

Wolter Plug Fans.

- PF Series
- EC Motor



Air in Motion.
Wolter Fans.

R13.EC

wolter 



PF-EC

Fan type code

PF - EC 355 D 1

PF	EC	355	D	1
				Motor Version 1, 2
				Motor Phase E = Single-phase D = Three-phase
				Fan Size Number 250...630
				Motor Type EC = Electronically Commutation
				Plug Fan



Impeller

The centrifugal plug fan impellers are made of aluminum material with backward curve blades. The impeller is aerodynamically designed for high efficiency and low power consumption. The maximum tip speed of the impeller is 70m/s. The impellers are optimized for stable performance and low noise and balanced according to G2.5 to DIN ISO 1940/1.

Inlet cone

The inlet cone is made of powder coated or GI sheet steel. The inlet cone allows a uniform and stable airflow into the impeller assuring cataloged performance.

Overlap

The overlap distance is determined by empirical and airflow tests which take into account the aerodynamic characteristics of the impeller.

Motor

The EC (Electronically Commutation) Motors with die cast aluminium enclosure have maintenance free ball bearings & are capable of continuous operation (S1). The EC fan motor is capable of variable speed control. The motor speed can be pre-set by the user to operate at a certain maximum fan speed and the fan speed can also be adjusted automatically according to the cooling demand of the room to provide energy savings during period of partial load. A minimum fan speed can be preset by the user to avoid lower fan speeds than the requirement which is required in order to maintain sufficient airflow in the room. The fan motor is variable speed and totally enclosed fan cooled type with Class F insulation, IP54 standard. Motor assembly conforms to standards: EN60034-1, EN60335-1 & EN62233.

Fan performance curves

The performance curves for these fan types have been established as per installation type A (free inlet, free outlet) according to AMCA 210 and show the static pressure rise ΔP_{st} in reference to the volume air flow. The given dynamic pressure P_{d2} refers to the outlet area of the impeller.

Sound levels

The ascertaining of the sound level follows the reverberant room method according to AMCA 300.

The data on the fan curve show the A-weighted sound power level L_{WA5} at the inlet side, unducted, in decibel figures.

The A-weighted sound power level at the inlet side L_{WA6} according to DIN 45 635, part 38, is obtained as follows:

$$L_{WA6} = L_{WA5} + 3 \text{ dB(A)}$$

The octave sound power level is important for the choice of suitable sound attenuators. It is obtained as follows.

$$L_{WAOct} = L_{WA6} + L_{WArel}$$

The relative octave sound power level L_{WArel} at octave medium frequency can be taken from the tables at respective fan. These levels has been established at $0.5 \times V_{max}$.

The A-weighted sound pressure level L_{PA} at a distance of 1 metre is obtained approximately by deducting 7 dB(A) from the A-weighted sound power level L_{WA} .

It is important to note that reflexion and room characteristics as well as natural frequencies differently influence the sound pressure levels.

Supply Options

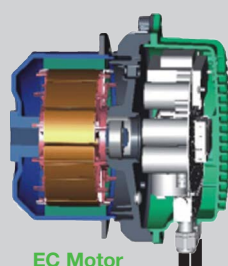
There are 2 different options:

- Motorised Fan Impeller
- Motorised Fan Impeller with fan cabinet c/w inlet cone

Accessories

The following accessories are available:

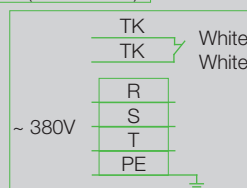
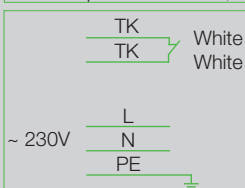
- Elastic Flexible connectors
- Anti-Vibration Mountings



EC Motor

Power Input:

- Single-phase: AC 220V, 230V (110 ~ 270V)
- Three-phase: AC 380V, 440V (250 ~ 480V)



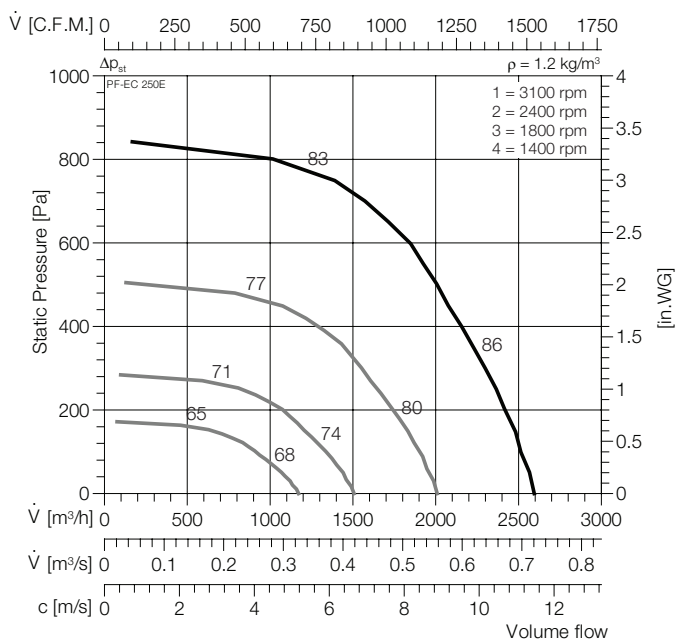
Control:

- Single-Phase:
 - 0 ~ 10V / PWM / VSP
 - RS485 / Modbus
 - Tacho

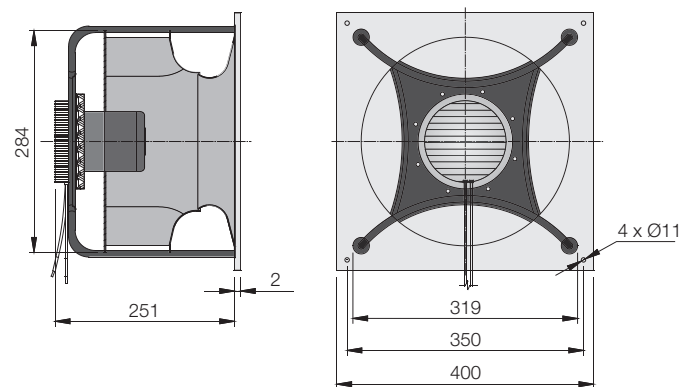
Control:

- Three-Phase:
 - 0 ~ 10V / PWM / VSP
 - RS485 Modbus
 - Tacho
 - Relay control output
 - 4 ~ 20mA
 - 0 ~ 10V output
 - IO input

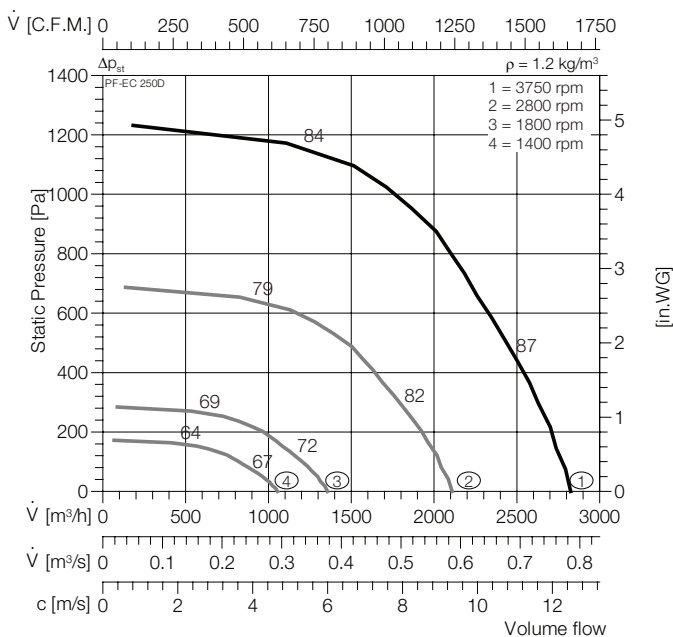
PF-EC 250E



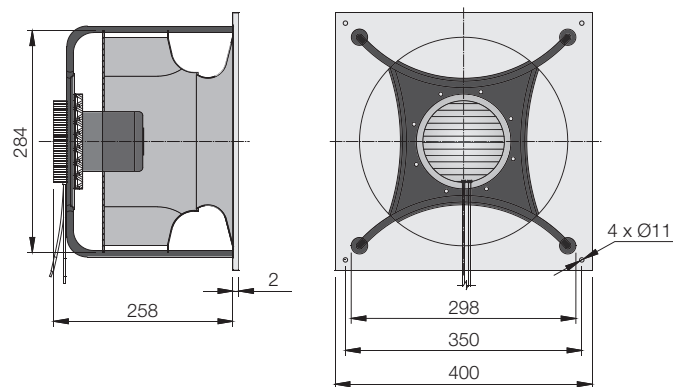
Typ :	PF-EC 250E	⚠	IP 54
ArtNr :	-	★	E13
■ :	9 kg	□	GS 1
U :	230 V 50/60 Hz	⚡	-
P ₁ :	0,529 kW	⚡	-
I _N :	3,68 A		
n :	3100 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



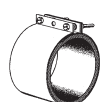
PF-EC 250D



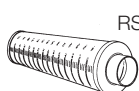
Typ :	PF-EC 250D	⚠	IP 54
ArtNr :	-	★	DD0
■ :	11 kg	□	GS 1
U :	400 V 50/60 Hz	⚡	-
P ₁ :	0,84 kW	⚡	-
I _N :	1,4 A		
n :	3750 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



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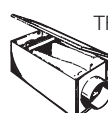
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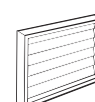
RSD



RVK



TFB-PTC

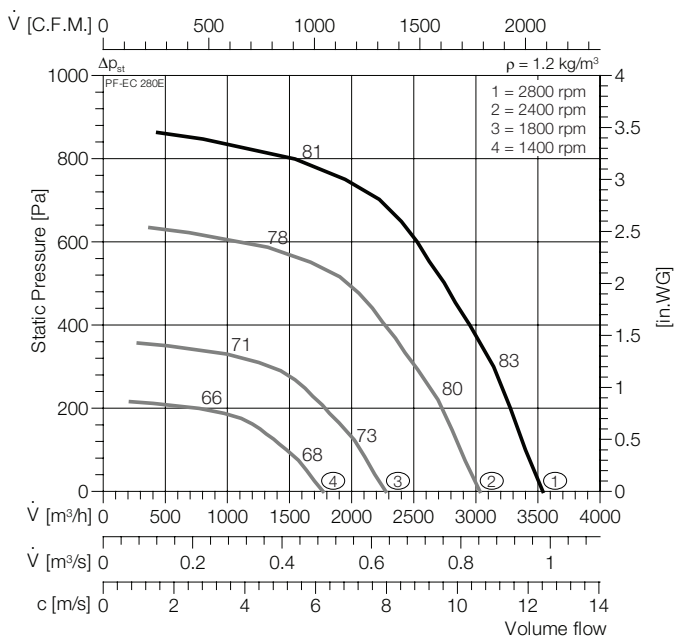


WVK

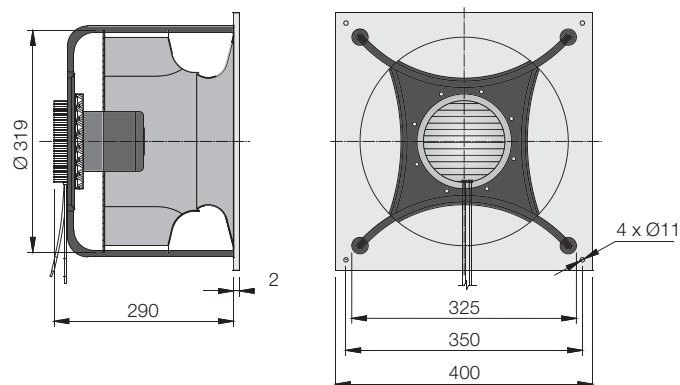


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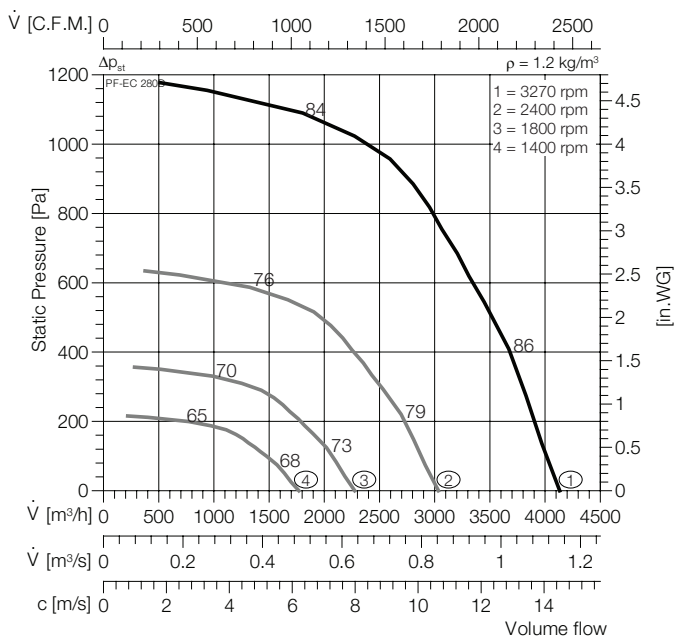
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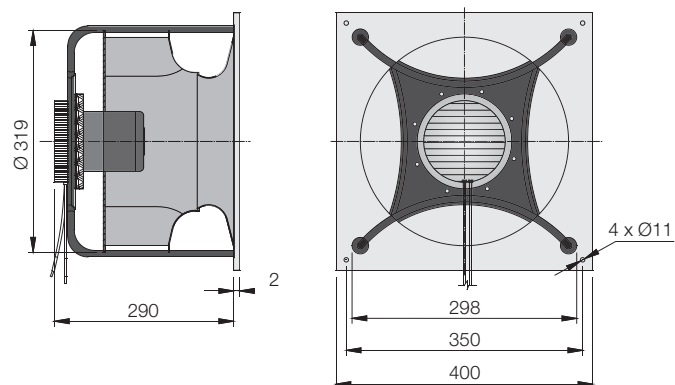
Typ :	PF-EC 280E	IP 54
ArtNr :	-	E13
Weight :	12 kg	GS 1
U :	230 V 50/60 Hz	-
P ₁ :	0,745 kW	-
I _N :	5,43 A	-
n :	2800 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



PF-EC 280D



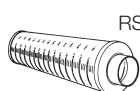
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ArtNr :	-	DD0
Weight :	12 kg	GS 1
U :	400 V 50/60 Hz	-
P ₁ :	1,14 kW	-
I _N :	1,6 A	-
n :	3270 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



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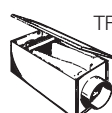
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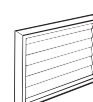
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RVK

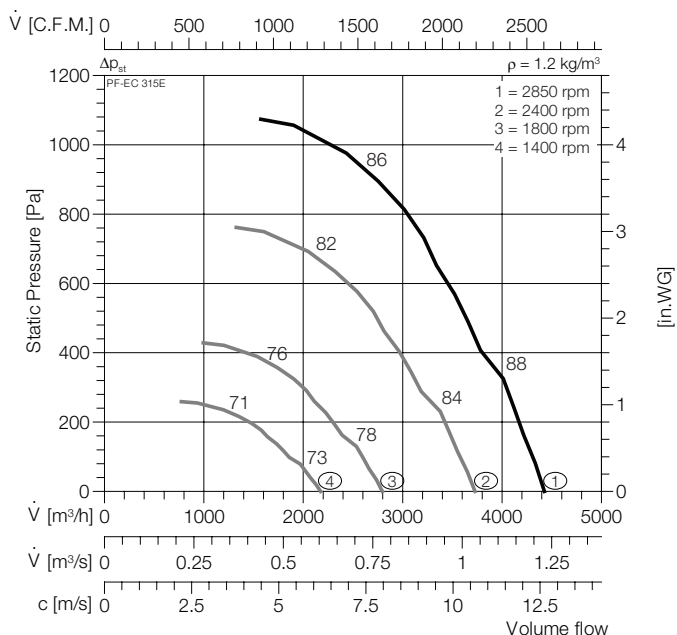


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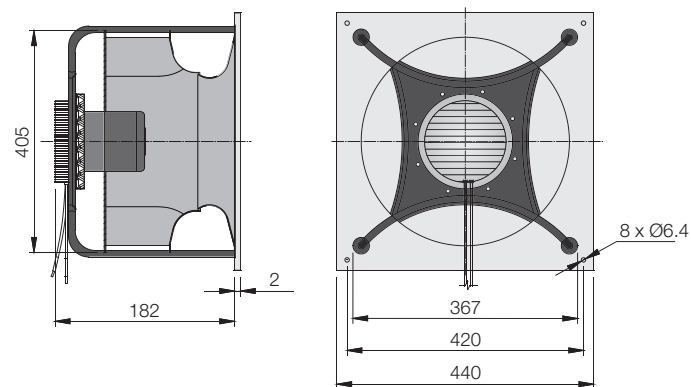


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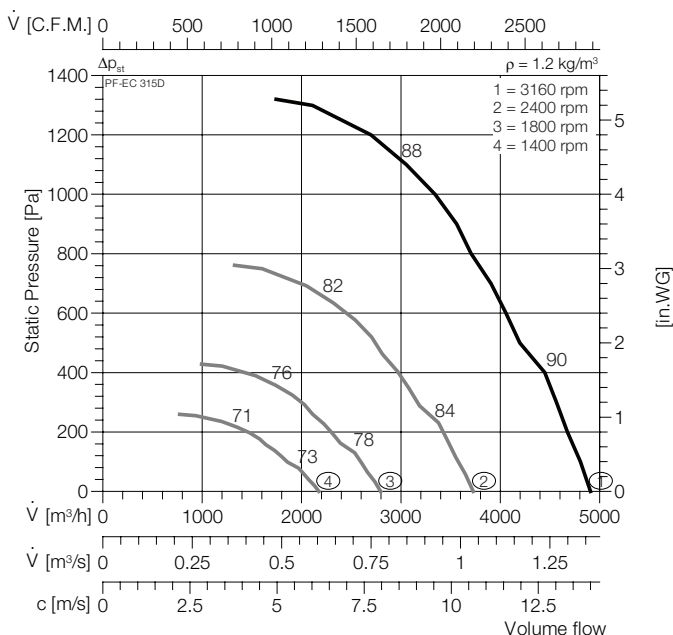
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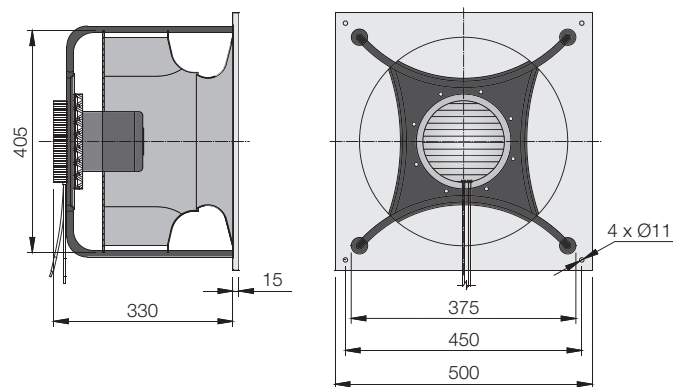
Typ :	PF-EC 315E	⚠	IP 54
ArtNr :	-	★	E13
■ :	20 kg	□	GS 1
U :	230 V 50/60 Hz	⚡	-
P ₁ :	1,27 kW	⚡	-
I _N :	5,6 A		
n :	2850 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



PF-EC 315D



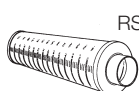
Typ :	PF-EC 315D	⚠	IP54
ArtNr :	-	★	DD0
■ :	23 kg	□	GS 1
U :	400 V 50/60 Hz	⚡	-
P ₁ :	1,65 kW	⚡	-
I _N :	2,8 A		
n :	3160 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



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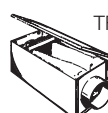
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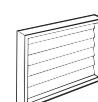
RSD



RVK



TFB-PTC

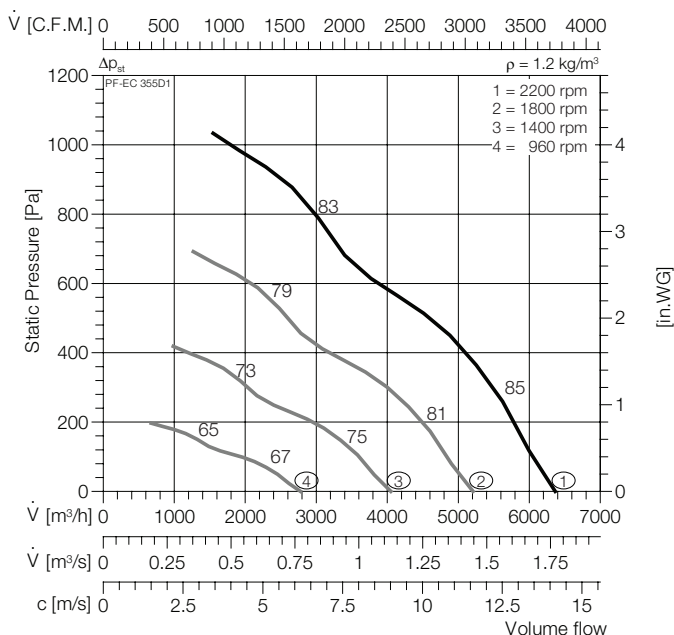


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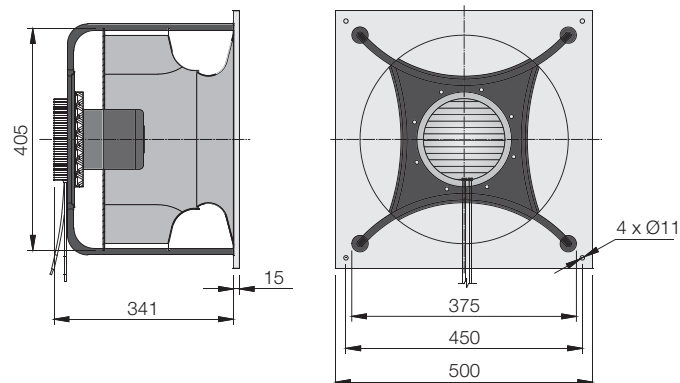


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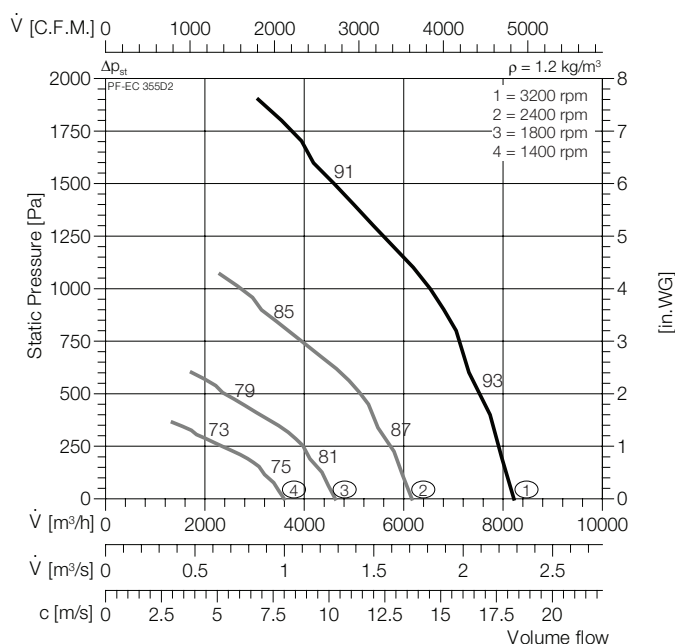
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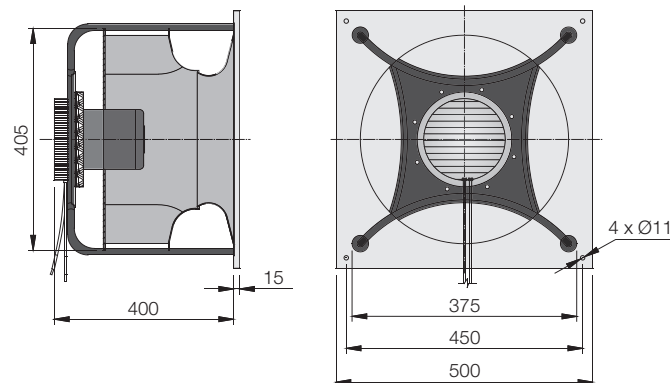
Typ :	PF-EC 355D1	IP 54
ArtNr :	-	DD0
W :	26 kg	GS 1
U :	400 V 50/60 Hz	-
P ₁ :	1,1 kW	-
I _N :	1,8 A	-
n :	2200 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



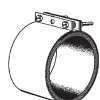
PF-EC 355D2



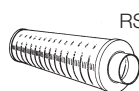
Typ :	PF-EC 355D2	IP54
ArtNr :	-	DD0
W :	24 kg	GS 1
U :	400 V 50/60 Hz	-
P ₁ :	3,25 kW	-
I _N :	5,1 A	-
n :	3200 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



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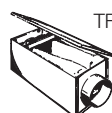
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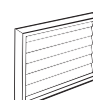
RSD



RVK

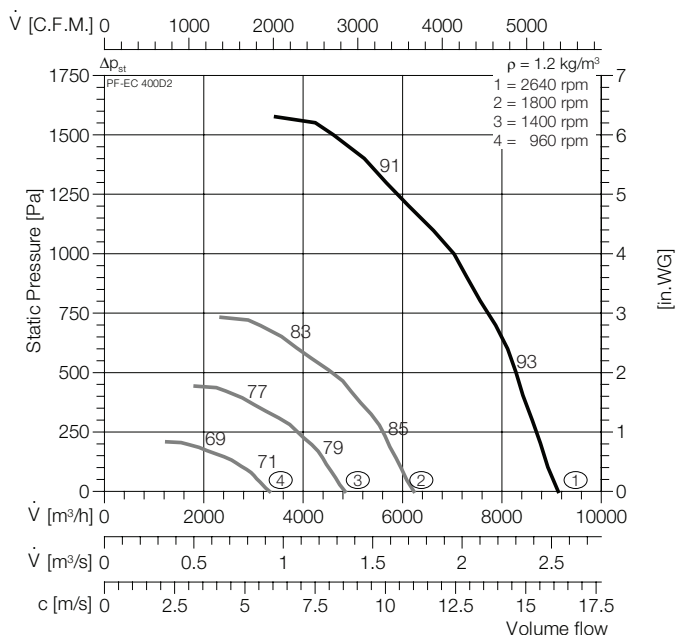


TFB-PTC

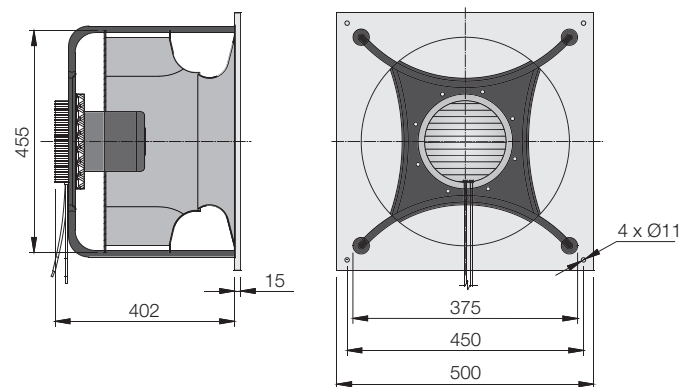


WVK

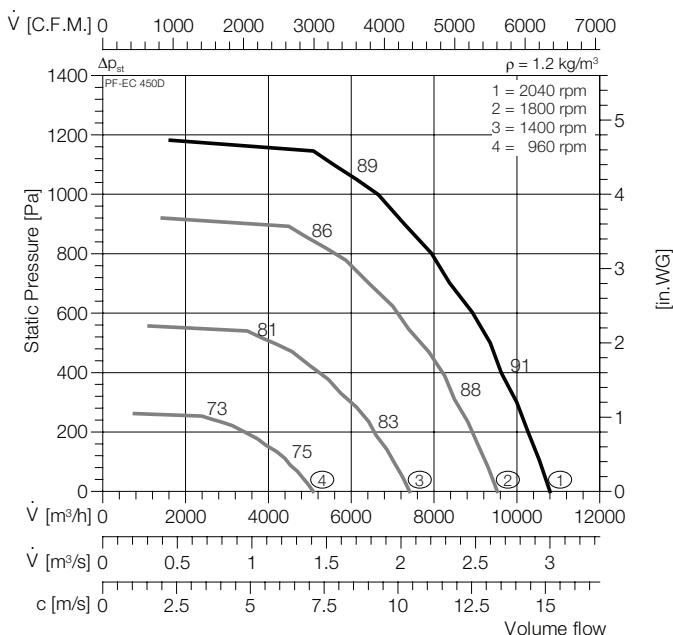
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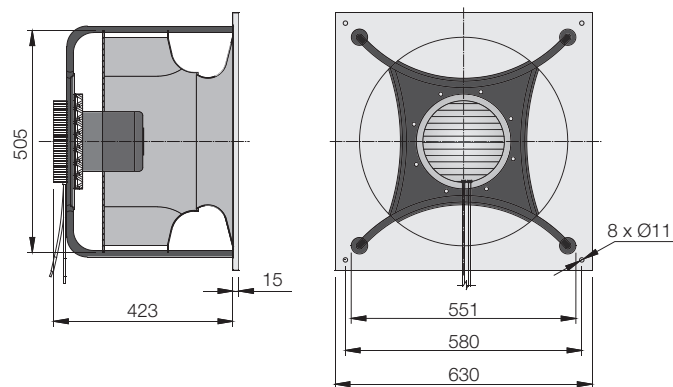
Typ :	PF-EC 400D2	⚠	IP54
ArtNr :	-	★	DD0
■ :	33 kg	□	GS 1
U :	400 V 50/60 Hz	⚡	-
P ₁ :	3,35 kW	⚡	-
I _N :	5,0 A		
n :	2640 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



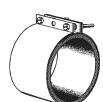
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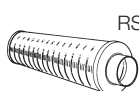
Typ :	PF-EC450D	⚠	IP 54
ArtNr :	-	★	DD0
■ :	39 kg	□	GS 1
U :	400 V 50/60 Hz	⚡	-
P ₁ :	2,52 kW	⚡	-
I _N :	4,2 A		
n :	2040 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



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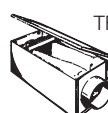
RSV



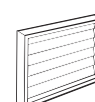
RSD



RVK



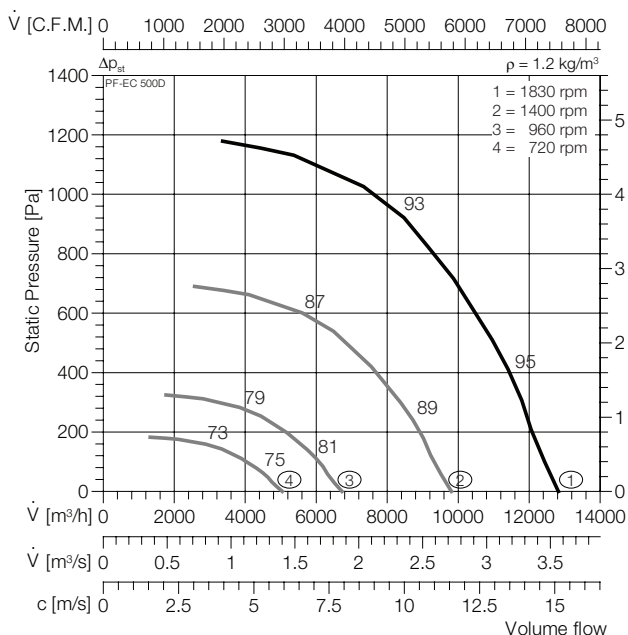
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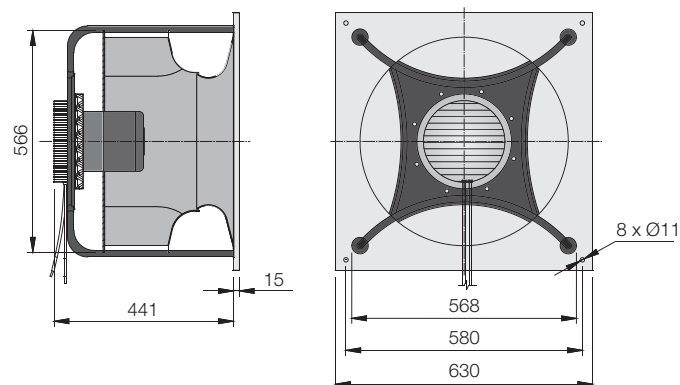
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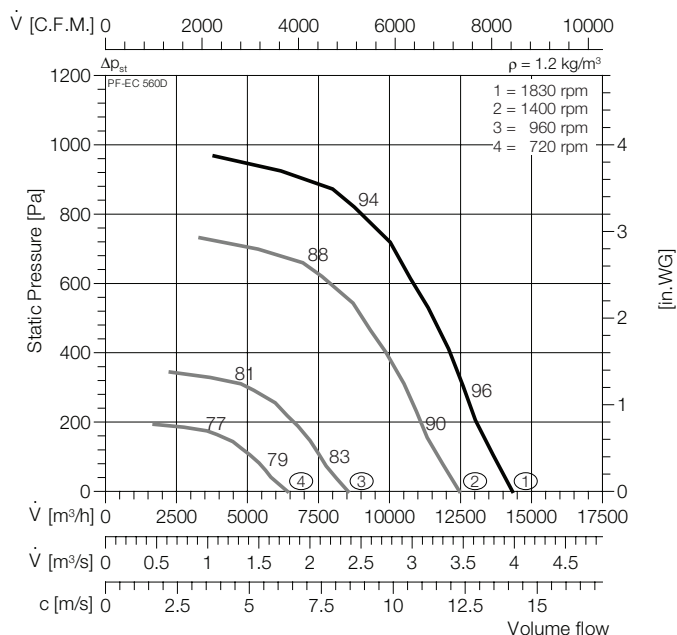
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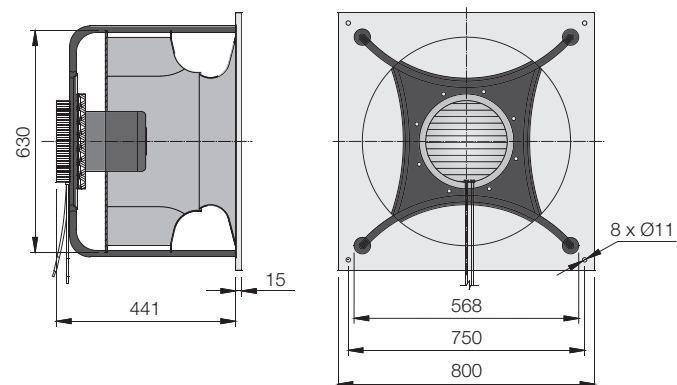
Typ :	PF-EC 500D	IP54
ArtNr :	-	DD0
W :	41 kg	GS 1
U :	400 V 50/60 Hz	-
P ₁ :	3,46 kW	-
I _N :	5,75 A	-
n :	1830 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



PF-EC 560D1



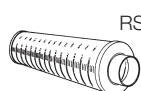
Typ :	PF-EC 560D	IP 54
ArtNr :	-	DD0
W :	57 kg	GS 1
U :	400 V 50/60 Hz	-
P ₁ :	3,53 kW	-
I _N :	5,5 A	-
n :	1830 min ⁻¹	-
C _{400V} :	- μF	-
t _R :	-25 ~ 40 °C	-



Accessories page 70-73



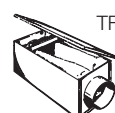
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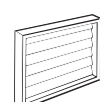
RSD



RVK

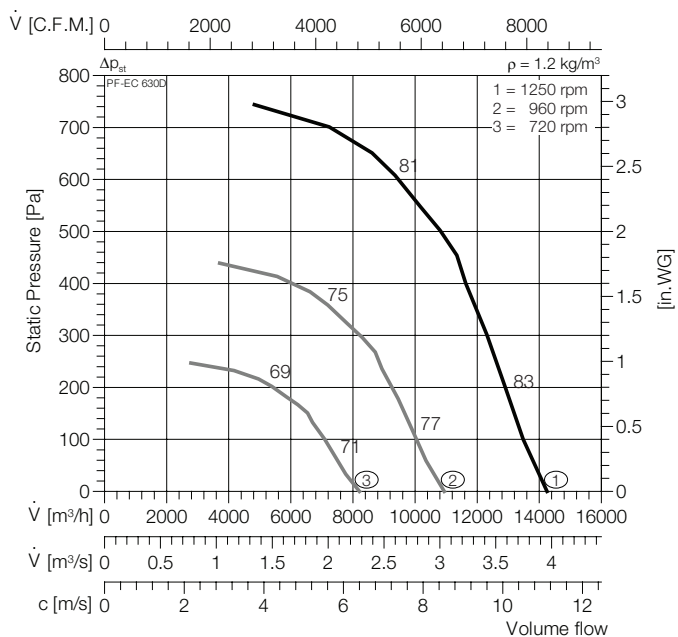


TFB-PTC

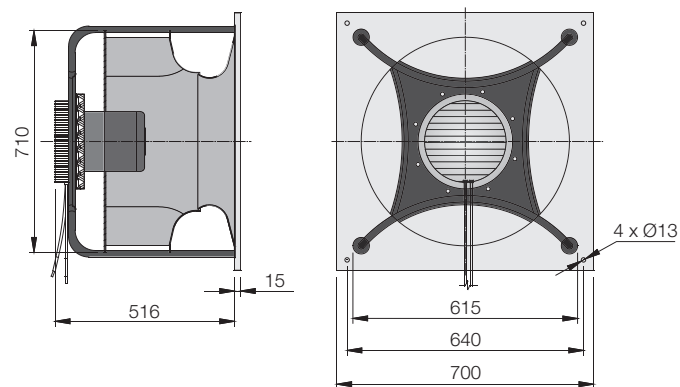


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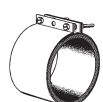
PF-EC 630D



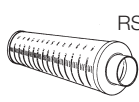
Typ :	PF-EC 630D		IP54
ArtNr :	-		DD0
:	51 kg		GS 1
U :	400 V 50/60 Hz		-
P ₁ :	2,58 kW		-
I _N :	4,0 A		
n :	1250 min ⁻¹		
C _{400V} :	- μF		
t _R :	-25 ~ 40 °C		



Accessories page 70-73



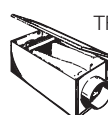
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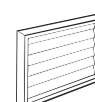
RSD



RVK



TFB-PTC



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