	6 %
Fan speed (n _v)	1488 min ⁻¹
Absorbed power of fan system (P _{1s})	3.46 kW
max. current at n _v : Inverter out resp. control unit in (I)	5.0 A
System efficiency (ETA _{faS}) (over all efficiency of fan (static), motor, and inverter/Controller)	63 %
Specific Fan Power (SFP-factor)	1071 W/(m ³ /s)
Nozzle calibration factor (K ₁₀)	260 m ² /s/h
Differential pressure on nozzle (dp _D)	1203 Pa
Velocity at discharge area (c)	9.0 m/s
Fan weight	27 kg
A-weighted sound power level discharge/intake LwA _{6/5}	86/80 dB
Unweighted octave sound power level	Octave mid frequencies ¹⁾ 63/125/250/500/1k/2k/4k/8k Hz 81/83/81/81/83/78/72/66 dB discharge LwOkt ₆ 79/84/81/76/75/71/68/63 dB intake LwOkt ₅

¹⁾ The octave sound power levels can be higher at octave bands at or close to blade passing frequency.

Feed data

Main's frequency (f _N)	50/60 Hz
Voltage (U _N)	3~ 400 V

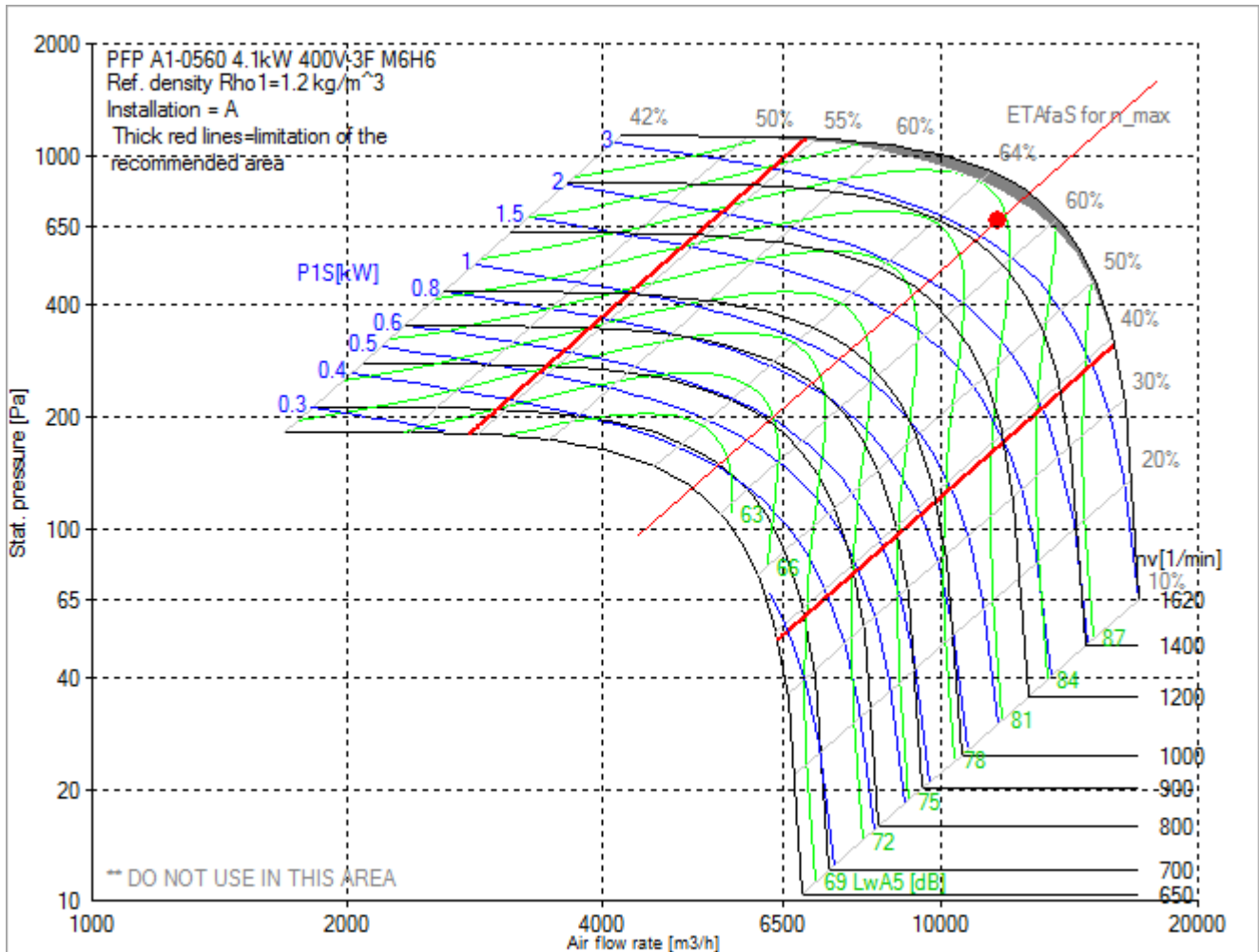
operational limits

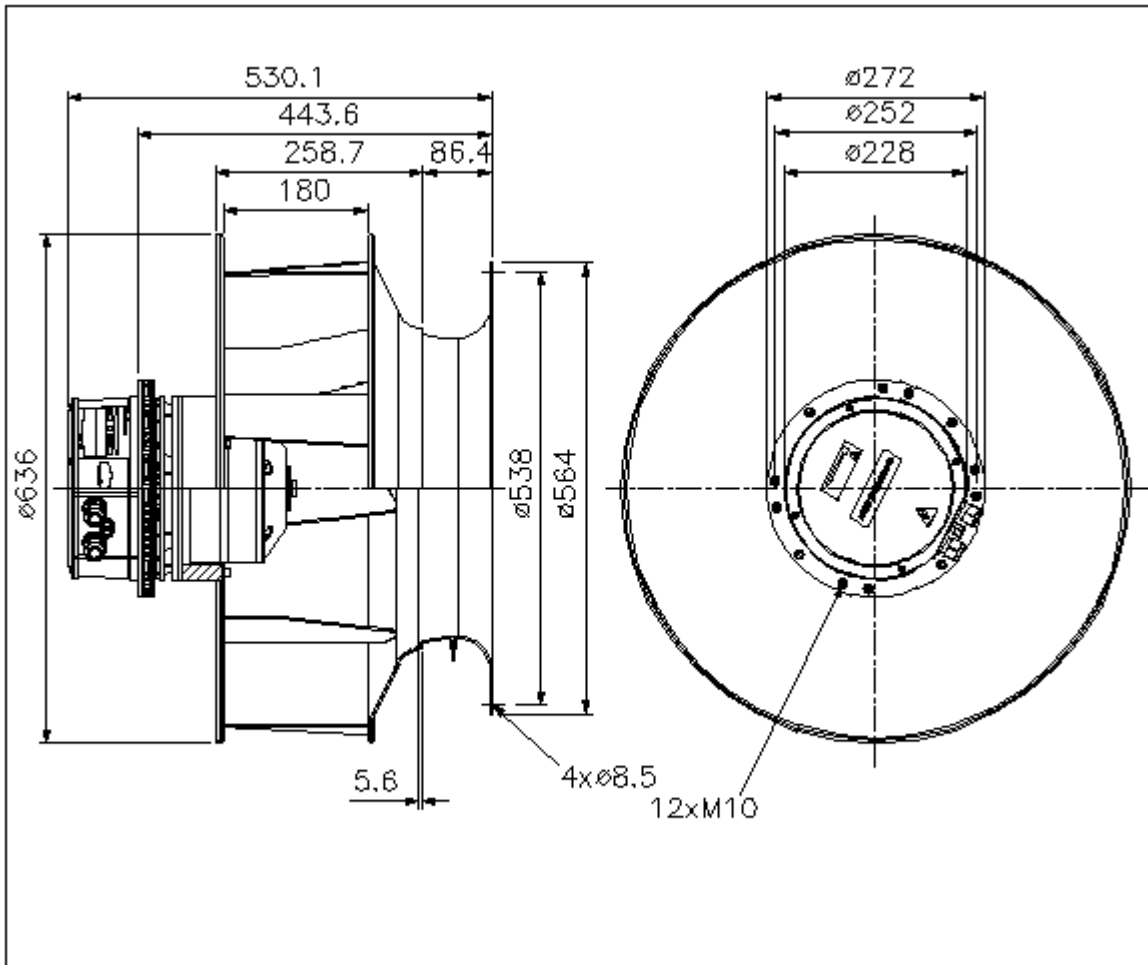
Max. fan speed (n _{vmax})	1620 min ⁻¹
Max. absorbed power of the system (P _{maxS})	4.10 kW
max. current: Inverter out resp. control unit in (I _{max})	6.3 A
Temperature range for conveying medium (t _{min} ... t _{max})	-20...40 C

ErP-Data at best efficiency and density 1.20 kg/m³

measurement- / efficiency category	A / static
design status of VSD	VSD is integrated
overall efficiency (ETA _{opt})	66.6 %
achieved efficiency grade (N _{ist})	70.6
required efficiency grade in 2013 / 2015 (N)	58 / 62
Air flow rate (V _{opt})	11115 m ³ /h
pressure rise (dp _{opt})	856 Pa
Fan speed (n _{vopt})	1572 min ⁻¹
motor power input (P _{1opt})	3.96 kW
specific ratio (d _{dpopl})	1.008

Fan curve to PFP A1-0560 4.1kW 400V-3F M6H6

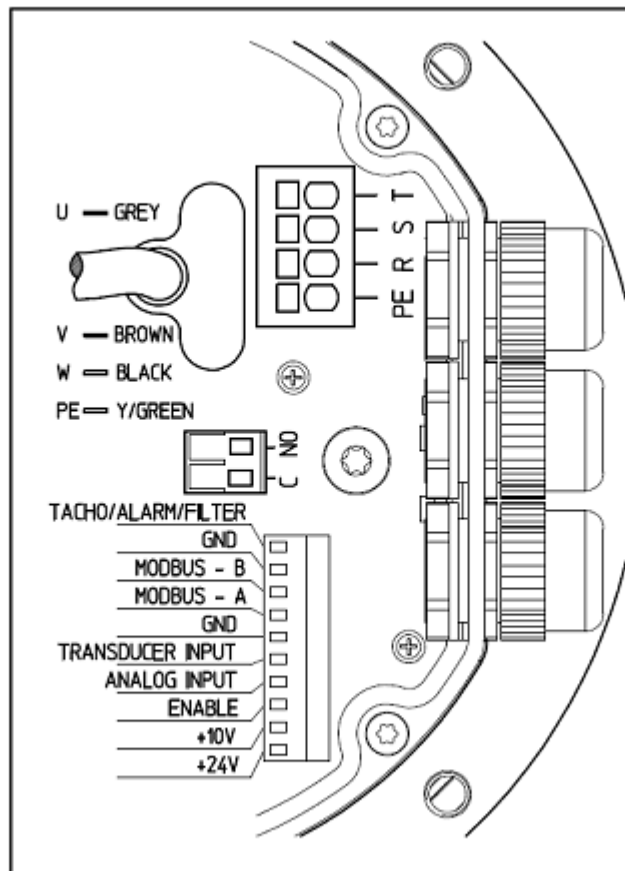




Rotation:
Handing:

RD
90

Wiring diagram of the fan PFP A1-0560 4.1kW 400V-3F M6H6



11-10-2017 5Z

Wiring diagram for connection to: [mains - VSD - motor](#)
Rotation: [LG](#)