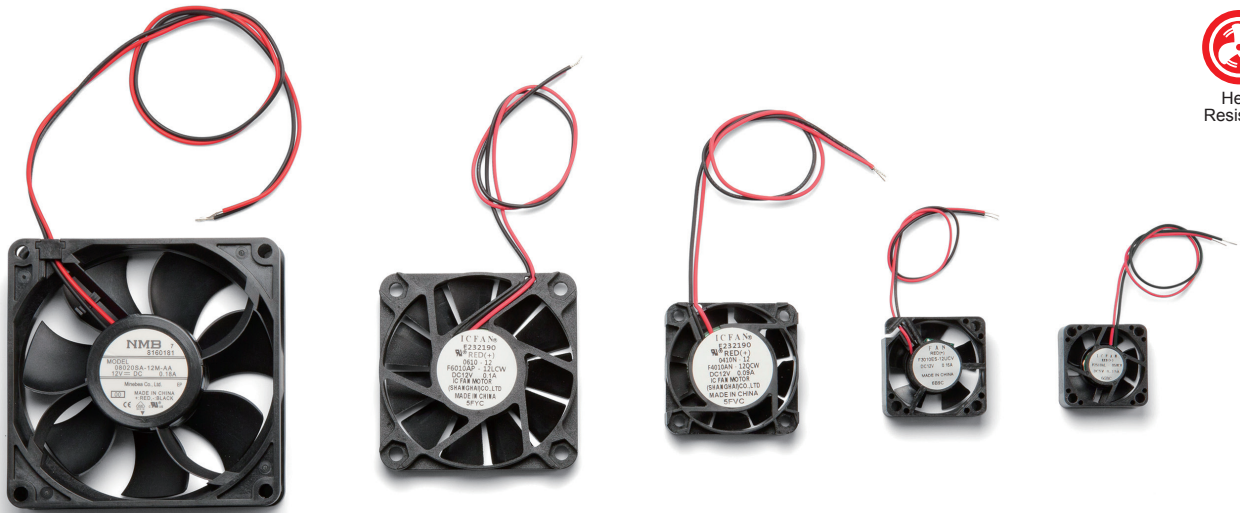


HF SERIES

COOLING FAN

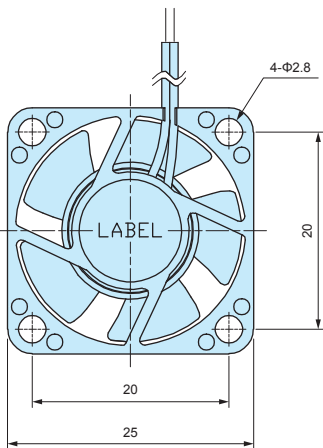


Heat Resistant



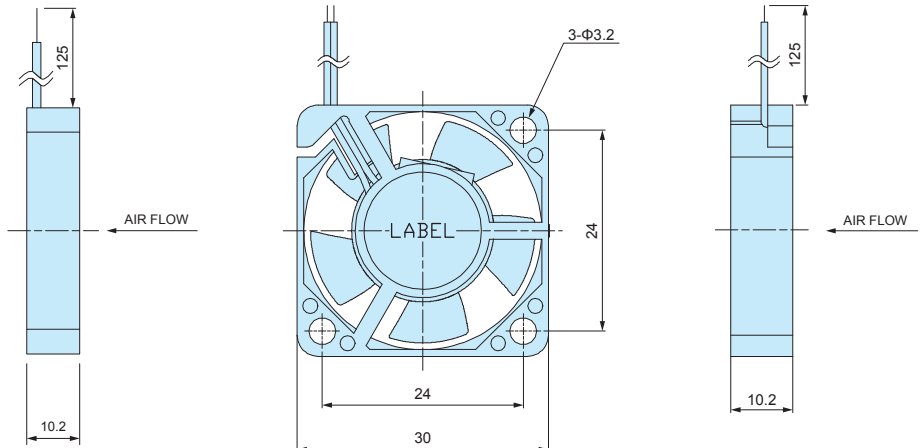
HF2510AL-05

Lead wire UL3302HF AWG28



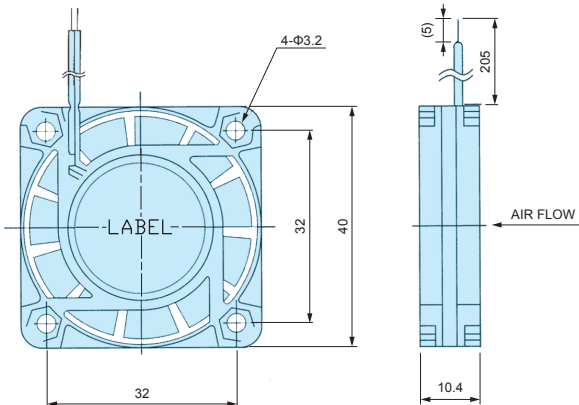
HF0312ES-12

Lead wire UL1685LF AWG28



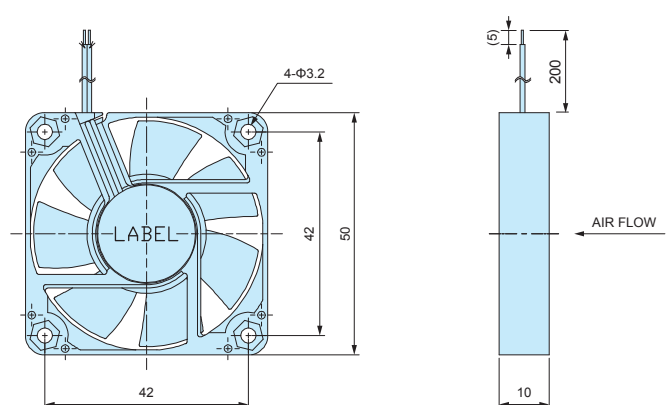
HF0410N-12

Lead wire UL1007 AWG26



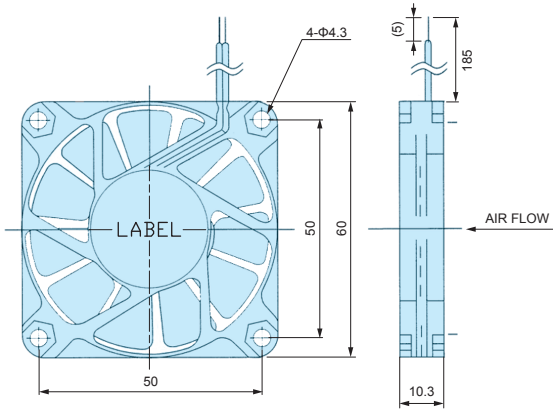
HF0510ET-12

Lead wire UL1685LF AWG28



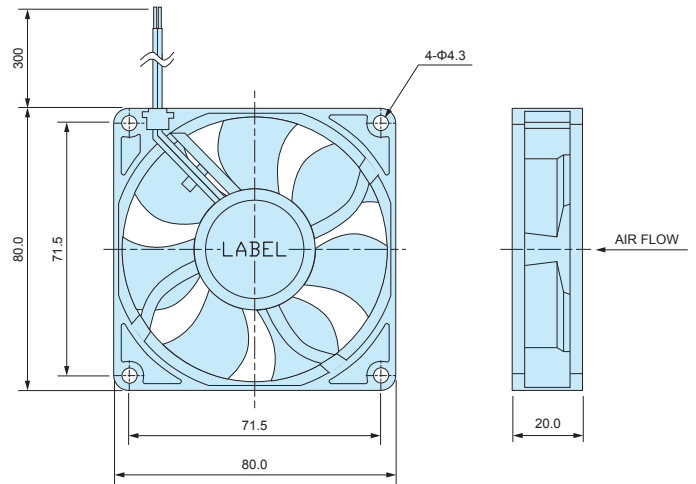
HF0610-12

Lead wire UL1007 AWG26



HF0820SA-12

Lead wire UL3385 AWG26



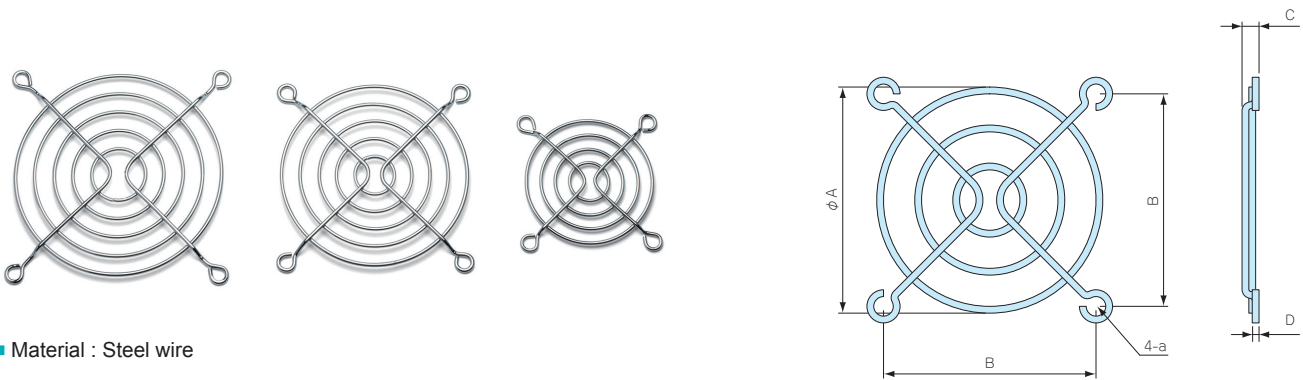
Product no. / Dimensions

Product no.	Outer dimensions (mm)	Rated voltage (V)	Voltage range (V)	Rated current (A)	Rated input (W)	Max airflow (m3/min)	Max static pressure (pa)	Rotation speed (min-1)	Operating temperature	Life expectancy (H)
HF2510AL-05	25.0 x 25.0 x 10.2	DC 5	4.5 ~ 5.5	0.15	0.75	0.048	18	8,000	-10 ~ +100°C	50,000
HF0312ES-12	30.0 x 30.0 x 10.2	DC12	10.2 ~ 13.8	0.15	1.8	0.1	36	7,500	-10 ~ +100°C	50,000
HF0410N-12	40.0 x 40.0 x 10.4	DC12	10.2 ~ 13.8	0.09	1.08	0.12	31.4	5,100	-5 ~ +60°C	50,000
HF0510ET-12	50.0 x 50.0 x 10.0	DC12	10.2 ~ 13.8	0.25	3	0.33	33	5,600	-10 ~ +100°C	50,000
HF0610-12	60.0 x 60.0 x 10.3	DC12	10.2 ~ 13.8	0.1	1.2	0.33	16.7	3,300	-5 ~ +60°C	50,000
HF0820SA-12	80.0 x 80.0 x 20.0	DC12	6.0 ~ 13.2	0.13	1.56	1.13	52.8	3,700	-10 ~ +70°C	40,000

■ Life expectancy is measured under normal operational conditions.

HF-G SERIES

FINGER GUARD



■ Material : Steel wire

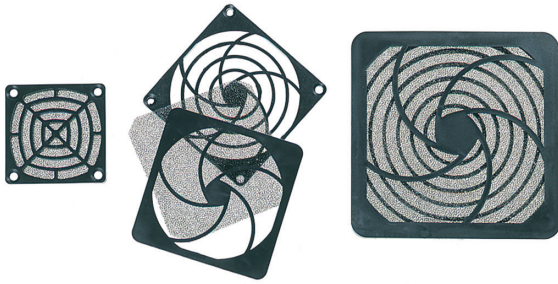
Product no. / Dimensions

■ Shape vary by model.

Product no.	A	B	C	D	a	Finish
HF-G 30	26	24	4.5	1.4	M3	Chrome plated
HF-G 40	28.5	32	5	1.6	M3 and M4	Nickel plated
HF-G 50	41	42	5	1.6	M3 and M4	Nickel plated
HF-G 60	53	50	4.5	1.6	M4	Nickel plated
HF-G 80	76.5	71.5	5.5	1.8	M4	Nickel plated
HF-G 90	85.5	82.5	5	1.8	M4	Nickel plated
HF-G120	115.5	104.8	6	1.8	M4	Nickel plated

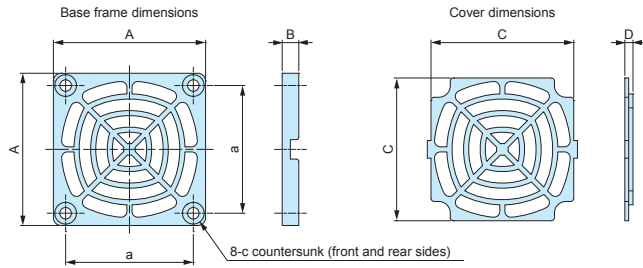
HF-P SERIES

FILTER FRAME

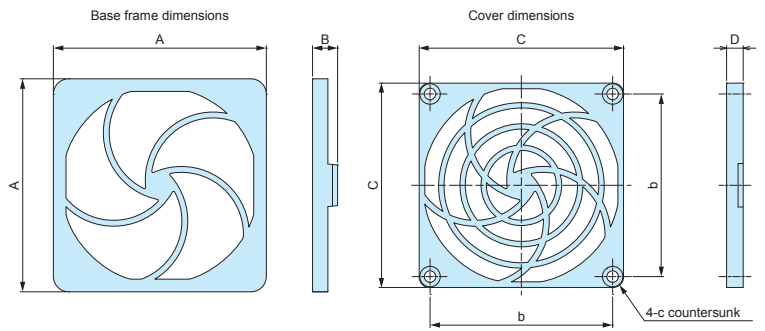


DXF/DWG/PDF drawings available on our website.

HF-P40 • HF-P60
※Drawings for HF-P60 model



HF-P80 • HF-P90 • HF-P120
※Drawings for HF-P80 model.



Components

No.	Part name	Material	Color
1	Base frame	ABS UL94V-0	Black
2	Cover	ABS UL94V-0	Black
3	Filter	Polyurethane foam	Gray

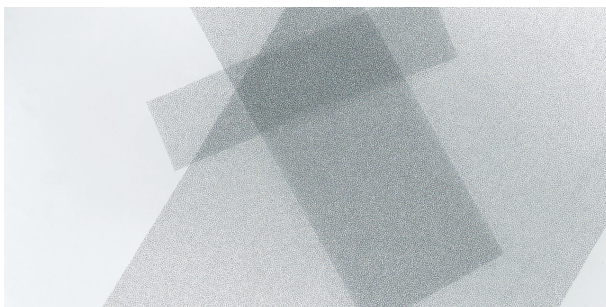
Product no. / Dimensions

Shape vary by model.

Product no.	A	B	C	D	a	b	c
HF-P 40	40	6.3	37	3.2	32	-	M3
HF-P 60	59.6	6.5	55.9	3.2	50	-	M4
HF-P 80	83.4	9.8	80	6.5	-	71.5	M4
HF-P 90	96.2	9.7	92	6.3	-	82.5	M4
HF-P120	123.7	10.8	117.2	7.3	-	104.8	M4

HR SERIES

FILTER



Product no. / Dimensions

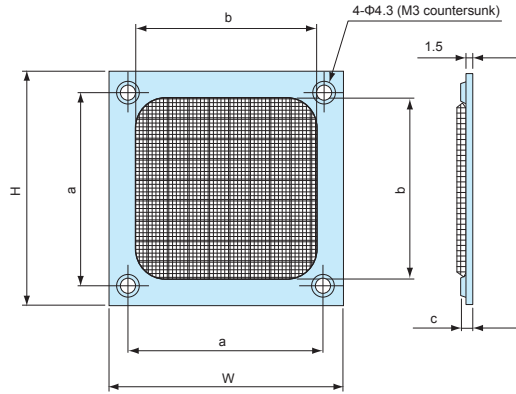
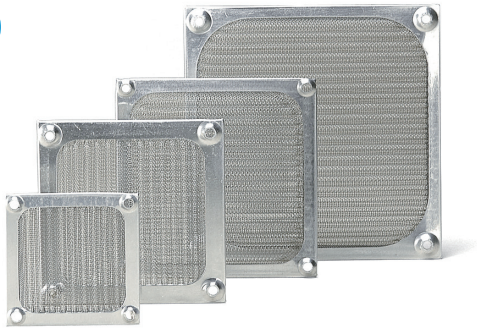
Product no.	W	H	t
HR0520	200	50	3
HR1030	300	100	3
HR2550	500	250	3

Material / Color : Polyurethane foam / Gray

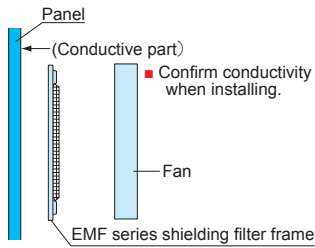
- Replacement filter for HF-P filter frame.
- Can also be used as a dustproof filter over vent holes.

EMF SERIES

EMC SHIELDED FILTER FRAME



- Use for EMC shielding on the hole for cooling fan.



Components

Frame material	Filter material	Mesh
Aluminium / Unfinished	Stainless steel	30

- Mesh 30 = 30 openings in a 1 square inch area (25.4 x 25.4mm).

Product no. / Dimensions

Product no.	W	H	a	b	c	Matching fan size (mm)
EMF- 60	59.5	59.5	50	46	3.5	60.0 x 60.0
EMF- 80	83.8	83.8	71.5	68.8	4	80.0 x 80.0
EMF- 90	92	92	82.5	78	3.5	92.0 x 92.0
EMF-120	119	119	104.8	104.5	3.7	120.0 x 120.0