

## Specification of: RDM 3E-2531-4D-07-J

### Centrifugal roof fan RDM 3E

with swirl free vertically directed discharge for gas medium up to app. +120 °C. Stylish sealed casing manufactured from aluminium, Base frame of galvanised sheet steel for fitting to upstand, projecting well beyond the upstand in order to increase weatherproofing. Discharge outlets are protected from the weather on fan shutdown by automatic backdraught shutters. Casing parts, and the impeller plus motor, are easily removed for inspection and maintenance. High performance centrifugal impeller with backward curved blades directly fitted to a standard IEC-motor shaft, execution B5, protection IP 55, with terminal box fitted and ready for connection. The motor is equipped with PTC Thermistors as a standard. Operation directly from the mains is not allowed in Europe. It is recommended to use a Danfoss-VFD drive of series FC-102. Flange connection at intake acc. to DIN 24155-2 Protection grid at discharge balanced statically and dynamically according to DIN ISO 21940-11. Service switch fitted available as an accessory Performance data in according DIN 24166 tolerance class 2 (BS 848 Class "B"). Meets the efficiency requirements of Regulation EU1253/2014 for ventilation units.

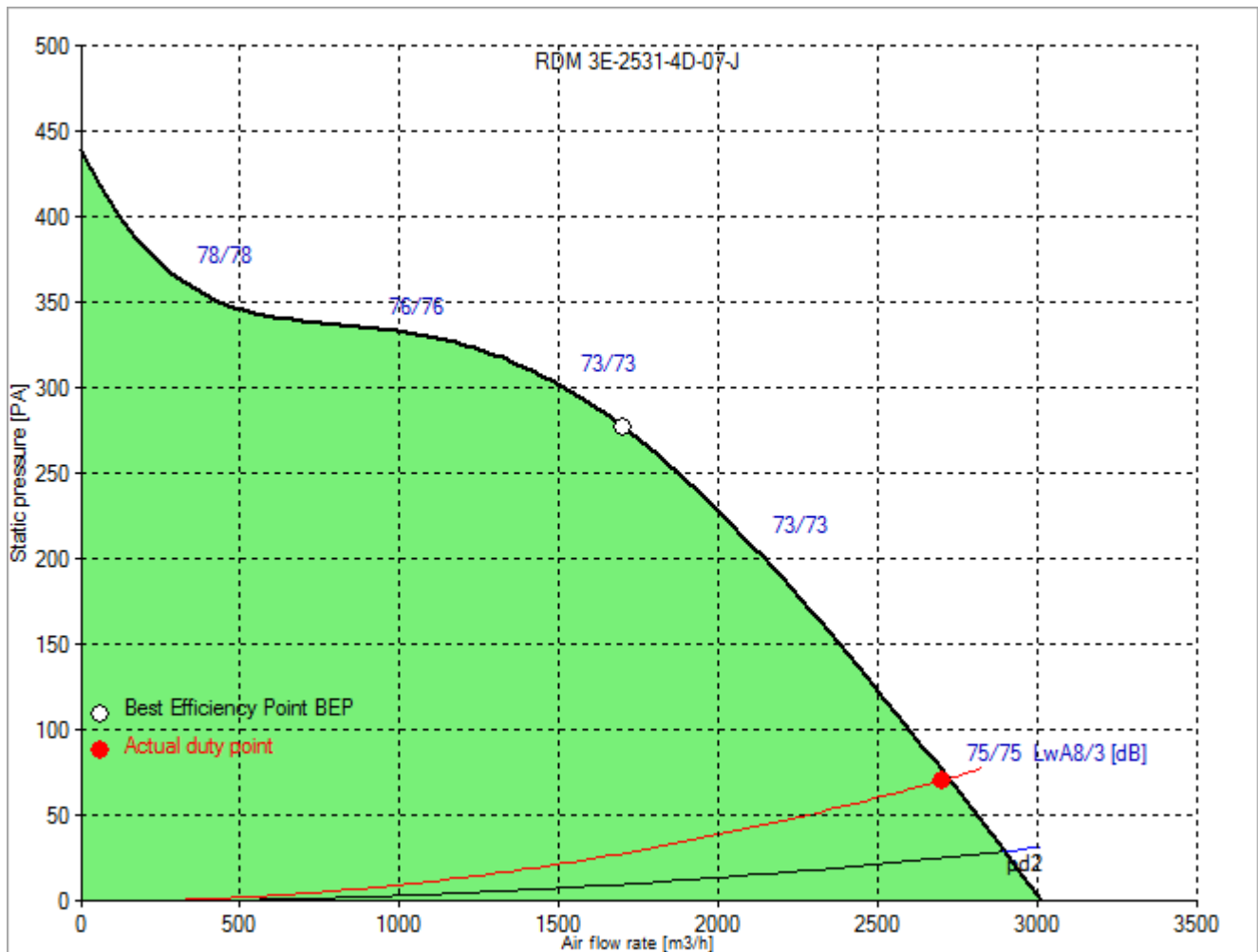
### Technical data of the fan: RDM 3E-2531-4D-07-J

fulfills the ErP requirements 2018 at BEP

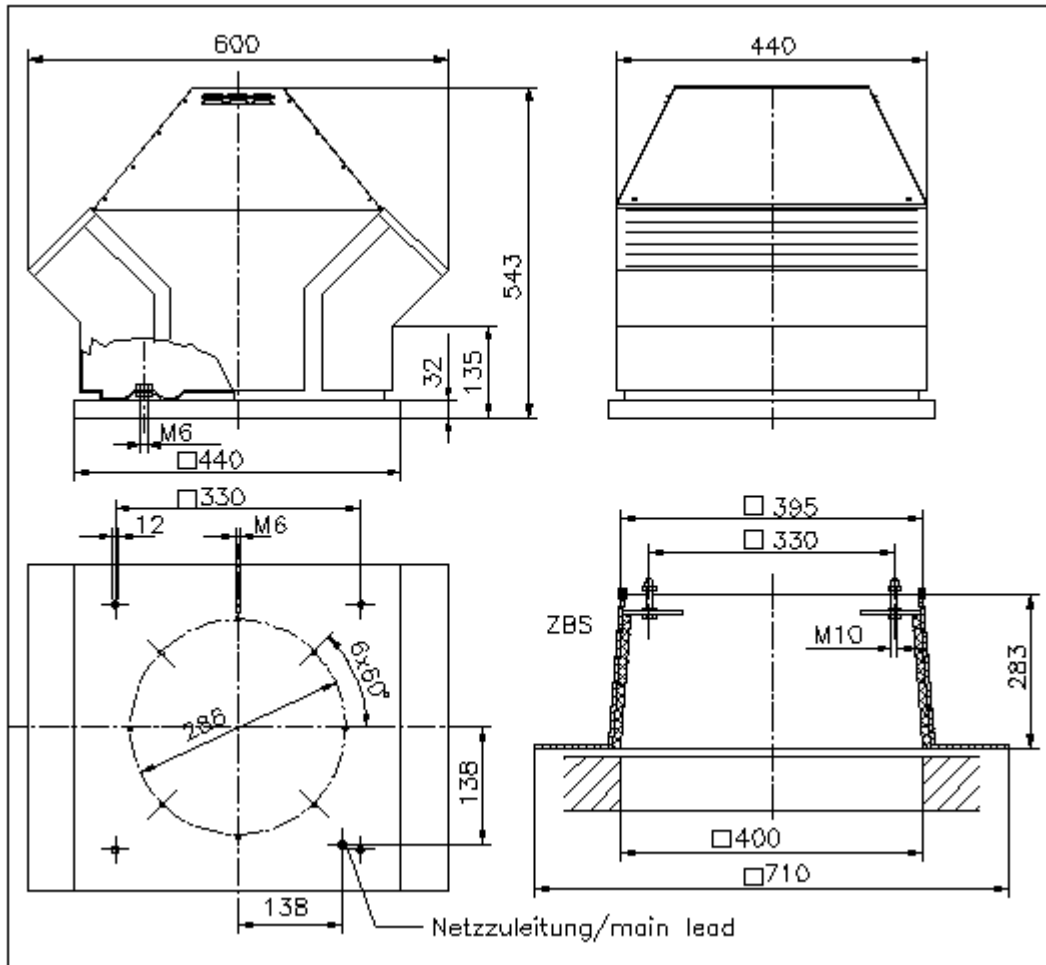
Description	Value Dimension
<b>Specified duty point</b>	
Air flow rate (V)	2703 m <sup>3</sup> /h
Static pressure rise (dp <sub>ra</sub> )	71 Pa
<b>Actual duty point</b>	
Installation acc. DIN 24163 Part 1	A
Reference density (Rho1)	1.20 kg/m <sup>3</sup>
Medium temperature (t)	20 C
Air flow rate (V)	2703 m <sup>3</sup> /h
Static pressure increase (dp <sub>ra</sub> )	71 Pa
fan speed (n <sub>v</sub> )	1684 min <sup>-1</sup>
Frequency (f)	60 Hz
Absorbed power (P <sub>1</sub> )	0.298 kW
Current (I)	1.3 A
Static system efficiency (ETA <sub>faS</sub> )	18 %
Specific Fan Power (SFP-factor)	397 W/(m <sup>3</sup> /s)
Nozzle calibration factor (K <sub>10</sub> )	84 m <sup>2</sup> /h
Differential pressure on nozzle (dp <sub>D</sub> )	621 Pa
Velocity at discharge area (c)	6.5 m/s
Fan weight	22 kg
A-weighted sound power level discharge/intake LwA <sub>8/3</sub>	75/74 dB
Unweighted octave sound power level	Octave mid frequencies <sup>1)</sup> 63/125/250/500/1k/2k/4k/8k Hz 67/81/71/69/70/66/65/61 dB discharge LwOkt <sub>8</sub> 77/83/75/70/69/61/61/58 dB intake LwOkt <sub>3</sub>
<small>SOUND PRESSURE levels at 1/2/3 m distance can be calculated with free sound propagation approximately by reducing the SOUND POWER level by 11/17/20 dB !</small>	
<small><sup>1)</sup> The octave sound power levels can be higher at octave bands at or close to blade passing frequency.</small>	
<small>This duty point can only be reached by using an inverter/controller for motor speed control!</small>	
<b>Rated data</b>	
Phases-Voltage-Frequency	3~230/400-50 V-Hz
Frame size-poles:	71-4
Motor rating (P <sub>N</sub> )	0.25 kW
Rated motor speed (n <sub>N</sub> )	1350 min <sup>-1</sup>
Rated motor current (I <sub>N</sub> )	1,45/0,84 A
<b>operational limits</b>	

Max. absorbed power ( $P_{1\max}$ )	0.349 kW
Max. fan speed ( $n_{v\max}$ )	1675 min <sup>-1</sup>
Max. operating frequency ( $f_{\max}$ )	60 Hz
Temperature range of conveying medium ( $t_{\min} \dots t_{\max}$ )	-20...120 C

## Fan curve to RDM 3E-2531-4D-07-J



## Dimensions to RDM 3E-2531-4D-07-J



Rotation:  
Handing:

RD  
90