



Specification of: RLM 56-2528-2W-11-58

Direct driven high-performance centrifugal fan RLM with external HIGH EFFICIENCY motor in efficiency class IE 2 (IEC 60034-30)

Centrifugal fan, specially designed for operation w/o casing, with motor & PTC-Thermistors For installation horizontally. Motor impeller with inlet cone, bearing unit, motor base and basic frame manufactured as a module and adjusted. Backward curved impeller of welded, coated sheet steel construction, impeller mounted directly on the motor rotor, statically and dynamically balanced in accordance with DIN ISO 21940-11. For measuring the flow rate the fans are equipped with volumeter. At intake a square flexible connection can be fitted. Performance data (w/o drive) according to tolerance class 1 to DIN 24 166.

NOTE: FROM 2017 ONWARDS, STANDARD MOTORS WITH 2, 4 AND 6 POLES IN EUROPE WITH PERFORMANCES $\geq 0,75$ KW MUST ACCOMPLISH AT LEAST THE EFFICIENCY CLASS IE3. ALTERNATIVELY, MOTORS IN EFFICIENCY CLASS IE2 ARE ALSO ADMISSIBLE WHILE USING WITH DRIVE (VFD).

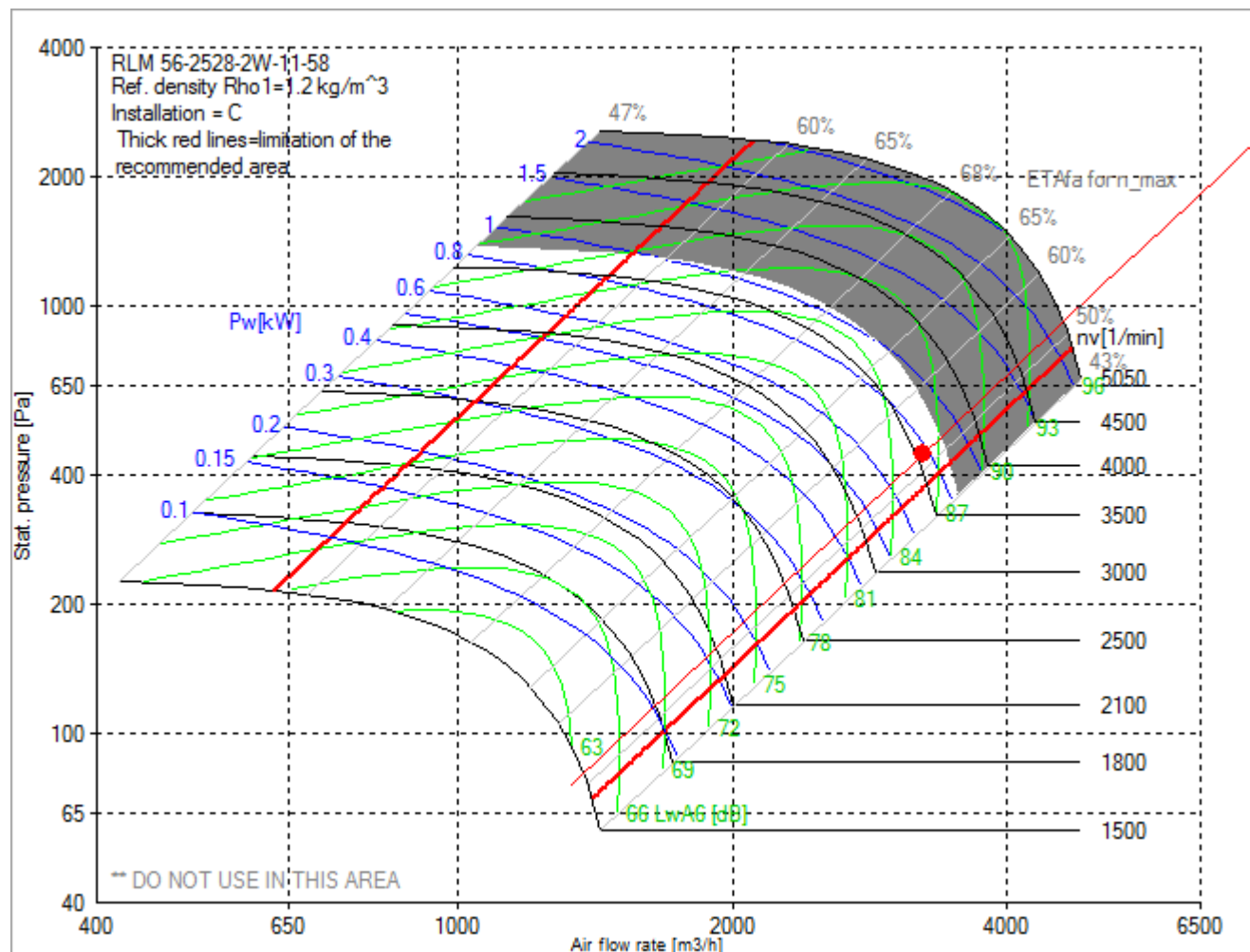
Technical data of the fan: RLM 56-2528-2W-11-58

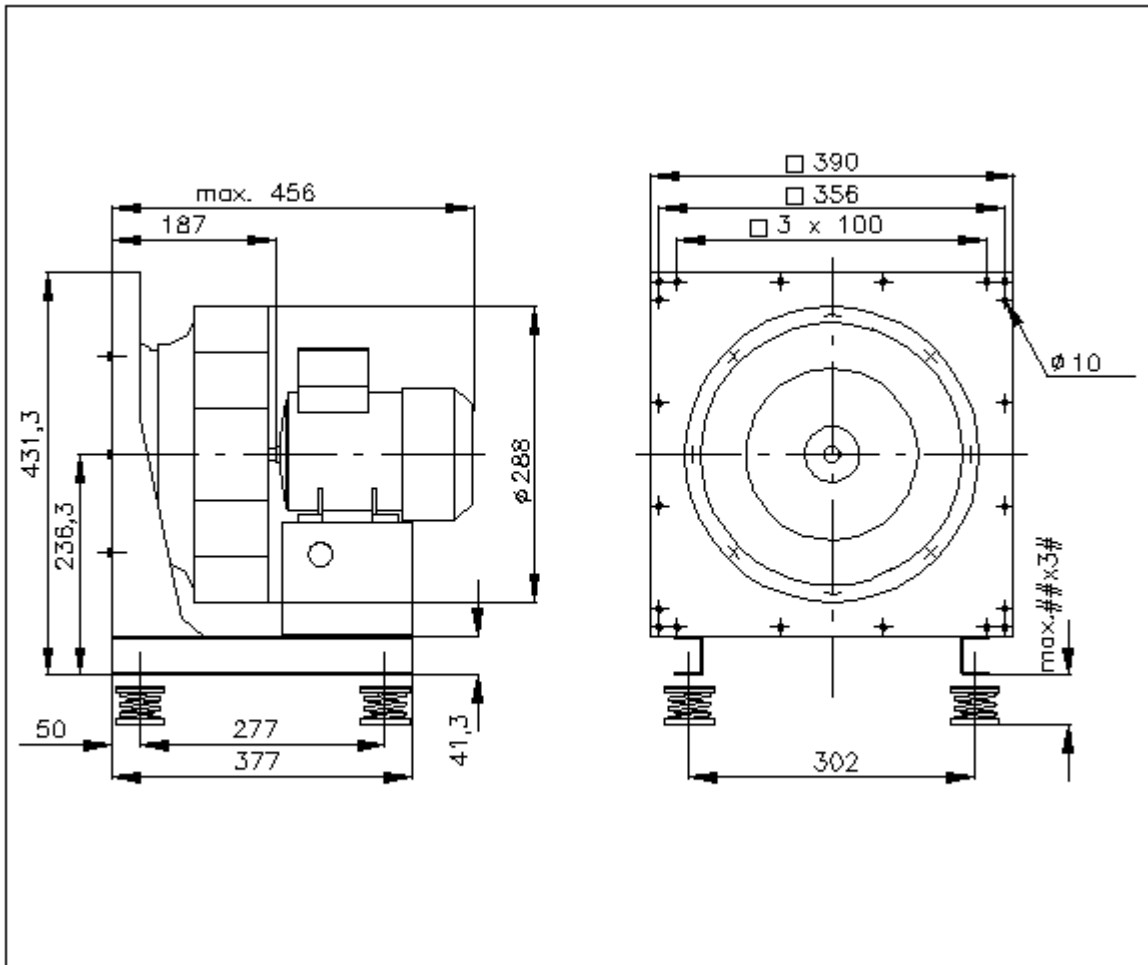
fulfills the ErP requirements 2015

Description	Value Dimension
Specified duty point	
Air flow rate (V)	3226 m ³ /h
Static pressure rise (dp _{ra})	448 Pa
Design duty point	
Installation acc. DIN 24163 Part 1	C
Reference density (Rho1)	1.20 kg/m ³
Medium temperature (t)	20 C
Air flow rate (V)	3226 m ³ /h
Total pressure rise (dp _t)	538 Pa
Dynamic pressure at discharge (pd ₂)	90 Pa
Static pressure rise (dp _{ra})	448 Pa
Possible increase to max. speed (f _R)	5 %
Fan speed (n _v)	3534 min ⁻¹
Frequency (f)	61 Hz
Power on fan shaft (P _w)	0.769 kW
Absorbed power of fan system (P _{1s})	1.03 kW
Total efficiency (ETA _t)	63 %
Static efficiency (ETA _{ra})	52 %
System efficiency (ETA _{fas}) (over all efficiency of fan (static), motor, and inverter/Controller)	39 %
Specific Fan Power (SFP-factor)	1155 W/(m ³ /s)
Nozzle calibration factor (K ₁₀)	73 m ² /h
Differential pressure on nozzle (dp _D)	968 Pa
Velocity at discharge area (c)	12.2 m/s
Fan weight	26 kg
A-weighted sound power level discharge/intake LwA _{6/3}	86/82 dB
Unweighted octave sound power level	Octave mid frequencies ¹⁾ 63/125/250/500/1k/2k/4k/8k Hz 76/75/83/78/82/79/77/70 dB discharge LwOkt ₆ 85/81/86/79/76/70/68/63 dB intake LwOkt ₃
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 Hz
Voltage (U _N)	400 V
Rated motor data	
Phases-Voltage-Frequency	3~230/400-50 V-Hz
Frame size-No of poles:	80M / IE2-2
Power (P _N)	1.10 kW
Speed (n _N)	2860 min ⁻¹
Current (I _N)	3,9/2,25 A
operational limits	
Max. fan speed (n _{vmax})	3700 min ⁻¹

Max. operating frequency (f_{\max})	65 Hz
Temperature range for conveying medium ($t_{\min} \dots t_{\max}$)	-20...40 C
ErP-Data at best efficiency and density 1.20 kg/m³	
measurement- / efficiency category	A / static
design status of VSD	has to be installed
overall efficiency (ETA_{opt})	55.4 %
achieved efficiency grade (N_{ist})	64.8
required efficiency grade in 2013 / 2015 (N)	58 / 62
Air flow rate (V_{opt})	2552 m ³ /h
pressure rise (dp_{opt})	992 Pa
Fan speed (n_{vopt})	3700 min ⁻¹
motor power input ($P_{1\text{opt}}$)	1.27 kW
specific ratio (d_{dpopt})	1.010

Fan curve to RLM 56-2528-2W-11-58





Rotation:
Handing:

RD
90