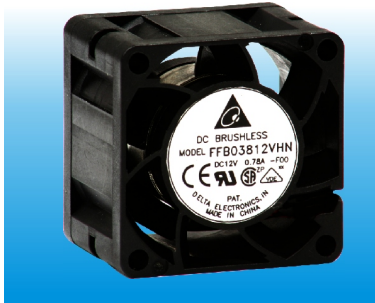
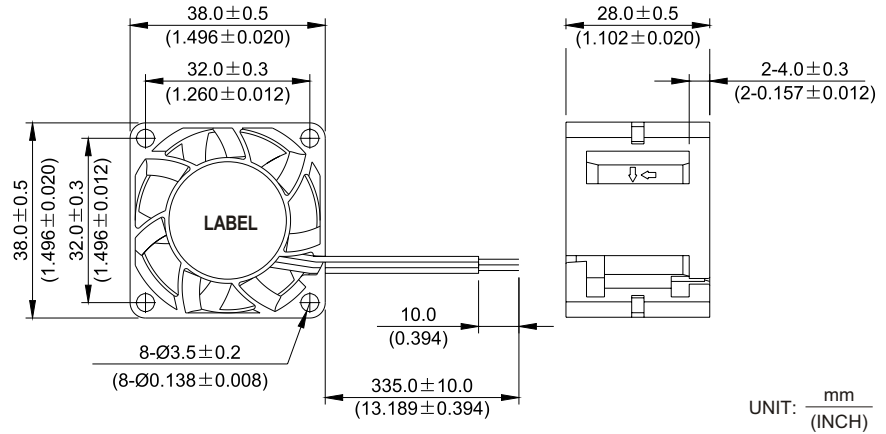


New



FFB 38 x 38 x 28 MM SERIES

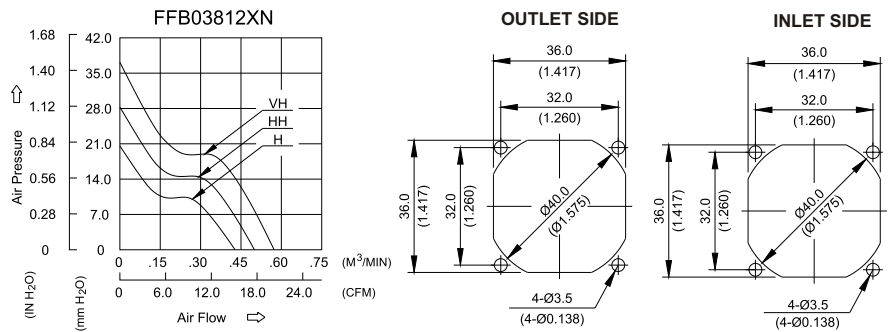
DIMENSIONS DRAWING



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



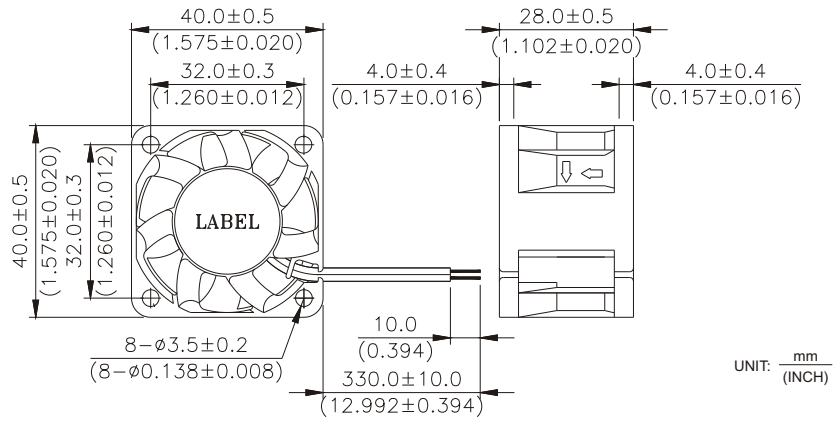
UNIT: $\frac{\text{mm}}{(\text{INCH})}$

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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

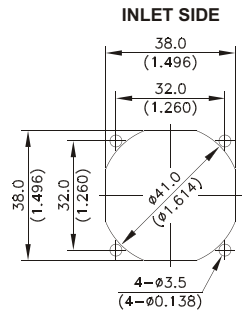
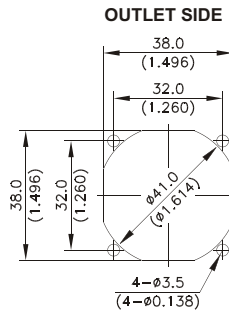
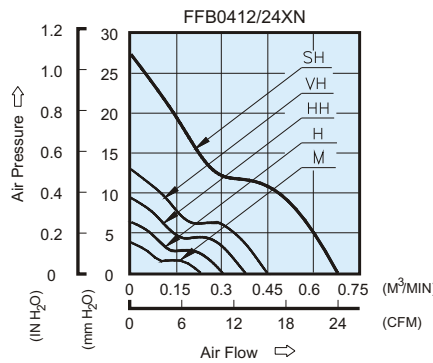


UNIT: mm (INCH)

- * 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



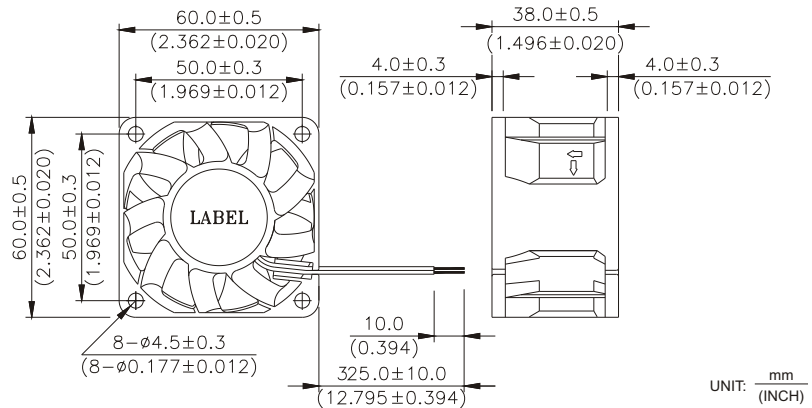
UNIT: mm (INCH)

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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

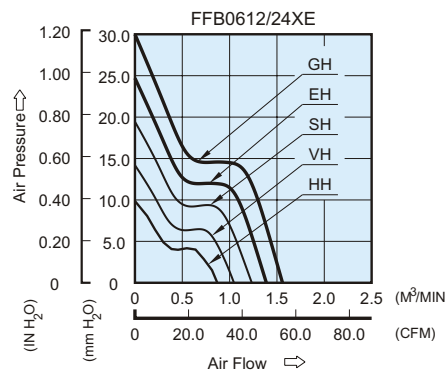
DIMENSIONS DRAWING



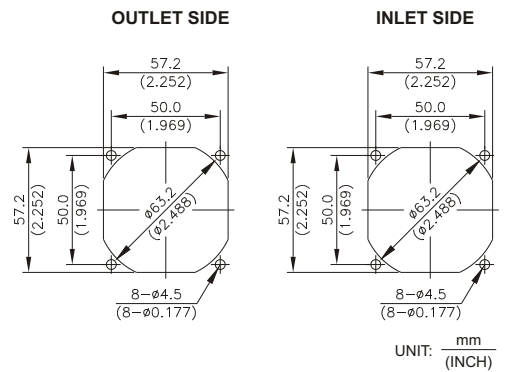
UNIT: mm (INCH)

- * 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



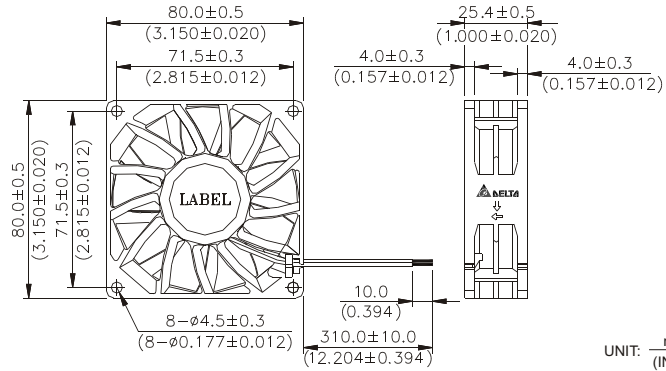
UNIT: mm (INCH)

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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.

FFB 80 x 80 x 25.4 MM SERIES

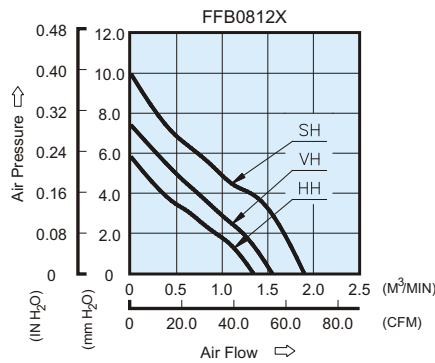
DIMENSIONS DRAWING



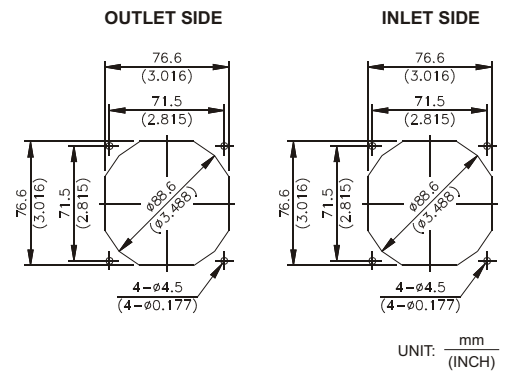
UNIT: $\frac{\text{mm}}{\text{(INCH)}}$

- * 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



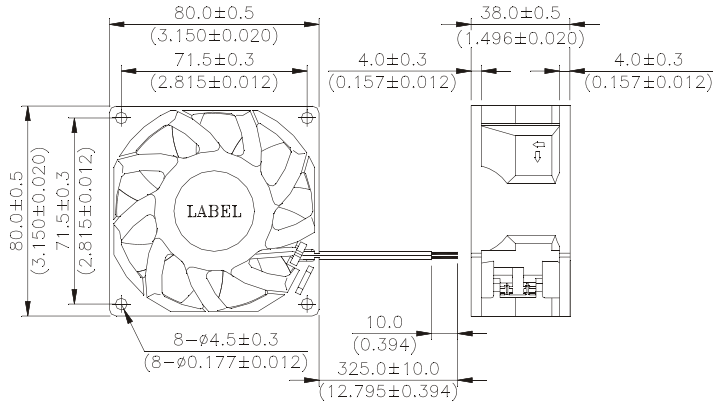
UNIT: $\frac{\text{mm}}{\text{(INCH)}}$

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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

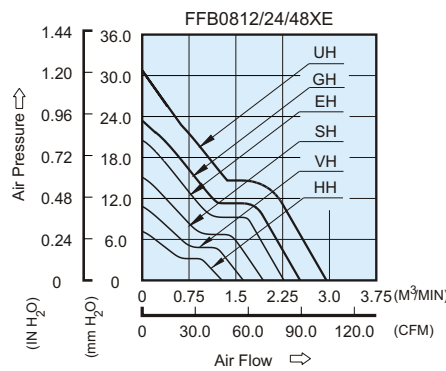
DIMENSIONS DRAWING



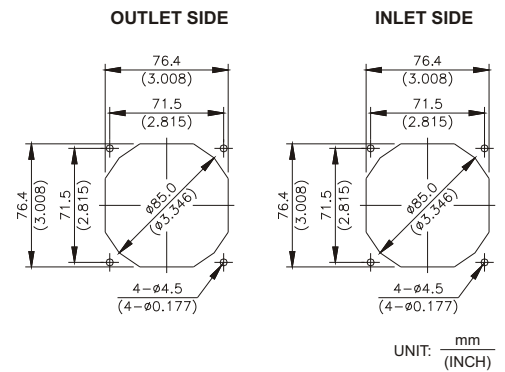
UNIT: $\frac{\text{mm}}{\text{INCH}}$

- * 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



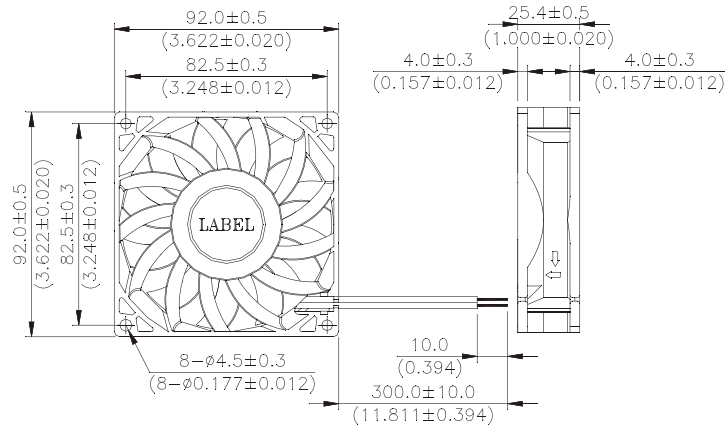
UNIT: $\frac{\text{mm}}{\text{INCH}}$

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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

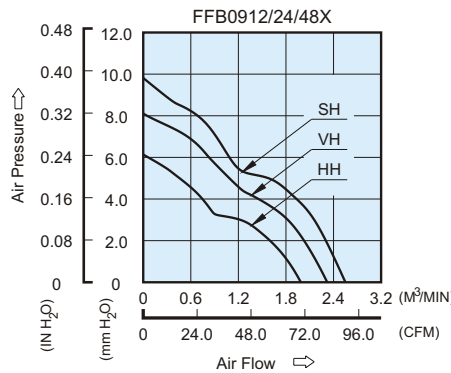
DIMENSIONS DRAWING



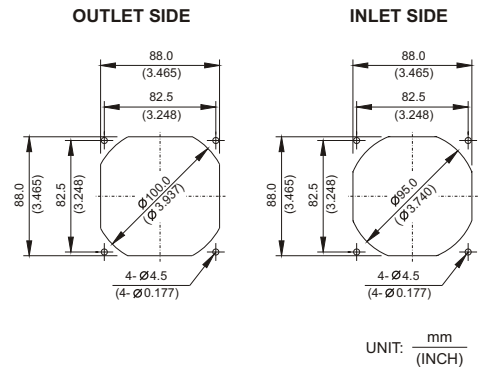
UNIT: $\frac{\text{mm}}{\text{(INCH)}}$

- * 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



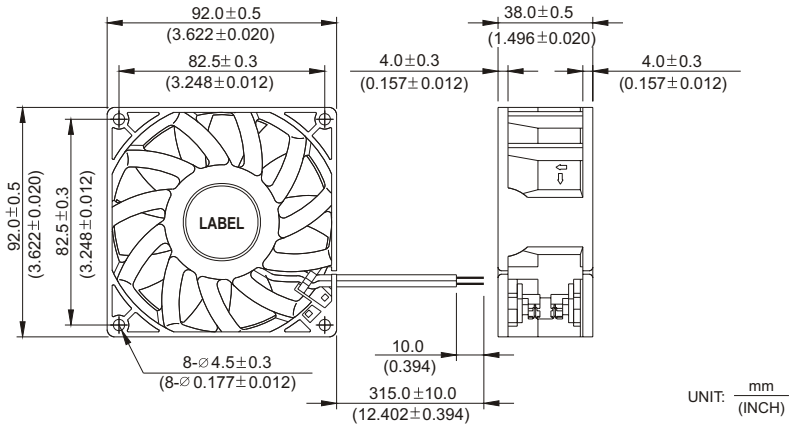
UNIT: $\frac{\text{mm}}{\text{(INCH)}}$

| 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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.

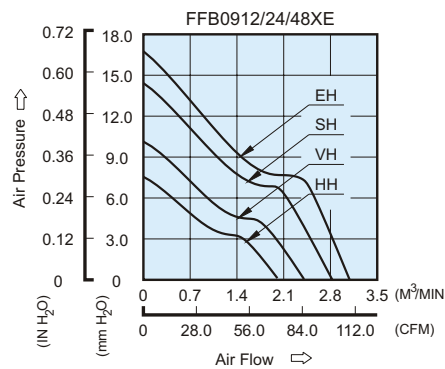
FFB 92 x 92 x 38 MM SERIES

DIMENSIONS DRAWING

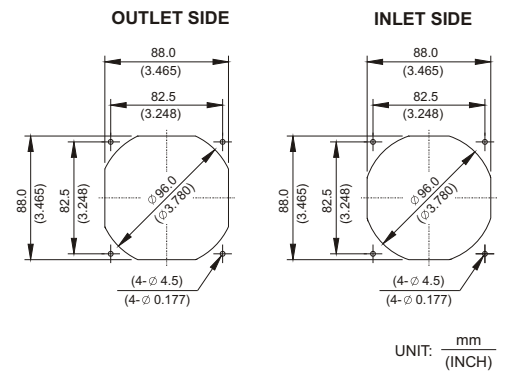


- * Bearing Type
Ball Bearings
- * Material
Impeller & Frame : Plastic (UL 94V-0)
- * Lead Wires :
UL 1007 AWG #24 OR Equivalent
Red Wire Positive (+)
Black Wire Negative (-)
- * Weight : 198g (6.98 oz)

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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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 | | | | | | |

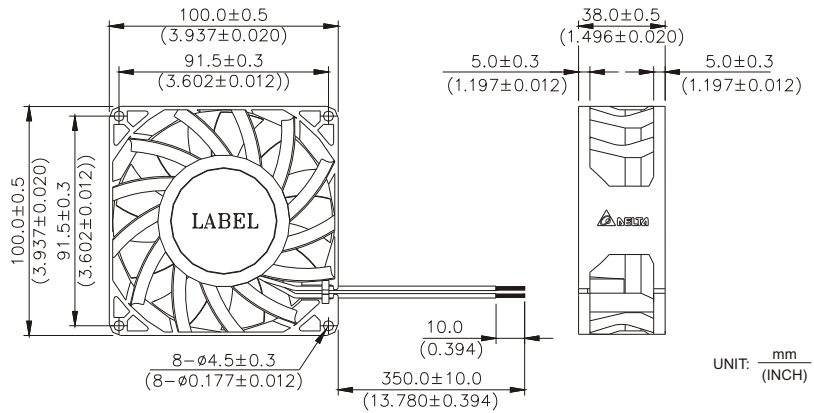
* Function type is optional.
 * The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.
 * Noise is measured in anechoic chamber in free air, one meter from intake side.
 * All readings are typical values at rated voltage.
 * Specifications are subject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

New



FFB 100 x 100 x 38 MM SERIES

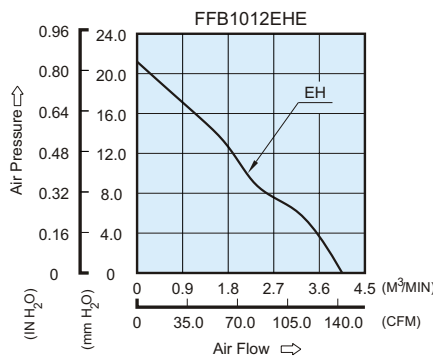
DIMENSIONS DRAWING



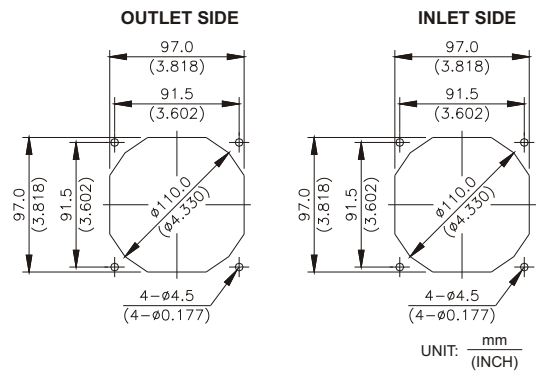
UNIT: $\frac{\text{mm}}{\text{(INCH)}}$

- * 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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 |

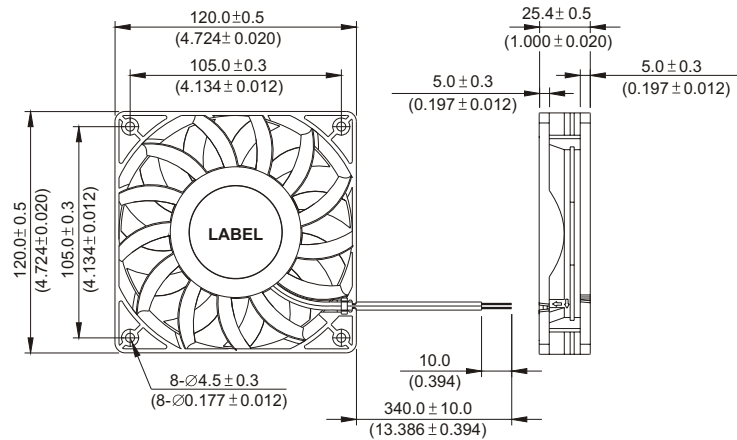
- * Function type is optional.
- * The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.
- * Noise is measured in anechoic chamber in free air, one meter from intake side.
- * All readings are typical values at rated voltage.
- * Specifications are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

FFB 120 x 120 x 25.4 MM SERIES

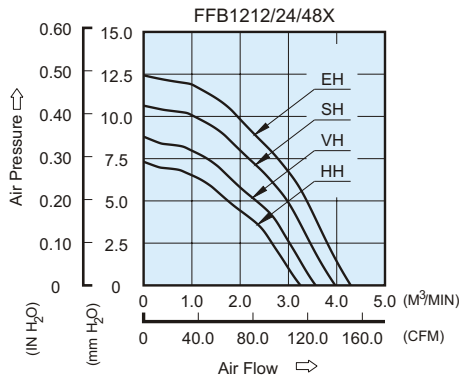
DIMENSIONS DRAWING



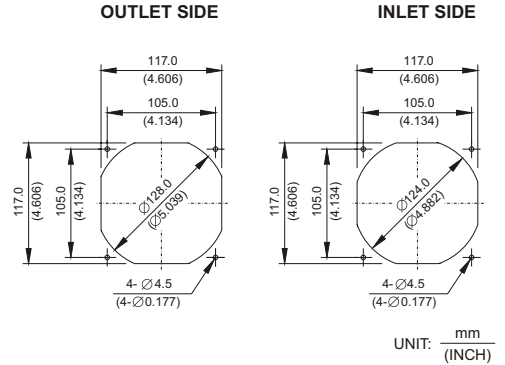
- * Bearing Type
Ball Bearings
- * Material
Impeller & Frame : Plastic(UL 94V-0)
- * Lead Wires :
UL 1007 AWG #24 OR Equivalent
Red Wire Positive(+)
Black Wire Negative(-)
- * Weight : 205g (7.23 Oz)



P & Q CURVE (AT RATED VOLTAGE)



MOUNTING PANEL CUTOUT

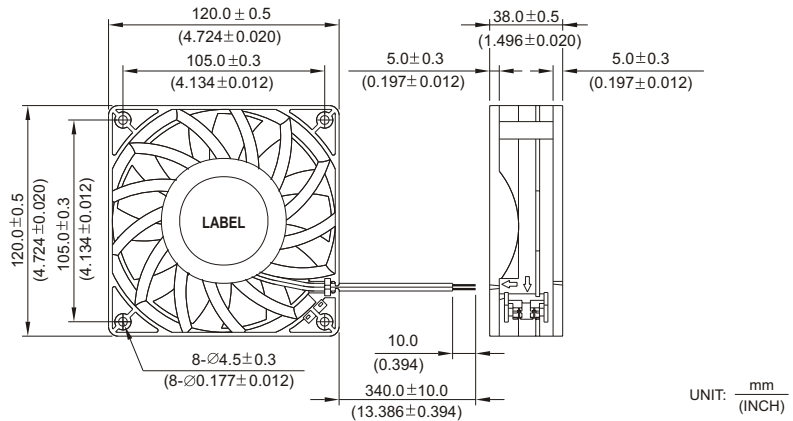


| MODEL | | Rated Voltage | Operating Voltage Range | Rated Current | Rated Input Power | Speed | Maximum Air Flow | | Maximum Air Pressure | | Noise |
|-----------|-------------|---------------|-------------------------|---------------|-------------------|--------|---------------------|--------|----------------------|---------------------|-------|
| PART NO. | FUNCTION | VDC | VDC | Amp | Watt | R.P.M. | m ³ /min | CFM | mmH ₂ O | IN H ₂ 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.

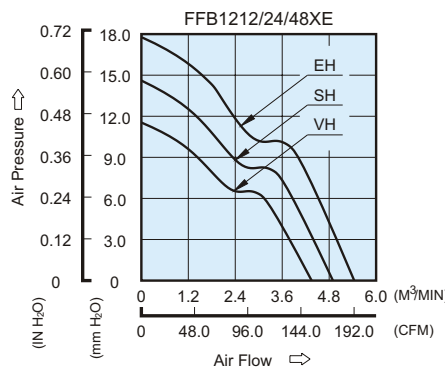
FFB 120 x 120 x 38 MM SERIES

DIMENSIONS DRAWING

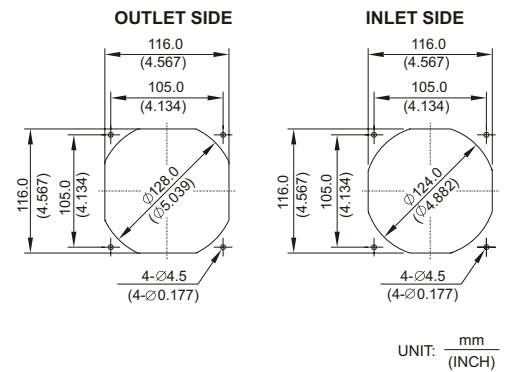


- * Bearing Type: Ball Bearings
- * Material: Impeller & Frame : Plastic (UL 94V-0)
- * Lead Wires : UL 1007 AWG #24 OR Equivalent
Red Wire Positive (+)
Black Wire Negative (-)
- * Weight : 370g (13.05 oz)

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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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.

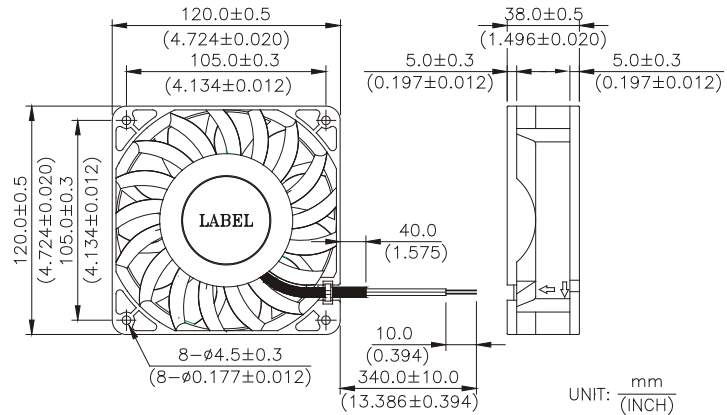
New



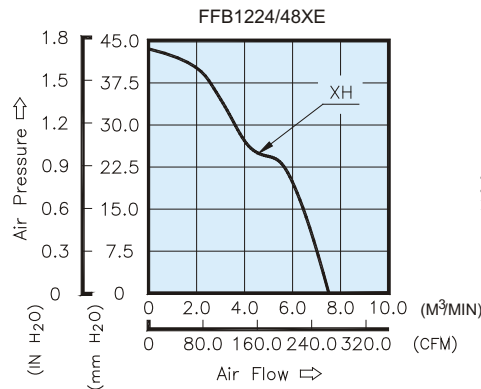
- * Bearing Type
Ball Bearings
- * Material
Impeller : Plastic(UL 94V-0)
Frame : Die-cast Aluminum
Lead Wires :
UL 1007 AWG #22 OR Equivalent
Red Wire Positive(+)
Black Wire Negative(-)
- * Weight : 470g (16.58 OZ)

FFB 120 x 120x 38 MM SERIES

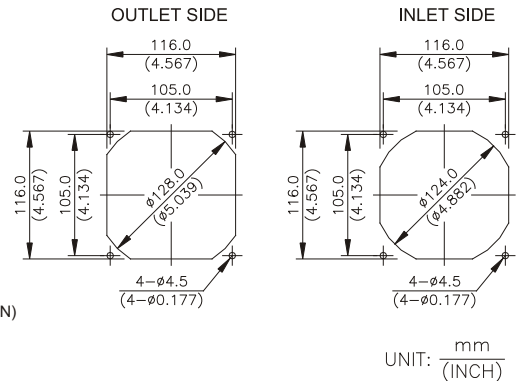
DIMENSIONS DRAWING



P & Q CURVE (AT RATED VOLTAGE)



MOUNTING PANEL CUTOUT

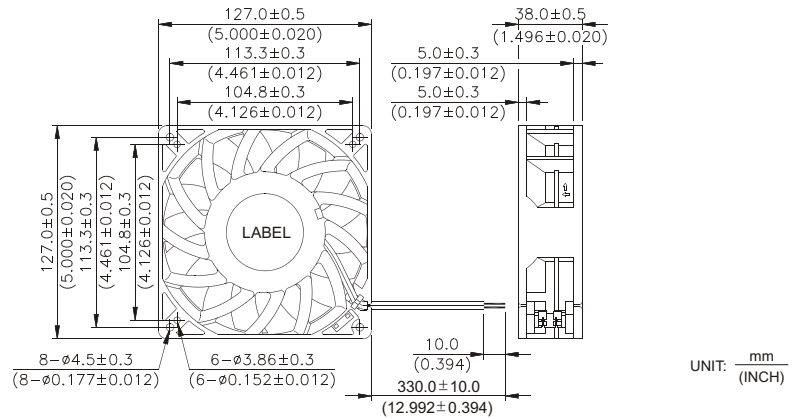


| MODEL | | | Rated Voltage | Operating Voltage Range | Rated Current | Rated Input Power | Speed | Maximum Air Flow | | Maximum Air Pressure | | Noise |
|------------|-------|-------------|---------------|-------------------------|---------------|-------------------|--------|---------------------|--------|----------------------|---------------------|-------|
| PART NO. | FRAME | FUNCTION | VDC | VDC | Amp | Watt | R.P.M. | m ³ /min | CFM | mmH ₂ O | IN H ₂ 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.

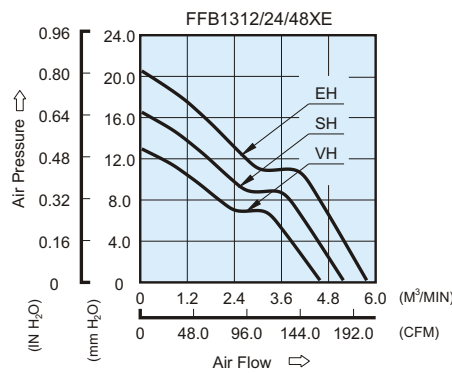
FFB 127 x 127 x 38 MM SERIES

DIMENSIONS DRAWING

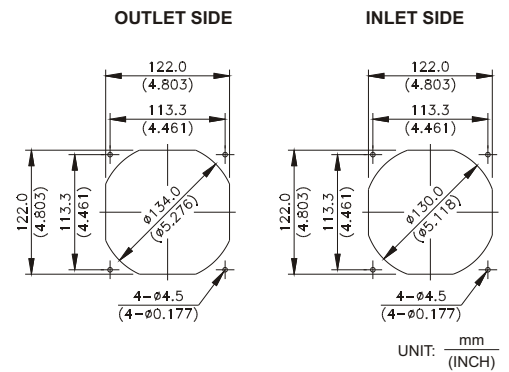


- * Bearing Type
Ball Bearings
- * Material
Impeller & Frame : Plastic (UL 94V-0)
- * Lead Wires :
UL 1007 AWG #24 OR Equivalent
Red Wire Positive (+)
Black Wire Negative (-)
- * Weight : 470g (16.58 oz)

P & Q CURVE (AT RATED VOLTAGE)



MOUNTING PANEL CUTOUT



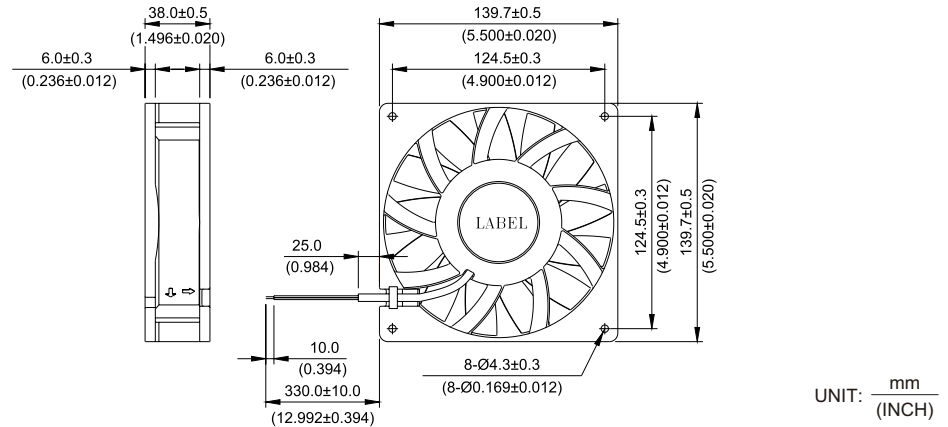
| MODEL | | Rated Voltage | Operating Voltage Range | Rated Current | Rated Input Power | Speed | Maximum Air Flow | | Maximum Air Pressure | | Noise |
|------------|-------------|---------------|-------------------------|---------------|-------------------|--------|---------------------|--------|----------------------|---------------------|-------|
| PART NO. | FUNCTION | VDC | VDC | Amp | Watt | R.P.M. | m ³ /min | CFM | mmH ₂ O | IN H ₂ 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

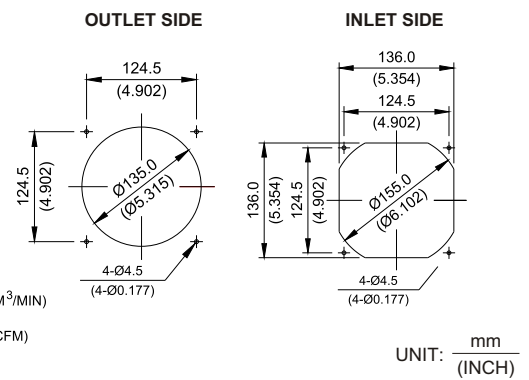
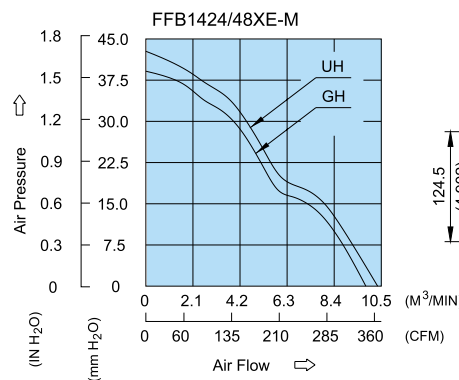
DIMENSIONS DRAWING



- * 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

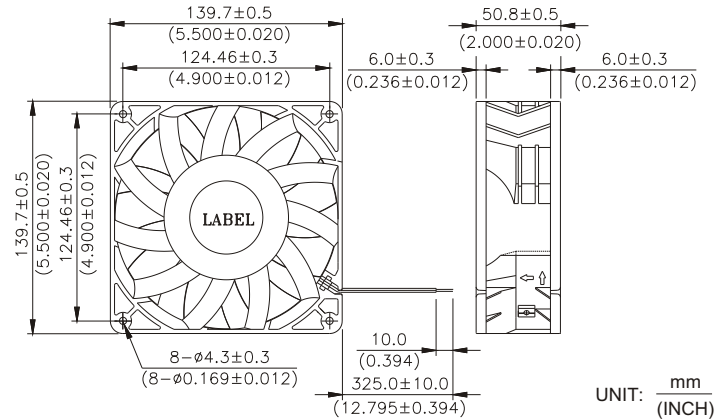


| MODEL | | | Rated Voltage | Operating Voltage Range | Rated Current | Rated Input Power | Speed | Maximum Air Flow | | Maximum Air Pressure | | Noise |
|------------|-------|-------------|---------------|-------------------------|---------------|-------------------|--------|---------------------|--------|----------------------|---------------------|-------|
| PART NO. | FRAME | FUNCTION | VDC | VDC | Amp | Watt | R.P.M. | m ³ /min | CFM | mmH ₂ O | IN H ₂ 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

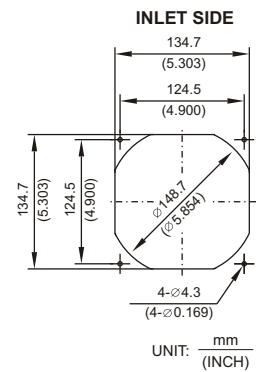
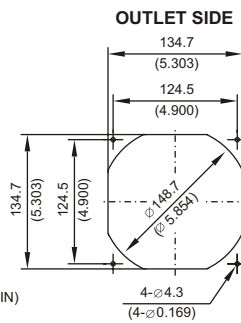
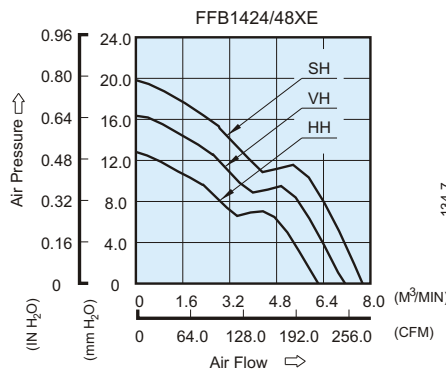
DIMENSIONS DRAWING



- * 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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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 | | | | | | |

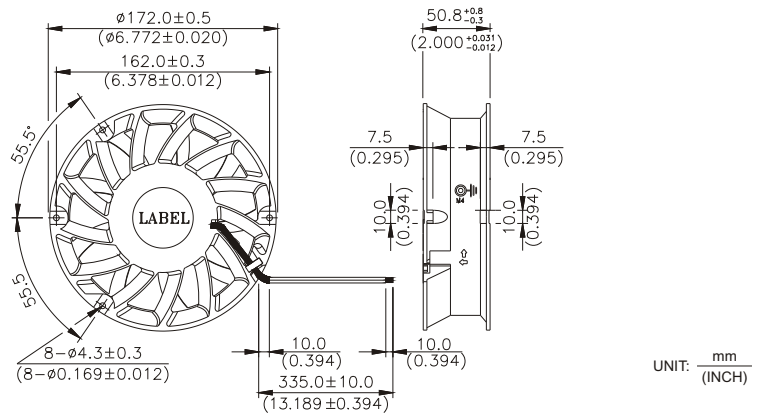
* Function type is optional.
 * The max. air flow and the speed are measured in free air ; max. air pressure is measured at zero air flow.
 * Noise is measured in anechoic chamber in free air, one meter from intake side.
 * All readings are typical values at rated voltage.
 * Specifications are subject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

New



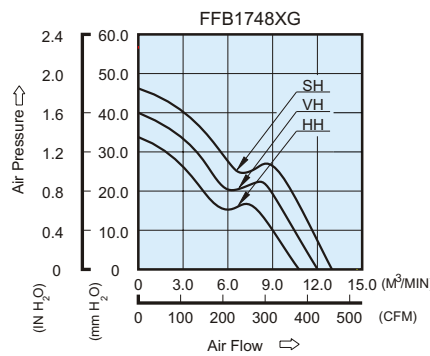
FFB Ø172 x 50.8 MM SERIES

DIMENSIONS DRAWING

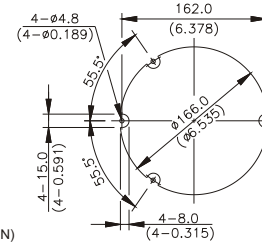


- * Bearing Type
Ball Bearings
- * Material
Impeller : Plastic (UL 94V-0)
Frame : Die-Cast Aluminum
- * Lead Wires :
UL 1430 AWG #22 OR Equivalent
Red Wire Positive (+)
Black Wire Negative (-)
- * Weight : 920g (32.45 oz)

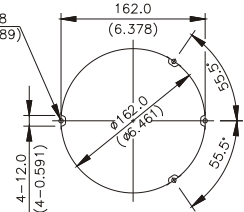
P & Q CURVE (AT RATED VOLTAGE) ■ MOUNTING PANEL CUTOUT



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 ³ /min | CFM | mmH ₂ O | IN H ₂ 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.