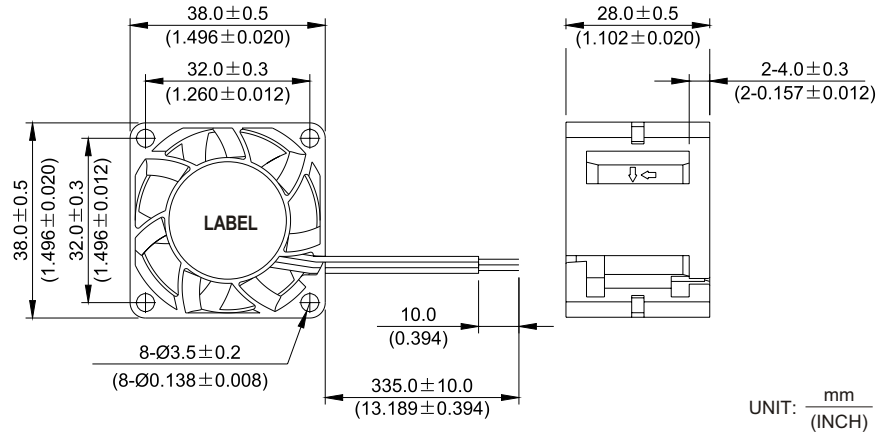


*New*



# FFB 38 x 38 x 28 MM SERIES

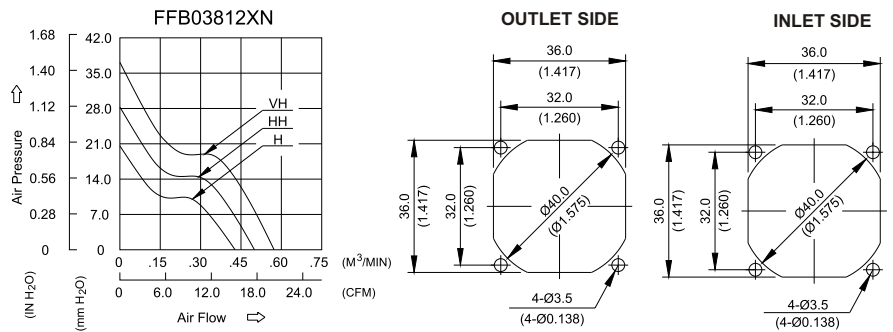
## DIMENSIONS DRAWING



UNIT:  $\frac{\text{mm}}{(\text{INCH})}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame: Plastic (UL94V-0)
- \* Lead Wires :  
UL 1061AWG#24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 46g (1.62 oz)

## P & Q CURVE (AT RATED VOLTAGE) ■ MOUNTING PANEL CUTOUT



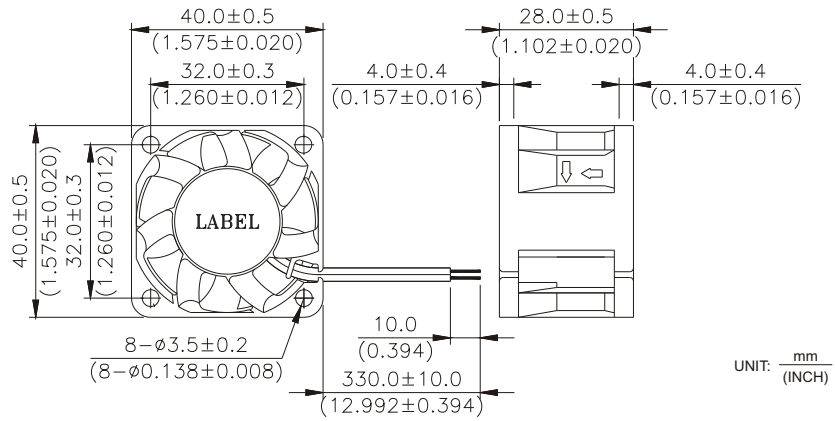
UNIT:  $\frac{\text{mm}}{(\text{INCH})}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB03812HN	-R00 / -F00	12	7.0 to 13.8	0.34	4.08	12000	0.431	15.22	21.31	0.839	51.5
FFB03812HHN	-R00 / -F00	12	7.0 to 13.8	0.47	5.64	14000	0.490	17.30	28.22	1.111	55.5
FFB03812VHN	-R00 / -F00	12	7.0 to 13.2	0.65	7.80	16000	0.573	20.23	37.15	1.463	58.5

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 40 x 40 x 28 MM SERIES

## DIMENSIONS DRAWING

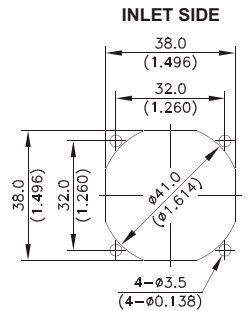
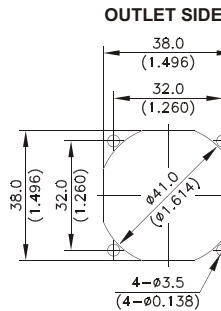
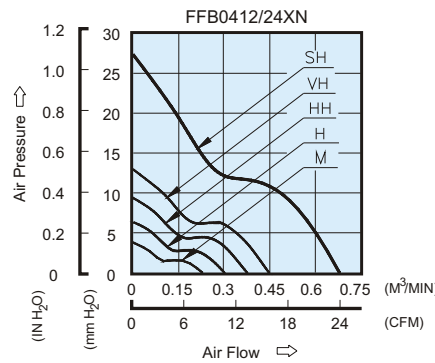


UNIT: mm (INCH)

- \* Bearing Type: Ball Bearings
- \* Material: Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires : UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 32g (1.13 oz)

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



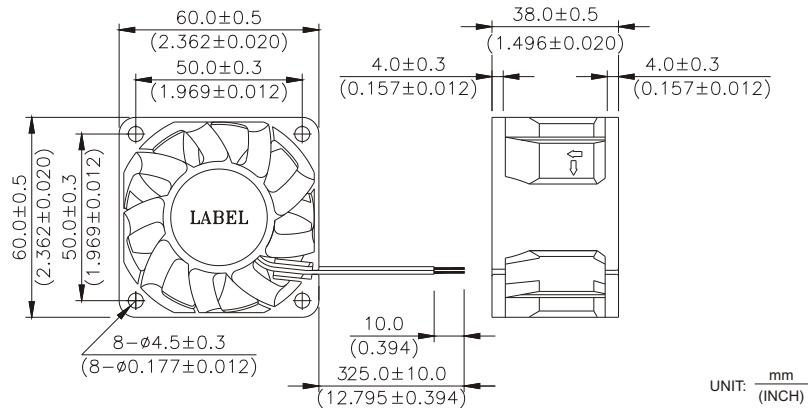
UNIT: mm (INCH)

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0412MN	-R00 / -F00	12	4.5 to 13.8	0.05	0.60	5000	0.228	8.05	3.77	0.148	23.9
FFB0424MN	-R00 / -F00	24	14.0 to 27.6	0.04	0.96						
FFB0412HN	-R00 / -F00	12	4.5 to 13.8	0.07	0.84	6500	0.300	10.59	6.30	0.248	32.1
FFB0424HN	-R00 / -F00	24	14.0 to 27.6	0.06	1.44						
FFB0412HHN	-R00 / -F00	12	4.5 to 13.8	0.11	1.32	8000	0.375	13.24	9.39	0.370	36.9
FFB0424HHN	-R00 / -F00	24	14.0 to 27.6	0.08	1.92						
FFB0412VHN	-R00 / -F00	12	4.5 to 13.2	0.16	1.92	9500	0.447	15.79	12.94	0.509	41.9
FFB0424VHN	-R00 / -F00	24	14.0 to 26.4	0.10	2.40						
FFB0412SHN	-R00 / -F00	12	4.0 to 13.8	0.50	6.00	13000	0.680	24.00	27.30	1.075	51.5

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 60 x 60 x 38 MM SERIES

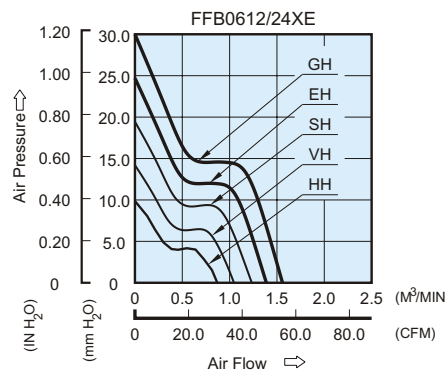
## DIMENSIONS DRAWING



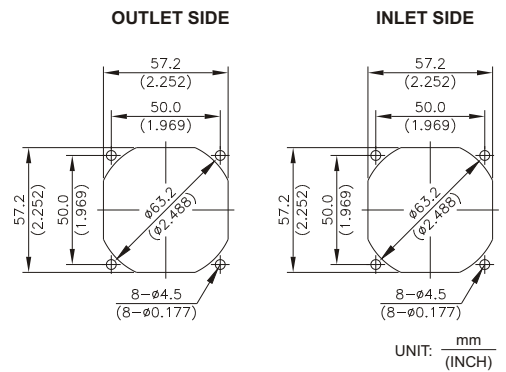
UNIT: mm  
(INCH)

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 106g (3.74 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



UNIT: mm  
(INCH)

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0612HHE	-R00 / -F00	12	4.5 to 13.8	0.23	2.76	5000	0.870	30.72	9.87	0.388	40.5
FFB0624HHE	-R00 / -F00	24	14.0 to 26.4	0.13	3.12						
FFB0612VHE	-R00 / -F00	12	4.5 to 13.8	0.34	4.08	6000	1.040	36.73	13.34	0.525	46.5
FFB0624VHE	-R00 / -F00	24	14.0 to 26.4	0.17	4.08						
FFB0612SHE	-R00 / -F00	12	4.5 to 13.8	0.55	6.60	7000	1.230	43.44	19.45	0.766	50.5
FFB0624SHE	-R00 / -F00	24	14.0 to 26.4	0.27	6.48						
FFB0612EHE	-R00 / -F00	12	4.5 to 13.8	0.80	9.60	8000	1.420	50.15	24.70	0.972	54.5
FFB0624EHE	-R00 / -F00	24	14.0 to 26.4	0.38	9.12						
FFB0612GHE	-R00 / -F00	12	4.5 to 13.8	0.93	11.16	9000	1.550	54.74	30.02	1.182	60.0

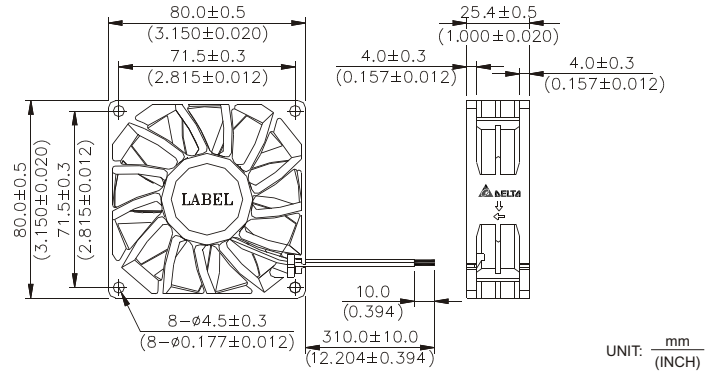
\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

New



# FFB 80 x 80 x 25.4 MM SERIES

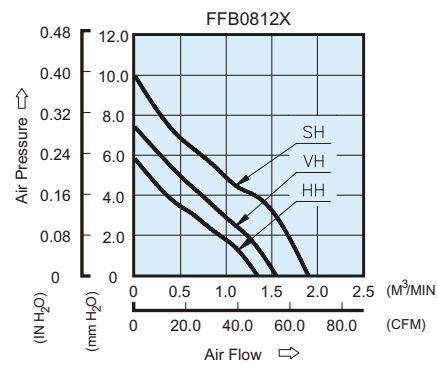
## DIMENSIONS DRAWING



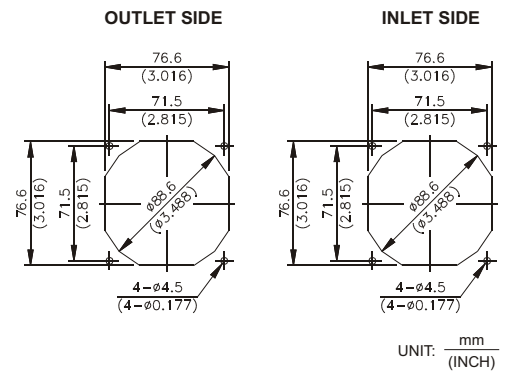
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 115g (4.06 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



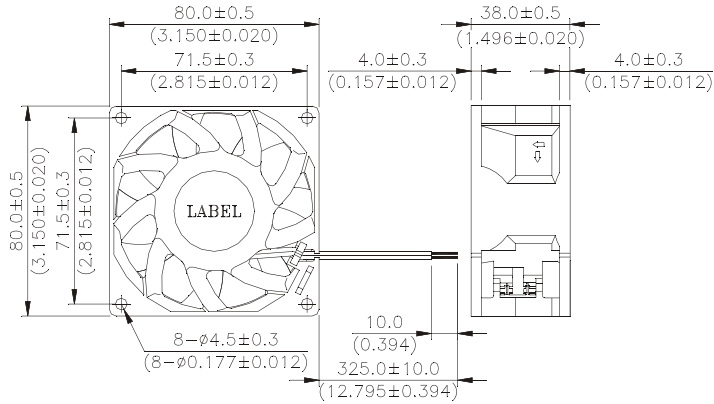
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0812HH	-R00 / -F00	12	7.0 to 13.2	0.26	3.12	3500	1.339	47.22	5.81	0.229	41.7
FFB0812VH	-R00 / -F00	12	7.0 to 13.2	0.34	4.08	4000	1.545	54.56	7.39	0.291	45.4
FFB0812SH	-R00 / -F00	12	7.0 to 13.2	0.50	6.00	4500	1.898	67.02	9.95	0.392	48.6

- \* Function type is optional.
- \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.
- \* Noise is measured in anechoic chamber in free air, one meter from intake side.
- \* All readings are typical values at rated voltage.
- \* Specifications are subject to change without notice.

# FFB 80 x 80 x 38 MM SERIES

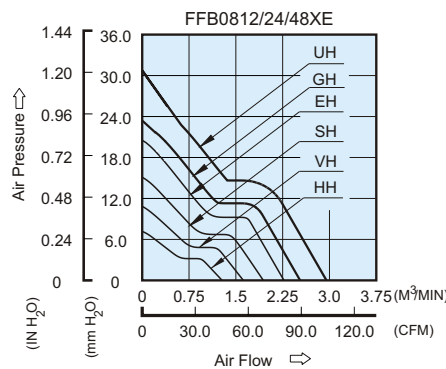
## DIMENSIONS DRAWING



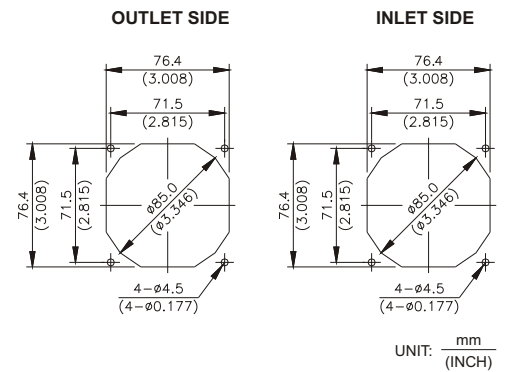
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 170g (6.00 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



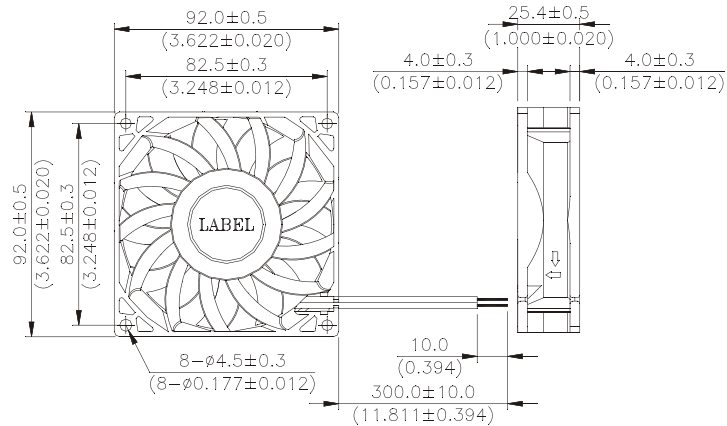
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0812HHE	-R00 / -F00	12	7.0 to 13.8	0.20	2.40	3400	1.280	45.20	7.13	0.281	39.0
FFB0824HHE	-R00 / -F00	24	14.0 to 27.6	0.15	3.60						
FFB0848HHE	-R00 / -F00	48	28.0 to 56.0	0.08	3.84						
FFB0812VHE	-R00 / -F00	12	7.0 to 13.8	0.38	4.56	4200	1.620	57.21	10.77	0.424	44.5
FFB0824VHE	-R00 / -F00	24	14.0 to 27.6	0.24	5.76						
FFB0848VHE	-R00 / -F00	48	28.0 to 56.0	0.11	5.28						
FFB0812SHE	-R00 / -F00	12	7.0 to 13.8	0.58	6.96	4900	1.940	68.51	15.01	0.591	48.5
FFB0824SHE	-R00 / -F00	24	14.0 to 27.6	0.34	8.16						
FFB0848SHE	-R00 / -F00	48	28.0 to 56.0	0.16	7.68						
FFB0812EHE	-R00 / -F00	12	7.0 to 13.8	0.90	10.80	5700	2.270	80.16	20.63	0.812	52.5
FFB0824EHE	-R00 / -F00	24	14.0 to 26.4	0.50	12.00						
FFB0812GHE	-R00 / -F00	12	7.0 to 13.2	1.15	13.80						
FFB0812UHE	-R00 / -F00	12	7.0 to 13.2	1.50	18.00	7500	2.889	102.02	31.32	1.233	62.2

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 92 x 92 x 25.4 MM SERIES

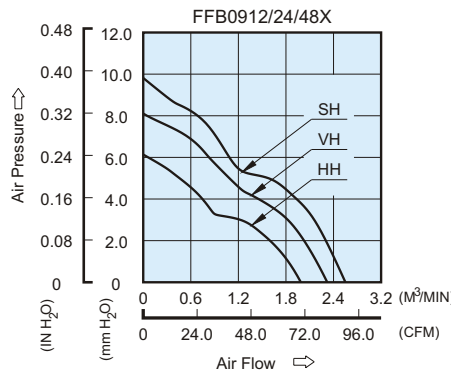
## DIMENSIONS DRAWING



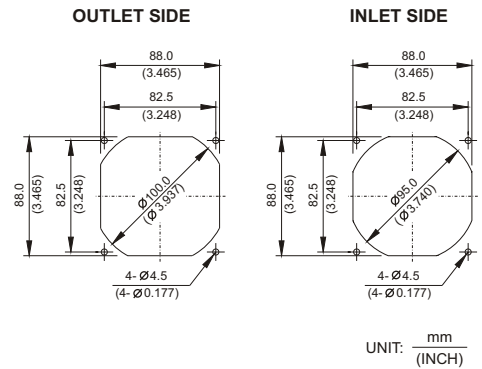
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic(UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive(+)  
Black Wire Negative(-)
- \* Weight : 128g (4.51 OZ)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



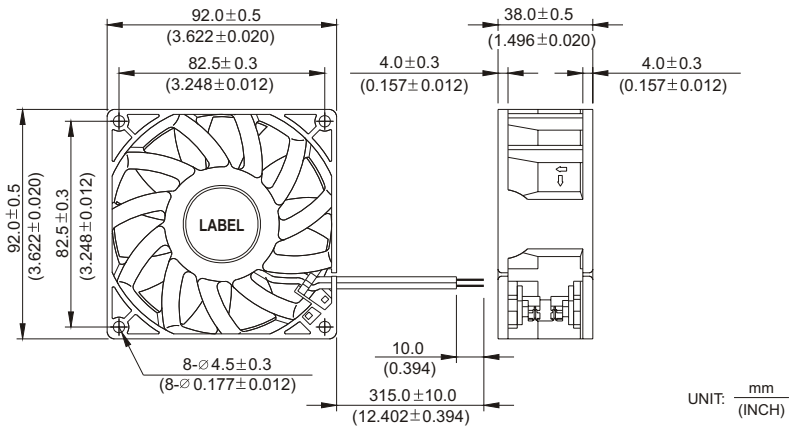
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0912HH	-R00 / -F00	12	7.0 to 13.8	0.40	4.80	3200	1.988	70.21	6.14	0.242	44.1
FFB0924HH	-R00 / -F00	24	14.0 to 27.6	0.24	5.76						
FFB0948HH	-R00 / -F00	48	28.0 to 53.0	0.14	6.72						
FFB0912VH	-R00 / -F00	12	7.0 to 13.8	0.60	7.20	3700	2.321	81.97	8.11	0.319	48.2
FFB0924VH	-R00 / -F00	24	14.0 to 27.6	0.31	7.44						
FFB0948VH	-R00 / -F00	48	28.0 to 53.0	0.17	8.16						
FFB0912SH	-R00 / -F00	12	7.0 to 13.8	0.69	8.28	4100	2.550	90.05	10.06	0.396	50.0

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 92 x 92 x 38 MM SERIES

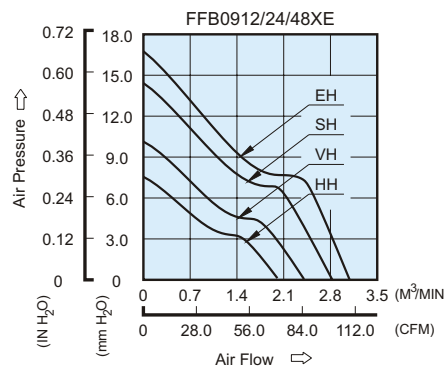
## DIMENSIONS DRAWING



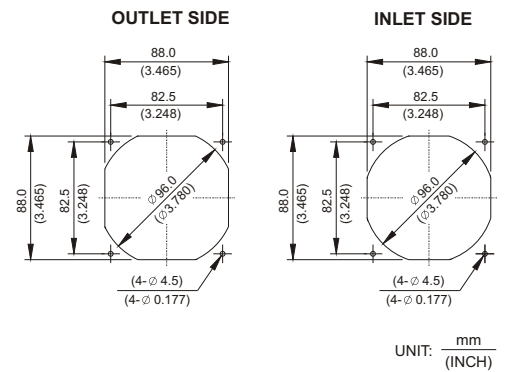
UNIT:  $\frac{\text{mm}}{\text{INCH}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 198g (6.98 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



UNIT:  $\frac{\text{mm}}{\text{INCH}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB0912HHE	-R00 / -F00	12	7.0 to 13.8	0.35	4.20	3200	2.030	71.69	7.58	0.298	42.5
FFB0924HHE	-R00 / -F00	24	14.0 to 27.6	0.18	4.32						
FFB0948HHE	-R00 / -F00	48	28.0 to 56.0	0.10	4.80						
FFB0912VHE	-R00 / -F00	12	7.0 to 13.8	0.50	6.00	3800	2.420	85.46	10.30	0.406	47.5
FFB0924VHE	-R00 / -F00	24	14.0 to 27.6	0.28	6.72						
FFB0948VHE	-R00 / -F00	48	28.0 to 56.0	0.14	6.72						
FFB0912SHE	-R00 / -F00	12	7.0 to 13.8	0.75	9.00	4400	2.840	100.29	14.53	0.572	52.5
FFB0924SHE	-R00 / -F00	24	14.0 to 27.6	0.40	9.60						
FFB0948SHE	-R00 / -F00	48	28.0 to 53.0	0.20	9.60						
FFB0912EHE	-R00 / -F00	12	7.0 to 13.8	1.00	12.00	4800	3.120	110.18	16.90	0.665	55.0
FFB0924EHE	-R00 / -F00	24	14.0 to 27.6	0.50	12.00						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

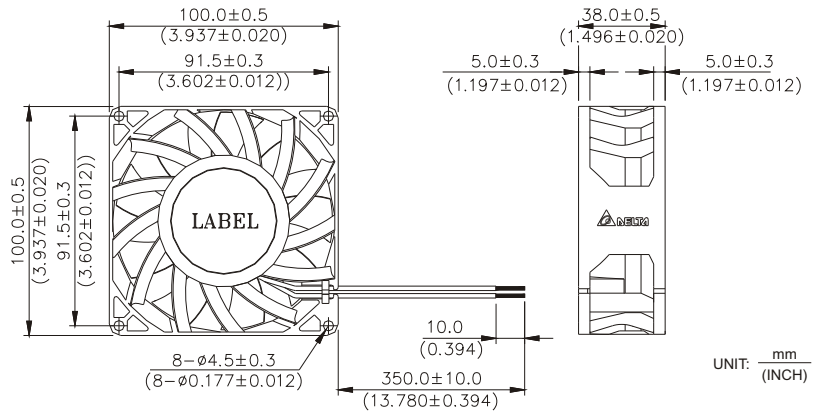


*New*



# FFB 100 x 100 x 38 MM SERIES

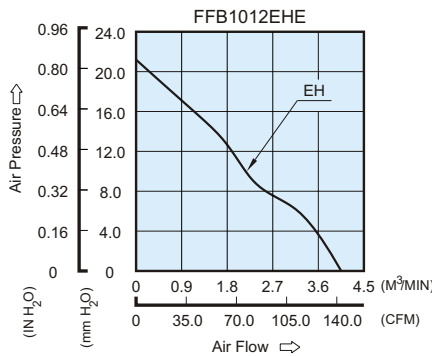
## DIMENSIONS DRAWING



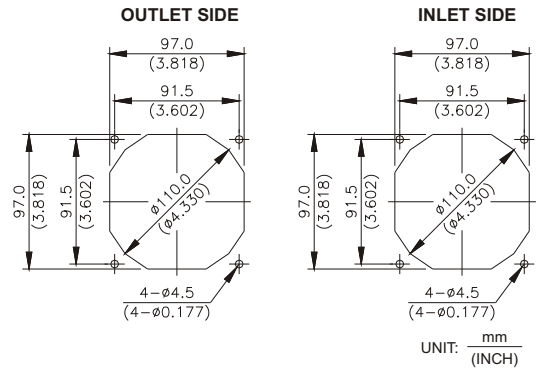
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1430 AWG #22 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 350g (12.34 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

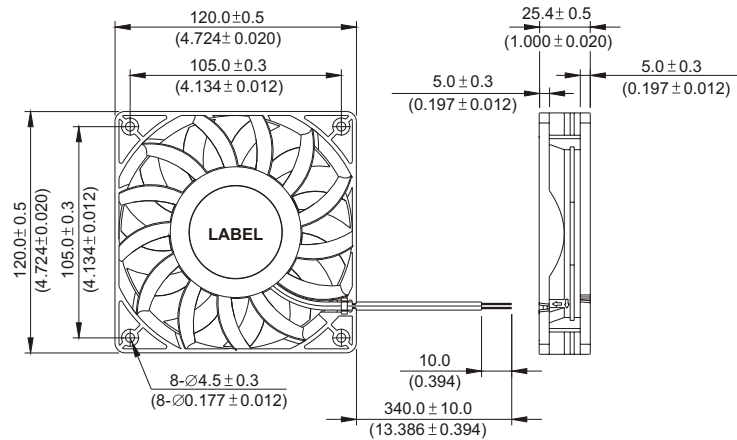
MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1012EHE	-R00 / -F00	12	7.0 to 12.6	2.20	26.40	5000	4.052	143.09	21.19	0.835	62.0

- \* Function type is optional.
- \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.
- \* Noise is measured in anechoic chamber in free air, one meter from intake side.
- \* All readings are typical values at rated voltage.
- \* Specifications are subject to change without notice.



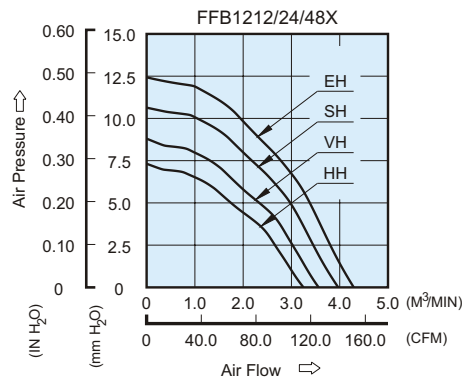
# FFB 120 x 120 x 25.4 MM SERIES

## DIMENSIONS DRAWING

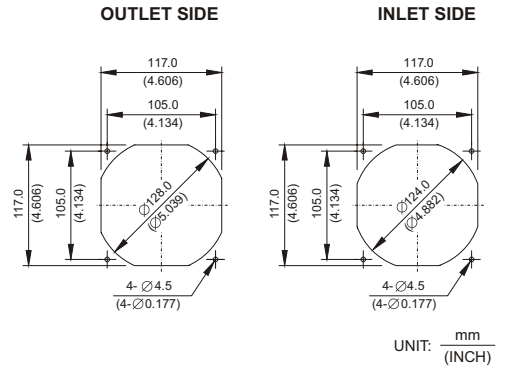


- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic(UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive(+)  
Black Wire Negative(-)
- \* Weight : 205g (7.23 Oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT

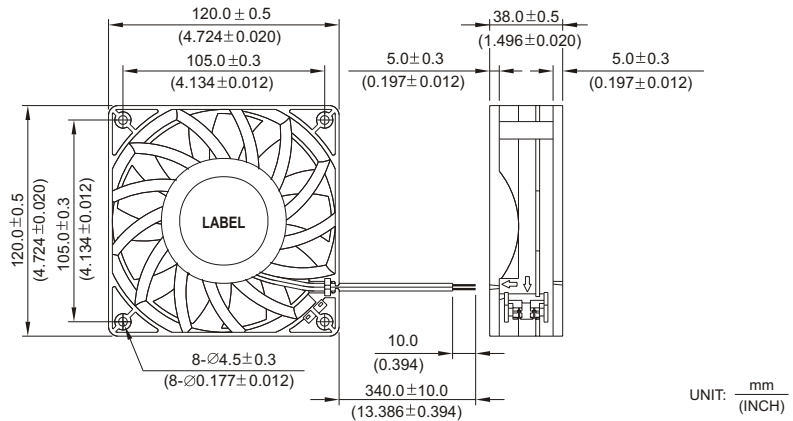


MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1212HH	-R00 / -F00	12	7.0 to 13.2	0.65	7.80	3100	3.249	114.73	7.32	0.288	49.7
FFB1224HH	-R00 / -F00	24	14.0 to 26.4	0.28	6.72						
FFB1248HH	-R00 / -F00	48	28.0 to 56.0	0.14	6.72						
FFB1212VH	-R00 / -F00	12	7.0 to 13.2	0.79	9.48	3400	3.592	126.85	8.29	0.326	51.9
FFB1224VH	-R00 / -F00	24	14.0 to 26.4	0.37	8.88						
FFB1248VH	-R00 / -F00	48	28.0 to 56.0	0.18	8.64						
FFB1212SH	-R00 / -F00	12	7.0 to 13.2	1.03	12.36	3700	3.969	140.16	10.64	0.419	54.3
FFB1224SH	-R00 / -F00	24	14.0 to 26.4	0.52	12.48						
FFB1248SH	-R00 / -F00	48	28.0 to 53.0	0.25	12.00						
FFB1212EH	-R00 / -F00	12	7.0 to 13.2	1.45	17.40	4000	4.257	150.33	12.43	0.489	56.4
FFB1224EH	-R00 / -F00	24	14.0 to 26.4	0.63	15.12						
FFB1248EH	-R00 / -F00	48	28.0 to 53.0	0.32	15.36						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 120 x 120 x 38 MM SERIES

## DIMENSIONS DRAWING

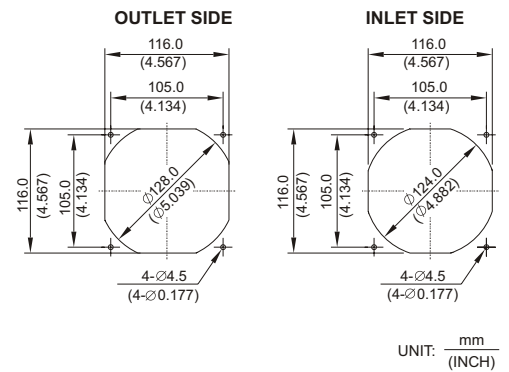
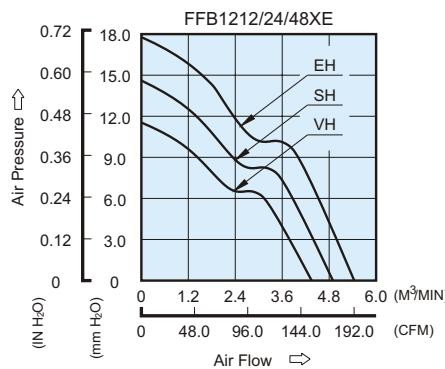


UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 370g (13.05 oz)

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1212VHE	-R00 / -F00	12	7.0 to 13.2	1.00	12.00	3200	4.300	151.85	11.30	0.445	53.0
FFB1224VHE	-R00 / -F00	24	14.0 to 26.4	0.56	13.44						
FFB1248VHE	-R00 / -F00	48	28.0 to 56.0	0.28	13.44						
FFB1212SHE	-R00 / -F00	12	7.0 to 13.2	1.50	18.00	3600	4.840	170.92	14.30	0.563	56.5
FFB1224SHE	-R00 / -F00	24	14.0 to 26.4	0.80	19.20						
FFB1248SHE	-R00 / -F00	48	28.0 to 56.0	0.38	18.24						
FFB1212EHE	-R00 / -F00	12	7.0 to 13.2	2.00	24.00	4000	5.380	190.00	17.78	0.700	59.0
FFB1224EHE	-R00 / -F00	24	14.0 to 26.4	1.00	24.00						
FFB1248EHE	-R00 / -F00	48	28.0 to 53.0	0.50	24.00						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

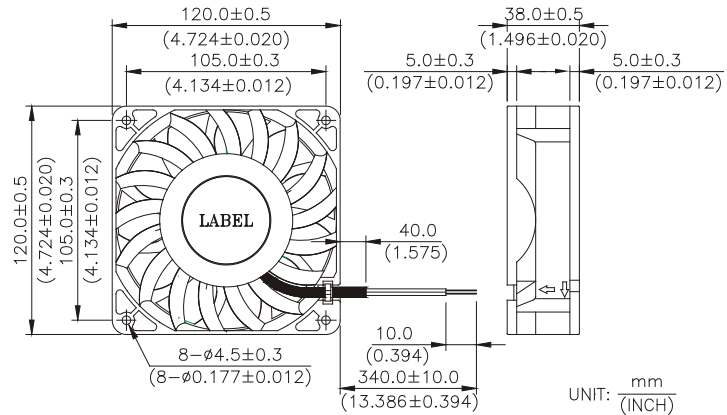
*New*



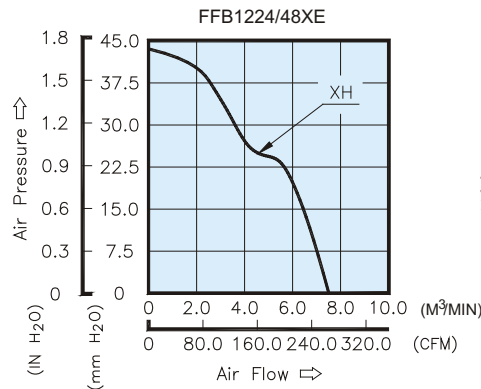
- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller : Plastic(UL 94V-0)  
Frame : Die-cast Aluminum  
Lead Wires :  
UL 1007 AWG #22 OR Equivalent  
Red Wire Positive(+)  
Black Wire Negative(-)
- \* Weight : 470g (16.58 OZ)

## FFB 120 x 120x 38 MM SERIES

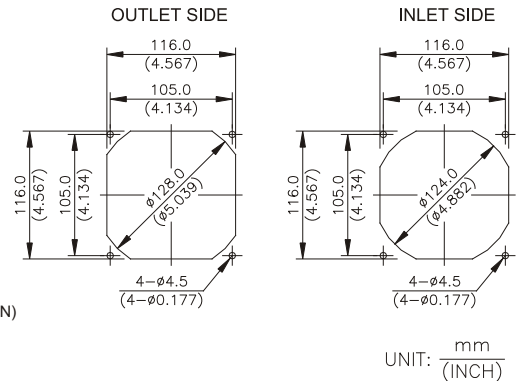
### ■ DIMENSIONS DRAWING



### ■ P & Q CURVE (AT RATED VOLTAGE)



### ■ MOUNTING PANEL CUTOUT

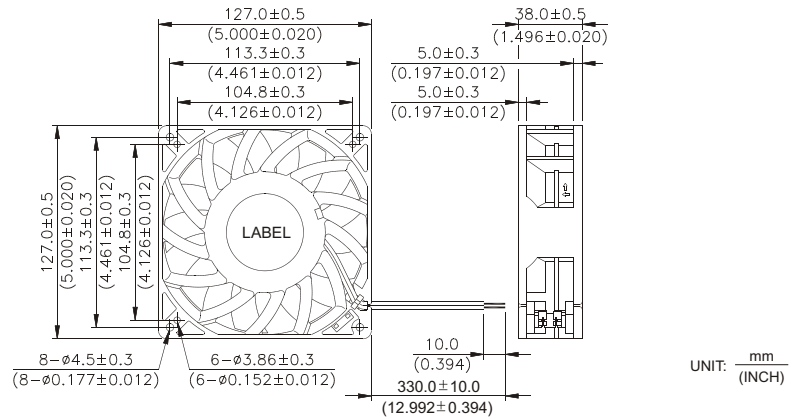
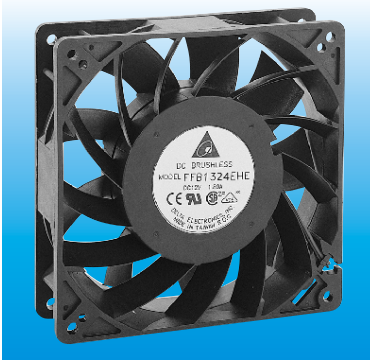


MODEL			Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FRAME	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1224XHE	-M	-R00 / -F00	24	14.0 to 26.4	3.25	78.00	6300	7.493	264.62	43.31	1.705	73.5
FFB1248XHE	-M	-R00 / -F00	48	28.0 to 54.0	1.65	79.20						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

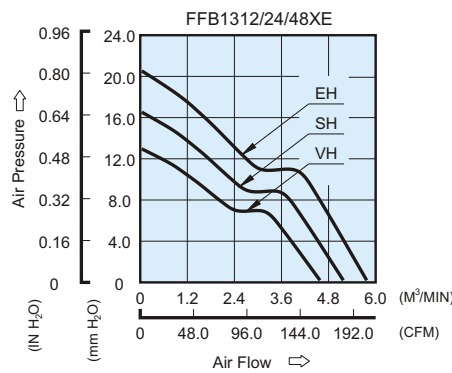
# FFB 127 x 127 x 38 MM SERIES

## DIMENSIONS DRAWING

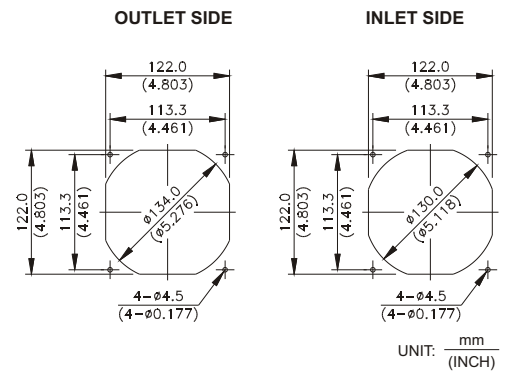


- \* Bearing Type: Ball Bearings
- \* Material: Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires : UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 470g (16.58 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



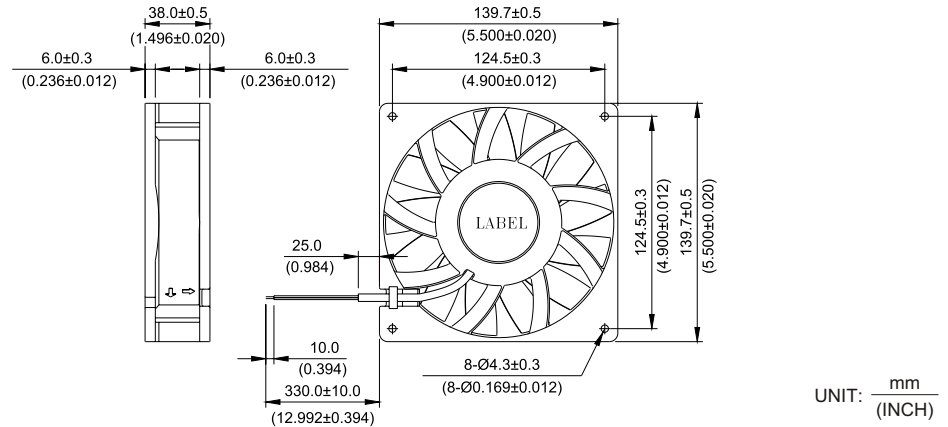
MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1312VHE	-R00 / -F00	12	7.0 to 13.2	1.32	15.84	3050	4.531	160.01	12.80	0.504	53.0
FFB1324VHE	-R00 / -F00	24	14.0 to 26.4	0.60	14.40						
FFB1348VHE	-R00 / -F00	48	28.0 to 53.0	0.33	15.84						
FFB1312SHE	-R00 / -F00	12	7.0 to 13.2	1.85	22.20	3450	5.097	180.00	16.30	0.642	56.5
FFB1324SHE	-R00 / -F00	24	14.0 to 26.4	0.84	20.16						
FFB1348SHE	-R00 / -F00	48	28.0 to 53.0	0.45	21.60						
FFB1312EHE	-R00 / -F00	12	8.5 to 13.2	2.74	32.88	3850	5.664	200.02	20.30	0.799	59.5
FFB1324EHE	-R00 / -F00	24	14.0 to 26.4	1.20	28.80						
FFB1348EHE	-R00 / -F00	48	28.0 to 53.0	0.67	32.16						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

*New*

# FFB 140 x 140 x 38 MM SERIES

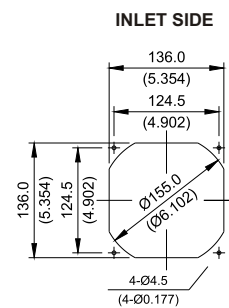
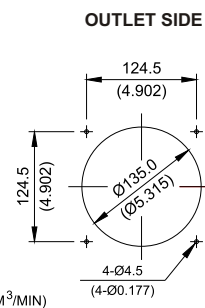
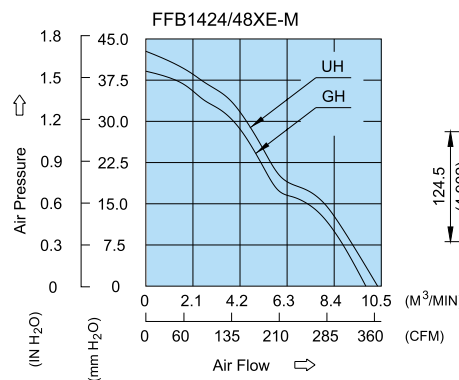
## DIMENSIONS DRAWING



- \* Bearing Type: Ball Bearings
- \* Material: Impeller : Plastic (UL 94V-0)
- \* Frame : Die-Cast Aluminum
- \* Lead Wires : UL 1430 AWG #22 OR Equivalent
- \* Red Wire Positive (+)
- \* Black Wire Negative (-)
- \* Weight : 650g (22.93 oz)

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



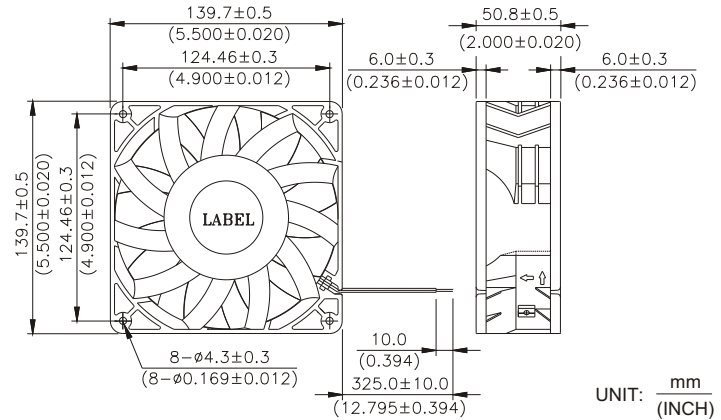
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL			Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FRAME	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1424GHE	-M	-R00 / -F00	24	14.0 to 26.4	2.98	71.52	5250	9.827	347.04	38.16	1.502	73.0
FFB1448GHE	-M	-R00 / -F00	48	36.0 to 53.0	1.50	72.00						
FFB1424UHE	-M	-R00 / -F00	24	14.0 to 26.4	3.35	80.40	5500	10.410	367.62	41.75	1.644	74.0
FFB1448UHE	-M	-R00 / -F00	48	36.0 to 53.0	1.80	86.40						

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

# FFB 140 x 140 x 50.8 MM SERIES

## DIMENSIONS DRAWING

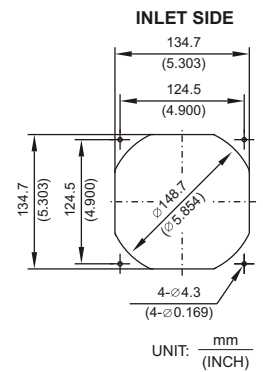
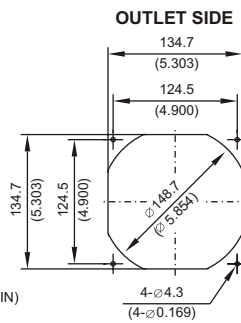
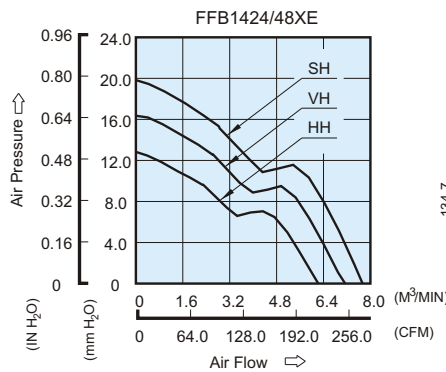


UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1430 AWG #22 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 670g (23.63 oz)

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1424HHG	-R00 / -F00	24	14.0 to 26.4	0.71	17.04	2800	6.222	219.73	12.84	0.506	54.5
FFB1448HHG	-R00 / -F00	48	28.0 to 53.0	0.36	17.28						
FFB1424VHG	-R00 / -F00	24	14.0 to 26.4	0.91	21.84	3200	7.139	252.11	16.36	0.644	58.5
FFB1448VHG	-R00 / -F00	48	28.0 to 53.0	0.50	24.00						
FFB1424SHG	-R00 / -F00	24	14.0 to 26.4	1.53	36.72	3600	7.733	273.09	19.84	0.781	61.7
FFB1448SHG	-R00 / -F00	48	28.0 to 53.0	0.77	36.96						

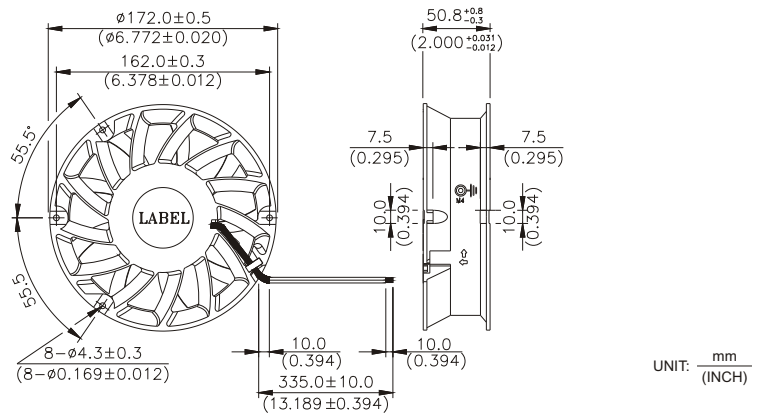
\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.

*New*



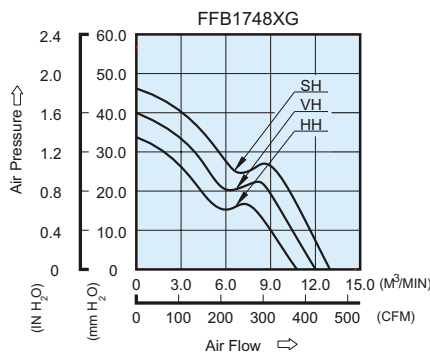
# FFB Ø172 x 50.8 MM SERIES

## DIMENSIONS DRAWING

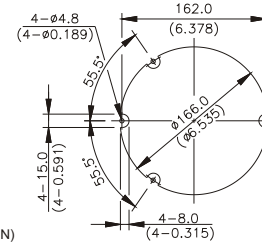


- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller : Plastic (UL 94V-0)  
Frame : Die-Cast Aluminum
- \* Lead Wires :  
UL 1430 AWG #22 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 920g (32.45 oz)

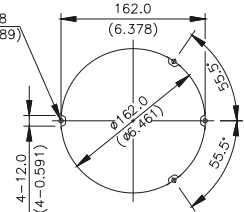
## P & Q CURVE (AT RATED VOLTAGE) ■ MOUNTING PANEL CUTOUT



### OUTLET SIDE



### INLET SIDE



UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1748HHG	-R00 / -F00	48	26.0 to 54.0	1.40	67.20	4200	11.035	389.69	33.00	1.299	69.5
FFB1748VHG	-R00 / -F00	48	26.0 to 54.0	1.90	91.20	4600	12.255	432.77	40.09	1.578	72.0
FFB1748SHG	-R00 / -F00	48	26.0 to 54.0	2.50	120.00	5000	12.770	450.98	46.66	1.837	74.0

\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications are subject to change without notice.