


Box Fan R87B

CSM_R87B_DS_E_4_3

Comprehensive Lineup of Single, Double, and Triple Axial Fans with Easy One-step Mounting

- Mounts in a square cutout and conceals the hole-cut to simplify installation work.
- Cover can be set to open either upward or downward for convenience in confined spaces.
- Enhanced accessories (finger guard, filter, plug cord, mounting screws).
- Optional Replacement Filter and Vent Attachment.
- The lineup includes Single, Double, and Triple Box Fans with eight models with plastic blades and eight models with metal blades.



 Refer to *Safety Precautions for All Axial Fans*.

Model Number Structure

Model Number Legend

R87B- A15 PF
 1 2 3 4 5

Attachment

R87B-N
 1 5

Options and Accessories

R87B-P
 1 6 7

Number	Category	Symbol	Meaning of symbol
1	Fan (blade material)	F T N	R87F Axial Fan (with plastic blades) R87T Axial Fan (with metal blades) No fan
	Optional parts	P	Options and accessories
2	Power supply classification	A1	100 VAC
		A3	115 VAC
		A4	200 VAC
		A6	230 VAC
3	Speed classification	H	High speed
		M	Middle speed
		L	Low speed
4	Airflow direction *	None	In
		R	Out
5	Number of fans	None	1
		2	2
		3	3
6	Part type	F	Filter
7	Reference number	01	---

Note: These tables show only how to read model numbers. They do not indicate which products are available. Refer to “*Ratings and Ordering Information*” when placing an order.

* “In” is the direction of external air flowing in.
 “Out” is the direction of internal air flowing out.

Ordering Information

Type	Number of fans	Model	Accessories
Plastic blades High speed	1	R87B-FA <u> </u> A15HPF(R)	Filter Finger guard Plug cord Mounting bolts
	2	R87B-FA <u> </u> A15HPF(R)2	
	3	R87B-FA <u> </u> A15HPF(R)3	
Plastic blades Low speed	1	R87B-FA <u> </u> A15LPPF(R)	
	2	R87B-FA <u> </u> A15LPPF(R)2	
	3	R87B-FA <u> </u> A15LPPF(R)3	
Metal blades High speed	1	R87B-TA <u> </u> A15HPF(R)	
	2	R87B-TA <u> </u> A15HPF(R)2	
	3	R87B-TA <u> </u> A15HPF(R)3	
Metal blades Medium speed	1	R87B-TA <u> </u> A15MPF(R)	
	2	R87B-TA <u> </u> A15MPF(R)2	
	3	R87B-TA <u> </u> A15MPF(R)3	
Attachment	For 1	R87B-N	Filter Finger guard Mounting screws
	For 2	R87B-N2	
	For 3	R87B-N3	
Replacement Filter	Any	R87B-PF01	Set of two filters

Ratings and Ordering Information

Item	Model	R87B-F	R87B-T
Motor type		Single-phase shading coil induction motor (2-pole, open type)	
Terminal type		Terminals	
Insulation class		IEC class B (130°C) UL class A (105°C) CSA class A (105°C)	IEC class B (130°C) UL class A (105°C)
Insulation resistance		100 MΩ min. (at 500 VDC) Between all power supply connection parts and non-current carrying metal parts	
Dielectric strength		2,000 VAC for 1 min Between all power supply connection parts and non-current carrying metal parts	
Ambient operating temperature		-30 to 70°C (with no icing)	-20 to 70°C (with no icing)
Storage temperature		-40 to 85°C (with no icing)	
Ambient humidity		25% to 85%	
Protection		Impedance protection	
Materials	Frame	Die-cast aluminum	
	Blades	Glass polycarbonate	Steel plate (black coating)
Bearings		Ball bearings	
Compliant standards*		PSE, EN/IEC 60335 (CE self-declaration)	
Certified standards*		UL/CSA	UL

Note: The rated current is the total for all fans.

* The compliant standards and certified standards apply to the listed Axial Fans.

Safety Precautions

Refer to *Safety Precautions for All Axial Fans*.

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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

R87B-□A□A15□PF(R)

Ratings and Ordering Information

Airflow Direction: In

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPF	100	85% to 110% rated voltage	50/60	2,700	3,100	1.3	1.5	91	85	49	52	Approx. 1,120 g
R87B-FA3A15HPF	115											
R87B-FA4A15HPF	200											
R87B-FA6A15HPF	230											
R87B-FA1A15LPF	100	85% to 110% rated voltage	50/60	2,100	2,200	0.9	1.0	43	42	42	43	
R87B-FA3A15LPF	115											
R87B-FA4A15LPF	200											
R87B-FA6A15LPF	230											
R87B-TA1A15HPF	100	85% to 110% rated voltage	50/60	2,650	3,000	1.1	1.3	67	63	45	48	Approx. 1,150 g
R87B-TA3A15HPF	115											
R87B-TA4A15HPF	200											
R87B-TA6A15HPF	230											
R87B-TA1A15MPF	100	85% to 110% rated voltage	50/60	2,300	2,600	0.8	1.0	41	45	41	44	
R87B-TA3A15MPF	115											
R87B-TA4A15MPF	200											
R87B-TA6A15MPF	230											

Note: An asterisk (*) indicates a nominal value.

Airflow Direction: Out

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPFR	100	85% to 110% rated voltage	50/60	2,700	3,100	1.3	1.5	91	85	49	52	Approx. 1,120 g
R87B-FA3A15HPFR	115											
R87B-FA4A15HPFR	200											
R87B-FA6A15HPFR	230											
R87B-FA1A15LPFR	100	85% to 110% rated voltage	50/60	2,100	2,200	0.9	1.0	43	42	42	43	
R87B-FA3A15LPFR	115											
R87B-FA4A15LPFR	200											
R87B-FA6A15LPFR	230											
R87B-TA1A15HPFR	100	85% to 110% rated voltage	50/60	2,650	3,000	1.1	1.3	67	63	45	48	Approx. 1,150 g
R87B-TA3A15HPFR	115											
R87B-TA4A15HPFR	200											
R87B-TA6A15HPFR	230											
R87B-TA1A15MPFR	100	85% to 110% rated voltage	50/60	2,300	2,600	0.8	1.0	41	45	41	44	
R87B-TA3A15MPFR	115											
R87B-TA4A15MPFR	200											
R87B-TA6A15MPFR	230											

Note: An asterisk (*) indicates a nominal value.

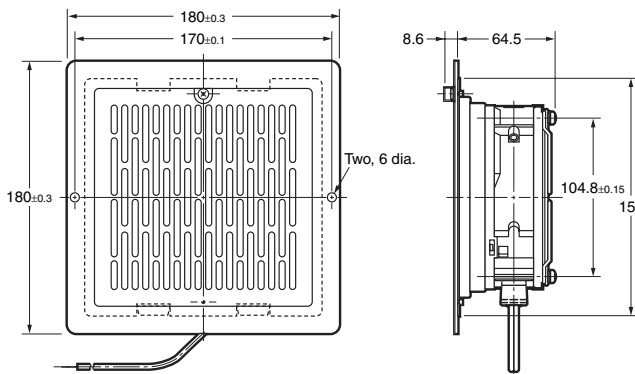
- The data in this table comes from measurements that were taken with the filter and cover attached.
- The model number of the AC Axial Fan in the Box Fan can be determined from the model number of the Box Fan as follows:

R87B-FA1A15HPF→R87F-A1A15HP

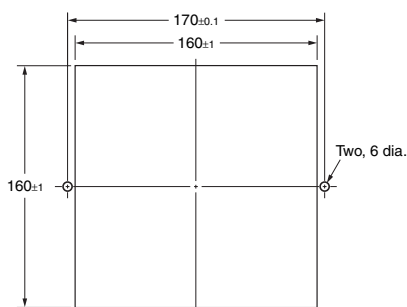
The model number of the Axial Fan can be determined by extracting the underlined portions from the model number of the Box Fan as shown.

Dimensions

(Unit: mm)



Panel Cutout Dimensions



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 To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

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Double Box Fan

R87B-□A□A15□PF(R)2

Ratings and Ordering Information

Airflow Direction: In

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPPF2	100	85% to 110% rated voltage	50/60	2,700	3,100	2.6	3.0	86	48	55	56	Approx. 2,220 g
R87B-FA3A15HPPF2	115											
R87B-FA4A15HPPF2	200											
R87B-FA6A15HPPF2	230											
R87B-FA1A15LPPF2	100	85% to 110% rated voltage	50/60	2,100	2,200	2.0	2.1	47	44	45	46	
R87B-FA3A15LPPF2	115											
R87B-FA4A15LPPF2	200											
R87B-FA6A15LPPF2	230											
R87B-TA1A15HPPF2	100	85% to 110% rated voltage	50/60	2,650	3,000	2.4	2.7	68	63	49	52	Approx. 2,260 g
R87B-TA3A15HPPF2	115											
R87B-TA4A15HPPF2	200											
R87B-TA6A15HPPF2	230											
R87B-TA1A15MPF2	100	85% to 110% rated voltage	50/60	2,300	2,600	1.6	1.9	41	43	44	47	
R87B-TA3A15MPF2	115											
R87B-TA4A15MPF2	200											
R87B-TA6A15MPF2	230											

Note: An asterisk (*) indicates a nominal value.

Airflow Direction: Out

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPFR2	100	85% to 110% rated voltage	50/60	2,700	3,100	2.6	3.0	86	48	55	56	Approx. 2,220 g
R87B-FA3A15HPFR2	115											
R87B-FA4A15HPFR2	200											
R87B-FA6A15HPFR2	230											
R87B-FA1A15LPFR2	100	85% to 110% rated voltage	50/60	2,100	2,200	2.0	2.1	47	44	45	46	
R87B-FA3A15LPFR2	115											
R87B-FA4A15LPFR2	200											
R87B-FA6A15LPFR2	230											
R87B-TA1A15HPFR2	100	85% to 110% rated voltage	50/60	2,650	3,000	2.4	2.7	68	63	49	52	Approx. 2,260 g
R87B-TA3A15HPFR2	115											
R87B-TA4A15HPFR2	200											
R87B-TA6A15HPFR2	230											
R87B-TA1A15MPFR2	100	85% to 110% rated voltage	50/60	2,300	2,600	1.6	1.9	41	43	44	47	
R87B-TA3A15MPFR2	115											
R87B-TA4A15MPFR2	200											
R87B-TA6A15MPFR2	230											

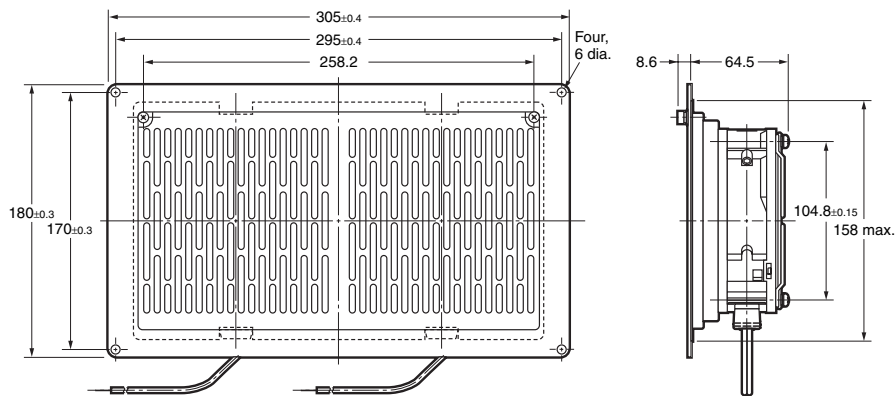
Note: An asterisk (*) indicates a nominal value.

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- The model number of the AC Axial Fan in the Box Fan can be determined from the model number of the Box Fan as follows:

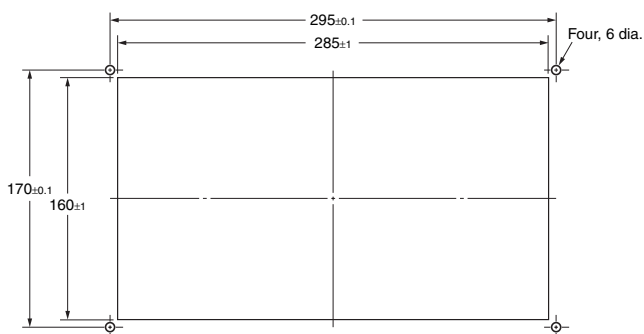
R87B-FA1A15HPF → R87F-A1A15HP

The model number of the Axial Fan can be determined by extracting the underlined portions from the model number of the Box Fan as shown.

Dimensions



Panel Cutout Dimensions



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Ratings and Ordering Information

Airflow Direction: In

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPF3	100	85% to 110% rated voltage	50/60	2,700	3,100	3.9	4.5	86	56	56	58	Approx. 3,380 g
R87B-FA3A15HPF3	115											
R87B-FA4A15HPF3	200											
R87B-FA6A15HPF3	230											
R87B-FA1A15LPF3	100	85% to 110% rated voltage	50/60	2,100	2,200	2.9	3.1	42	41	47	48	
R87B-FA3A15LPF3	115											
R87B-FA4A15LPF3	200											
R87B-FA6A15LPF3	230											
R87B-TA1A15HPF3	100	85% to 110% rated voltage	50/60	2,650	3,000	3.5	4.0	68	63	50	53	Approx. 3,410 g
R87B-TA3A15HPF3	115											
R87B-TA4A15HPF3	200											
R87B-TA6A15HPF3	230											
R87B-TA1A15MPF3	100	85% to 110% rated voltage	50/60	2,300	2,600	2.4	2.8	41	45	45	48	
R87B-TA3A15MPF3	115											
R87B-TA4A15MPF3	200											
R87B-TA6A15MPF3	230											

Note: An asterisk (*) indicates a nominal value.

Airflow Direction: Out

Item Model	Rated voltage (V)	Permitted voltage fluctuation range (%)	Frequency (Hz)	Rated rotational speed (r/min) *		Maximum flow rate (m ³ /min) *		Maximum static pressure (Pa) *		Noise (dB) *		Weight
				50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz	
R87B-FA1A15HPFR3	100	85% to 110% rated voltage	50/60	2,700	3,100	3.9	4.5	86	56	56	58	Approx. 3,380 g
R87B-FA3A15HPFR3	115											
R87B-FA4A15HPFR3	200											
R87B-FA6A15HPFR3	230											
R87B-FA1A15LPFR3	100	85% to 110% rated voltage	50/60	2,100	2,200	2.9	3.1	42	41	47	48	
R87B-FA3A15LPFR3	115											
R87B-FA4A15LPFR3	200											
R87B-FA6A15LPFR3	230											
R87B-TA1A15HPFR3	100	85% to 110% rated voltage	50/60	2,650	3,000	3.5	4.0	68	63	50	53	Approx. 3,410 g
R87B-TA3A15HPFR3	115											
R87B-TA4A15HPFR3	200											
R87B-TA6A15HPFR3	230											
R87B-TA1A15MPFR3	100	85% to 110% rated voltage	50/60	2,300	2,600	2.4	2.8	41	45	45	48	
R87B-TA3A15MPFR3	115											
R87B-TA4A15MPFR3	200											
R87B-TA6A15MPFR3	230											

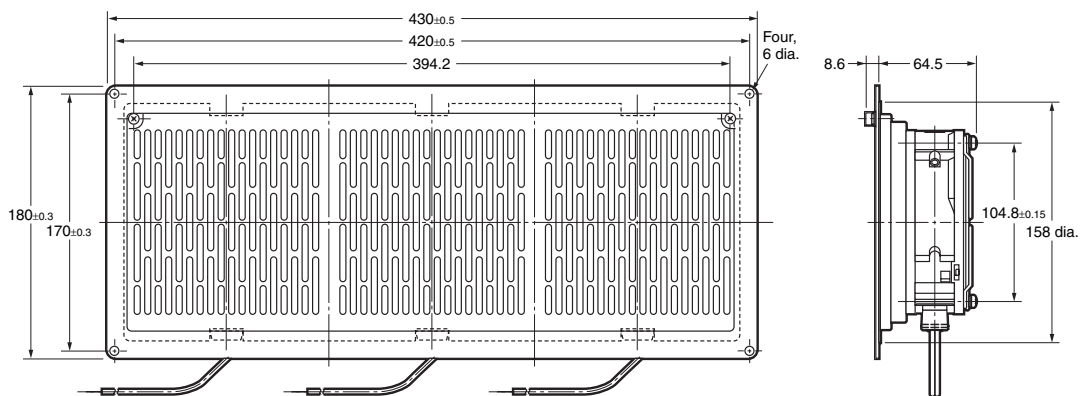
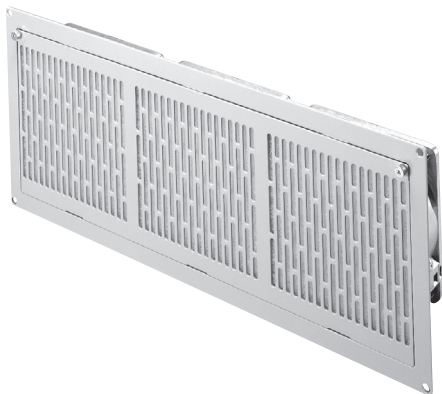
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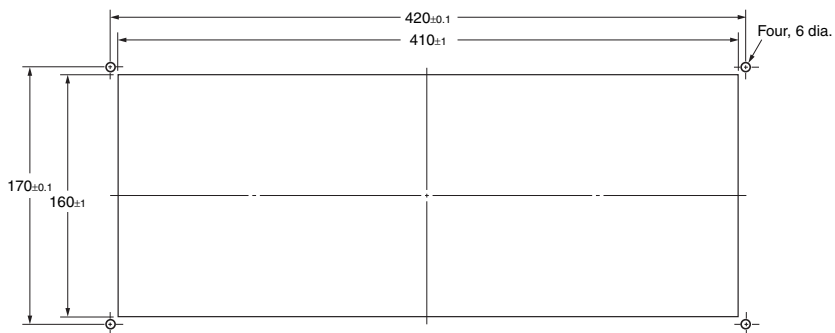
R87B-FA1A15HPF → R87F-A1A15HP

The model number of the Axial Fan can be determined by extracting the underlined portions from the model number of the Box Fan as shown.

Dimensions



Panel Cutout Dimensions



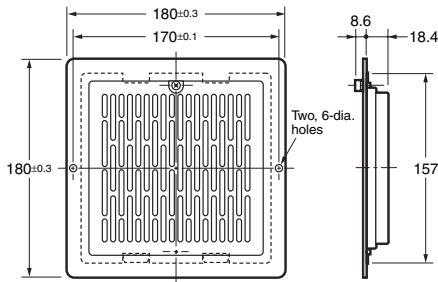
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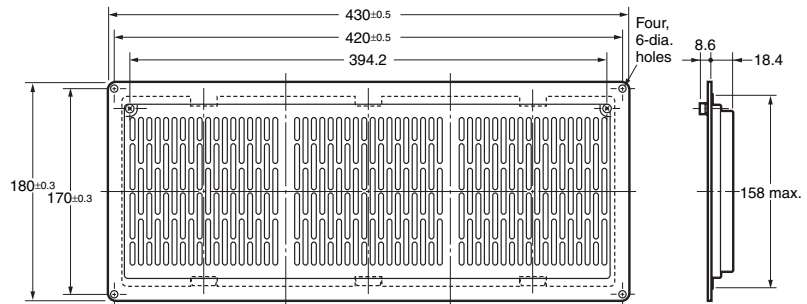
R87B-N□/R87B-PF

R87B-N□ (Attachment)

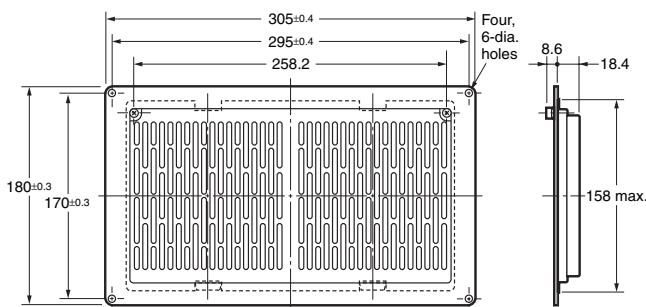
Single Box



Triple Box



Double Box

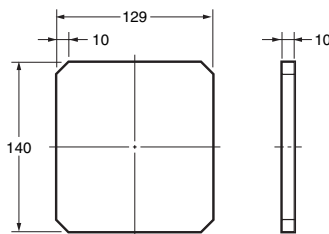


Ratings and Ordering Information

Model	Item	Type	Weight
R87B-N		Single	Approx. 570 g
R87B-N2		Double	Approx. 1,100 g
R87B-N3		Triple	Approx. 1,700 g

Note: The panel cut-out dimensions are the same as those for the Box Fan.

R87B-PF01 (Replacement Filter)



Ratings and Ordering Information

Model	Item	Qty.	Weight (grams per filter)
R87B-PF01		2	6

Filter Performance

Heat resistance (°C)	Filtration wind velocity (m/s)	Pressure drop (Pa)		Dust removal (%)	Dust suction amount (g/mm ²)
		Initial	Final		
100	2.5	49	70	70 min.	300

- Pay careful attention to clogging in the filter. A clogged filter will prevent the Fan from providing a cooling effect.

Replacing the Filter

1. Turn OFF the power, wait approximately one minute, and then open the cover. Remove the filter, replace it with a new filter, close the cover, and then firmly tighten the handle screw. This completes the filter replacement.
2. As a general guide to the replacement frequency, check the color of the filter regularly and replace it when the color shows a noticeable change.
3. It is recommended that the filter be replaced soon after the color changes noticeably in order to maintain the Fan's performance. (Replacement Filter: R87B-PF01)

Accessories

Model	Item	Mounting bolts (M4)	Hexagonal nuts (M4)	Plain washers	Spring washers	Cable with plug	Finger Guard (See note.)	Filter (See note.)
R87B-□A□A1□□PF(R)	(Single, with fan)	2	2	4	2	1	2	1
R87B-□A□A1□□PF(R)2	(Double, with fan)	4	4	8	4	2	4	2
R87B-□A□A1□□PF(R)3	(Triple, with fan)	4	4	8	4	3	6	3
R87B-N	(Single, without fan)	2	2	4	2	None	1	1
R87B-N2	(Double, without fan)	4	4	8	4	None	2	2
R87B-N3	(Triple, without fan)	4	4	8	4	None	3	3

Note: The Finger Guard and Filter are to be assembled into the Box Fan.

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Terms and Conditions Agreement

Read and understand this catalog.

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[R87B-FA3A15HPF](#) [R87B-FA4A15HPFR2](#) [R87B-N2](#) [R87B-N](#) [R87B-PF01](#) [R87B-FA3A15HPFR](#) [R87B-FA3A15LPFR](#)
[R87B-FA3A15HPFR2](#)