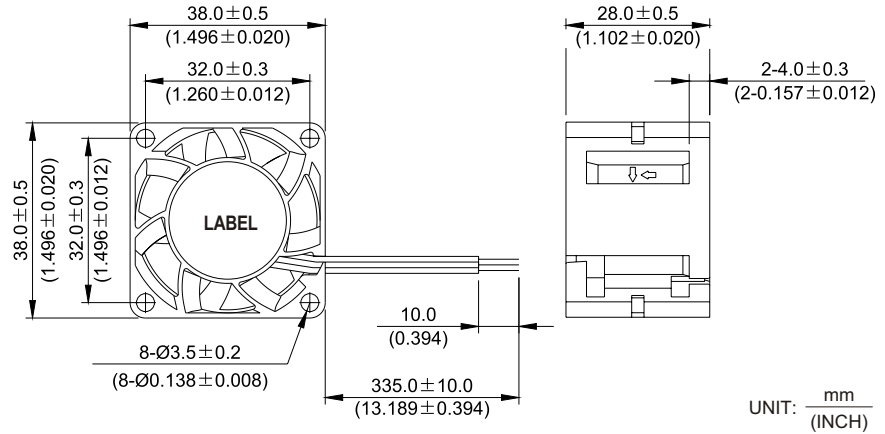


*New*



# FFB 38 x 38 x 28 MM SERIES

## DIMENSIONS DRAWING

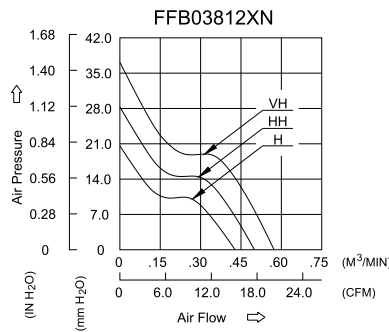


UNIT:  $\frac{\text{mm}}{(\text{INCH})}$

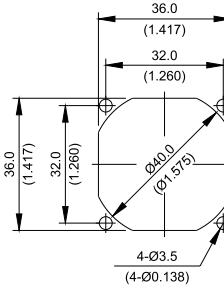
- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame: Plastic (UL94V-0)
- \* Lead Wires :  
UL 1061AWG#24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 46g (1.62 oz)

## P & Q CURVE (AT RATED VOLTAGE)

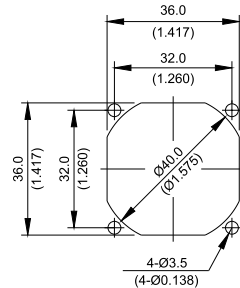
## MOUNTING PANEL CUTOUT



### OUTLET SIDE



### INLET SIDE



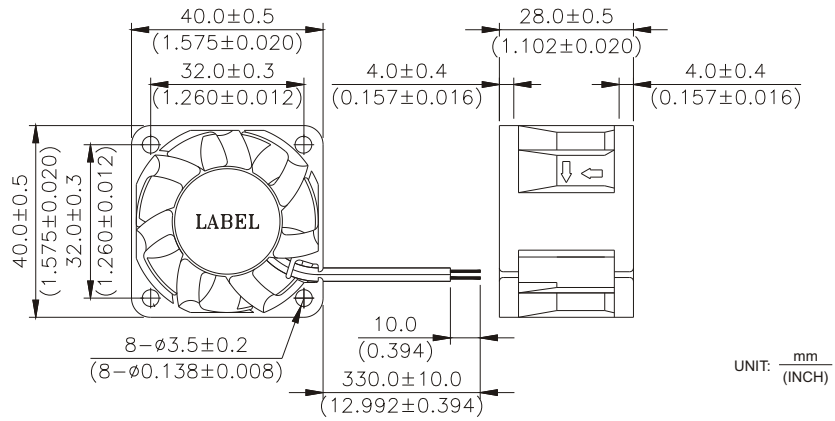
UNIT:  $\frac{\text{mm}}{(\text{INCH})}$

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
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

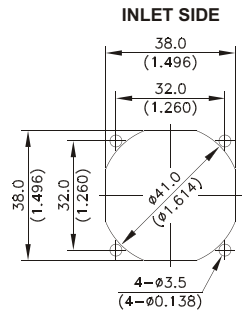
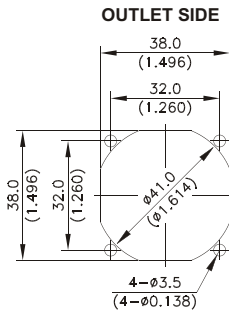
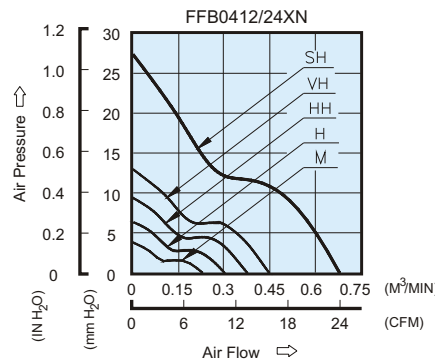


UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* 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 : 32g (1.13 oz)

## P & Q CURVE (AT RATED VOLTAGE)

## MOUNTING PANEL CUTOUT



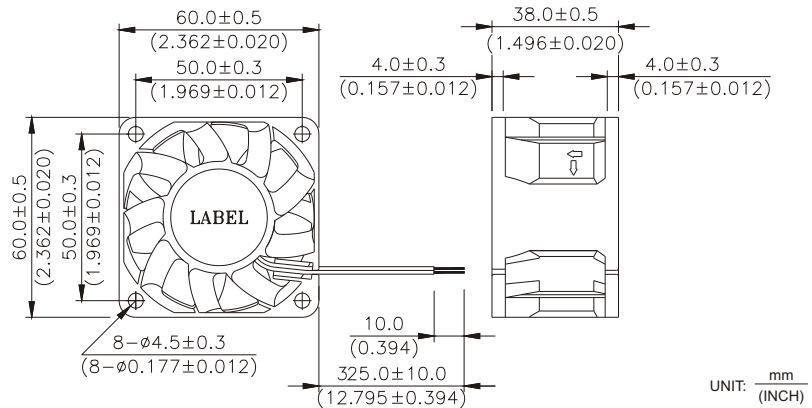
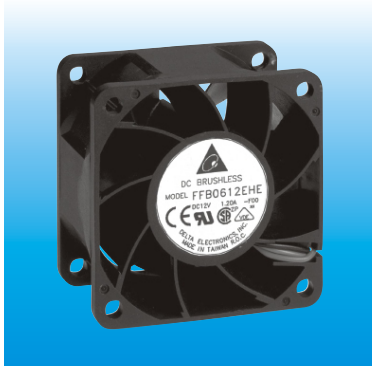
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

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
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.

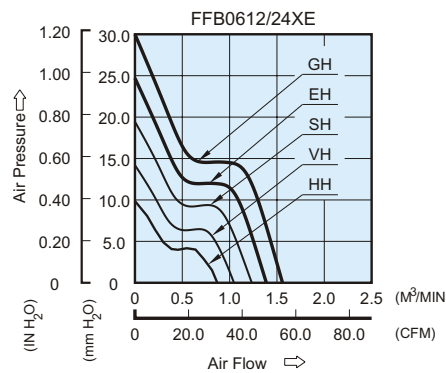
# FFB 60 x 60 x 38 MM SERIES

## DIMENSIONS DRAWING

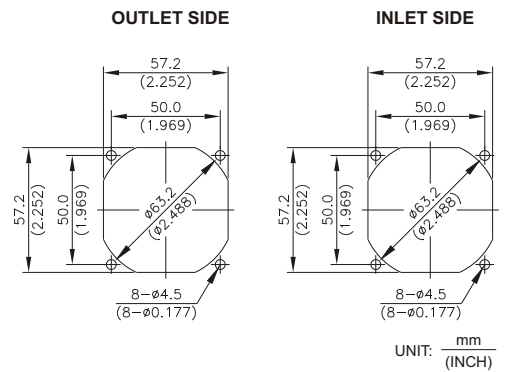


- \* Bearing Type: Ball Bearings
- \* Material: Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires : UL 1007 AWG #24 OR Equivalent
- \* Red Wire Positive (+)
- \* Black Wire Negative (-)
- \* Weight : 106g (3.74 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



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

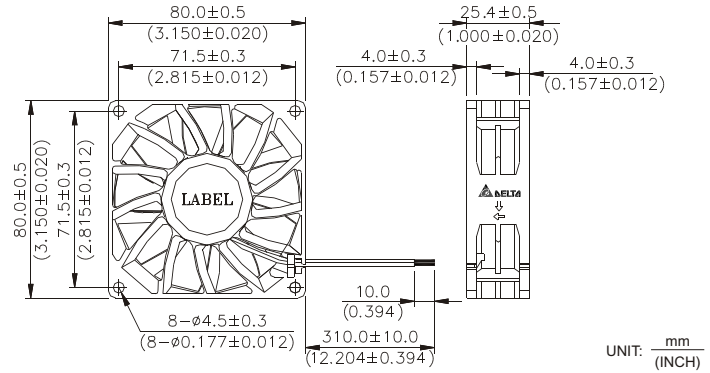
\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications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

New



# FFB 80 x 80 x 25.4 MM SERIES

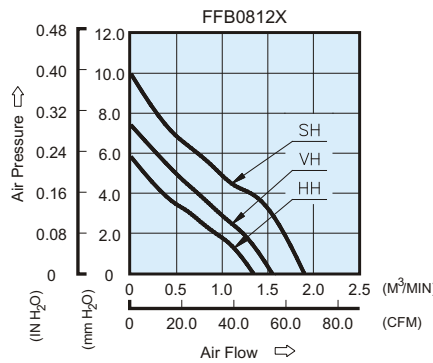
## DIMENSIONS DRAWING



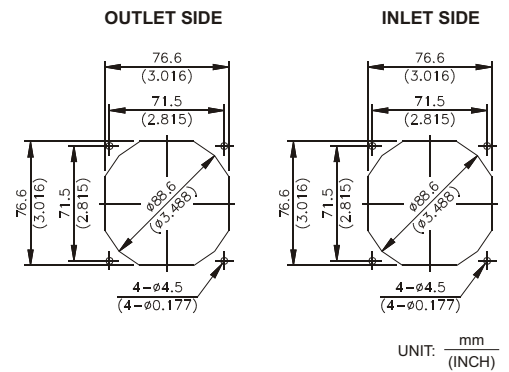
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* 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



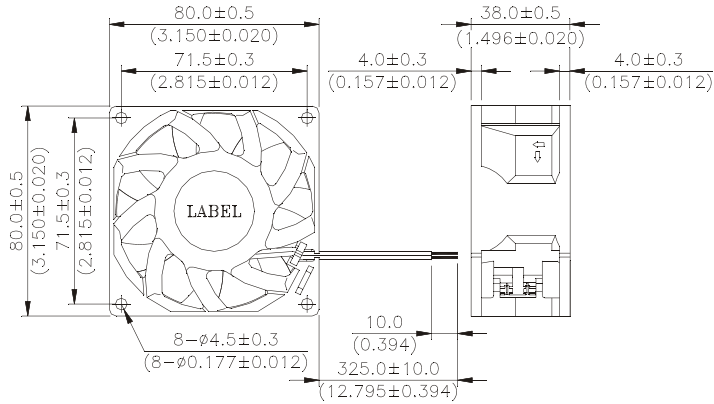
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

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

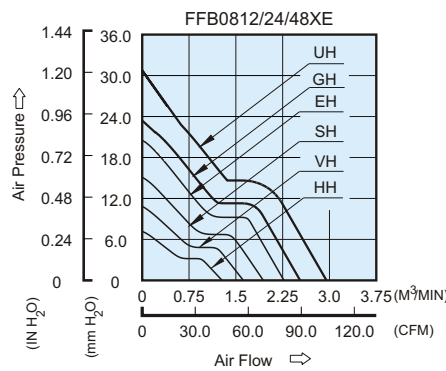
## DIMENSIONS DRAWING



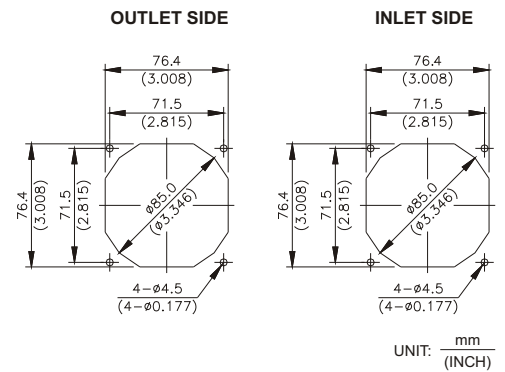
UNIT:  $\frac{\text{mm}}{\text{INCH}}$

- \* 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



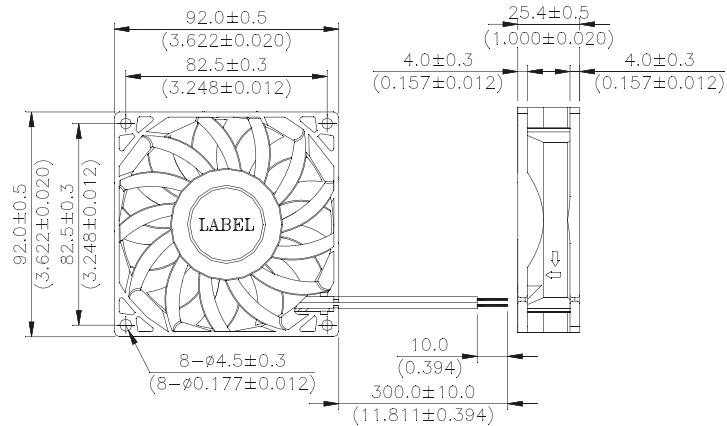
UNIT:  $\frac{\text{mm}}{\text{INCH}}$

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

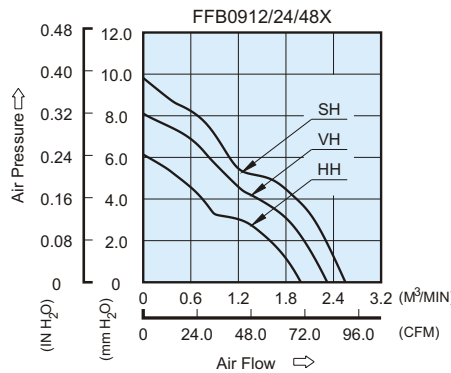
## DIMENSIONS DRAWING



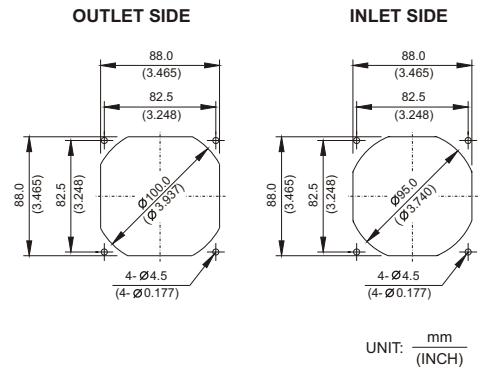
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* 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



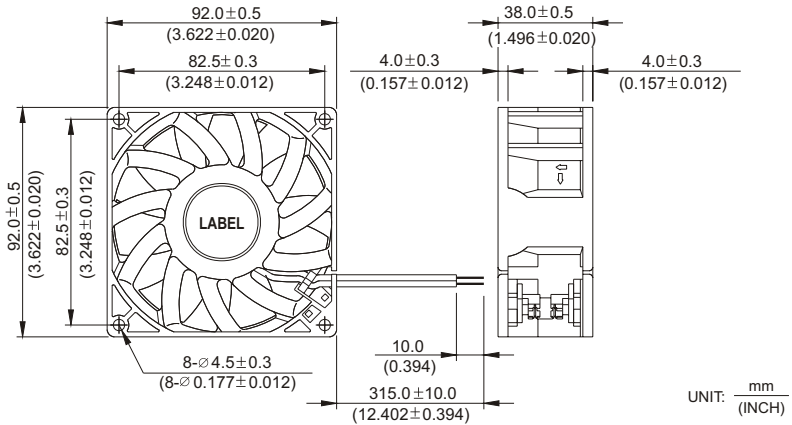
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

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.

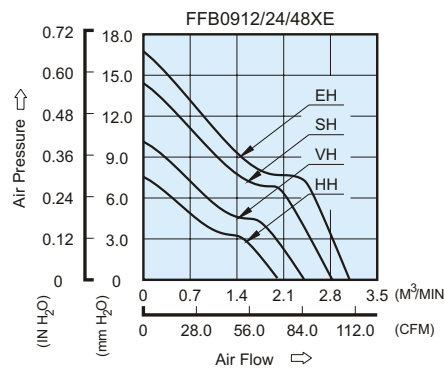
# FFB 92 x 92 x 38 MM SERIES

## DIMENSIONS DRAWING

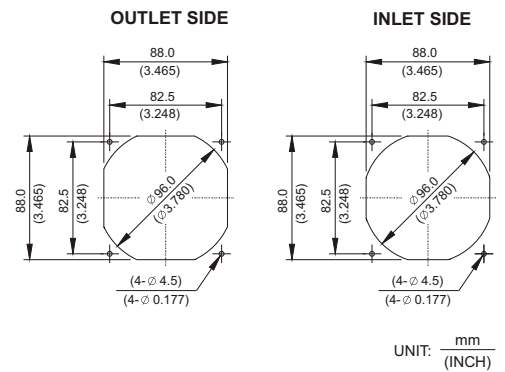


- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic (UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive (+)  
Black Wire Negative (-)
- \* Weight : 198g (6.98 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



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						

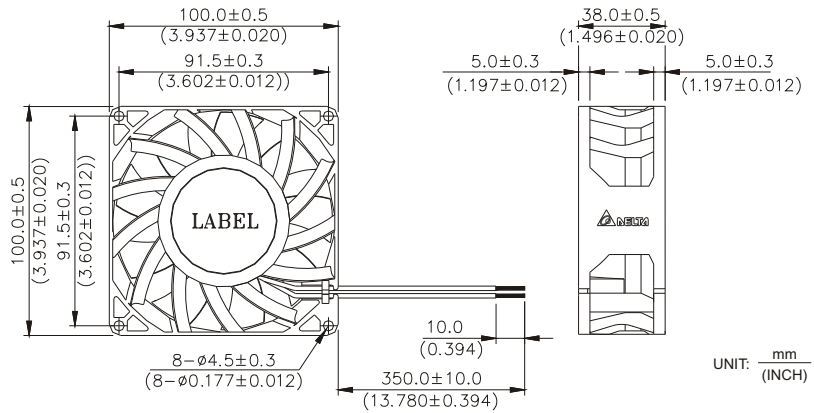
\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications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

*New*



# FFB 100 x 100 x 38 MM SERIES

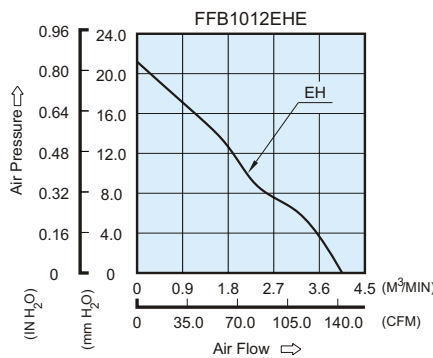
## DIMENSIONS DRAWING



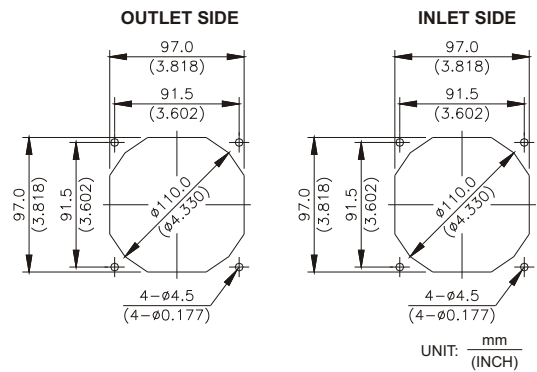
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

- \* 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:  $\frac{\text{mm}}{\text{(INCH)}}$

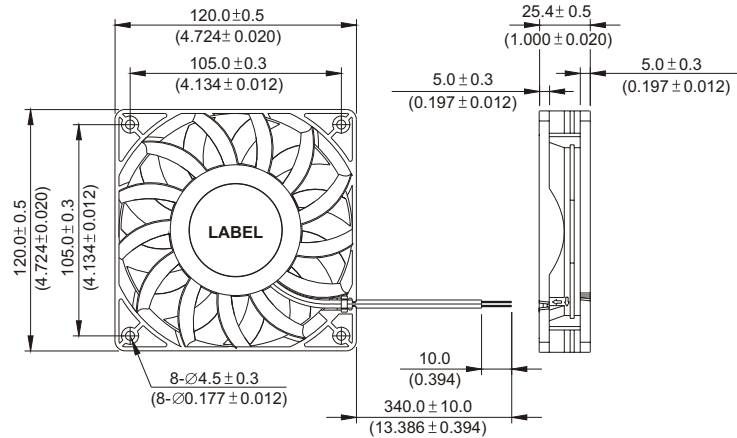
MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1012EHE	-R00 / -F00	12	7.0 to 12.6	2.20	26.40	5000	4.052	143.09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



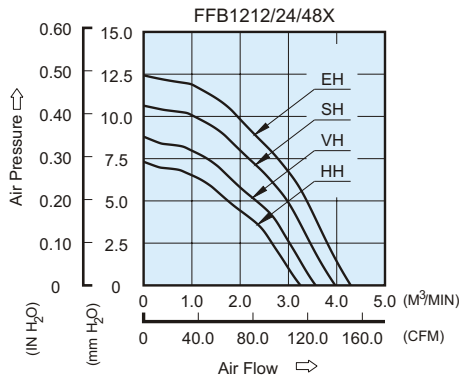
# FFB 120 x 120 x 25.4 MM SERIES

## DIMENSIONS DRAWING

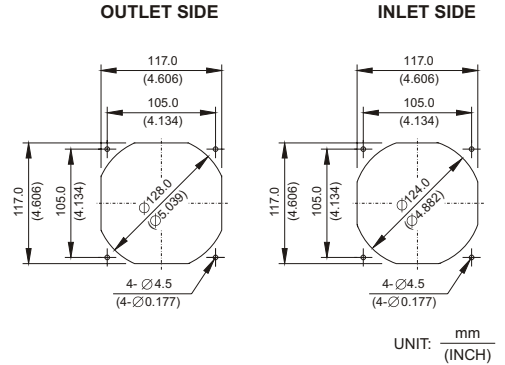


- \* Bearing Type  
Ball Bearings
- \* Material  
Impeller & Frame : Plastic(UL 94V-0)
- \* Lead Wires :  
UL 1007 AWG #24 OR Equivalent  
Red Wire Positive(+)  
Black Wire Negative(-)
- \* Weight : 205g (7.23 Oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT

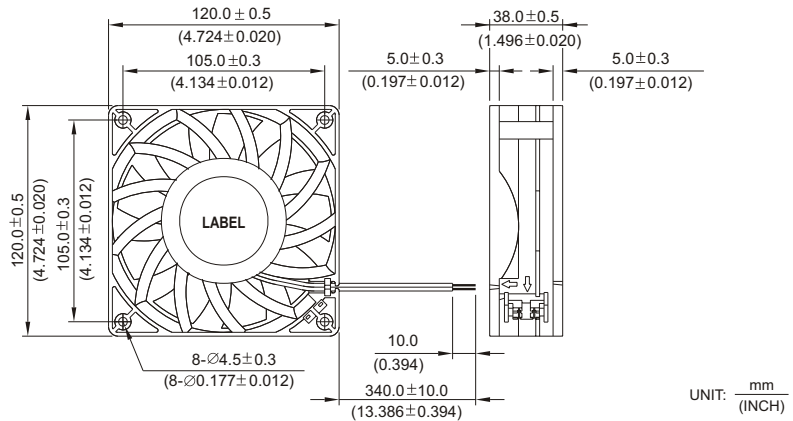


MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1212HH	-R00 / -F00	12	7.0 to 13.2	0.65	7.80	3100	3.249	114.73	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

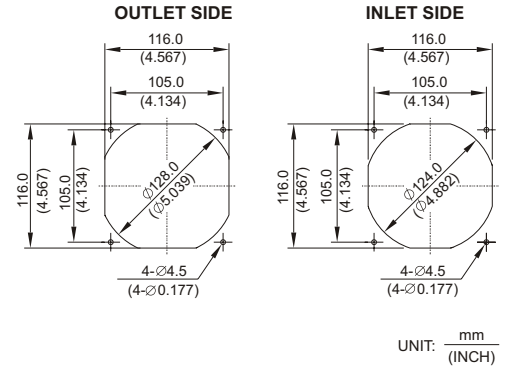
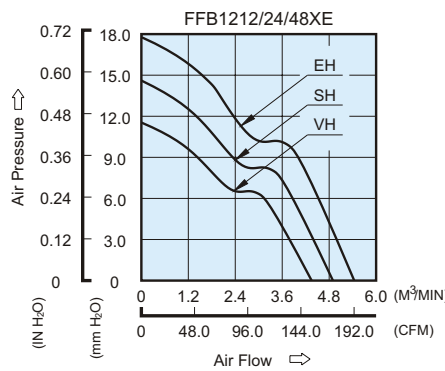
## DIMENSIONS DRAWING



- \* 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



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.

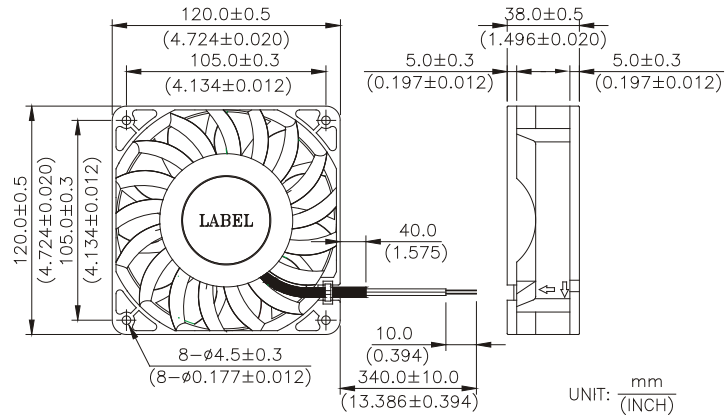
*New*



- \* 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)

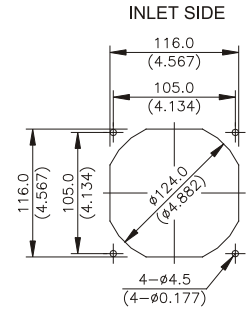
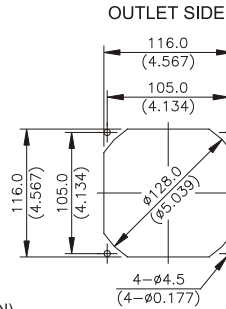
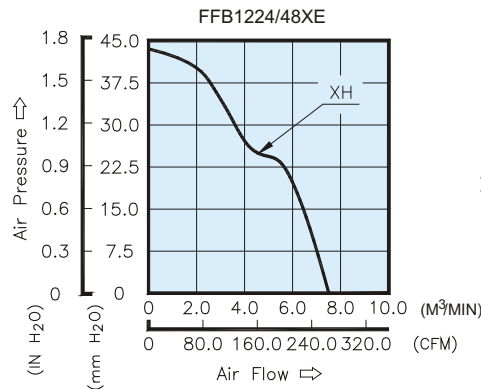
## FFB 120 x 120x 38 MM SERIES

### DIMENSIONS DRAWING



### P & Q CURVE (AT RATED VOLTAGE)

### MOUNTING PANEL CUTOUT



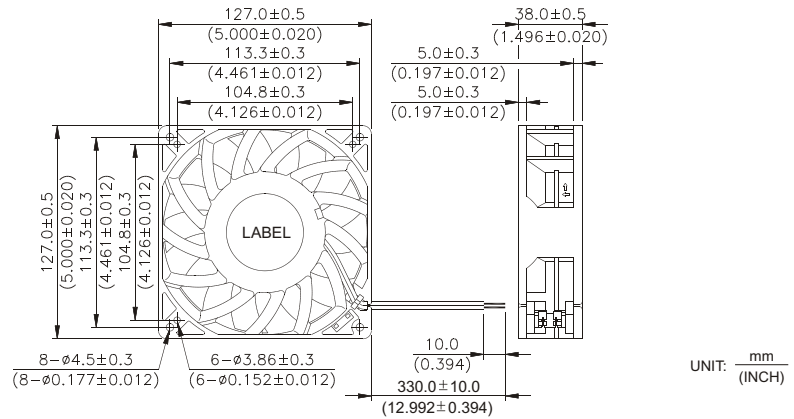
UNIT:  $\frac{\text{mm}}{(\text{INCH})}$

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
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

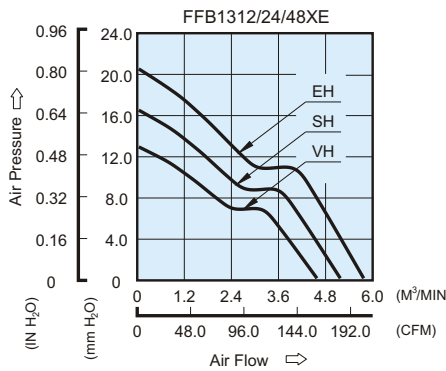
## DIMENSIONS DRAWING



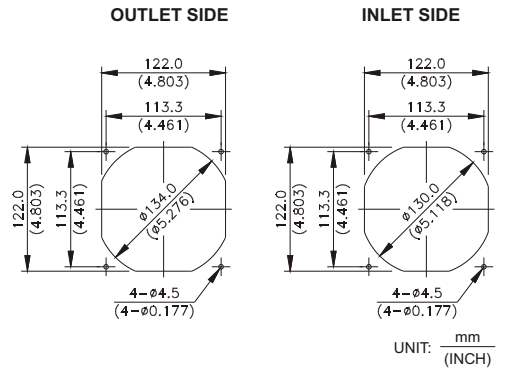
UNIT: mm  
(INCH)

- \* 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 : 470g (16.58 oz)

## P & Q CURVE (AT RATED VOLTAGE)



## MOUNTING PANEL CUTOUT



UNIT: mm  
(INCH)

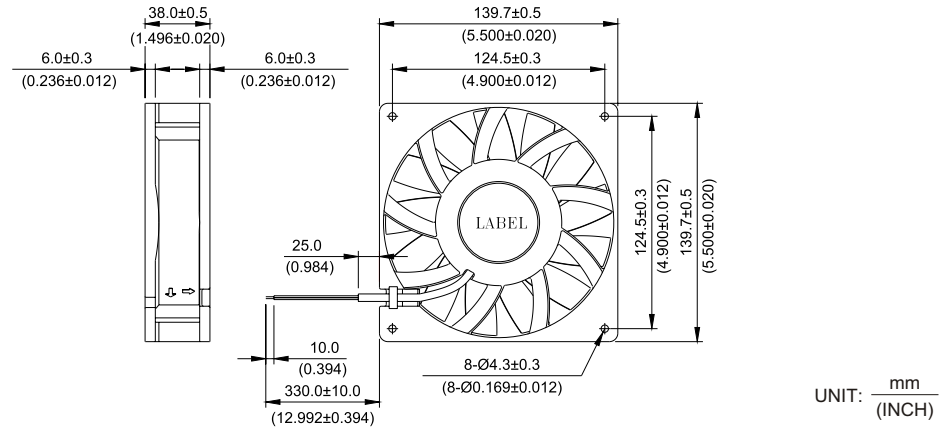
MODEL		Rated Voltage	Operating Voltage Range	Rated Current	Rated Input Power	Speed	Maximum Air Flow		Maximum Air Pressure		Noise
PART NO.	FUNCTION	VDC	VDC	Amp	Watt	R.P.M.	m <sup>3</sup> /min	CFM	mmH <sub>2</sub> O	IN H <sub>2</sub> O	dB-A
FFB1312VHE	-R00 / -F00	12	7.0 to 13.2	1.32	15.84	3050	4.531	160.01	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

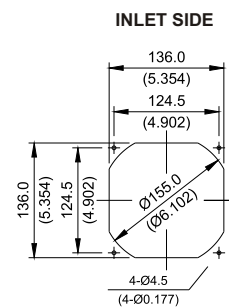
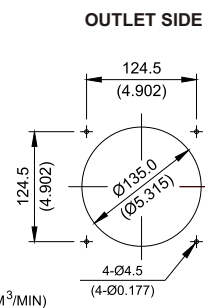
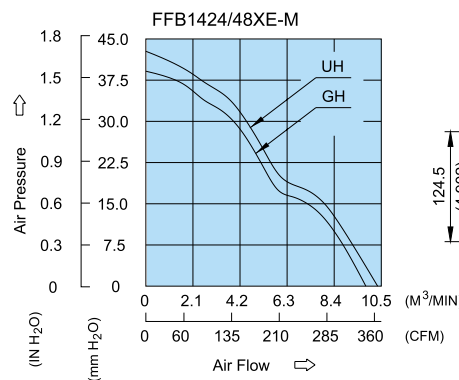
## DIMENSIONS DRAWING



- \* 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



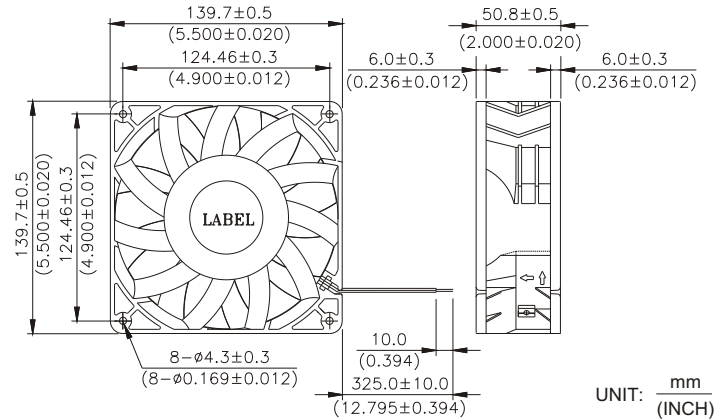
UNIT:  $\frac{\text{mm}}{\text{(INCH)}}$

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

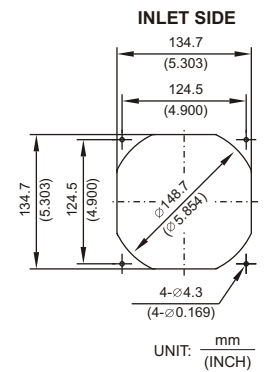
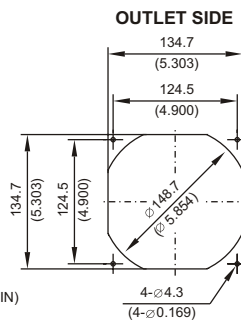
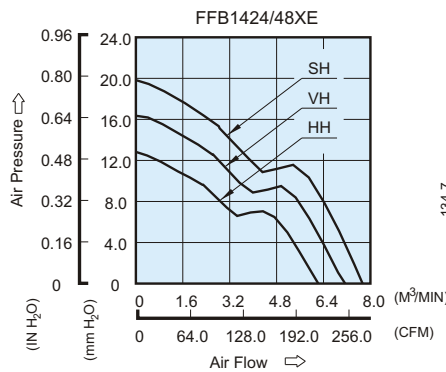
## DIMENSIONS DRAWING



- \* 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



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						

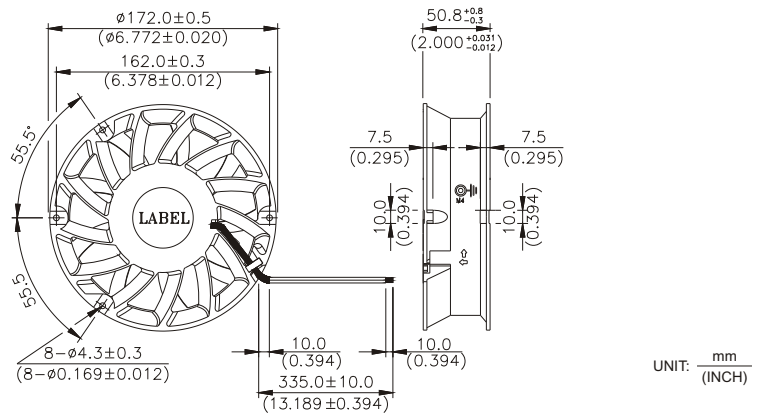
\* Function type is optional.  
 \* The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.  
 \* Noise is measured in anechoic chamber in free air, one meter from intake side.  
 \* All readings are typical values at rated voltage.  
 \* Specifications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

*New*



# FFB Ø172 x 50.8 MM SERIES

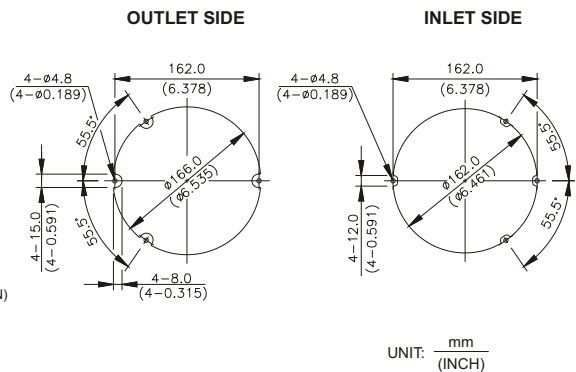
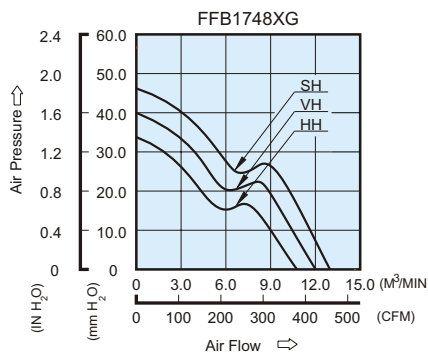
## DIMENSIONS DRAWING



- \* 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



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.