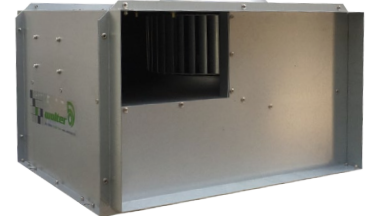
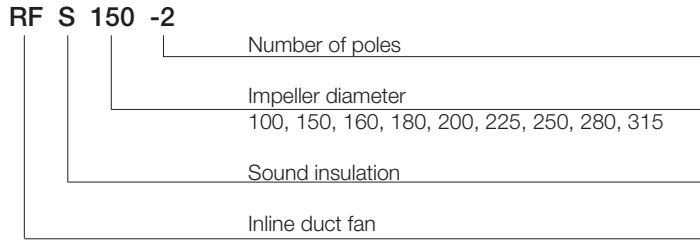


Fan type code



Advantages

- ▶ easy installation via gas-tight canvas
- ▶ fans can be installed in any position
- ▶ 100% speed controllable by auto transformer or electronic controller
- ▶ motor protection by thermal contacts as standard (Explosion-proof motors with PTC thermistors)
- ▶ extremely low starting currents
- ▶ compact design

Design features

RF-series tube fans are centrifugal fans with circular or rectangle connections at inlet and outlet sides. Both sides can easily be fitted into the tube by means of RSV fastening clamps.

Casing

RF - Casing made of galvanised sheet steel formed as an air duct, with standard flanges at inlet and outlet sides;

RFS - aluminium profile and plastic corners made from reinforced polyamide. Panels are made from galvanised sheet steel with sound absorbing insulation made of elastomeric foam

Impeller

Forward-curved centrifugal impellers made of sheet steel or plastic.

The impellers are fitted directly onto the rotor of the external rotor motor. The motorized impellers are balanced at two levels according to G 2.5 (DIN ISO 1940).

Control unit

For simple set-ups a step switch is sufficient. A more sensitive control can be achieved by standard controllers for single phase AC.

Installation

The RF-type inline duct fans are directly mounted into the tube and fixed by clamps. Due to its very low height the RF-type is ideal for use in false ceilings.

Fan performance curves

The performance curves of these fans have been established using a test chamber according to DIN 24 163 / AMCA 210 / ISO 5801, installation type D (connected at both sides). The curves indicate the static pressure increase Δp_{st} as a function of the volume flow. The outlet velocity c shown in the performance curves refers to the flange cross-sectional area of the fan housing

Sound levels

The figures quoted in the performance curves are the "A" decibel figures which are the sound power levels L_{WA6} at the outlet side in duct systems.

The "A" sound power level at the inlet side L_{WA5} , according to DIN 45 635, part 38, can be calculated via the relative sound power levels (see below) or is obtained approximately as follows:

$$L_{WA5} \approx L_{WA6} - 3 \text{ dB}$$

The "A" casing sound power level L_{WA2} , according to DIN 45 635, part 38, can be calculated via the relative sound power levels (see below) or is obtained approximately as follows:

$$L_{WA2} \approx L_{WA6} - 13 \text{ dB}$$

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

$$L_{PA(1m)} \approx L_{WA2} - 7 \text{ dB}$$

It is important to note that reflexion and environmental characteristic as well as natural frequencies differently influence the sound pressure levels. In order to avoid structure-borne noise transfer to a connected duct system we recommend the use of flexible duct connection.

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

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

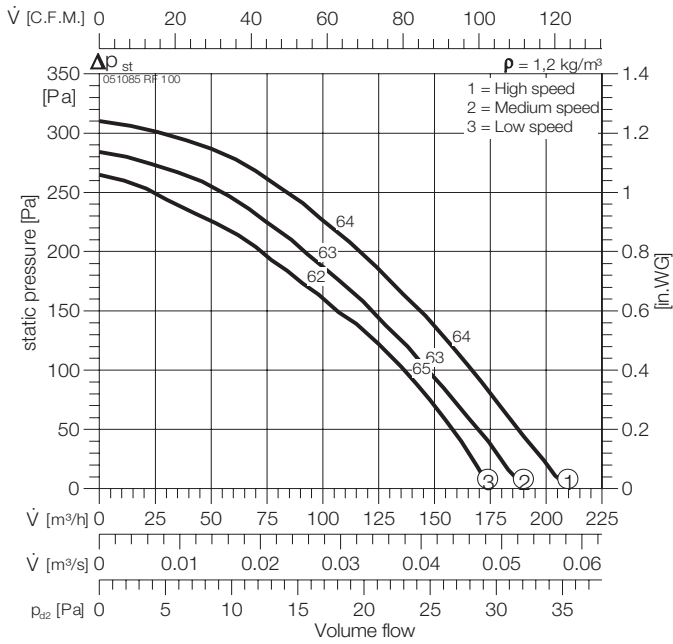
The relative octave sound power level L_{WArel} at octave medium frequency can be taken from the tables at respective fan. These levels has been established at $0.5 \times V_{max}$.

Relative octave sound power level A-weighted

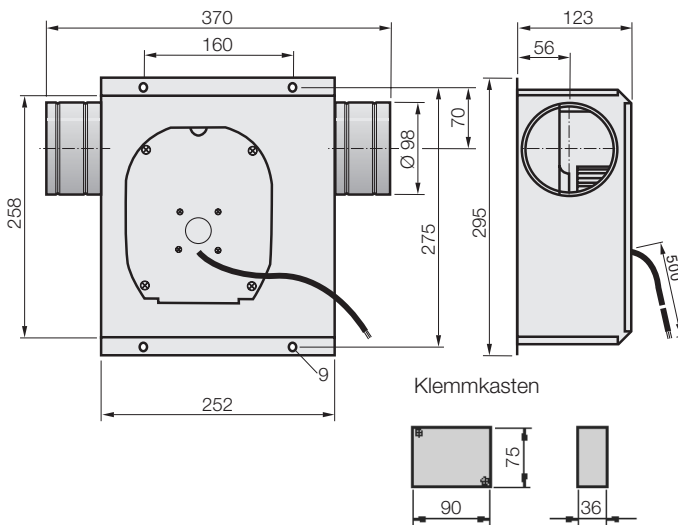
f_M [Hz]		LwA	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
4-pol	L_{WA6rel} [dB] Outlet side	0	-15	-4	-4	-16	-17	-18	-20	-24
	L_{WA5rel} [dB] Inlet side	-3	-18	-6	-8	-18	-19	-20	-22	-26
	L_{WA2rel} [dB] Casing RF	-13	-28	-16	-16	-29	-30	-31	-33	-37
	L_{WA2rel} [dB] Casing RFS	-17	-32	-21	-21	-34	-34	-35	-37	-41
6-pol	L_{WA6rel} [dB] Outlet side	0	-6	-2	-12	-16	-17	-18	-22	-26
	L_{WA5rel} [dB] Inlet side	-6	-9	-5	-15	-19	-20	-21	-25	-29
	L_{WA2rel} [dB] Casing RF	-13	-19	-15	-25	-29	-29	-31	-34	-39
	L_{WA2rel} [dB] Casing RFS	-17	-24	-19	-29	-33	-34	-35	-39	-43



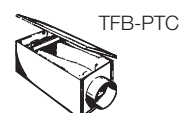
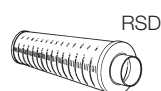
RF 100



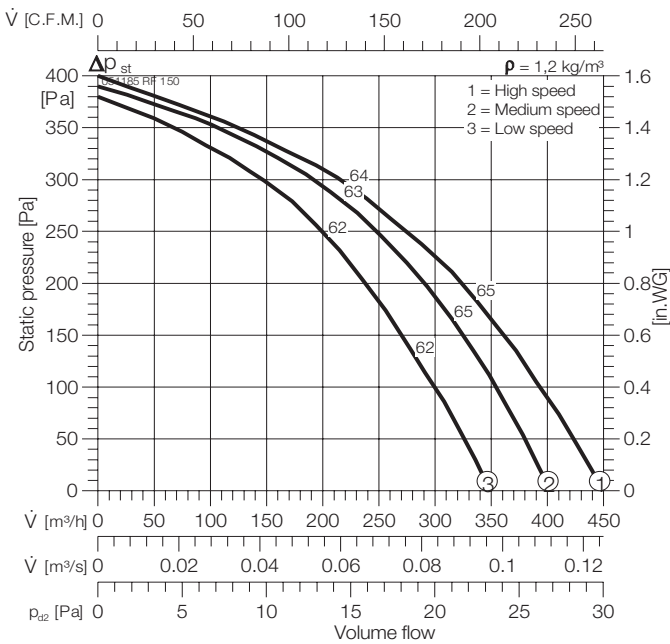
Typ :	RF 100		IP44	$L_{WA \text{ rel}} \Delta dB$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	051085		E19b	$L_{WA \text{ tot}}$	-17	-6	0
	4,2 kg		GS 1	125 Hz	-22	-19	-16
U :	230 V 50 Hz		FWG 4	250 Hz	-24	-21	-14
P_1 :	0,073 kW		NE 0,5	500 Hz	-26	-12	-8
I_N :	0,31 A		RPE 02	1 kHz	-24	-11	-5
n :	2400 min ⁻¹			2 kHz	-29	-13	-6
C_{400V} :	2 μF			4 kHz	-34	-15	-7
t_R :	50 °C			8 kHz	-41	-24	-17



Accessories

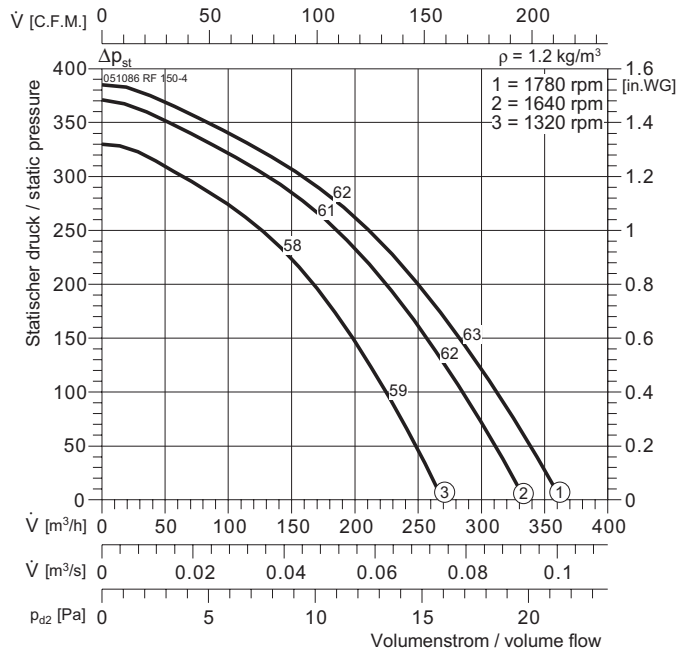


RF 150-2

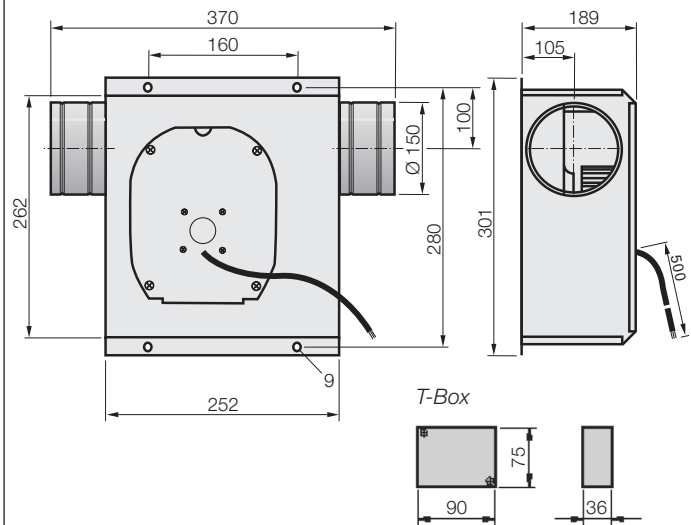
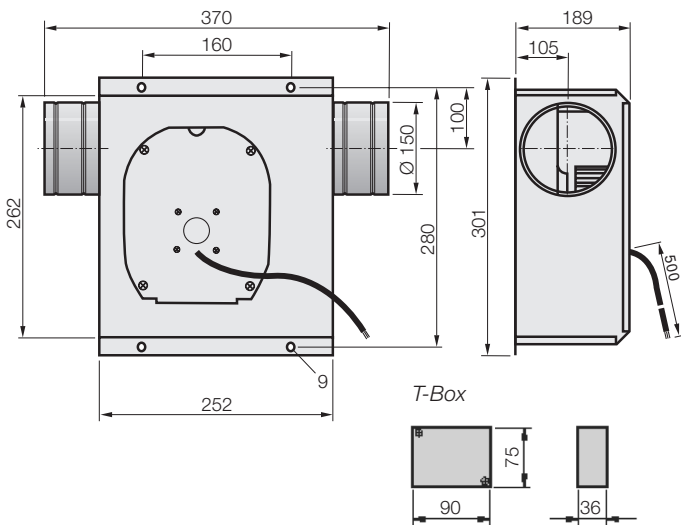


Typ :	RF 150-2		IP44	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	051185		E19b	$L_{WA \text{ tot}}$	-17	-6	0
	5,1 kg		GS 1	125 Hz	-22	-19	-16
U :	230 V 50 Hz		FWG 4	250 Hz	-24	-21	-14
P_1 :	0,137 kW		NE 1,5	500 Hz	-26	-12	-8
I_N :	0,59 A		RPE 02	1 kHz	-24	-11	-5
n :	2195 min ⁻¹			2 kHz	-29	-13	-6
C_{400V} :	4 μF			4 kHz	-34	-15	-7
t_R :	50 °C			8 kHz	-41	-24	-17

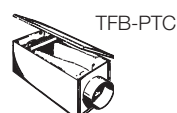
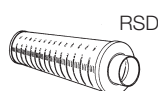
RF 150-4



Typ :	RF 150-4		IP44	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	051186		E16-3	$L_{WA \text{ tot}}$	-17	-6	0
	5,4 kg		GS 1	125 Hz	-18	-16	-13
U :	230 V 50 Hz		FWG 4	250 Hz	-20	-18	-12
P_1 :	0,102 kW		NE 0,5	500 Hz	-23	-10	-6
I_N :	0,45 A		RPE 02	1 kHz	-21	-9	-4
n :	1602 min ⁻¹			2 kHz	-24	-11	-5
C_{400V} :	2 μF			4 kHz	-29	-12	-6
t_R :	50 °C			8 kHz	-36	-21	-15



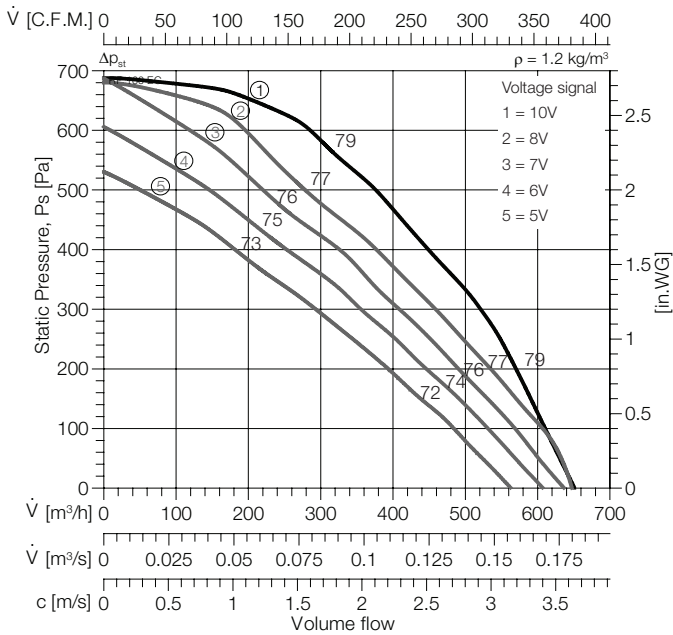
Accessories





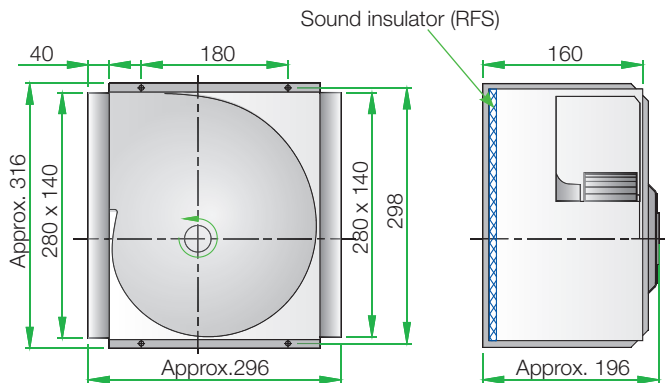
RF / RFS

RF / RFS 160 EC



Typ :	RF / RFS 160		IP44	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	-		E11	$L_{WA \text{ tot}}$	-13	-3	0
	5,1 kg		GS 1	125 Hz	-22	-12	-9
U :	230 V 50 Hz			250 Hz	-15	-5	-2
P₁ :	0,139 kW		NE 1,5	500 Hz	-22	-12	-9
I_N :	1,12 A		RPE 02	1 kHz	-29	-19	-16
n :	2985 min ⁻¹			2 kHz	-29	-19	-16
C_{400V} :	- μF			4 kHz	-31	-21	-18
t_R :	50 °C			8 kHz	-33	-24	-21

RF / RFS



We reserve the right to alter measurements without notice in case of technical improvements

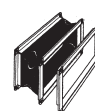
Accessories



SDK / SDKN



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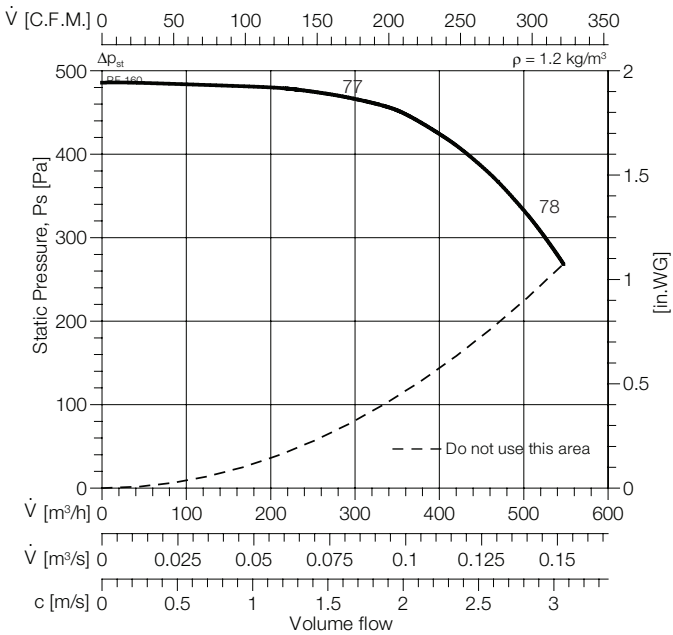


EVK / EVKN



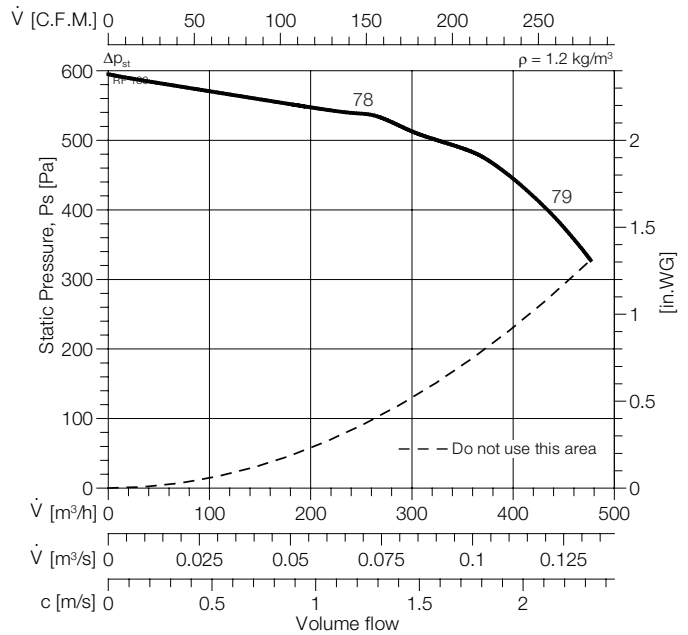
WVK

RF / RFS 160



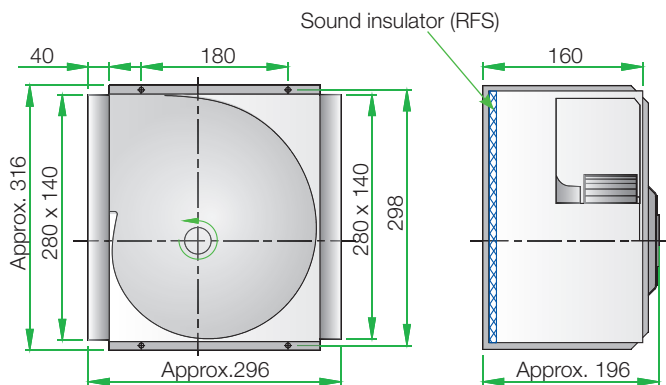
Typ :	RF / RFS 160		IPX4	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	-		E11	$L_{WA \text{ tot}}$	-13	-3	0
	5,1 kg		GS 1	125 Hz	-22	-12	-9
U :	230 V 50 Hz		250 Hz	-15	-5	-2	
P_1 :	0,27 kW		NE 1,5	500 Hz	-22	-12	-9
I_N :	1,1 A		RPE 02	1 kHz	-29	-19	-16
n :	2680 min ⁻¹			2 kHz	-29	-19	-16
C_{400V} :	6 μF			4 kHz	-31	-21	-18
t_R :	50 °C			8 kHz	-33	-24	-21

RF / RFS 180 H

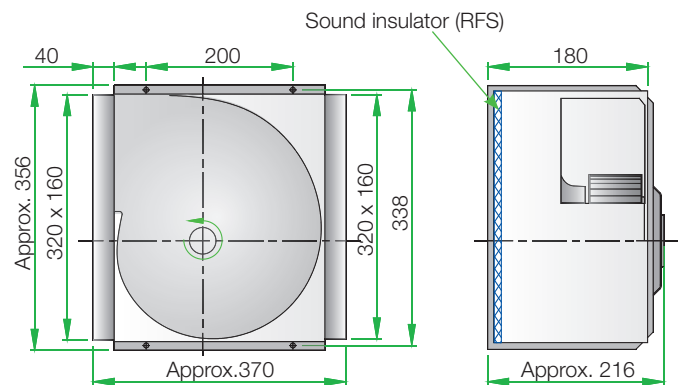


Typ :	RF / RFS 180 H		IPX4	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr :	-		E11	$L_{WA \text{ tot}}$	-13	-3	0
	9,7 kg		GS 1	125 Hz	-22	-12	-9
U :	230 V 50 Hz		250 Hz	-15	-5	-2	
P_1 :	0,27 kW		NE 1,5	500 Hz	-22	-12	-9
I_N :	1,2 A		RPE 02	1 kHz	-29	-19	-16
n :	2560 min ⁻¹			2 kHz	-29	-19	-16
C_{400V} :	6 μF			4 kHz	-31	-21	-18
t_R :	50 °C			8 kHz	-33	-24	-21

RF / RFS



RF / RFS



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Accessories



SDK / SDKN



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EVK / EVKN



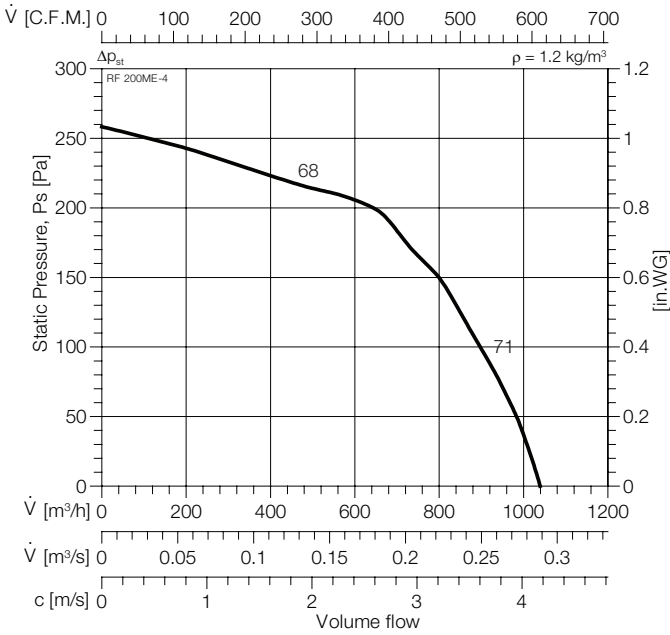
WVK



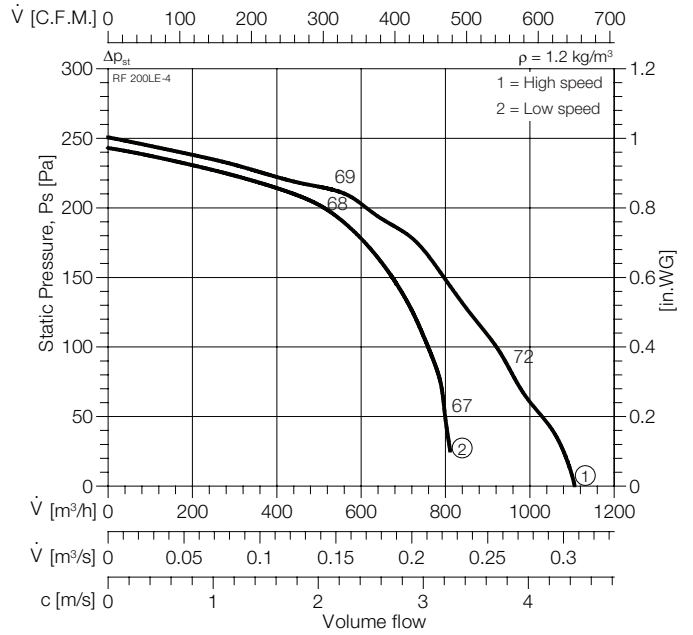
RF / RFS



RF / RFS 200ME-4



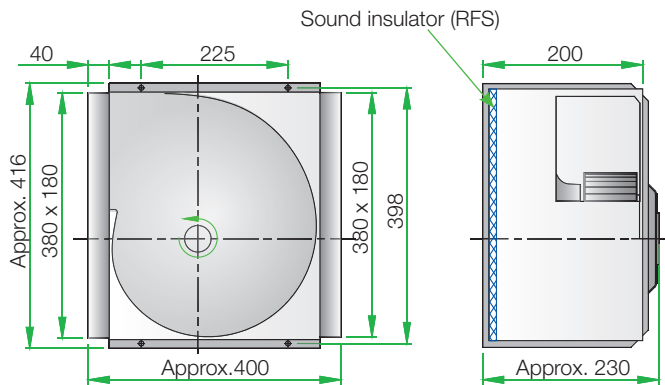
RF / RFS 200LE-4



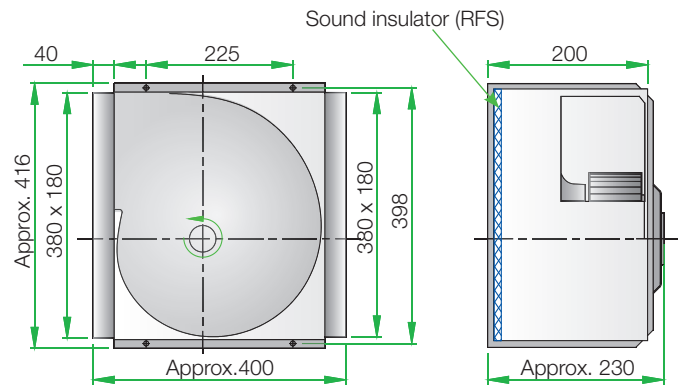
Typ : RF / RFS 200ME-4	IP54	$L_{WA \text{ rel}} \Delta dB$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E13	$L_{WA \text{ tot}}$	-13	-3	0
\square : 12/14 kg	GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz		250 Hz	-16	-8	-4
P_1 : 0,25 kW	NE 1,5	500 Hz	-29	-18	-16
I_N : 1,2 A	RPE 06	1 kHz	-30	-19	-17
n : 1250 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 6 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

Typ : RF / RFS 200LE-4	IP54	$L_{WA \text{ rel}} \Delta dB$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E16-2	$L_{WA \text{ tot}}$	-13	-3	0
\square : 13/15 kg	GS 1	125 Hz	-16	-6	-4
U : 230 V 50 Hz		250 Hz	-16	-8	-4
P_1 : 0,27/0,20 kW	NE 1,5	500 Hz	-29	-18	-16
I_N : 1,2/1,0 A	RPE 06	1 kHz	-30	-19	-17
n : 1310/1100 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 6 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

RF / RFS



RF / RFS



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Accessories



SDK / SDKN



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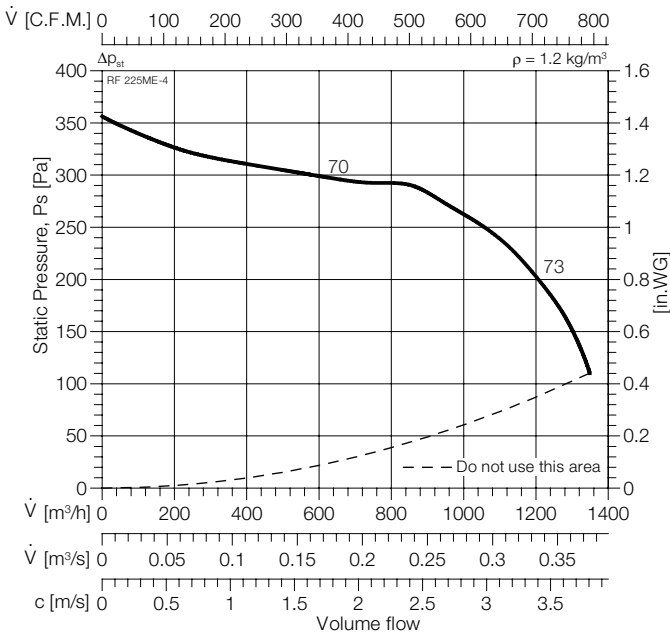


EVK / EVKN



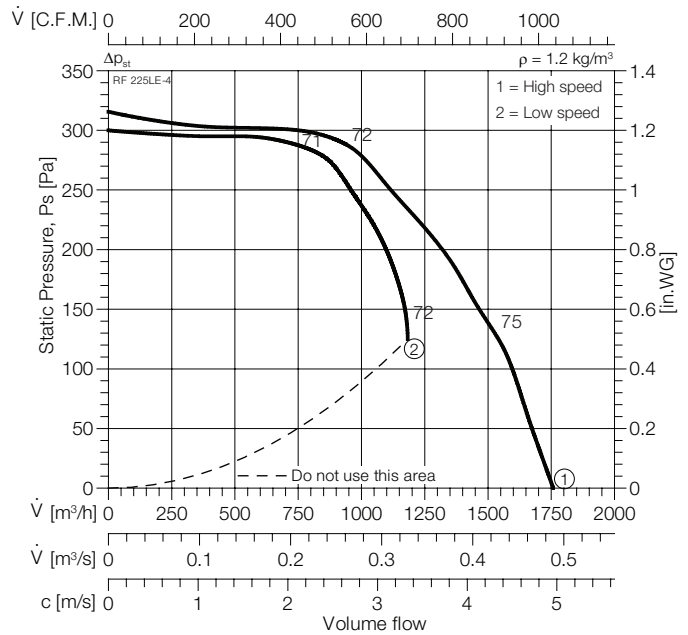
WVK

RF / RFS 225ME-4



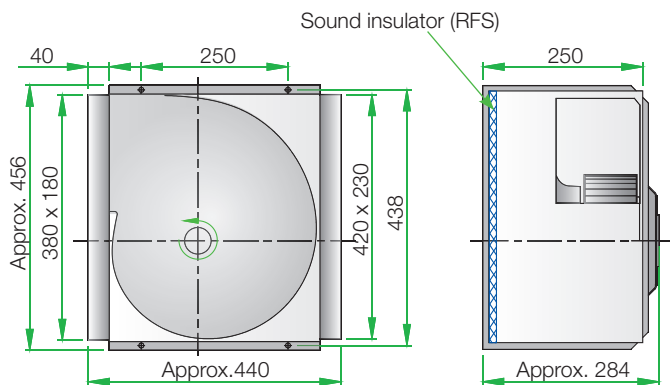
Typ : RF / RFS 225ME-4	IP54	$L_{WA\ rel}$ ΔdB	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E13	$L_{WA\ tot}$	-13	-3	0
\square : 18/20 kg	GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz		250 Hz	-16	-8	-4
P_1 : 0,31 kW	NE 3,2	500 Hz	-29	-18	-16
I_N : 1,65 A	RPE 06	1 kHz	-30	-19	-17
n : 1330 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 10 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

RF / RFS 225LE-4

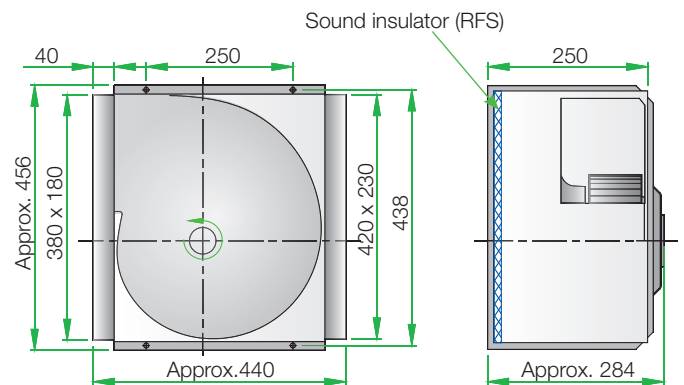


Typ : RF / RFS 225LE-4	IP54	$L_{WA\ rel}$ ΔdB	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E16-2	$L_{WA\ tot}$	-13	-3	0
\square : 19/21 kg	GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz		250 Hz	-16	-8	-4
P_1 : 0,51/0,29 kW	NE 3,2	500 Hz	-29	-18	-16
I_N : 2,3/1,4 A	RPE 06	1 kHz	-30	-19	-17
n : 1360/1200 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 10 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

RF / RFS



RF / RFS



We reserve the right to alter measurements without notice in case of technical improvements

Accessories



SDK / SDKN



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EVK / EVKN



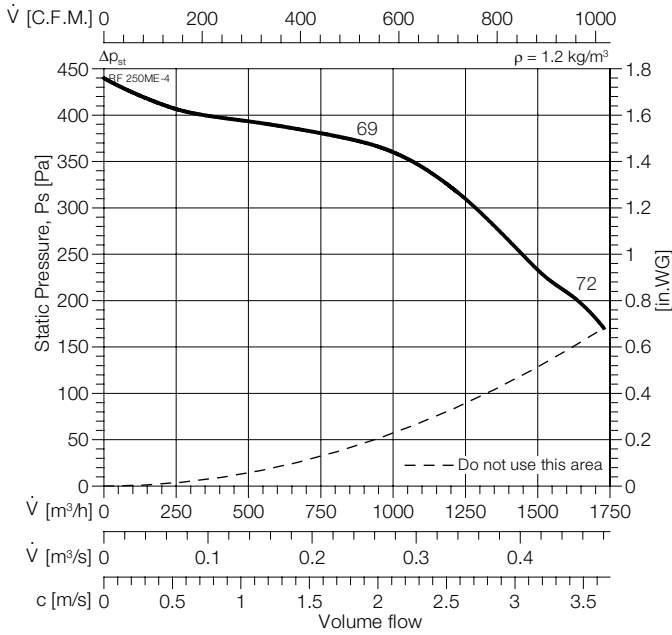
WVK



RF / RFS

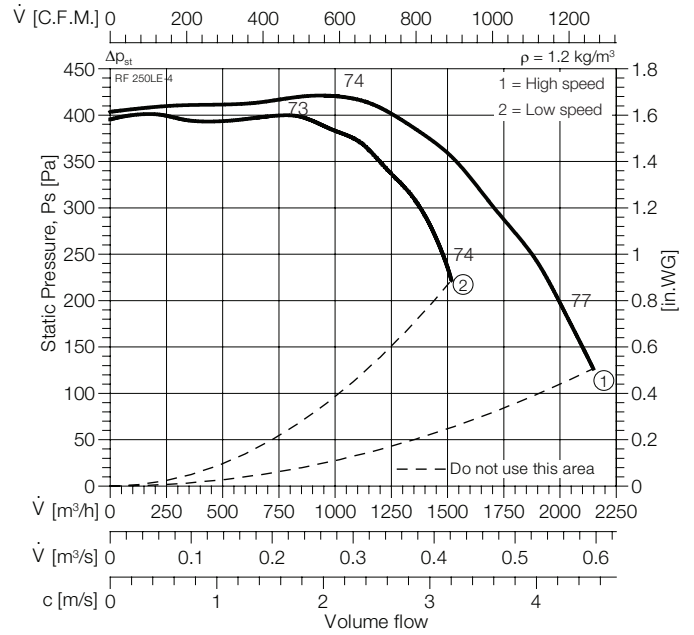


RF / RFS 250ME-4



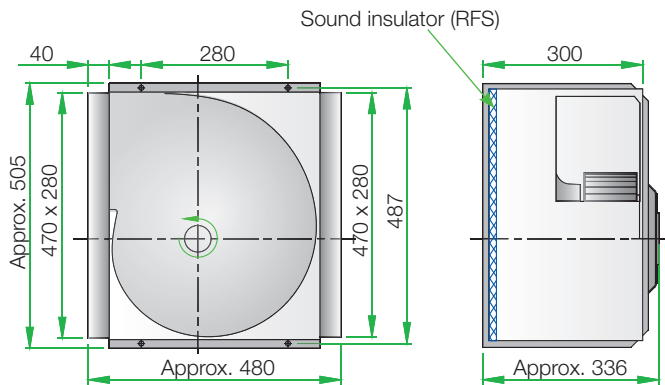
Typ : RF / RFS 250ME-4	IP54	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E13	$L_{WA \text{ tot}}$	-13	-3	0
\square : 24/27 kg	GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz	-	250 Hz	-16	-8	-4
P_1 : 0,51 kW	NE 3,2	500 Hz	-29	-18	-16
I_N : 2,3 A	RPE 06	1 kHz	-30	-19	-17
n : 1331 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 8 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

RF / RFS 250LE-4

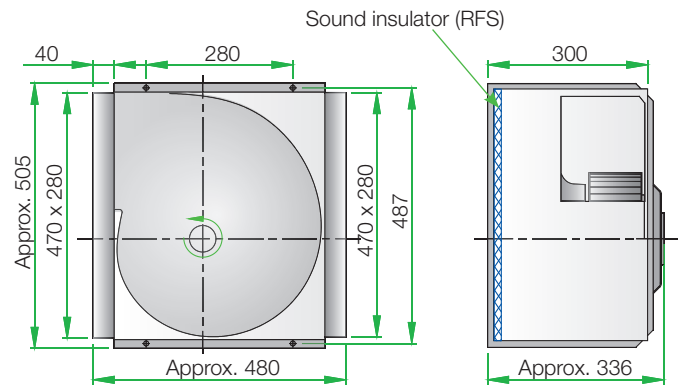


Typ : RF / RFS 250LE-4	IP54	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -	E16-2	$L_{WA \text{ tot}}$	-13	-3	0
\square : 25/29 kg	GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz	-	250 Hz	-16	-8	-4
P_1 : 0,72/0,43 kW	NE 5	500 Hz	-29	-18	-16
I_N : 3,3/2,0 A	RPE 09 A	1 kHz	-30	-19	-17
n : 1360/1100 min ⁻¹		2 kHz	-31	-20	-18
C_{400V} : 22 μF		4 kHz	-33	-22	-20
t_R : 40 °C		8 kHz	-37	-26	-24

RF / RFS



RF / RFS



We reserve the right to alter measurements without notice in case of technical improvements

Accessories



SDK / SDKN



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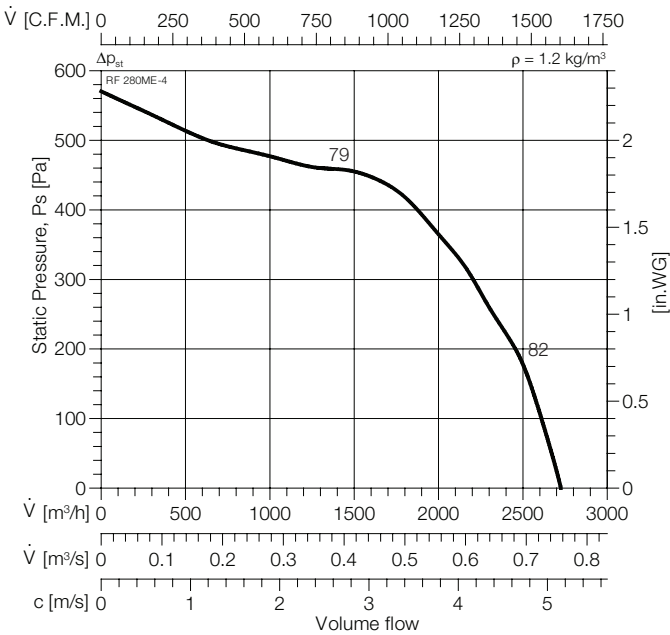


EVK / EVKN



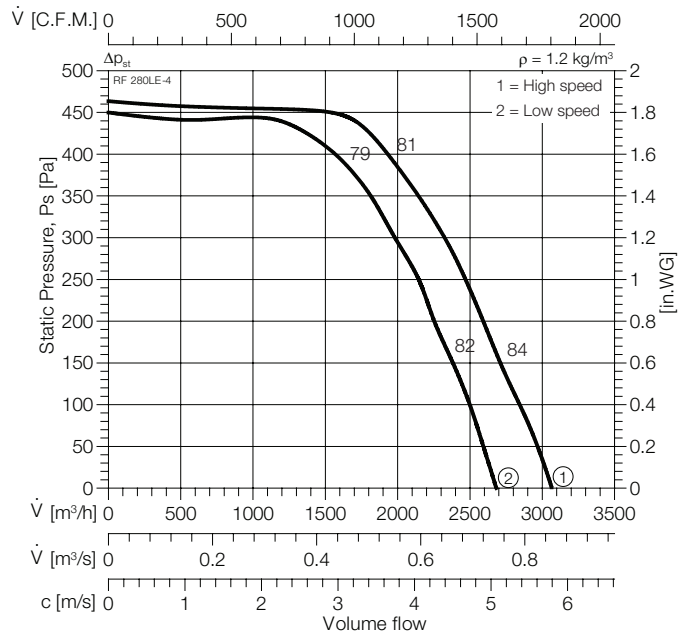
WVK

RF / RFS 280ME-4



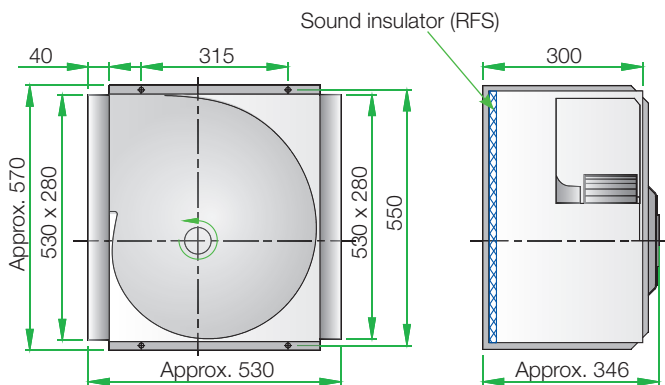
Typ : RF / RFS 280ME-4		IP54	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -		E13	$L_{WA \text{ tot}}$	-13	-3	0
: 27/30 kg		GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz		-	250 Hz	-16	-8	-4
P ₁ : 0,9 kW		NE 5	500 Hz	-29	-18	-16
I _N : 5,0 A		RPE 09 A	1 kHz	-30	-19	-17
n : 1350 min ⁻¹			2 kHz	-31	-20	-18
C _{400V} : 18 μF			4 kHz	-33	-22	-20
t _R : 40 °C			8 kHz	-37	-26	-24

RF / RFS 280LE-4

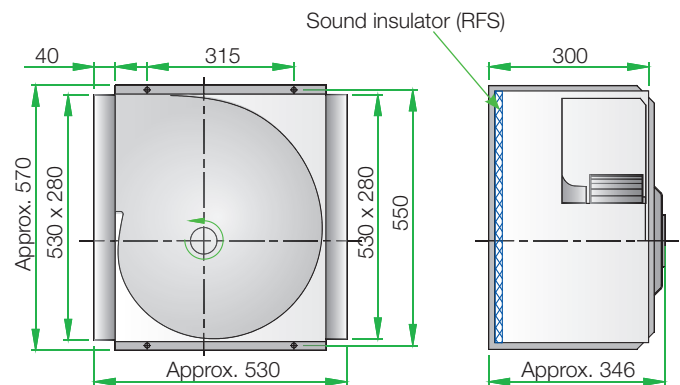


Typ : RF / RFS 280LE-4		IP54	$L_{WA \text{ rel}} \Delta \text{dB}$	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -		E13	$L_{WA \text{ tot}}$	-13	-3	0
: 29/32 kg		GS 2	125 Hz	-16	-6	-4
U : 230 V 50 Hz		-	250 Hz	-16	-8	-4
P ₁ : 1,3/1,08 kW		NE 7,5	500 Hz	-29	-18	-16
I _N : 6/5 A		SAE 7	1 kHz	-30	-19	-17
n : 1430/1250 min ⁻¹			2 kHz	-31	-20	-18
C _{400V} : 31 μF			4 kHz	-33	-22	-20
t _R : 40 °C			8 kHz	-37	-26	-24

RF / RFS



RF / RFS



We reserve the right to alter measurements without notice in case of technical improvements

Accessories



SDK / SDKN



JK



EVK / EVKN

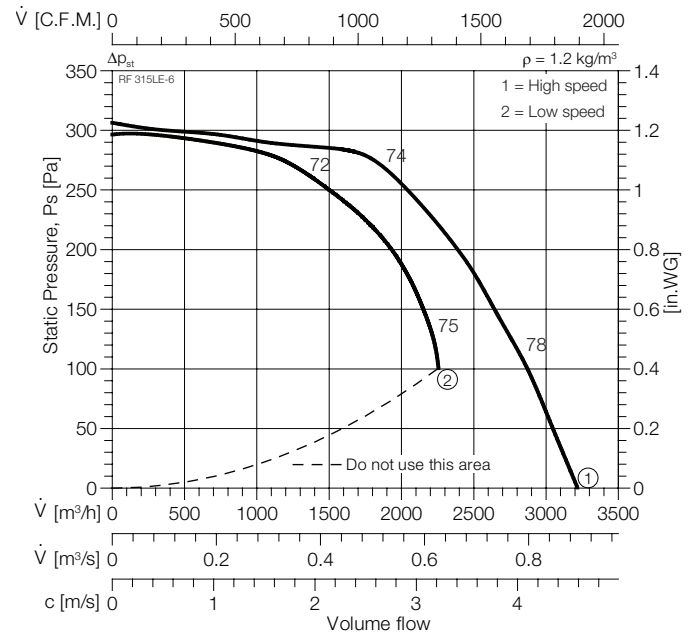


WVK



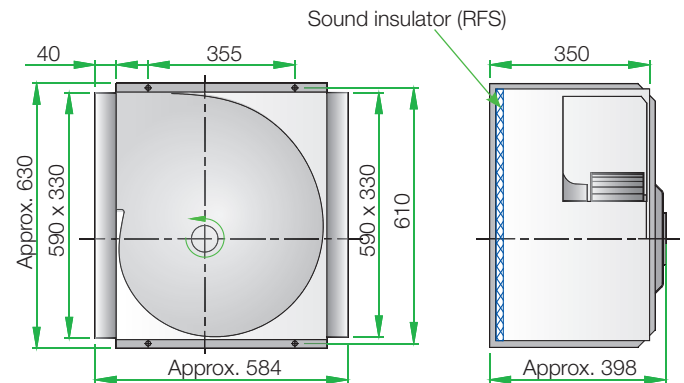
RF / RFS

RF / RFS 315LE-6



Typ : RF / RFS 315LE-6		IP54	$L_{WA \text{ rel}}$ ΔdB	L_{WA2}	L_{WA5}	L_{WA6}
ArtNr : -		E16-2	$L_{WA \text{ tot}}$	-13	-3	0
: 33/36 kg		GS 2	125 Hz	-15	-15	-2
U : 230 V 50 Hz		-	250 Hz	-25	-15	-12
P_1 : 0,84/0,72 kW		NE 5	500 Hz	-29	-19	-16
I_N : 4,2/3,4 A		RPE 09 A	1 kHz	-29	-20	-17
n : 880/710 min ⁻¹			2 kHz	-31	-21	-18
C_{400V} : 12 μF			4 kHz	-34	-25	-22
t_R : 40 °C			8 kHz	-39	-29	-26

RF / RFS



We reserve the right to alter measurements without notice in case of technical improvements

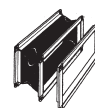
Accessories



SDK / SDKN



JK



EVK / EVKN



WVK