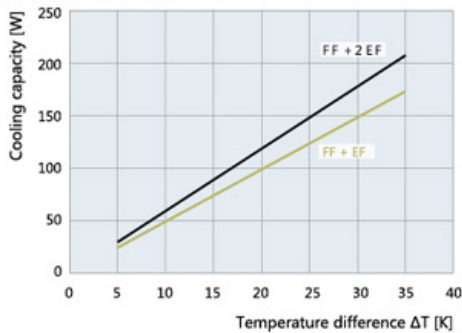
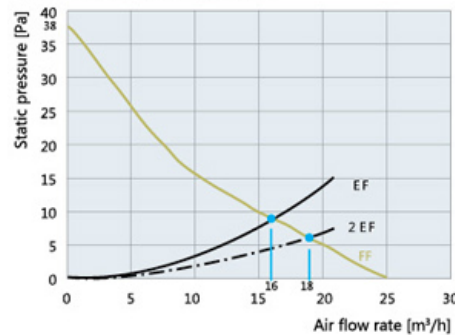




Cooling capacity performance curves



Characteristics of static pressure

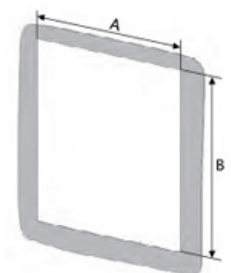


Dimensions

mm	FF109		EF 109
	AC	DC	
X	109	109	109
Y	109	109	109
Z1	4	4	4
Z2	62	62	19
A <sup>1</sup>	92	92	92
B <sup>1</sup>	92	92	92

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

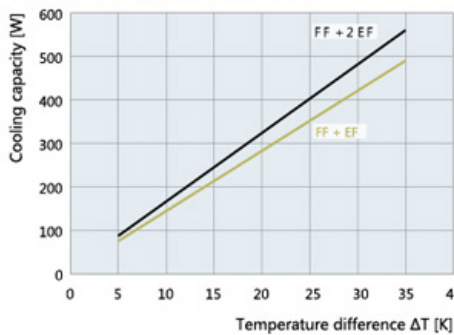
Data		FF 109				
Model	Unit	FF109.230	FF109.115	FF109.012	FF109.024	FF109.048
Rated voltage ±10%	V	AC 50/60			DC	
Unimpeded air flow	m³/h	25/29				
Combined air volume	m³/h	16/18				
Power	W	9/7	15/14	2.4	2.4	2.6
Current	A	0.08/0.07	0.15/0.13	0.2	0.1	0.05
Noise level	dB(A)	33/33			33	
Type of connection		Terminal row				
Protection level		NEMA type 12 - standard filter				
Filtration efficiency	%	88				
Filter pad performance level		G3				
Duty cycle	%	100				
Bearing type		sleeve bearing		ball bearing		
Service life	h	52,500	55,000	70,000		
Temperature range	°C/°F	-40...+70/-40...+131				
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO				
Colour		RAL 7035, different colours on request				



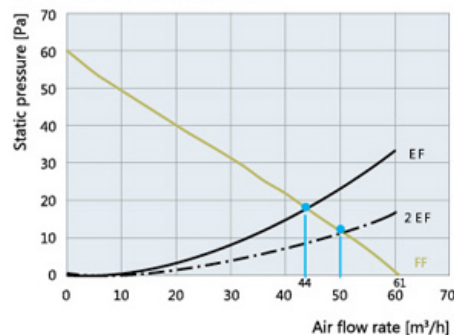
# FF145 series filter



Cooling capacity performance curves



Characteristics of static pressure

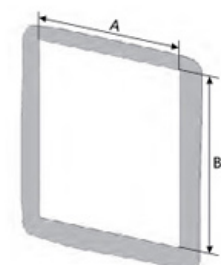
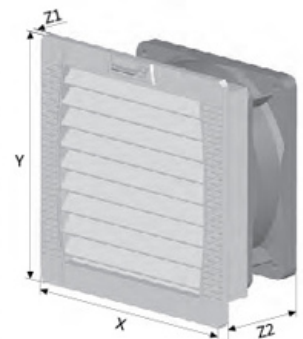


Dimensions

mm	FF145		EF 145
	AC	DC	
X	145	145	145
Y	145	145	145
Z1	5	5	5
Z2	70	70	27
A <sup>1</sup>	125	125	125
B <sup>1</sup>	125	125	125

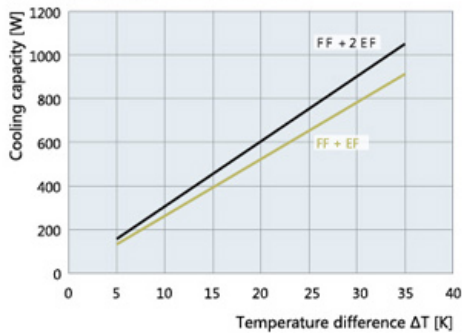
<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

Data		FF 145				
Model	Unit	FF145.230	FF145.115	FF145.012	FF145.024	FF145.048
Rated voltage ±10%	V	AC 50/60			DC	
Unimpeded air flow	m³/h	IP54-61/70 IP55-56/64				
Combined air volume	m³/h	IP54-44/52 IP55-40/46				
Power	W	19/14	18/15	5	5	5
Current	A	0.12/0.10	0.24/0.20	0.42	0.21	0.1
Noise level	dB(A)	44/44			44	
Type of connection		Terminal row				
Protection level		NEMA type 12 - standard filter				
Filtration efficiency	%	88				
Filter pad performance level		G3				
Duty cycle	%	100				
Bearing type		sleeve bearing			ball bearing	
Service life	h	37,500	40,000	62,500		
Temperature range	°C/°F	-40...+70/-40...+131				
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO				
Colour		RAL 7035, different colours on request				

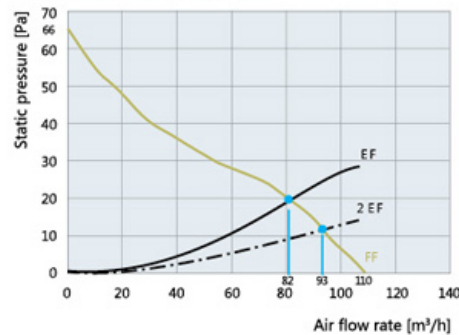




Cooling capacity performance curves



Characteristics of static pressure

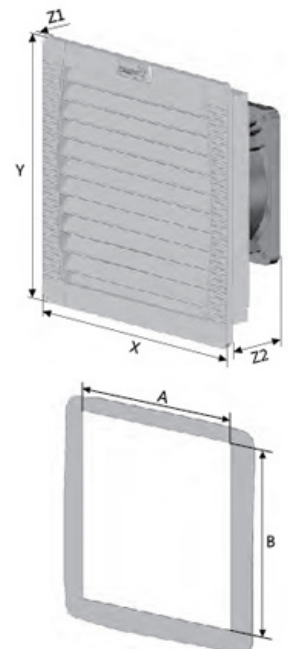


Dimensions

mm	FF 202		EF 202
	AC	DC	
X	202	202	202
Y	202	202	202
Z1	6.5	6.5	6.5
Z2	87	87	30
A <sup>1</sup>	177	177	177
B <sup>1</sup>	177	177	177

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

Data		FF 202				
Model	Unit	FF202.230	FF202.115	FF202.012	FF202.024	FF202.048
Rated voltage ±10%	V	AC 50/60			DC	
Unimpeded air flow	m³/h	IP54-110/125			IP55-100/110	
Combined air volume	m³/h	IP54-82/93			IP55-55/64	
Power	W	19/18	20/20	5	5	5
Current	A	0.12/0.10	0.24/0.20	0.42	0.21	0.1
Noise level	dB(A)	40/40			40	
Type of connection		Terminal row				
Protection level		NEMA type 12 - standard filter				
Filtration efficiency	%	88				
Filter pad performance level		G3				
Duty cycle	%	100				
Bearing type		sleeve bearing			ball bearing	
Service life	h	37,500	40,000	62,500		
Temperature range	°C/°F	-40...+70/-40...+131				
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO				
Colour		RAL 7035, different colours on request				

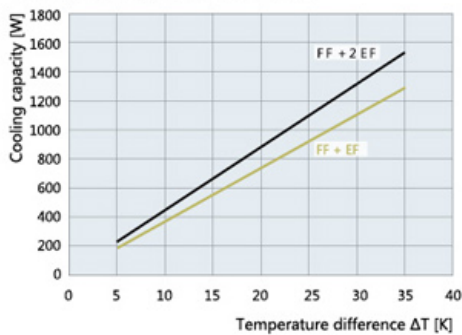




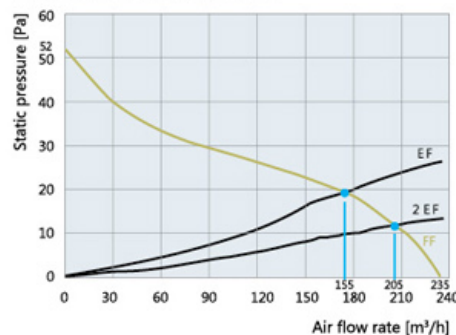
# FF252-P series filter



Cooling capacity performance curves



Characteristics of static pressure

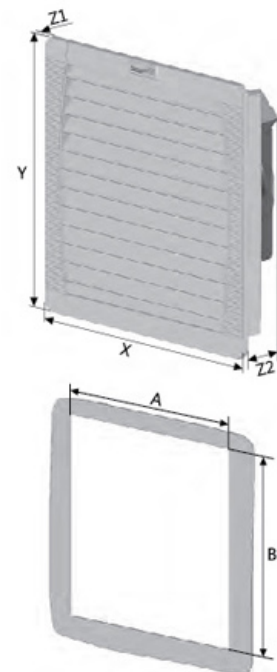


Dimensions

mm	FF 252-P		EF 252
	AC	DC	
X	252	252	252
Y	252	252	252
Z1	6.5	6.5	6.5
Z2	111	111	33
A <sup>1</sup>	223	223	223
B <sup>1</sup>	223	223	223

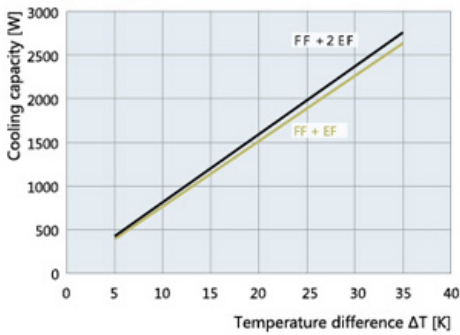
<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

Data		FF 252-P				
Model	Unit	FF252-P.230	FF252-P.115	FF252-P.012	FF252-P.024	FF252-P.048
Rated voltage ±10%	V	AC 50/60			DC	
Unimpeded air flow	m³/h	IP54-225/260		IP55-205/235		
Combined air volume	m³/h	IP54-202/235		IP55-155/185		
Power	W	36/30	36/30	6	4.7	4.6
Current	A	0.25/0.21	0.49/0.45	0.5	0.2	0.1
Noise level	dB(A)	40/43			40	
Type of connection		Terminal row				
Protection level		NEMA type 12 - standard filter				
Filtration efficiency	%	88				
Filter pad performance level		G3				
Duty cycle	%	100				
Bearing type		ball bearing				
Service life	h	40,000	42,500	57,500	70,000	
Temperature range	°C/°F	-40...+55/-40...+131				
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO				
Colour		RAL 7035, different colours on request				

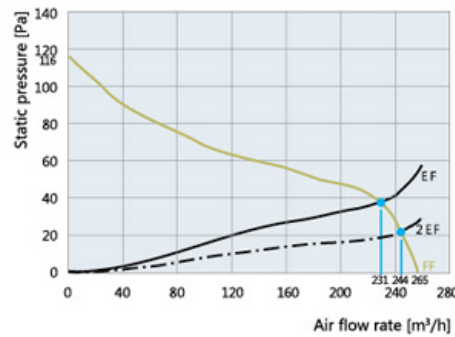




Cooling capacity performance curves



Characteristics of static pressure

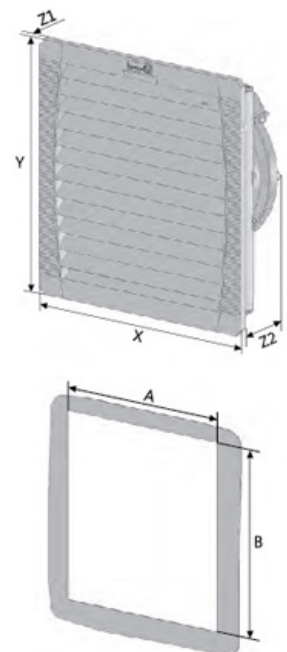


Dimensions

mm	FF252-M	EF 252
X	252	252
Y	252	252
Z1	6.5	6.5
Z2	114	33
A <sup>1</sup>	223	223
B <sup>1</sup>	223	223

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

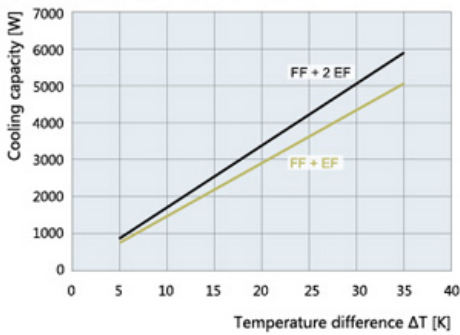
Data		FF 252-M		
Model	Unit	FF252-M.400	FF252-M.230	FF252-M.115
Rated voltage ±10%	V	AC 50/60		
Unimpeded air flow	m <sup>3</sup> /h	IP54-256/292 IP55-233/265		
Combined air volume	m <sup>3</sup> /h	IP54-231/265 IP55-180/207		
Power	W	42/37	37/33	40/40
Current	A	0.16/0.14	0.25/0.20	0.52/0.43
Noise level	dB(A)	42/46		
Type of connection		Terminal row		
Protection level		NEMA type 12 - standard filter		
Filtration efficiency	%	88		
Filter pad performance level		G3		
Duty cycle	%	100		
Bearing type		ball bearing		
Service life	h	40,000		
Temperature range	°C/°F	-40...+70/-40...+131		
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO		
Colour		RAL 7035, different colours on request		



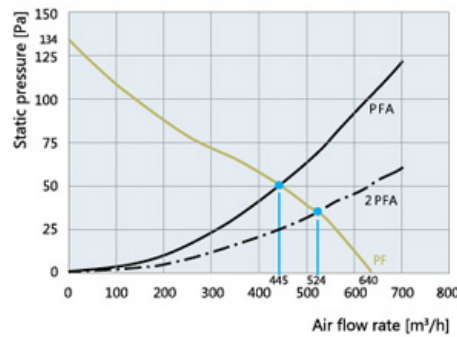
# FF320 series filter



Cooling capacity performance curves



Characteristics of static pressure

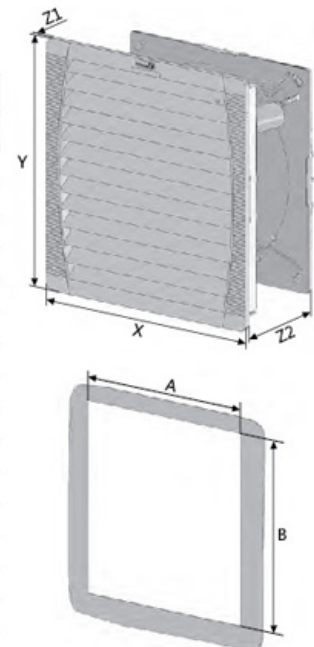


Dimensions

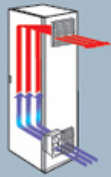
mm	FF 320	EF 320
X	320	320
Y	320	320
Z1	7	7
Z2	162	36
A <sup>1</sup>	291	291
B <sup>1</sup>	291	291

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

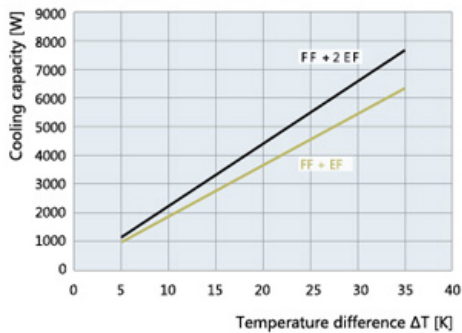
Data		FF 320	
Model	Unit	FF320.230	FF320.115
Rated voltage ±10%	V	AC 50/60 Hz	
Unimpeded air flow	m³/h	IP54-580/700	IP55-550/670
Combined air volume	m³/h	IP54-490/550	IP55-470/530
Power	W	75/65	
Current	A	0.59/0.47	1.2/1.1
Noise level	dB(A)	59/62	
Type of connection		Terminal row	
Protection level		NEMA type 12 - standard filter	
Filtration efficiency	%	91	
Filter pad performance level		G4	
Duty cycle	%	100	
Bearing type		ball bearing	
Service life	h	40,000	
Temperature range	°C/°F	-40...+70/-40...+131	
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO	
Colour		RAL 7035, different colours on request	



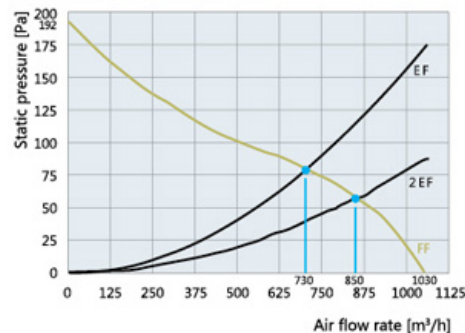




Cooling capacity performance curves



Characteristics of static pressure

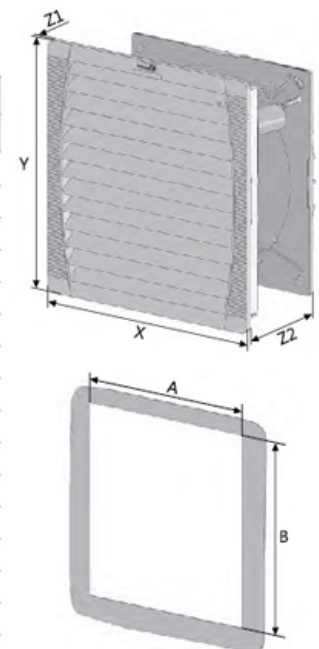


Dimensions

mm	FF 320-D	EF 320
X	320	320
Y	320	320
Z1	7	7
Z2	162	36
A <sup>1</sup>	291	291
B <sup>1</sup>	291	291

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

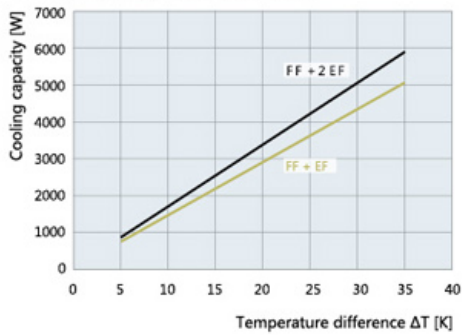
Data		FF 320-D	
Model	Unit	FF320-D.230	FF320-D.115
Rated voltage ±10%	V	AC 50/60 Hz	
Unimpeded air flow	m³/h	IP54-1150/1350	IP55-950/1150
Combined air volume	m³/h	IP54-800/1030	IP55-750/950
Power	W	135/104	149/110
Current	A	0.59/0.47	1.2/1.1
Noise level	dB(A)	63/65	
Type of connection		Terminal row	
Protection level		NEMA type 12 - standard filter	
Filtration efficiency	%	91	
Filter pad performance level		G4	
Duty cycle	%	100	
Bearing type		ball bearing	
Service life	h	40,000	
Temperature range	°C/°F	-40...+70/-40...+131	
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO	
Colour		RAL 7035, different colours on request	



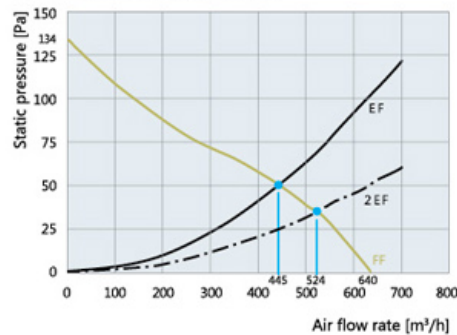
# FF5000 series filter



Cooling capacity performance curves



Characteristics of static pressure

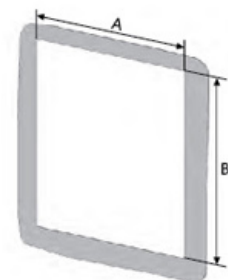
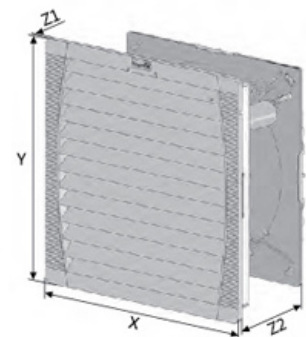


Dimensions

mm	FF 5000	EF 320
X	320	320
Y	320	320
Z1	7	7
Z2	125	36
A <sup>1</sup>	291	291
B <sup>1</sup>	291	291

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

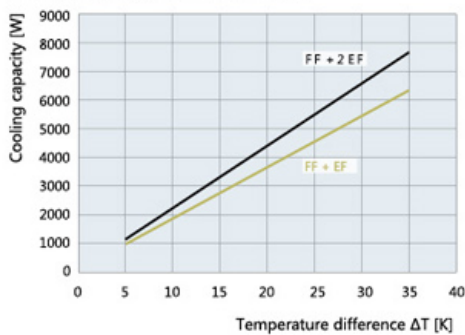
Data		FF 5000	
Model	Unit	FF5000.230	FF5000.115
Rated voltage ±10%	V	AC 50/60 Hz	
Unimpeded air flow	m³/h	IP54-550/650	IP55-460/515
Combined air volume	m³/h	IP54-490/540	IP55-425/475
Power	W	71/62	
Current	A	0.34/0.30	0.64/0.62
Noise level	dB(A)	54/52	
Type of connection		Terminal row	
Protection level		NEMA type 12 - standard filter	
Filtration efficiency	%	91	
Filter pad performance level		G4	
Duty cycle	%	100	
Bearing type		ball bearing	
Service life	h	40,000	
Temperature range	°C/°F	-40...+70/-40...+131	
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO	
Colour		RAL 7035, different colours on request	



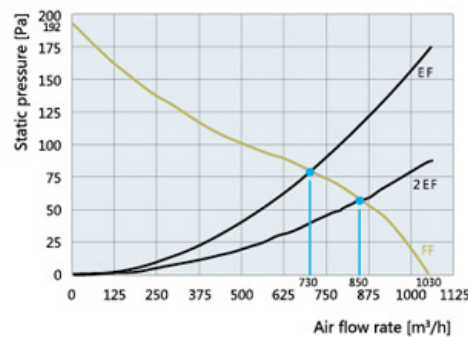




Cooling capacity performance curves



Characteristics of static pressure



Dimensions

mm	FF 7000	EF 320
X	320	320
Y	320	320
Z1	7	7
Z2	127	36
A <sup>1</sup>	291	291
B <sup>1</sup>	291	291

<sup>1</sup> for material thickness up to 2mm  
+1 mm for thickness of material > 2 mm ≤ 3 mm

Data		FF 7000		
Model	Unit	FF7000.400	FF7000.230	FF7000.115
Rated voltage ±10%	V	AC 50/60 Hz		
Unimpeded air flow	m³/h	IP54-1050/1250 IP55-900/1100		
Combined air volume	m³/h	IP54-700/930 IP55-650/850		
Power	W	155/120	135/104	149/110
Current	A	0.26/0.25	0.59/0.47	1.2/1.1
Noise level	dB(A)	63/64		
Type of connection		Terminal row		
Protection level		NEMA type 12 - standard filter		
Filtration efficiency	%	91		
Filter pad performance level		G4		
Duty cycle	%	100		
Bearing type		ball bearing		
Service life	h	40,000		
Temperature range	°C/°F	-40...+70/-40...+131		
Design		made of injection-moulded thermoplastic, self-extinguishing UL 94 VO		
Colour		RAL 7035, different colours on request		

