



**termavis**

# DC/AC AXIAL FAN CATALOGUE



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## About Us

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Founded in 2023, Termavis specializes in solution for thermal systems, fans, precision engineering, and high-performance systems for aerospace, defense, and industrial applications. With expertise in design, analysis, manufacturing, and testing, we provide innovative, reliable, and customized solutions to meet the most demanding technical challenges.

We operate from two engineering facilities in Ankara—one in İvedik, which houses our engineering office and test assembly workshop, and another in Ankara Teknopark, dedicated to advanced engineering and research. Our state-of-the-art tools, including CATIA for design and ANSYS for analysis, enable us to deliver high-quality, performance-driven results.

Beyond engineering, Termavis collaborates with clients to optimize production, enhance products, and drive innovation. Our expert engineers develop custom solutions that meet global industry standards.

As an ISO-compliant company, we are committed to continuous improvement, quality control, and on-time delivery. Whether developing aerospace components, electromechanical systems, or thermal solutions, Termavis ensures cutting-edge performance, reliability, and efficiency in every project.

**Termavis — Providing Technology With Accuracy And Creativity.**

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## DC AXIAL FANS



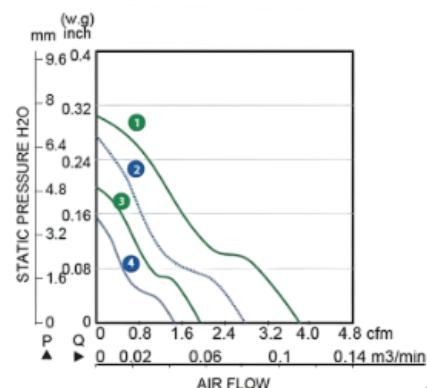
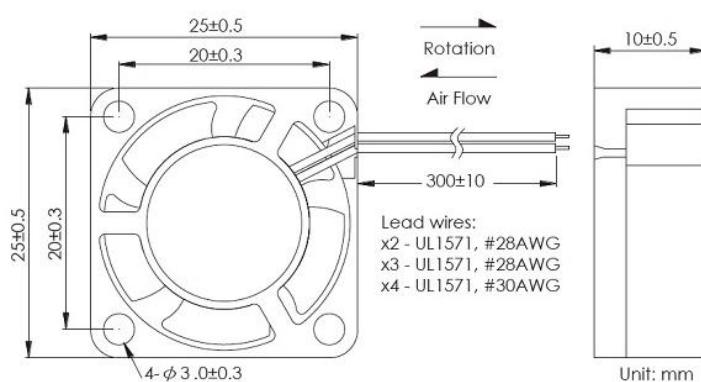
## 25x25x10

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	8g (0.018 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
<b>VDC</b>	<b>VDC</b>	<b>Watt</b>	<b>Amp</b>	<b>RPM</b>	<b>CFM</b>	<b>m3/min</b>	<b>Inch/H2O</b>	<b>mm/H2O</b>	<b>db(A)</b>	
<b>5</b>	4.5~5.5	1.1	0.22	14000	3.8	0.1	0.29	7.37	29	1
<b>5</b>	4~7	1.1	0.22	12000	2.8	0.1	0.27	6.86	28	2
<b>5</b>	4~7	0.75	0.15	9500	2.0	0.1	0.2	5.08	24	3
<b>5</b>	4~7	0.45	0.09	6500	1.5	0	0.16	4.06	18	4
<b>5</b>	4~7	0.35	0.07	6000	1.4	0	0.15	3.81	17	5
<b>12</b>	7~14	0.72 (~0.96)	0.06 (~0.08)	12000	2.8	0.1	0.27	6.86	28	2
<b>12</b>	7~14	0.6	0.05	9500	2.0	0.1	0.2	5.05	24	3
<b>12</b>	7~14	0.48	0.04	6500	1.5	0	0.16	4.06	18	4
<b>24</b>	14~27.6	1.56	0.065	12000	2.8	0.1	0.27	6.86	28	2
<b>24</b>	14~27.6	0.96	0.04	9500	2.0	0.1	0.2	5.08	24	3
<b>24</b>	14~28	0.72	0.03	6500	1.5	0	0.16	4.06	18	4



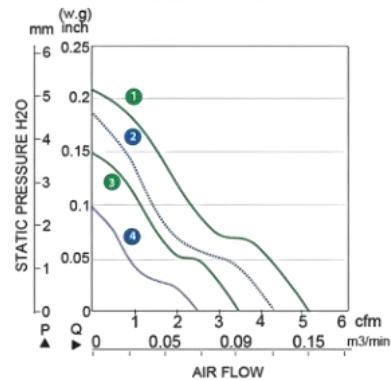
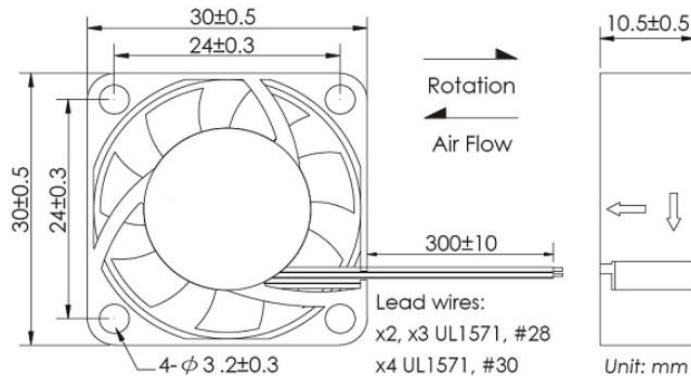
# 30x30x10

# DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	8g (0.018 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					RPM	CFM	m3/min	Inch/H2O		
<b>5</b>	4~7	1.4	0.28	11000	5.1	0.1	0.21	5.33	30	1
<b>5</b>	4~7	1.5	0.21	9000	4.2	0.1	0.18	4.57	28	2
<b>5</b>	4~7	0.9	0.18	8000	3.3	0.1	0.15	3.81	23	3
<b>5</b>	4~7	0.6	0.12	5500	2.5	0.1	0.10	2.54	19	4
<b>12</b>	8~13.8	1.44 (~1.8)	0.12(~0.15)	11000	5.1	0.1	0.21	5.33	30	1
<b>12</b>	8~13.8	1.44	0.12	9000	4.2	0.1	0.18	4.57	28	2
<b>12</b>	8~13.8	1.2	0.10	8000	3.6	0.1	0.15	3.81	23	3
<b>12</b>	8~13.8	0.84	0.07	5500	2.5	0.1	0.10	2.54	19	4
<b>24</b>	12~27.6	1.92	0.08	9000	4.2	0.1	0.18	4.57	28	2
<b>24</b>	12~27.6	1.68	0.07	8000	3.6	0.1	0.15	3.81	23	3
<b>24</b>	12~27.6	1.44	0.06	5500	2.5	0.1	0.10	2.54	19	4



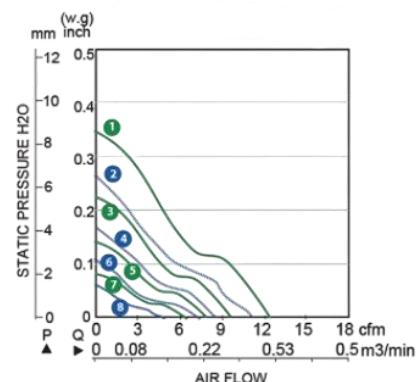
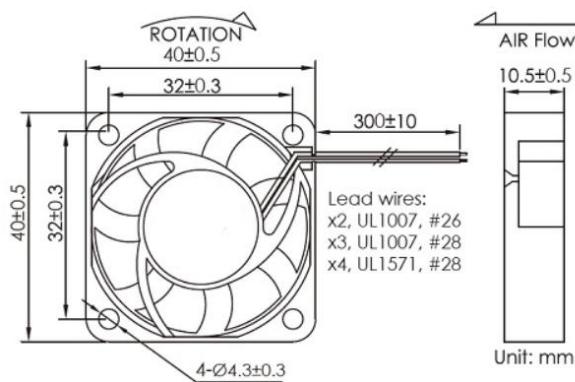
# 40x40x10

# DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	16g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					CFM	m3/min	Inch/H2O	mm		
12	9~14	2.4	0.2	10000	12.5	0.4	0.35	8.89	39	1
12	9~14	1.68	0.14	9000	11.0	0.3	0.27	6.86	37	2
12	9~14	1.32	0.11	8000	9.5	0.3	0.22	5.59	35	3
12	9~14	1.2	0.1	7000	8.5	0.2	0.18	4.57	32	4
12	9~14	1.8	0.09	6500	8.0	0.2	0.15	3.81	28	5
12	9~14	0.96	0.08	6000	7.5	0.2	0.12	3.05	26	6
12	9~14	0.84	0.07	5000	6.5	0.2	0.08	2.03	24	7
24	16~27	2.4	0.1	10000	12.5	0.4	0.35	8.89	39	1
24	16~27	2.16	0.09	9000	11	0.3	0.27	6.86	37	2
24	16~27	1.92	0.08	8000	9.5	0.3	0.22	5.59	35	3
24	16~27	1.68	0.07	7000	8.5	0.2	0.18	4.57	32	4
24	16~27	1.44	0.06	6500	8.0	0.2	0.15	3.81	28	5
24	16~27	1.2	0.05	6000	7.5	0.2	0.12	3.05	26	6
24	16~27	0.96	0.04	5000	6.5	0.2	0.08	2.03	24	7
24	16~27	0.72	0.03	4000	5.0	0.1	0.06	1.52	22	8



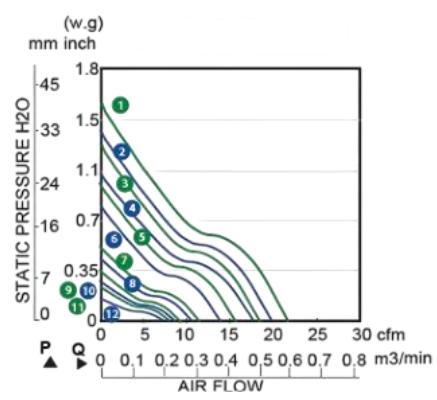
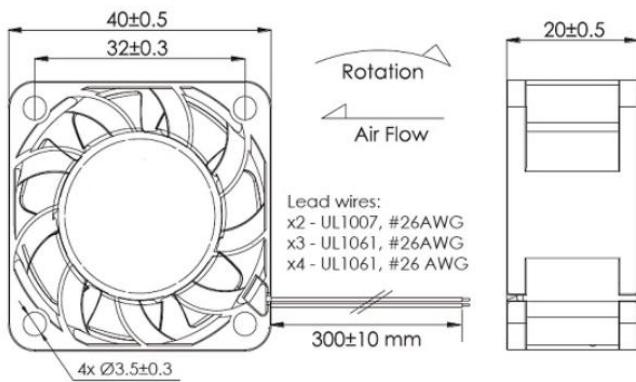
## 40x40x20

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	30g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Alarm output, FG Tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves				
					VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>12</b>	7~13.2	6.36	0.53	17000	22	0.6			1.6		40.64	55	1	
<b>12</b>	7~13.2	5.4	0.45	16000	20	0.6			1.45		36.83	53	2	
<b>12</b>	7~13.2	5.4	0.42	15000	18.8	0.5			1.28		32.51	51	3	
<b>12</b>	7~13.2	4.8	0.4	14000	17	0.5			1.1		27.94	49	4	
<b>12</b>	7~13.2	4.44	0.37	13000	15.6	0.4			0.93		23.62	47	5	
<b>12</b>	7~13.2	4.2	0.35	12000	14.5	0.4			0.8		20.32	44	6	
<b>12</b>	7~13.2	3.96	0.33	10000	12	0.3			0.55		13.97	40	7	
<b>12</b>	7~13.2	3.36	0.28	9000	10.5	0.3			0.44		11.18	38	8	
<b>12</b>	7~13.2	2.4	0.2	8000	9.5	0.3			0.35		8.89	33	9	
<b>12</b>	7~13.2	1.92	0.16	7000	8.2	0.2			0.27		6.86	30	10	
<b>12</b>	7~13.2	1.44	0.12	6000	7	0.2			0.2		5.08	27	11	
<b>12</b>	7~13.2	1.2	0.1	5000	5.8	0.2			0.14		3.56	23	12	
<b>24</b>	14~26.4	6.72	0.28	17000	22	0.6			1.6		40.64	55	1	
<b>24</b>	14~26.4	5.28	0.22	16000	20	0.6			1.45		36.83	53	2	
<b>24</b>	14~26.4	4.8	0.2	15000	18.8	0.5			1.28		32.51	51	3	
<b>24</b>	14~26.4	4.56	0.19	14000	17	0.5			1.1		27.94	49	4	



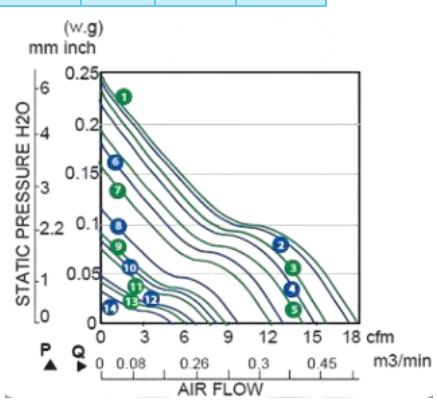
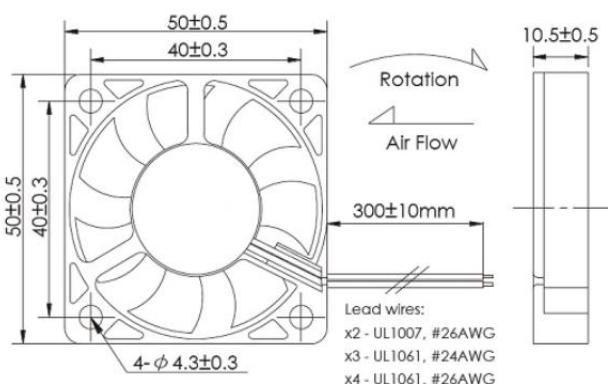
## 50x50x10

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	32g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Alarm output, FG Tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					VDC	Watt	Amp	RPM	CFM	
5	4.5~5.5	1.5	0.3	7000	14	0.4	0.2		5.08	36
5	4.5~5.5	1.05	0.21	6500	13	0.4	0.18		4.57	35
5	4.5~5.5	1.05	0.21	6000	12	0.3	0.16		4.06	33
5	4.5~5.5	0.95	0.19	5000	10	0.3	0.12		3.05	27
5	4.5~5.5	0.8	0.16	4500	9	0.3	0.09		2.29	25
5	4.5~5.5	0.75	0.15	4000	8	0.2	0.08		2.03	23
5	4.5~5.5	0.65	0.13	3500	7	0.2	0.05		1.27	18
5	4.5~5.5	0.5	0.1	3000	6	0.2	0.04		1.02	15
5	4.5~5.5	0.4	0.08	2500	5	0.1	0.03		0.76	13
12	7~13.2	1.8	0.15	8500	17	0.5	0.24		6.1	44
12	7~13.2	1.68	0.14	8000	16	0.5	0.23		5.84	41
12	7~13.2	1.44	0.12	7500	15	0.4	0.22		5.59	38
12	7~13.2	1.2	0.1	7000	14	0.4	0.2		5.08	36
12	7~13.2	1.08	0.09	6000	12	0.3	0.16		4.06	33
24	14~26.4	3.6	0.15	9000	18	0.5	0.26		6.6	46
24	14~26.4	2.4	0.1	7200	15	0.4	0.22		5.59	37
24	14~26.4	1.92	0.08	6500	13	0.4	0.18		4.57	35
24	14~26.4	1.68	0.07	5500	11	0.3	0.142		3.61	30
										8



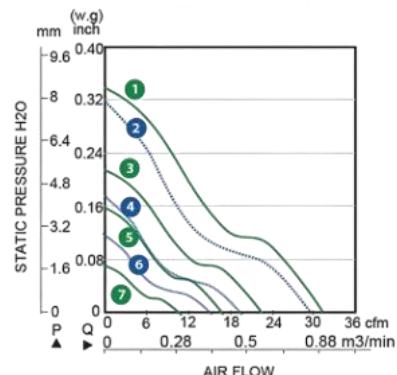
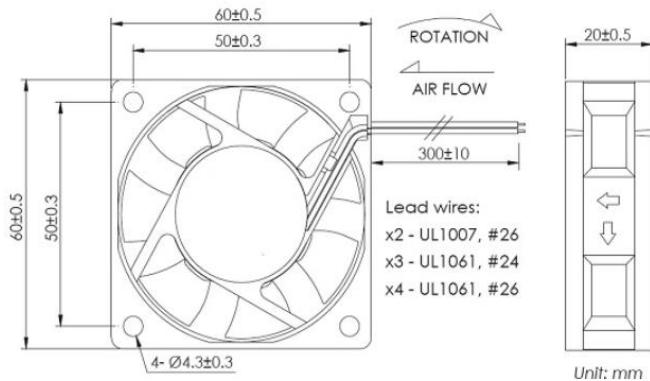
## 60x60x20

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	40g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>5</b>	4~6	1.3	0.25	4500	17	0.5	0.16	4.06	27	5
<b>5</b>	4~6	1	0.19	3800	15	0.4	0.11	2.79	26	6
<b>5</b>	4~7	0.8	0.15	2500	10	0.3	0.07	1.78	22	7
<b>12</b>	8~13.8	5.04	0.42	7000	32	0.9	0.34	8.64	43	1
<b>12</b>	8~13.8	4.08	0.34	6500	30	0.8	0.32	8.13	40	2
<b>12</b>	8~13.8	3.36	0.28	5600	23	0.7	0.21	5.33	33	3
<b>12</b>	8~13.8	2.2	0.18	4700	18	0.5	0.17	4.32	28	4
<b>12</b>	8~13.8	1.8	0.15	3800	15	0.4	0.11	2.79	26	6
<b>12</b>	8~14	1.2	0.10	2500	10	0.3	0.07	1.78	22	7
<b>24</b>	12~27.6	4.8	0.2	6500	30	0.8	0.32	8.13	40	2
<b>24</b>	12~27.6	4.32	0.18	5600	23	0.7	0.21	5.33	33	3
<b>24</b>	12~27.6	3.6	0.15	4700	18	0.5	0.17	4.32	28	4
<b>24</b>	12~27.6	3.1	0.13	3800	15	0.4	0.11	2.79	26	6
<b>24</b>	12~28	1.7	0.07	2500	10	0.3	0.07	1.78	22	7
<b>48</b>	24~55	3.4	0.07	5600	23	0.7	0.21	5.33	33	3



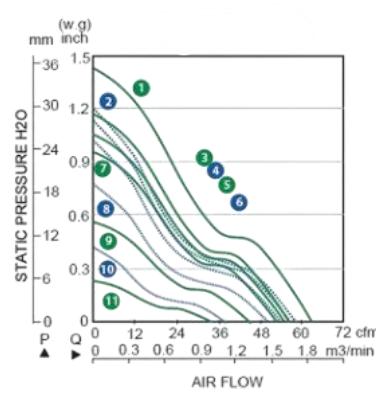
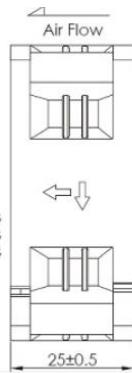
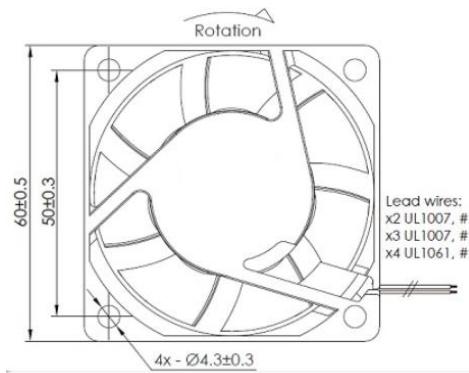
# 60x60x25

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	60g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves				
					VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>12</b>	7~13.2	14.4	1.2	9800	57	1.6			1.17		29.72	66	3	
<b>12</b>	7~13.2	9	0.75	8200	54	1.5			0.94		23.88	65	7	
<b>12</b>	7~13.2	7.2	0.6	7500	49	1.4			0.787		19.99	63	8	
<b>12</b>	7~13.2	6	0.5	6800	45	1.3			0.559		14.2	56	9	
<b>12</b>	7~13.2	4.8	0.4	6000	40	1.1			0.433		11	53	10	
<b>12</b>	7~13.2	2.4	0.2	5000	35	1			0.25		6.35	40	11	
<b>24</b>	14~26.4	16.32	0.68	11000	63	1.8			1.4		35.56	69	1	
<b>24</b>	14~26.4	14.4	0.6	10000	58	1.6			1.19		30.23	68	2	
<b>24</b>	14~26.4	12	0.5	9500	56.8	1.6			1.15		29.21	66	4	
<b>24</b>	14~26.4	10.8	0.45	9000	56	1.6			1.08		27.43	66	5	
<b>24</b>	14~26.4	9.6	0.4	8500	54.2	1.5			1.02		25.91	65	6	
<b>24</b>	14~26.4	8.4	0.35	8200	54	1.5			0.94		23.88	65	7	
<b>24</b>	14~26.4	7.2	0.3	7500	49	1.4			0.787		19.99	63	8	
<b>48</b>	28~56	21.6	0.45	9800	57	1.6			1.17		29.72	66	3	
<b>48</b>	28~56	15.3	0.3	8200	54	1.5			0.94		23.88	65	7	
<b>48</b>	28~56	9.6	0.2	7500	49	1.4			0.787		19.99	63	8	



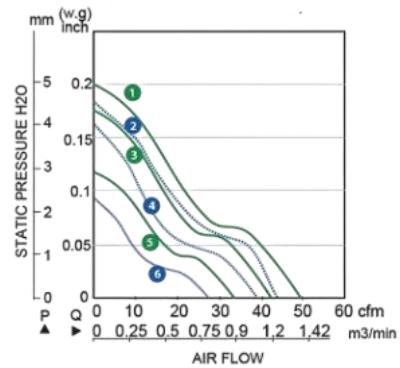
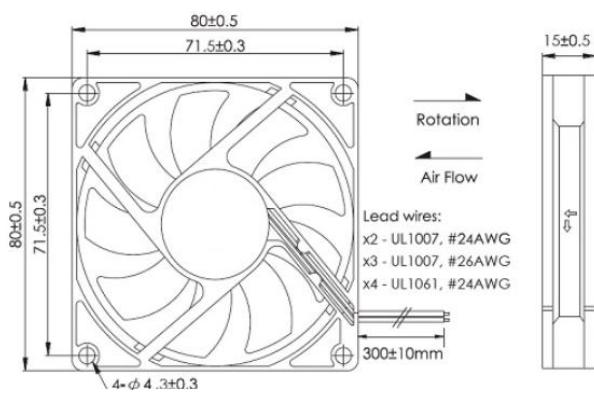
## 80x80x15

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP56 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	9 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	40g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
5	4~6	1.4	0.28	3600	39	1.1	0.16	4.06	38	4
5	4~7	1.0	0.20	3100	33	0.9	0.12	3.05	34	5
5	4~7	0.8	0.15	2700	28	0.8	0.09	2.29	31	6
12	8~13.8	2.2	0.18	3600	39	1.1	0.16	4.06	38	4
12	8~13.8	1.8	0.15	3100	33	0.9	0.12	3.05	34	5
12	8~14	1.4	0.12	2700	28	0.8	0.09	2.29	31	6
24	12~27.6	6.0	0.25	4500	50	1.4	0.2	5.08	48	1
24	12~27.6	4.8	0.2	4000	43	1.2	0.18	4.57	42	2
24	12~27.6	3.6	0.15	3800	41	1.2	0.17	4.32	40	3
24	12~27.6	2.9	0.12	3600	39	1.1	0.16	4.06	38	4
24	12~27.6	2.4	0.1	3100	33	0.9	0.12	3.05	34	5
24	12~28	2.0	0.08	2700	28	0.8	0.09	2.29	31	6



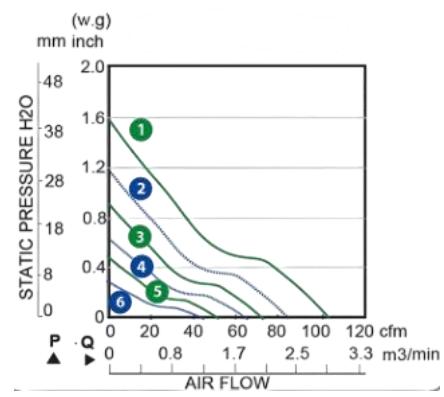
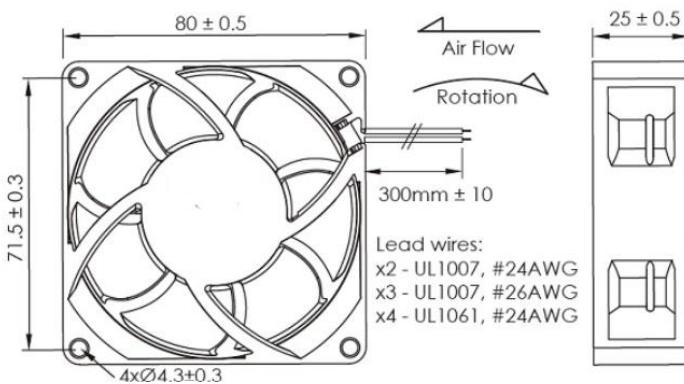
## 80x80x25

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP55, IP56 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	108g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: R/D alarm output, F/G Tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
12	7~13.2	19.2	1.6	9500	105	3	1.6	40.64	65	1
12	7~13.2	11.52	0.96	8000	86	2.4	1.2	30.48	60	2
12	7~13.2	8.64	0.72	7000	76	2.2	0.85	21.59	55	3
12	7~13.2	6.48	0.54	6000	65	1.8	0.63	16	50	4
12	7~13.2	5.4	0.45	5000	54	1.5	0.5	12.7	45	5
12	7~13.2	3.6	0.3	4000	43	1.2	0.3	7.62	40	6
24	14~26.4	20	0.85	9500	105	3	1.6	40.64	65	1
24	14~26.4	12	0.5	8000	86	2.4	1.2	30.48	60	2
24	14~26.4	9.12	0.38	7000	76	2.2	0.85	21.59	55	3
24	14~26.4	6.96	0.29	6000	65	1.8	0.63	16	50	4
24	14~26.4	6	0.25	5000	54	1.5	0.5	12.7	45	5
48	34~56	21.6	0.45	9500	105	3	1.6	40.64	65	1
48	34~56	18.24	0.38	8000	86	2.4	1.2	30.48	60	2
48	34~56	12.96	0.27	7000	76	2.2	0.85	21.59	55	3
48	34~56	9.6	0.2	6000	65	1.8	0.63	16	50	4



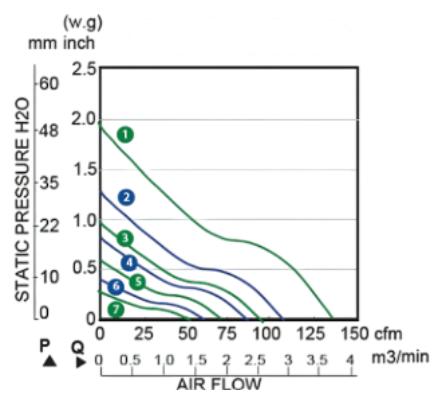
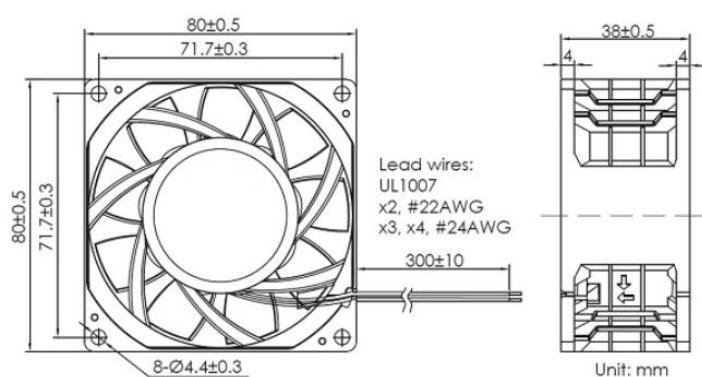
## 80x80x38

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	9 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	210g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister on request
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
<b>VDC</b>	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	7~13.2	42	3.5	9000	132	3.7	2	50.8	66	1
<b>12</b>	7~13.2	24	2	7500	107	3	1.36	34.54	62	2
<b>12</b>	7~13.2	15	1.25	6500	93	2.6	1.0	25.4	59	3
<b>12</b>	7~13.2	10.8	0.9	5800	82	2.3	0.78	19.81	52	4
<b>12</b>	7~13.2	7.2	0.6	5000	71	2	0.58	14.73	49	5
<b>12</b>	7~13.2	4.8	0.4	4200	60	1.7	0.41	10.41	45	6
<b>12</b>	7~13.2	3.6	0.3	3500	50	1.4	0.28	7.11	41	7
<b>24</b>	14~26.4	45.6	1.9	9000	132	3.7	2	50.8	66	1
<b>24</b>	14~26.4	21.6	0.9	7500	107	3	1.36	34.54	62	2
<b>24</b>	14~26.4	14.4	0.6	6500	93	2.6	1.0	25.4	59	3
<b>24</b>	14~26.4	10.8	0.45	5800	82	2.3	0.78	19.81	52	4
<b>24</b>	14~26.4	7.2	0.3	5000	71	2	0.58	14.73	49	5
<b>48</b>	28~56	43.2	0.9	9000	132	3.7	2	50.8	66	1
<b>48</b>	28~56	27.8	0.58	7500	107	3	1.36	34.54	62	2
<b>48</b>	28~56	24.5	0.51	6500	93	2.6	1.0	25.4	59	3
<b>48</b>	28~56	16.8	0.35	5800	82	2.3	0.78	19.81	52	4



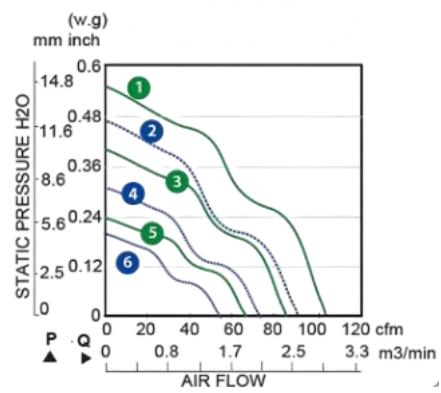
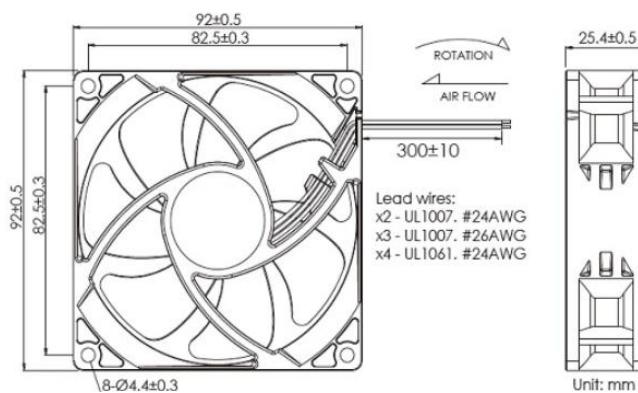
## 92x92x25

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	80g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 - B:70K hours at 40C / Y:50K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					VDC	VDC	m3/min	Inch/H2O	mm	
12	7~13.2	10.2	0.85	5500	103	2.9	0.58	14.73	55	1
12	7~13.2	8.4	0.7	5000	94	2.7	0.47	11.94	52	2
12	7~13.2	5.4	0.45	4500	85	2.4	0.4	10.16	50	3
12	7~13.2	4.2	0.35	4000	76	2.2	0.31	7.87	47	4
12	7~13.2	3.6	0.3	3500	66	1.9	0.24	6.1	44	5
12	7~13.2	3	0.25	3000	57	1.6	0.19	4.83	40	6
24	14~26.4	10.32	0.43	5500	103	2.9	0.58	14.73	55	1
24	14~26.4	8.4	0.35	5000	94	2.7	0.47	11.94	52	2
24	14~26.4	5.52	0.23	4500	85	2.4	0.4	10.16	50	3
24	14~26.4	4.56	0.19	4000	76	2.2	0.31	7.87	47	4
24	14~26.4	3.6	0.15	3500	66	1.9	0.24	6.1	44	5
24	14~26.4	3.12	0.13	3000	57	1.6	0.19	4.83	40	6
48	28~56	9.6 (~14.4)	0.2 (~0.3)	5500	103	2.9	0.58	14.73	55	1
48	28~56	7.2 (~9.6)	0.15 (~0.2)	5000	94	2.7	0.47	11.94	52	2
48	28~56	4.8 (~7.2)	0.1 (~0.15)	4500	85	2.4	0.4	10.16	50	3
48	28~56	2.88 (~4.8)	0.06 (~0.1)	4000	76	2.2	0.31	7.87	47	4



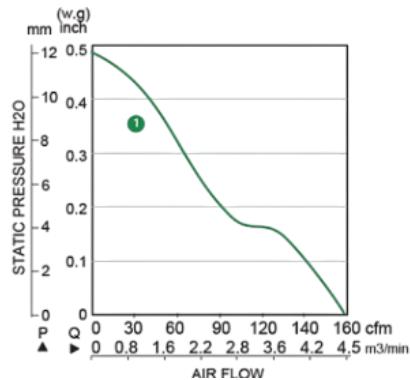
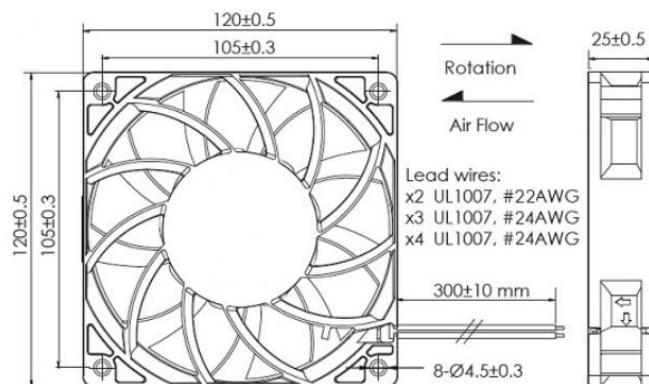
## 120x120x25

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	9 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	205g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	7~13.2	16.8	1.4	4000	160	4.5	0.49	12.45	57	1
<b>24</b>	14~26.4	20.4	0.85	4000	160	4.5	0.49	12.45	57	1
<b>48</b>	28~56	14.4	0.3	4000	160	4.5	0.49	12.45	57	1



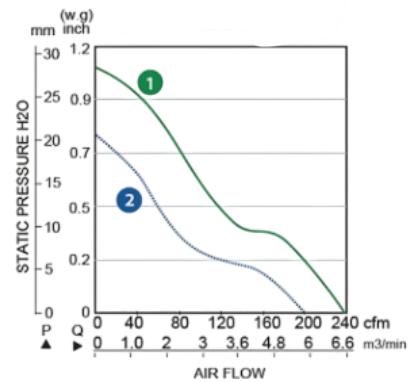
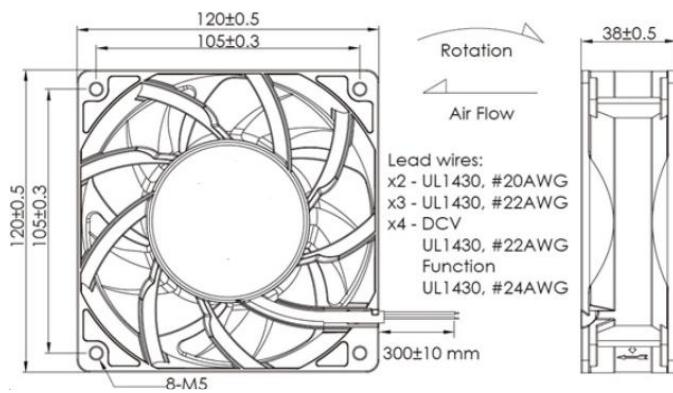
## 120x120x38

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	<i>Electronically protected, polarity protected</i>
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	455g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister on request
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves				
					VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>12</b>	7~13.8	40.8	3.4	7000	200	5.7			3.2		81.28	62	4	
<b>24</b>	14~26.4	108	4.3	12000	300	8.5			4.6		116.84	78	1	
<b>24</b>	14~26.4	96	4	10000	250	7.1			4.0		101.6	73	2	
<b>24</b>	14~26.4	87.6	3.65	9000	225	6.4			3.45		87.63	69	3	
<b>24</b>	14~26.4	76.8	3.2	8000	200	5.7			3.2		81.28	65	4	
<b>24</b>	14~26.4	62.4	2.6	7000	190	5.4			3.0		76.2	62	5	
<b>24</b>	14~26.4	52.8	2.2	6000	175	5			2.85		72.39	60	6	
<b>48</b>	28~56	120	2.5	12000	300	8.5			4.6		116.84	78	1	
<b>48</b>	28~56	110.4	2.3	10000	250	7.1			4.0		101.6	73	2	
<b>48</b>	28~56	96	2.0	9000	225	6.4			3.45		87.63	69	3	
<b>48</b>	28~56	86.4	1.8	8000	200	5.7			3.2		81.28	65	4	



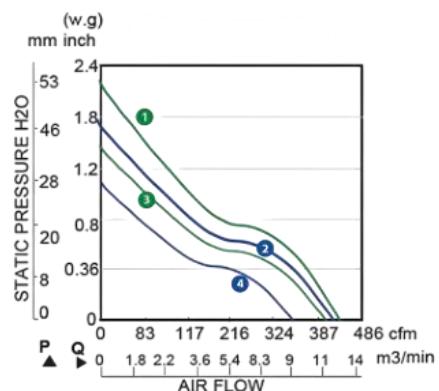
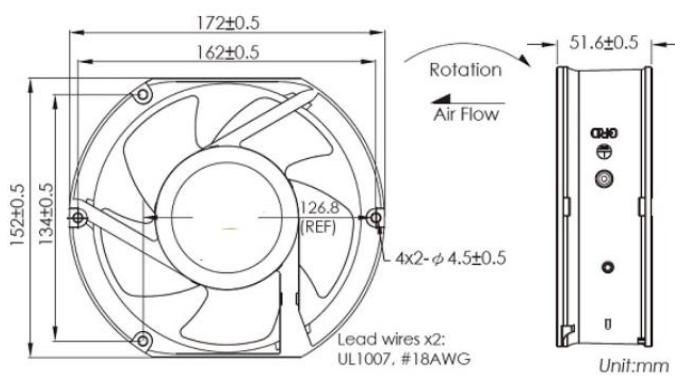
## 172x150x51

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	610g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					CFM	m3/min	Inch/H2O	mm		
<b>24</b>	14~26.4	78	3.25	5500	400	11.3	1.52	38.61	69	3
<b>24</b>	14~26.4	43.2	1.8	4500	330	9.3	1.11	28.19	64	4
<b>48</b>	28~56	124.8	2.6	6500	472	13.4	2.12	53.85	73	1
<b>48</b>	28~56	96	2	6000	436	12.3	1.8	45.72	71	2
<b>48</b>	28~56	69.6	1.45	5500	400	11.3	1.52	38.61	69	3
<b>48</b>	28~56	40.8	0.85	4500	330	9.3	1.11	28.19	64	4



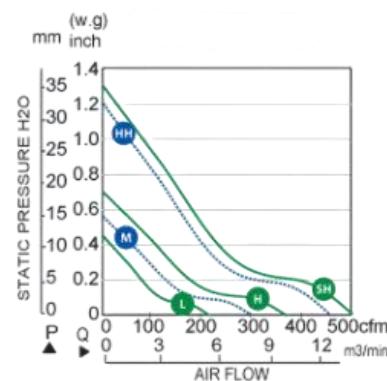
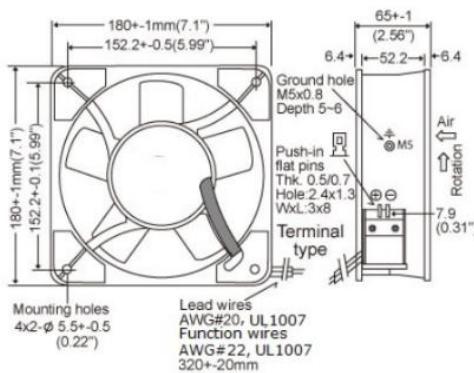
## 180x180x65

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1450 g (3.2 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister on request
<b>Signal Output:</b>	Optional: R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	9~13.8	64.8	5.4	3700	490	13.9	1.25	31.75	68	SH
<b>12</b>	9~13.8	50.4	4.2	3400	460	13	1.1	27.94	63	HH
<b>12</b>	9~13.8	23	1.9	2800	375	10.6	0.7	17.78	53	H
<b>12</b>	10~14	13.2	1.1	2200	300	8.5	0.58	14.73	46	M
	(~18)	(~1.5)								
<b>12</b>	10~14	5.5	0.45	1500	215	6.1	0.42	10.67	36	L
<b>24</b>	12~27.6	63.6	2.65	3800	500	14.2	1.3	33.02	69	SH
<b>24</b>	12~27.6	50.4	2.1	3500	470	13.3	1.2	30.48	65	HH
	(~60)	(~2.5)								
<b>24</b>	12~27.6	24	0.97	2800	375	10.6	0.7	17.78	53	H
	(~27.6)	(~1.15)								
<b>24</b>	12~28	13	0.52	2200	300	8.5	0.58	14.73	46	M
	(~14.88)	(~0.62)								
<b>48</b>	24~55	62.4	1.3	3800	500	14.2	1.3	33.02	69	SH
<b>48</b>	24~55	49.4	1.03	3500	470	13.3	1.2	30.48	65	HH
<b>48</b>	24~55	23.5	0.48	2800	375	10.6	0.7	17.78	53	H
<b>48</b>	28~60	14.5	0.30	2200	300	8.5	0.58	14.73	46	M



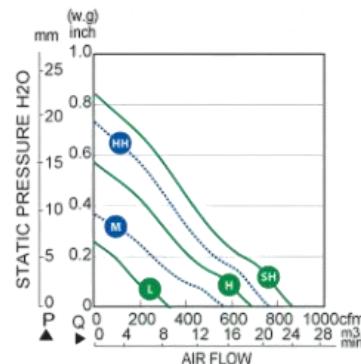
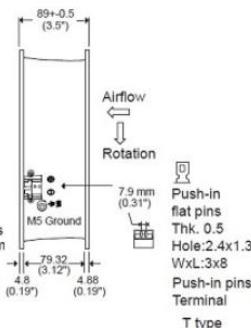
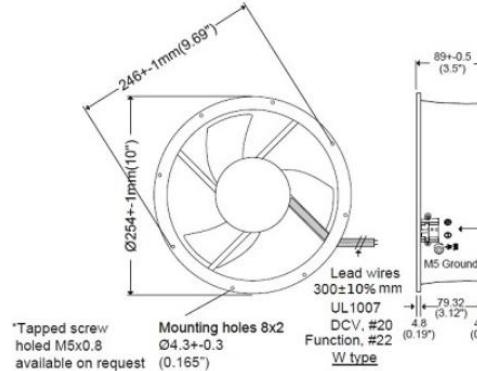
254x89

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP68 (Optional)
<b>Frame:</b>	Aluminum die cast, black color treatment
<b>Impeller:</b>	3 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads or push-in flat pins terminal connecting, terminal block optional.
<b>Weight:</b>	1,830 Gr (4 Lbs)
<b>Dielectric Strength:</b>	500 VDC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister, 0~10V control voltage S/V
<b>Signal Output:</b>	Optional: R/D alarm, tachometer F/G outputs
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	9~13	64.8	5.4	2400	830	23.5	0.78	19.81	60	SH
<b>12</b>	9~13	50.4	4.2	2200	750	21.2	0.69	17.53	56	HH
<b>12</b>	9~13	23 (~37.2)	1.9 (~3.1)	2000	690	19.5	0.58	14.73	47	H
<b>12</b>	9~14	13.2 (~18)	1.1 (~1.5)	1650	550	15.6	0.37	9.4	39	M
<b>12</b>	10~16	5.5	0.45	1000	350	9.9	0.25	6.35	28	L
<b>24</b>	16~27	120	5.0	3300	1100	31.1	1.6	40.64	77	EH
<b>24</b>	16~27	100.8	4.2	3000	1000	28.3	1.05	26.67	75	SHH
<b>24</b>	16~27	63.6	2.65	2500	850	24.1	0.83	21.08	62	SH
<b>24</b>	16~27	50.4	2.0	2300	760	21.5	0.71	18.03	58	HH
<b>24</b>	16~27	36	1.5	2000	690	19.5	0.58	14.73	47	H
<b>24</b>	16~27.6	28.8	1.2	1650	550	15.6	0.37	9.4	39	M
<b>24</b>	18~30	16.8	0.7	1000	350	9.9	0.25	6.35	28	L
<b>48</b>	24~53	124.8	2.6	3300	1100	31.1	1.6	40.64	77	EH
<b>48</b>	24~53	96	2	3000	1000	28.3	1.05	26.67	75	SHH
<b>48</b>	24~53	62.4	1.5	2500	850	24.1	0.83	21.08	62	SH
<b>48</b>	24~53	62.4	1.3	2300	760	21.5	0.71	18.03	58	HH
<b>48</b>	24~53	48	1.0	2000	690	19.5	0.58	14.73	49	H
<b>48</b>	24~56	33.6	0.7	1650	550	15.6	0.37	9.4	39	M



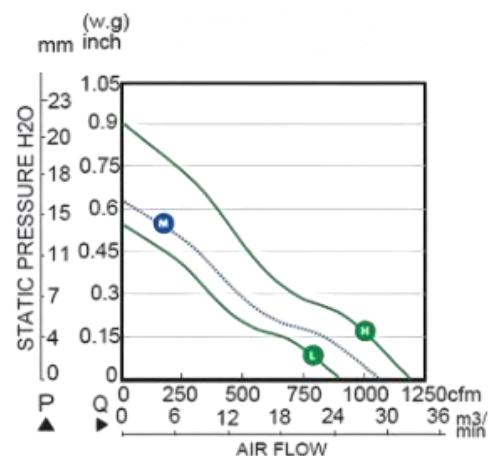
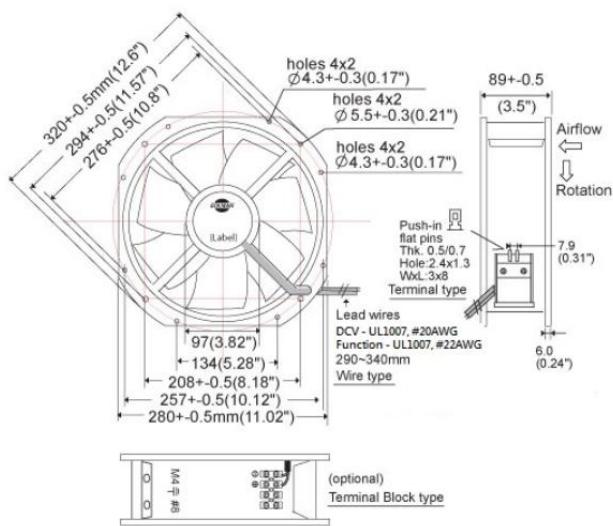
## 280x280x89

## DC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55, IP67 (Optional)
<b>Frame:</b>	Aluminum die cast, natural color(AN) or black color(AP)
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,800g (6.2 Lbs)
<b>Dielectric Strength:</b>	500 VDC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional:PWM, S/C NTC thermister on request
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 85K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	9~13.5	90	7.5	2100	1011	28.6	0.63	16	63	M
<b>12</b>	9~13.5	50	4.2	1800	867	24.6	0.55	13.97	59	L
<b>24</b>	18~27.6	104.4	4.35	2450	1180	33.4	0.90	22.86	79	H
<b>24</b>	18~27.6	58.8 (~72)	2.45 (~3.0)	2200	1060	30	0.65	16.51	65	M
<b>24</b>	18~27.6	26.4(~52.8)	1.1 (~2.2)	1800	867	24.6	0.55	13.97	59	L
<b>48</b>	24~55	105.6	2.2	2450	1180	33.4	0.90	22.86	79	H
<b>48</b>	24~55	57.6	1.2	2200	1060	30	0.65	16.51	65	M
<b>48</b>	24~55	26.Nis	0.55	1500	722	20.4	0.50	12.7	59	L



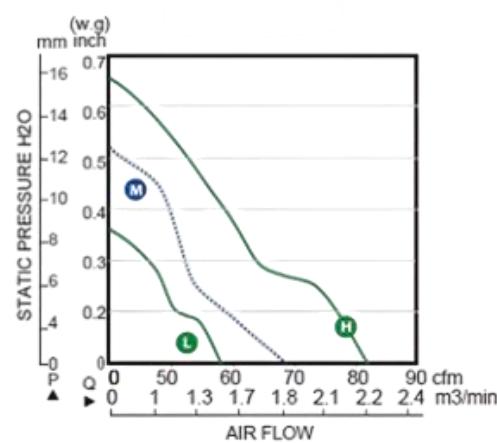
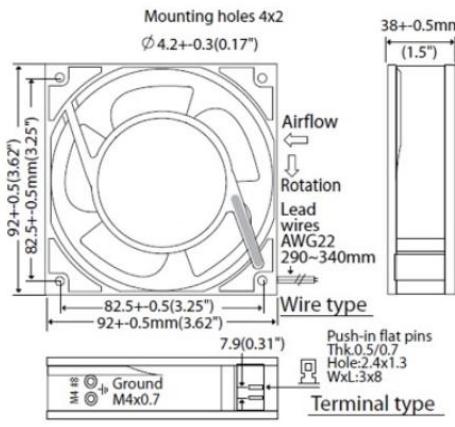
## 92x92x38

## DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC motor, alarm, tach,pwm, thermal speed controls
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die cast, natural coating treatment
<b>Impeller:</b>	Metal fan blades. Welded spoting joint metal fan blades
<b>Bearing:</b>	Ball bearing
<b>Rotation:</b>	CCW at left (L), seen on rotor
<b>Connection:</b>	Wire lead or Terminal push-pin connecting for choice
<b>Weight:</b>	-
<b>Dielectric Strength:</b>	500VAC/min. Max. leakage 0.5mA
<b>Speed Control:</b>	-
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	Life expectancy 90K hours at 35C, 40K hours at 65C based on L10 Formula



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
12	8~13	8	0.67	5000	82	2.3	0.65	16.51	49	H
12	8~13	6	0.5	4200	69	2	0.52	13.21	45	M
12	8~13	4	0.33	3500	58	1.6	0.36	9.14	33	L
24	15~26	8	0.33	5000	82	2.3	0.65	16.51	49	H
24	15~27	6	0.25	4200	69	2	0.52	13.21	45	M
24	15~28	4	0.16	3500	58	1.6	0.36	9.14	33	L
48	28~53	8	0.16	5000	82	2.3	0.65	16.51	49	H
48	28~56	6	0.13	4200	69	2	0.52	13.21	45	M
48	28~56	4	0.08	3500	58	1.6	0.36	9.14	33	L



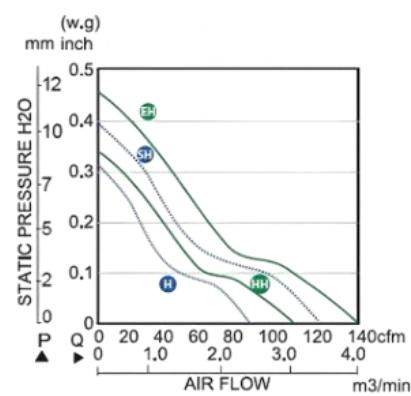
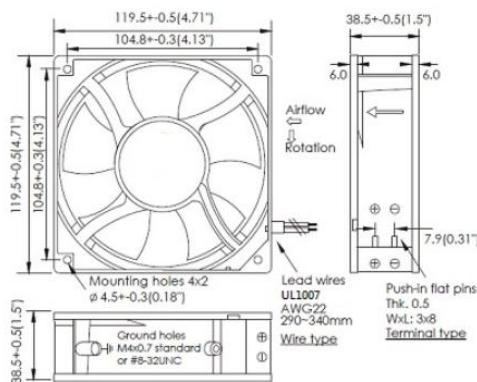
## 120x120x38

## DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC motor, alarm, tach, pwm, thermal speed controls
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die-cast, black color treatment
<b>Impeller:</b>	Metal steel fan blades, welded spotting joint blades & metal rotor
<b>Bearing:</b>	Two Ball bearings
<b>Rotation:</b>	CCW at left (L), seen on rotor
<b>Connection:</b>	Wire lead or Terminal push-pin connecting for choice
<b>Weight:</b>	440 Gr (0.97Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Pwm, thermal NTC S/C
<b>Signal Output:</b>	Alarm R/D, Tach F/G
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 80K hours at 45C, 40K hours at 55C,



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
<b>VDC</b>	<b>VDC</b>	<b>Watt</b>	<b>Amp</b>	<b>RPM</b>	<b>CFM</b>	<b>m3/min</b>	<b>Inch/H2O</b>	<b>mm</b>	<b>db(A)</b>	
<b>5</b>	4~6	9.5(~15)	1.9(~3)	3200	120	3.4	0.42	10.67	44	SH
<b>5</b>	4~6	9.5	1.9	2800	103	2.9	0.37	9.4	41	HH
<b>5</b>	4~6	8	1.6	2500	94	2.7	0.35	8.89	36	H
<b>12</b>	8~13.8	10.6(~15)	0.88(~1.3)	3800	140	4	0.45	11.43	46	EH
<b>12</b>	8~13.8	10.6	0.88	3200	120	3.4	0.40	10.16	41	SH
<b>12</b>	10~13.8	8.4	0.7	3000	110	3.1	0.38	9.65	41	HH
<b>12</b>	8~13.8	6	0.5	2500	94	2.7	0.35	8.89	35	H
<b>24</b>	12~27.6	10.3(~15)	0.43(~0.62)	3800	140	4	0.45	11.43	47	EH
<b>24</b>	12~27.6	10.3	0.43	3600	130	3.7	0.40	10.16	45	SH
<b>24</b>	12~27.6	8.4	0.35	3000	110	3.1	0.38	9.65	41	HH
<b>38</b>	24~44	10.3(~15)	0.27(~0.4)	3800	140	4	0.45	11.43	47	EH
<b>38</b>	24~44	10.3	0.27	3200	120	3.4	0.40	10.16	45	SH
<b>48</b>	38~55	10.6(~15)	0.22(~0.32)	3800	140	4	0.45	11.43	47	EH
<b>48</b>	38~55	10.6	0.22	3600	130	3.7	0.40	10.16	45	SH
<b>48</b>	38~55	7.7	0.16	3000	110	3.1	0.38	9.65	41	HH



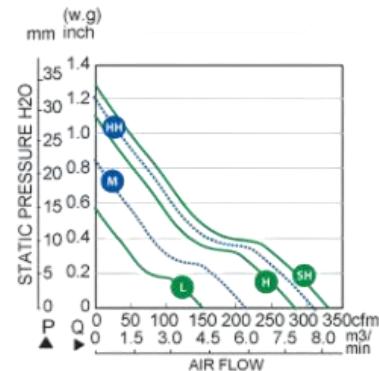
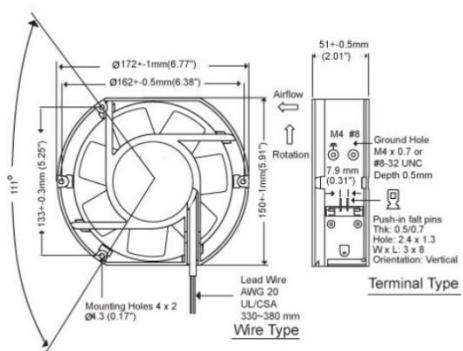
# 172x150x51

# DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die cast, black color(AP)
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	920 g (2.02 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional:PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 50C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	8~14	64.8	5.4	4300	320	9.1	1.1	27.94	64	SH
<b>12</b>	8~14	50.4	4.2	4100	300	8.5	1.05	26.67	61	HH
<b>12</b>	8~14	23	1.9	3700	275	7.8	0.95	24.13	55	H
<b>12</b>	9~14	13.2	1.1	2800	210	5.9	0.82	20.83	46	M
<b>12</b>	9~15	5.5	0.45	2000	150	4.2	0.58	14.73	37	L
<b>24</b>	15~27.6	63.6	2.65	4350	325	9.2	1.25	31.75	65	SH
<b>24</b>	15~27.6	50.4	2.1	4200	310	8.8	1.2	30.48	63	HH
<b>24</b>	15~27.6	24	0.97	3850	295	8.4	1.1	27.94	58	H
<b>24</b>	17~28	13	0.52	2800	210	5.9	0.82	20.83	45	M
<b>24</b>	17~28	5	0.20	2000	150	4.2	0.58	14.73	37	L
<b>48</b>	22~55	62.4	1.3	4350	325	9.2	1.25	31.75	65	SH
<b>48</b>	22~55	49.4	1.3	4200	310	8.8	1.2	30.48	63	HH
<b>48</b>	22~55	23.5	0.48	3850	295	8.4	1.1	27.94	58	H
<b>48</b>	24~58	14.5	0.30	2800	210	5.9	0.82	20.83	45	M
<b>48</b>	24~60	5.8	0.12	2000	150	4.2	0.58	14.73	37	L



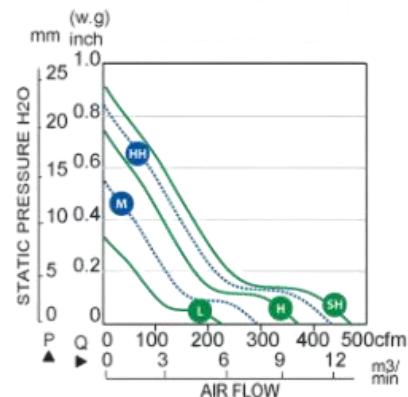
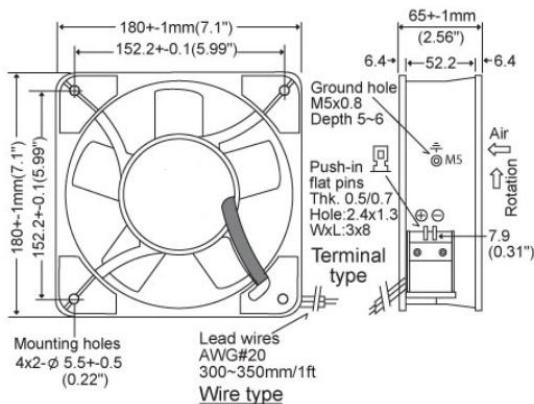
## 180x180x65

## DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die cast, black color(AP)
<b>Impeller:</b>	5 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1,400g (3.08 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional:PWM, S/C NTC thermister, S/V (0~10V) speed control on request
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 50C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	9~13.8	64.8	5.4	3700	475	13.5	0.87	22.1	64	SH
<b>12</b>	9~13.8	50.4	4.2	3400	440	12.5	0.82	20.83	62	HH
<b>12</b>	9~13.8	23	1.9	2800	360	10.2	0.72	18.29	58	H
<b>12</b>	10~14	13.2	1.1	2200	295	8.4	0.55	13.97	49	M
<b>12</b>	10~14	5.5	0.45	1600	220	6.2	0.38	9.65	38	L
<b>24</b>	12~27.6	63.6	2.65	3800	480	13.6	0.88	22.35	66	SH
<b>24</b>	12~27.6	50.4	2.1	3500	445	12.6	0.82	20.83	62	HH
<b>24</b>	12~27.6	24	0.97	2800	360	10.2	0.72	18.29	58	H
<b>24</b>	12~28	13	0.52	2200	295	8.4	0.55	13.97	49	M
<b>24</b>	15~28	5	0.20	1600	220	6.2	0.38	9.65	38	L
<b>48</b>	24~53	62.4	1.3	3800	480	13.6	0.88	22.35	66	SH
<b>48</b>	24~53	49.4	1.03	3500	445	12.6	0.82	20.83	62	HH
<b>48</b>	24~55	23.5	0.48	2800	360	10.2	0.72	18.29	58	H
<b>48</b>	28~58	14.5	0.30	2200	295	8.4	0.55	13.97	49	M
<b>48</b>	30~60	5.8	0.12	1600	220	6.2	0.38	Eyl.65	38	L



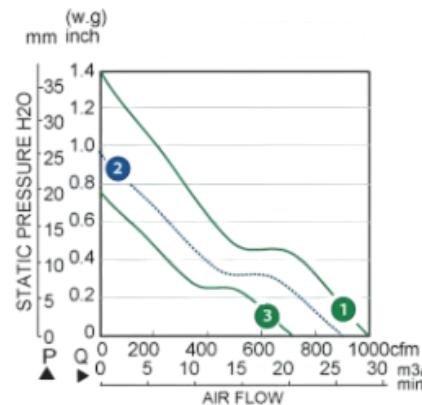
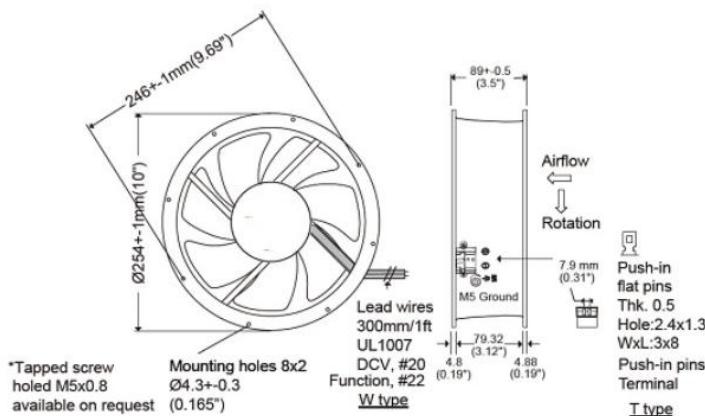
## 254x89

## DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die cast, black color(AP)
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,300g (5.07Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister, S/V (0~10V) speed control
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 50C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					CFM	m3/min	Inch/H2O	mm		
<b>VDC</b>	<b>VDC</b>	<b>Watt</b>	<b>Amp</b>	<b>RPM</b>						
<b>12</b>	10~13.2	64.8(~78)	5.4(~6.5)	2800	890	25.2	1.1	27.94	70	1
<b>12</b>	10~13.8	50.4	4.2	2500	830	23.5	1.08	27.43	65	2
<b>12</b>	10~13.8	22.8	1.9	2000	680	19.3	0.88	22.35	58	3
<b>24</b>	18~26	63.6(~86.4)	2.65(~3.6)	3300	1030	29.2	1.43	36.32	73	1
<b>24</b>	18~26.4	50.4	2.1	2500	830	23.5	1.08	27.43	65	2
<b>24</b>	18~27.6	36	1.5	2000	680	19.3	0.88	22.35	58	3
<b>48</b>	24~53	62.4(~86.4)	1.3(~1.8)	3300	1030	29.2	1.43	36.32	73	1
<b>48</b>	24~55	62.4	1.3	2500	830	23.5	1.08	27.43	65	2
<b>48</b>	24~58	48	1	2000	680	19.3	0.88	22.35	58	3



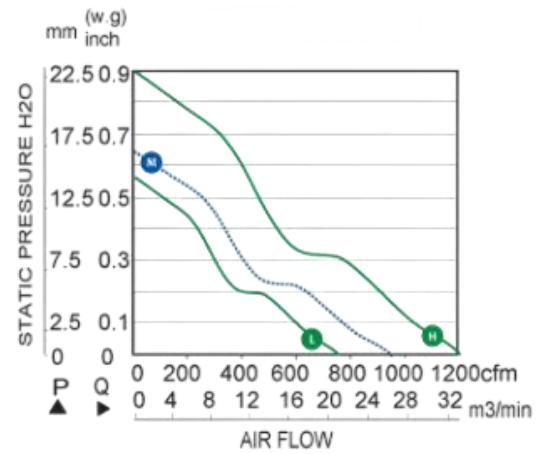
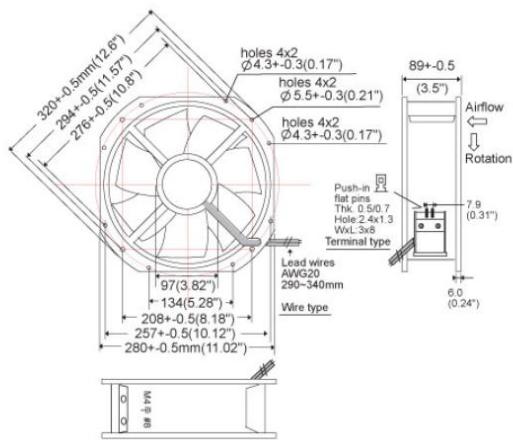
## 280x280x89

## DC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56 optional request
<b>Frame:</b>	Aluminum die cast, natural color(AN)
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,950g (6.5 Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 0.5mA
<b>Speed Control:</b>	Optional:PWM, S/C NTC thermister, S/V (0~10V) speed control on request
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 50C



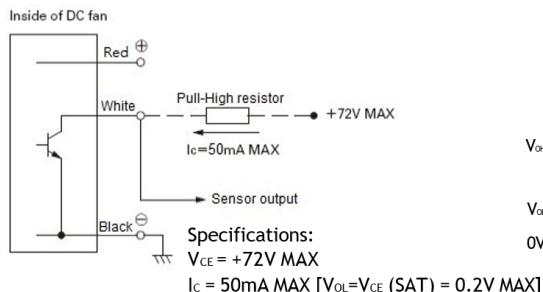
Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves		
					VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O
<b>12</b>	9~13.5	90	7.5	2100	1011	28.6	0.63		16	55	55	M
<b>12</b>	9~13.5	50	4.2	1800	867	24.6	0.55		13.97	48	48	L
<b>24</b>	18~27.6	104.4	4.35	2450	1180	33.4	0.90		22.86	72	72	H
<b>24</b>	18~27.6	58.8	2.45	2200	1060	30	0.65		16.51	56	56	M
<b>24</b>	18~27.6	26.4(~52.8)	1.1(~2.2)	1800	867	24.6	0.55		13.97	48	48	L
<b>48</b>	24~55	105.6	2.2	2450	1180	33.4	0.90		22.86	72	72	H
<b>48</b>	24~55	57.6	1.2	2200	1060	30	0.65		16.51	56	56	M
<b>48</b>	24~55	26.4	0.55	1500	722	20.4	0.50		12.7	48	48	L



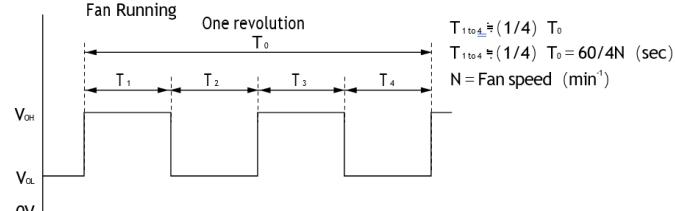
## DC FAN SPECIAL FUNCTIONS

### FG: TACHOMETER OUTPUT TYPE

#### Output Circuit: Open Collector

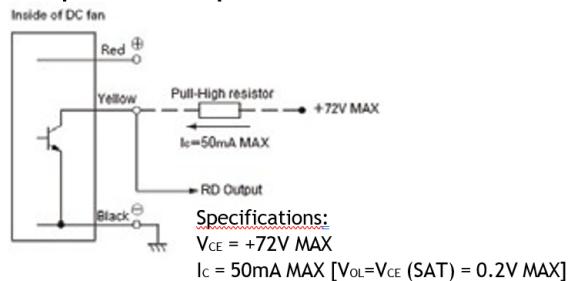


#### Output Waveform: (Need pull-up resistor)

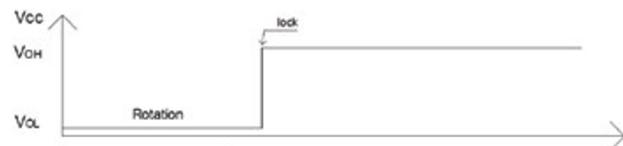


### RD: LOCKED ROTOR ALARM SIGNAL

#### Output Circuit: Open Collector

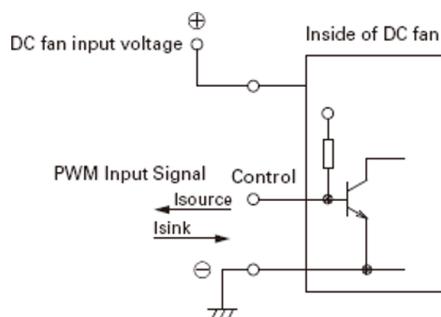


#### Output Waveform: (Need pull-up resistor)



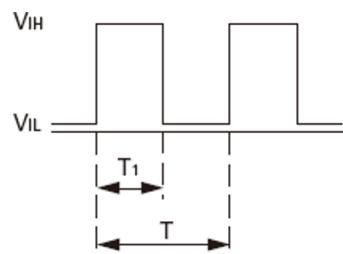
### PWM SPEED CONTROL

#### Output Circuit:



#### Output Waveform:

Method: PWM insensitive to signal amplitude  
 Signal Voltage Range:  
 High signal ( $V_{IH}$ ): 2.8 ~ 48 VDC  
 Low Signal ( $V_{IL}$ ): -0.8 ~ 0.8 VDC  
 Frequency (1/T): 200 ~ 100KHz  
 Duty cycle mapping speed ( $T_1/T$ ):  
 <5%: 0 rpm  
 5%~100%: Linear ramp  
 100% or Open: Full speed



## AC AXIAL FANS



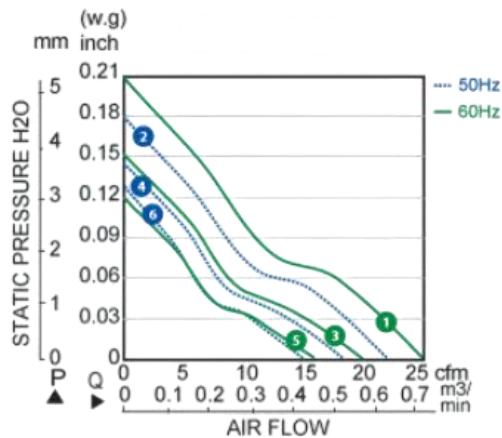
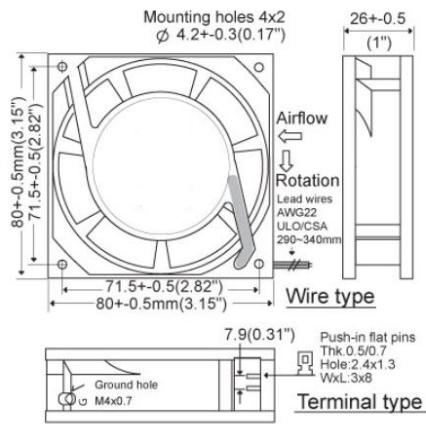
## 80x80x25

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, inner rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP44</i>
<b>Frame:</b>	<i>Aluminum die cast, black(S825AP)</i>
<b>Impeller:</b>	<i>7 blades, glass fiber reinforced plastic, rated UL94V-0</i>
<b>Bearing:</b>	<i>Two ball bearings. or sleeve bearing</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire leads, terminal flat pin</i>
<b>Weight:</b>	<i>260 g (0.57 Lbs)</i>
<b>Dielectric Strength:</b>	<i>Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	
<b>Operating Temp:</b>	<i>Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>Ball bearing 80K hours at 45C, 50K hours at 60C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ			
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm
<b>115</b>	100~120	50/60	11/9 (~14)	2500/3000	22/25	0.6/0.7	0.18/0.21	4.57/5.33	28	2/1			
<b>115</b>	100~120	50/60	8/6	2100/2500	18/22	0.5/0.6	0.14/0.15	3.56/3.81	24	4/3			
<b>115</b>	100~120	50/60	6/4	1900/2100	15/17	0.4/0.5	0.11 /0.12	2.79/3.05	19	6/5			
<b>230</b>	200~240	50/60	11/9 (~14)	2500/3000	22/25	0.6/0.7	0.18/0.21	4.57/5.33	28	2/1			
<b>230</b>	200~240	50/60	8/6	2300/2700	18/20	0.5/0.6	0.14/0.15	3.56/3.81	24	4/3			
<b>230</b>	200~240	50/60	6/4	2100/2400	15/17	0.4/0.5	0.11 /0.12	2.79/3.05	19	6/5			
<b>115</b>	100~120	50/60	11/9	2500/3000	22/25	0.6/0.7	0.18/0.21	4.57/5.33	28	2/1			
<b>230</b>	200~240												
<b>115</b>	100~120	50/60	6/4	1900/2100	15/17	0.4/0.5	0.11/0.12	2.79/3.05	19	2/1			
<b>230</b>	200~240												



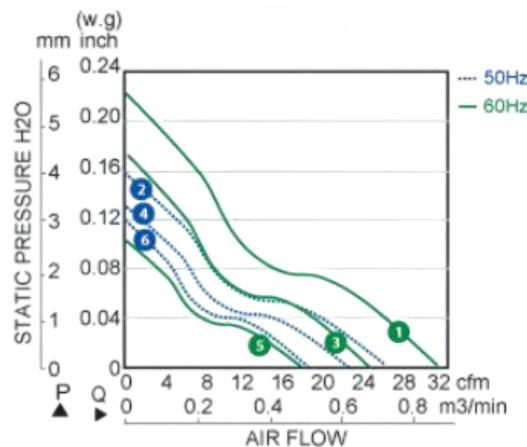
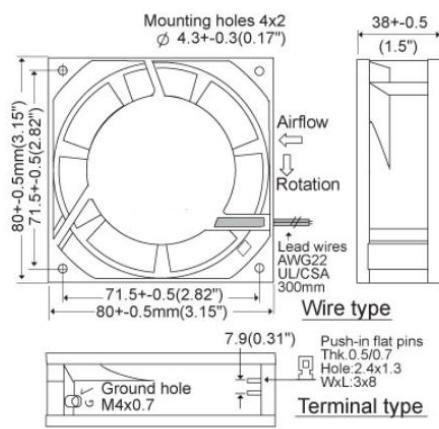
## 80x80x38

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Shaded pole induction, inner rotor, 1-phase
<b>Burnout Protection:</b>	Impedance protected
<b>IP Protection:</b>	IP44
<b>Frame:</b>	Aluminum die cast, black(S80AP)
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings. or sleeve bearing
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin
<b>Weight:</b>	400 g (0.82 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	
<b>Operating Temp:</b>	Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	Ball bearing 80K hours at 45C, 50K hours at 60C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ			
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm
<b>115</b>	100~120	50/60	14/12	2700/3250	26/31	0.7/0.9	0.16/0.22	4.06/5.59	29	2/1			
<b>115</b>	100~120	50/60	11/9	2300/2550	22/24	0.6/0.7	0.13/0.17	3.3/4.32	22	4/3			
<b>115</b>	100~120	50/60	7/5	1950/1550	19/15	0.5/0.4	0.12/0.09	3.05/2.29	18	6/5			
<b>230</b>	200~240	50/60	14/12	2700/3250	26/31	0.7/0.9	0.16/0.22	4.06/5.59	29	2/1			
<b>230</b>	200~240	50/60	11/9	2300/2550	22/24	0.6/0.7	0.13/0.17	3.3/4.32	22	4/3			
<b>230</b>	200~240	50/60	7/5	1800/1700	18/17	0.5/0.5	0.12/0.10	3.05/2.54	18	6/5			
<b>115</b>	100~120	50/60	14/12	2700/3250	26/31	0.7/0.9	0.16/0.22	4.06/5.59	29	2/1			
<b>230</b>	200~240												
<b>115</b>	100~120	50/60	11/9	2300/2550	22/24	0.6/0.7	0.13/0.17	3.3/4.32	22	4/3			
<b>230</b>	200~240												



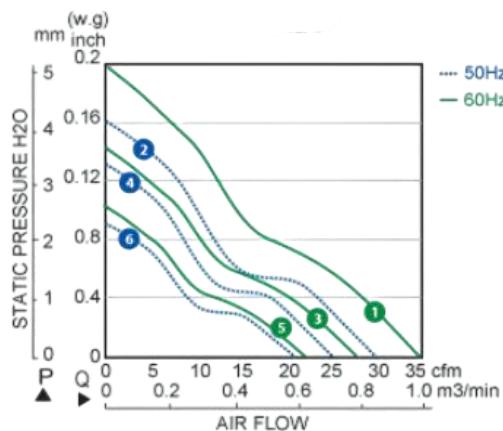
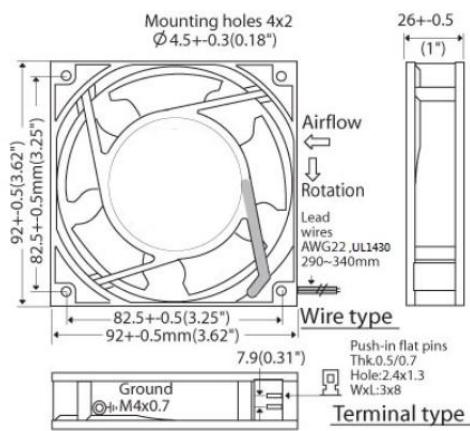
## 92x92x25

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, inner rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP44</i>
<b>Frame:</b>	<i>Aluminum die cast, black(S92AP)</i>
<b>Impeller:</b>	<i>5 blades, glass fiber reinforced plastic, rated UL94V-0</i>
<b>Bearing:</b>	<i>Two ball bearings. or sleeve bearing</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire leads, terminal flat pin</i>
<b>Weight:</b>	<i>290 g (0.64 Lbs)</i>
<b>Dielectric Strength:</b>	<i>Over 1 min.at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	
<b>Operating Temp:</b>	<i>Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>Ball bearing 80K hours at 45C, 50K hours at 60C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
					CFM	m3/min	Inch/H2O	mm		
VAC	VAC	Hz	Watt	RPM	30/35	0.8/1	0.16/0.20	4.06/5.08	30	2/1
<b>115</b>	100~120	50/60	15/13	2500/3000	30/35	0.8/1	0.16/0.20	4.06/5.08	30	2/1
<b>115</b>	100~120	50/60	12/10	2100/2300	25/27	0.7/0.8	0.13/0.14	3.3/3.56	22	4/3
<b>115</b>	100~120	50/60	8/6	1800/1900	21/22	0.6/0.6	0.09/0.10	2.29/2.54	19	6/5
<b>230</b>	200~240	50/60	15/13	2500/3000	30/35	0.8/1	0.16/0.20	4.06/5.08	30	2/1
<b>230</b>	200~240	50/60	12/10	2100/2300	25/27	0.7/0.8	0.13/0.14	3.3/3.56	22	4/3
<b>230</b>	200~240	50/60	8/6	1800/1900	21/22	0.6/0.6	0.09/0.10	2.29/2.54	19	6/5
<b>24</b>	24~28	50/60	15/13	2500/3000	30/35	0.8/1	0.16/0.20	4.06/5.08	30	2/1
<b>24</b>	24~28	50/60	12/10	2100/2300	25/27	0.7/0.8	0.13/0.14	3.3/3.56	22	4/3
<b>115</b>	100~120	50/60	15/13	2500/3000	30/35	0.8/1	0.16/0.20	4.06/5.08	30	2/1
<b>230</b>	200~240									



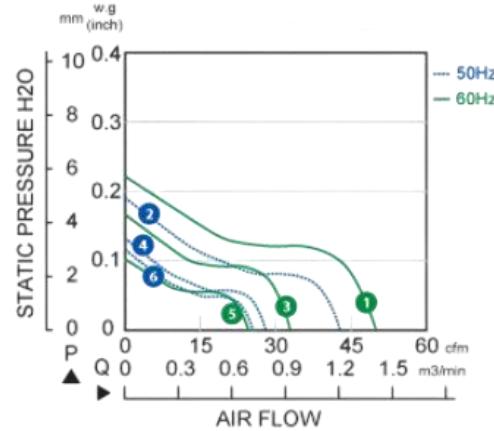
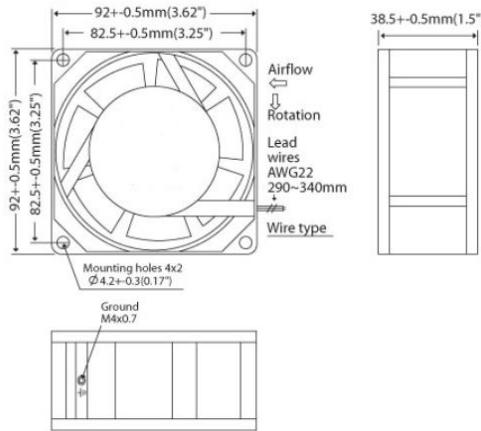
## 92x92x38

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, inner rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP44</i>
<b>Frame:</b>	<i>Aluminum die cast, black(S938AP(MS))</i>
<b>Impeller:</b>	<i>7 blades, glass fiber reinforced plastic, rated UL94V-0</i>
<b>Bearing:</b>	<i>Two ball bearings. or sleeve bearing</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire leads , terminal flat pin</i>
<b>Weight:</b>	<i>350 g (0.77 Lbs)</i>
<b>Dielectric Strength:</b>	<i>Over 1 min.at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	
<b>Operating Temp:</b>	<i>Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>Ball bearing 90K hours at 45C, 50K hours at 60C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ				
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>115</b>	100~120	50/60	11/9	2400/2900	43/50	1.2/1.4	0.18/0.22	4.57/5.59	32/36	2/1				
<b>115</b>	100~120	50/60	7/5	2200/2400	28/32	0.8/0.9	0.14/0.17	3.56/4.32	27/31	4/3				
<b>115</b>	100~120	50/60	4/3	1800/1600	24/23	0.7/0.7	0.12/0.11	3.05/2.79	20/18	6/5				
<b>230</b>	200~240	50/60	11/9	2400/2900	43/50	1.2/1.4	0.18/0.22	4.57/5.59	32/36	2/1				
<b>230</b>	200~240	50/60	7/5	2200/2400	28/32	0.8/0.9	0.14/0.17	3.56/4.32	27/31	4/3				
<b>230</b>	200~240	50/60	4/3	1800/1600	24/23	0.7/0.7	0.12/0.11	3.05/2.79	20/18	6/5				



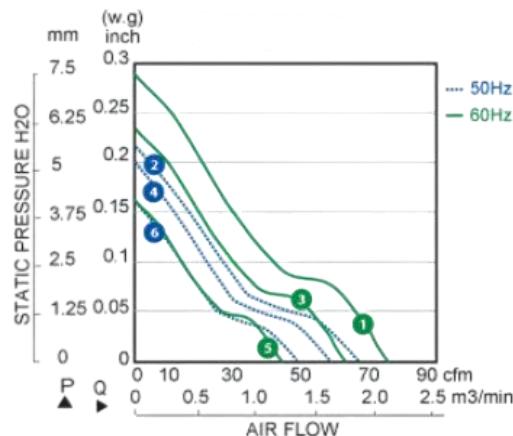
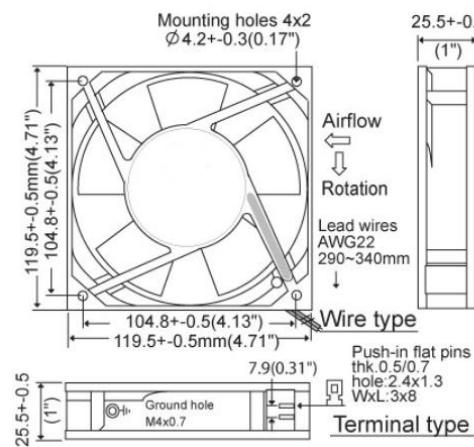
## 120x120x25

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, inner rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP44</i>
<b>Frame:</b>	<i>Aluminum die cast, black(S125AP)</i>
<b>Impeller:</b>	<i>5 blades, glass fiber reinforced plastic, rated UL94V-0</i>
<b>Bearing:</b>	<i>Two ball bearings. or sleeve bearing</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire leads, terminal flat pin</i>
<b>Weight:</b>	<i>370 g (0.82 Lbs)</i>
<b>Dielectric Strength:</b>	<i>Over 1 min.at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	
<b>Operating Temp:</b>	<i>Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>Ball bearing 80K hours at 45C, 45K hours at 60C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ				
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>115</b>	100~120	50/60	15/13	2500/2950	60/75	1.7/2.1	0.24/0.29	6.1/7.37	37	2/1				
<b>115</b>	100~120	50/60	12/10	2300/2400	55/62	1.6/1.8	0.21/0.23	5.33/5.84	30	4/3				
<b>115</b>	100~120	50/60	8/6	2000/1800	50/47	1.4/1.3	0.19/0.17	4.83/4.32	25	6/5				
<b>230</b>	200~240	50/60	15/13	2500/2950	60/75	1.7/2.1	0.24/0.29	6.1/7.37	37	2/1				
<b>230</b>	200~240	50/60	12/10	2300/2400	55/62	1.6/1.8	0.21/0.23	5.33/5.84	30	4/3				
<b>230</b>	200~240	50/60	8/6	2000/1800	50/47	1.4/1.3	0.19/0.17	4.83/4.32	25	6/5				
<b>115</b>	100~120	50/60	15/13 (~18)	2450/2950	58/75	1.6/2.1	0.24/0.29	6.1/7.37	37	2/1				
<b>230</b>	200~240													



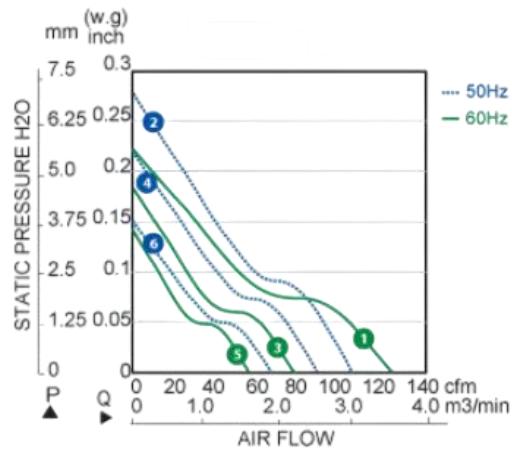
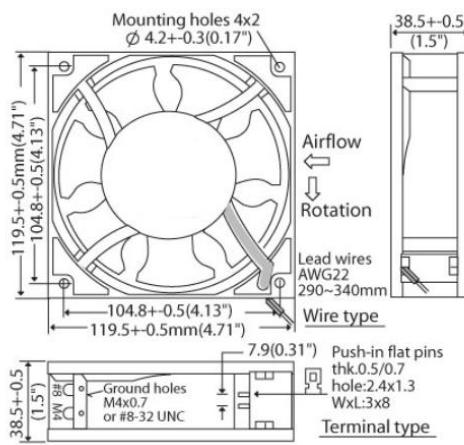
## 120x120x38

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, inner rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP44</i>
<b>Frame:</b>	<i>Aluminum die cast, black(S119AP)</i>
<b>Impeller:</b>	<i>7 blades, glass fiber reinforced plastic, rated UL94V-0</i>
<b>Bearing:</b>	<i>Two ball bearings. or sleeve bearing</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire leads, terminal flat pin</i>
<b>Weight:</b>	<i>600g (1.3 Lbs)</i>
<b>Dielectric Strength:</b>	<i>Over 1 min.at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	
<b>Operating Temp:</b>	<i>Non-condensing ball bearing (-20C~+70C), sleeve (-10~+40C)</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>Ball bearing 80K hours at 45C, 40K hours at 60C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
<b>VAC</b>	<b>VAC</b>	<b>Hz</b>	<b>Watt</b>	<b>RPM</b>	<b>CFM</b>	<b>m3/min</b>	<b>Inch/H2O</b>	<b>mm</b>	<b>db(A)</b>	
<b>115</b>	100~120	50/60	16/14 (~22)	2600/3050	106/125	3.03.2005	0.30/0.32	7.62/8.13	45	2/1
<b>115</b>	100~120	50/60	12/10	2200/2000	88/80	2.5/2.3	0.22 /0.19	5.59/4.83	37	4/3
<b>115</b>	100~120	50/60	9/7	1900/1400	78/57	2.2/1.6	0.19/0.13	4.83/3.3	27	6/5
<b>230</b>	200~240	50/60	16/14 (~22)	2600/3050	106/125	3.03.2005	0.30/0.32	7.62/8.13	45	2/1
<b>230</b>	200~240	50/60	12/10	2200/1900	88/78	2.5/2.2	0.22 /0.18	5.59/4.57	37	4/3
<b>230</b>	200~240	50/60	9/7	2000/1500	80/60	2.3/1.7	0.20/0.15	5.08/3.81	27	6/5
<b>115</b>	100~120	50/60	16/14 (~22)	2650/3050	106/125	3.03.2005	0.30/0.32	7.62/8.13	45	2/1
<b>230</b>	200~240									
<b>380</b>	380~420	50/60	16/14 (~22)	2500/2600	103/108	2.9/3.1	0.28/0.29	7.11/7.37	45	2/1
<b>440</b>	440~480	50/60	16/14 (~22)	2600/3000	106/123	3.03.2005	0.3/0.32	7.62/8.13	45	2/1



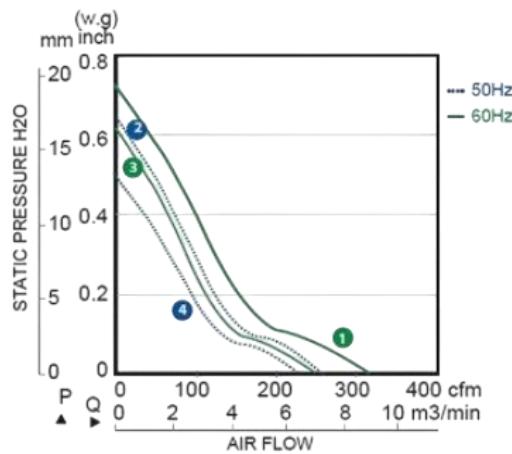
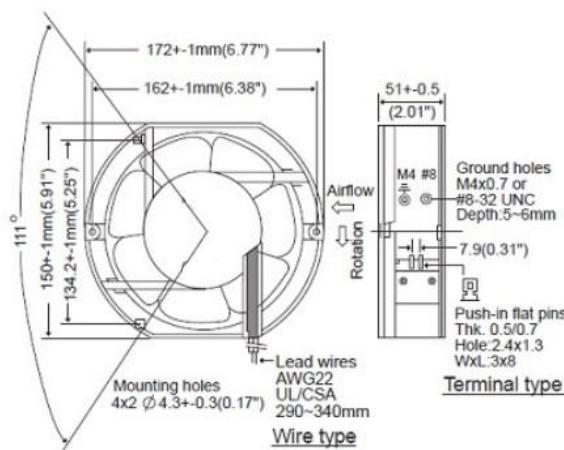
172x150x51

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Capacitor induction, Inner rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected, auto reset
<b>IP Protection:</b>	IP44
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin
<b>Weight:</b>	1100 g (2.42 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: alarm R/D, tachometer F/G
<b>Operating Temp:</b>	Ambient non-condensing -20~+70C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 100K hours at 35C, 50K hours at 60C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
					CFM	m3/min	Inch/H2O	mm		
VAC	VAC	Hz	Watt	RPM						
115	100~120	50/60	59/56	2800/3100	282/312	8.08.2008	0.65/0.75	16.51/19.05	60/63	2/1
115	100~120	50/60	22/20	2400/2700	242/272	6.9/7.7	0.53/0.62	13.46/15.75	53/55	4/3
230	200~240	50/60	59/56	2800/3100	282/312	8.08.2008	0.65/0.75	16.51/19.05	60/63	2/1
230	200~240	50/60	22/20	2400/2700	242/272	6.9/7.7	0.53/0.62	13.46/15.75	53/55	4/3
380	380~420	50/60	59/56	2800/3100	282/312	8.08.2008	0.64/0.73	16.26/18.54	60/63	2/1
440	440~480	50/60	59/56	2800/3100	282/312	8.08.2008	0.64/0.73	16.26/18.54	60/63	2/1
115	100~120	50/60	59/56	2800/3100	282/312	8.08.2008	0.65/0.75	16.51/19.05	60/63	2/1
230	200~240									



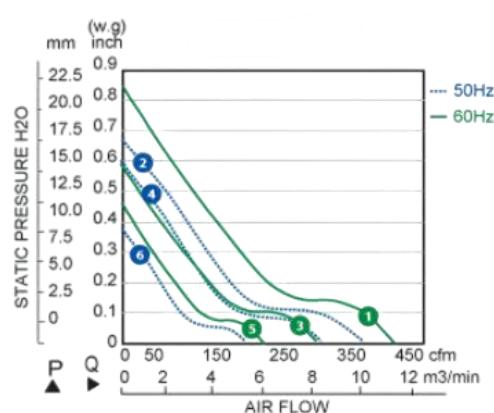
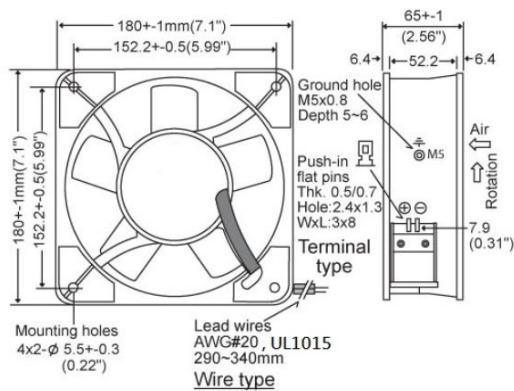
## 180x180x65

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Capacitor induction, inner rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected, auto cut-off, auto reset
<b>IP Protection:</b>	IP44
<b>Frame:</b>	Aluminum die cast, black(S180FAP)
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin
<b>Weight:</b>	1800 g (4.0 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional:alarm R/D, tachometer F/G
<b>Operating Temp:</b>	Ambient non-condensing -20~+70C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>115</b>	100~120	50/60	60/70	2800/3200	355/405	10.1/11.5	0.66/0.83	16.76/21.08	60	2/1
<b>115</b>	100~120	50/60	40/50	2400/2350	310/300	8.8/8.5	0.60/0.58	15.24/14.73	47	4/3
<b>115</b>	100~120	50/60	60/70	2800/3200	355/405	10.1/11.5	0.66/0.83	16.76/21.08	60	2/1
			40/50	2400/2350	310/300	8.8/8.5	0.60/0.58	15.24/14.73	47	4/3
<b>115</b>	100~120	50/60	40/50	2400/2350	310/300	8.8/8.5	0.60/0.58	15.24/14.73	47	4/3
			26/38	2000/1650	260/210	7.4/5.9	0.38/0.43	9.65/10.92	40	6/5
<b>230</b>	200~240	50/60	60/70	2800/3200	355/405	10.1/11.5	0.66/0.83	16.76/21.08	60	2/1
<b>230</b>	200~240	50/60	40/50	2400/2200	310/280	8.8/7.9	0.60/0.56	15.24/14.22	47	4/3
<b>230</b>	200~240	50/60	60/70	2800/3200	355/405	10.1/11.5	0.66/0.83	16.76/21.08	60	2/1
			40/50	2400/2200	310/290	8.8/8.2	0.60/0.58	15.24/14.73	47	4/3
<b>230</b>	200~240	50/60	40/50	2400/2350	310/300	8.8/8.5	0.60/0.58	15.24/14.73	47	4/3
			26/38	2000/1650	260/210	7.4/5.9	0.38/0.43	9.65/10.92	40	6/5
<b>380</b>	380~420	50/60	60/70	2750/3150	350/400	9.9/11.3	0.64/0.82	16.26/20.83	60	2/1
<b>115</b>	100~120	50/60	60/70	2750/3100	350/392	9.9/11.1	0.64/0.82	16.26/20.83	60	2/1
<b>230</b>	200~240									



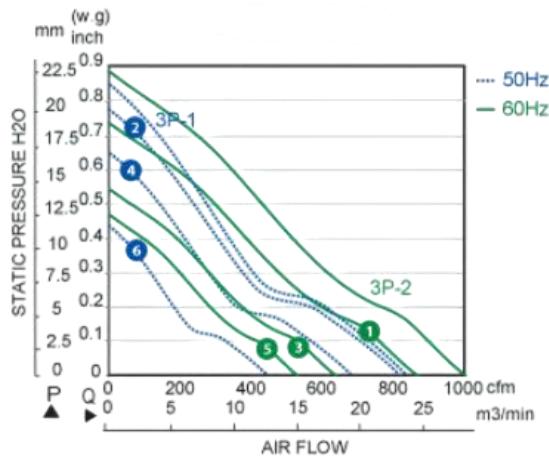
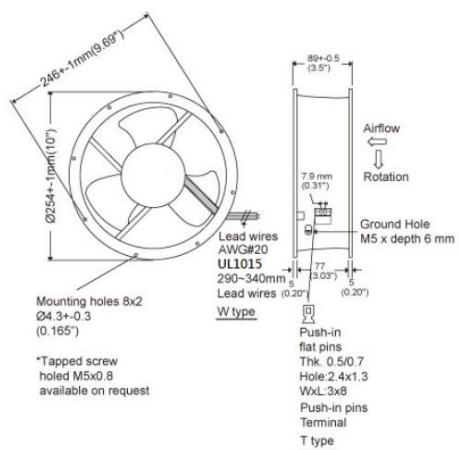
254x89

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Capacitor induction, inner rotor, 1-phase or 3-phase
<b>Burnout Protection:</b>	Thermally protected, auto cut-off, auto reset
<b>IP Protection:</b>	IP44
<b>Frame:</b>	Aluminum die cast, black color coating
<b>Impeller:</b>	3 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads-WB, or push-in terminal flat pins-TB
<b>Weight:</b>	2,460 g (5.4 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional:alarm R/D, tachometer F/G
<b>Operating Temp:</b>	Ambient non-condensing -20~+65 °C
<b>Storage Temp:</b>	-40 °C~+100 °C(at 65%RH)
<b>Life Expectancy:</b>	L10 80K hours at 35 °C, 30K hours at 60 °C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ				
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>115</b>	100~120	50/60	60/75	2600/2700	820/860	23.2/24.4		0.78/0.73		19.81/18.54	65	2/1		
<b>115</b>	100~120	50/60	45/55	2200/2000	690/640	19.5/18.1		0.65/0.54		16.51/13.72	51	4/3		
<b>115</b>	100~120	50/60	23/35	1450/1680	450/535	12.7/15.1		0.43/0.47		10.92/11.94	45	6/5		
<b>230</b>	200~240	50/60	60/75	2600/2700	820/860	23.2/24.4		0.78/0.73		19.81/18.54	65	2/1		
<b>230</b>	200~240	50/60	45/55	2200/2000	690/640	19.5/18.1		0.65/0.54		16.51/13.72	51	4/3		
<b>230</b>	200~240	50/60	23/35	1450/1680	450/535	12.7/15.1		0.43/0.47		10.92/11.94	45	6/5		
<b>380</b>	380~420	50/60	75/105	2600/2650	820/850	23.2/24.1		0.78/0.73		19.81/18.54	65	2/1		
<b>440</b>	440~480	50/60	75/105	2600/2650	820/850	23.2/24.1		0.78/0.73		19.81/18.54	65	2/1		



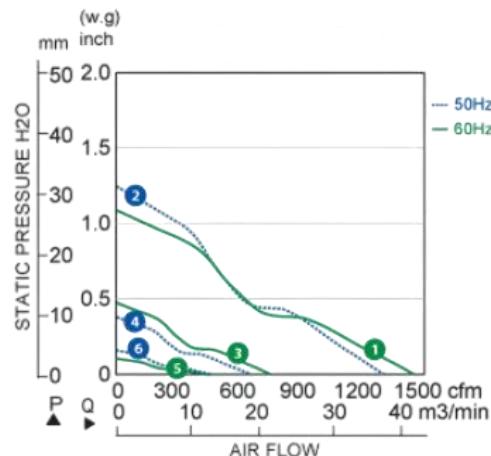
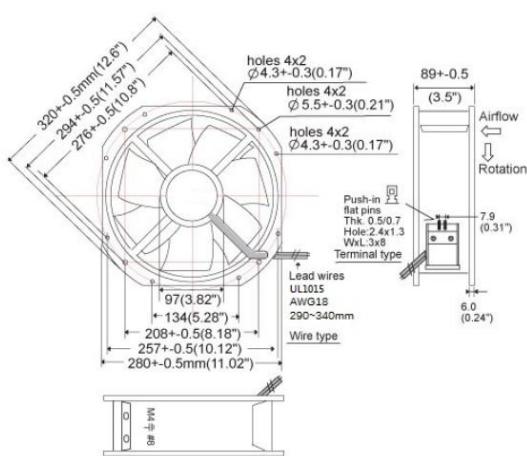
## 280x280x89

## AC AXIAL FANS WITH PLASTIC IMPELLER

<b>Motor Type:</b>	Capacitor induction, inner rotor, 1-phase
<b>Burnout Protection:</b>	Thermal protector, auto cut-off, auto reset
<b>IP Protection:</b>	IP44
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, or push-in terminal flat pins
<b>Weight:</b>	3,950g (8.7 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional:alarm R/D, tachometer F/G
<b>Operating Temp:</b>	Ambient non-condensing -20~+70C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 50K hours at 60C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ			
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm
<b>115</b>	100~120	50/60	181/28 6	2800/3200	1300/1450	36.8/41. 1	1.25/1.1	31.75/27.94	75	2/1			
<b>115</b>	100~120	50/60	58/55	1500/1700	650/750	18.4/21. 2	0.38/0.49	9.65/12.45	48	4/3			
<b>115</b>	100~120	50/60	32/37	1100/1000	465/450	13.2/12. 7	0.16/0.11	4.06/2.79	35	6/5			
<b>230</b>	200~240	50/60	181/28 6	2800/3200	1300/1450	36.8/41. 1	1.25/1.1	31.75/27.94	75	2/1			
<b>230</b>	200~240	50/60	58/55	1500/1700	650/750	18.4/21. 2	0.38/0.49	9.65/12.45	48	4/3			
<b>230</b>	200~240	50/60	32/37	1100/1000	465/450	13.2/12. 7	0.16/0.11	4.06/2.79	35	6/5			
<b>380</b>	380~420	50/60	90/140	2750/3000	1280/1360	36.2/38. 5	1.02/2.001	30.48/25.4	75	2/1			
<b>440</b>	440~480	50/60	90/140	2750/3000	1280/1360	36.2/38. 5	1.02/2.001	30.48/25.4	75	2/1			
<b>115</b>	100~120	50/60	181/28 6	2800/3200	1300/1450	36.8/41. 1	1.25/1.1	31.75/27.94	75	2/1			
<b>230</b>	200~240												



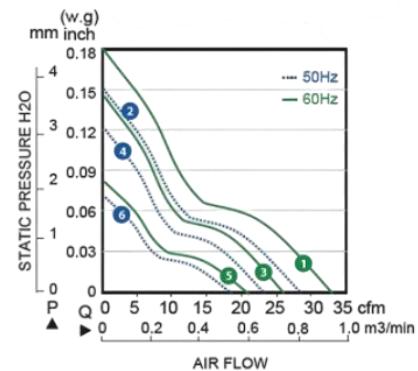
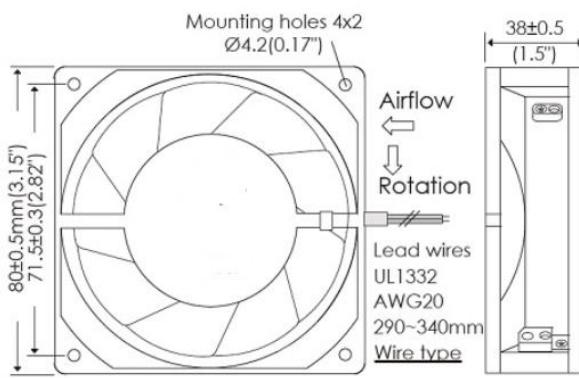
## 80x80x38

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, 1-phase, outer rotor</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP55</i>
<b>Frame:</b>	<i>Aluminum die cast, black color(AP)</i>
<b>Impeller:</b>	<i>9 blades, all metal</i>
<b>Bearing:</b>	<i>Two ball bearings</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire lead or Terminal flat pin connecting</i>
<b>Weight:</b>	<i>415g</i>
<b>Dielectric Strength:</b>	<i>Over 1 min, at 1,500VAC, 0.5mA, 50/60Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100MΩ at DC 500V</i>
<b>Signal Output:</b>	<i>Optional: RD Alarm output, FG Tachometer output</i>
<b>Operating Temp:</b>	<i>-30C~+80C</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>L10 50K hours at 55C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
					VAC	VAC	Hz	Watt	RPM	
115	100~120	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
115	100~120	50/60	12/10	2200/2500	23/26	0.7/0.7	0.12/0.14	3.05/3.56	30	4/3
230	200~240	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
230	200~240	50/60	12/10	2200/2500	23/26	0.7/0.7	0.12/0.14	3.05/3.56	30	4/3
115	100~120	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
230	200~240									
12	12~14	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
24	24~28	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
28	28~34	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
48	48~58	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
380	380~420	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1
440	440~480	50/60	15/13	2750/3200	28/33	0.8/0.9	0.15/0.18	3.81/4.57	35	2/1



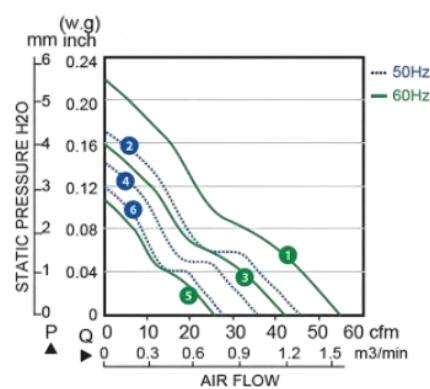
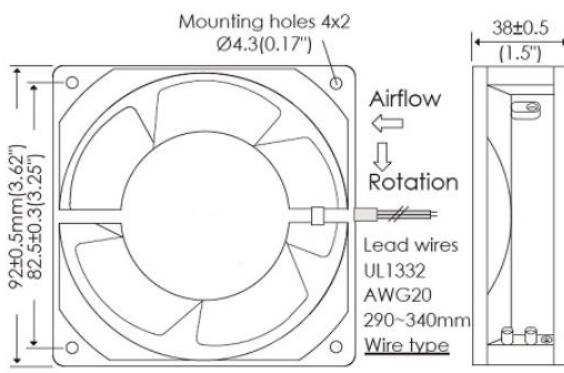
## 92x92x38

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, 1-phase, outer rotor</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP55</i>
<b>Frame:</b>	<i>Aluminum die cast, black color(AP)</i>
<b>Impeller:</b>	<i>5 blades, all metal</i>
<b>Bearing:</b>	<i>Two ball bearings</i>
<b>Rotation:</b>	<i>CCW seen on rotor</i>
<b>Connection:</b>	<i>Wire lead or Terminal flat pin connecting</i>
<b>Weight:</b>	<i>475g</i>
<b>Dielectric Strength:</b>	<i>Over 1 min, at 1,500VAC, 0.5mA, 50/60Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100MΩ at DC 500V</i>
<b>Signal Output:</b>	<i>Optional: RD Alarm output, FG Tachometer output</i>
<b>Operating Temp:</b>	<i>-30C~+80C</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>L10 50K hours at 55C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ				
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>115</b>	100~120	50/60	17/15	2800/3300	47/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>115</b>	100~120	50/60	13/11	2600/2800	43/47		1.2/1.3		0.14/0.16		3.56/4.06		33	4/3
<b>230</b>	200~240	50/60	17/15	2800/3300	47/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>230</b>	200~240	50/60	13/11	2600/2800	43/47		1.2/1.3		0.14/0.16		3.56/4.06		33	4/3
<b>115</b>	100~120	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>230</b>	200~240													
<b>12</b>	12~14	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>24</b>	24~28	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>28</b>	28~34	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>48</b>	48~58	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>380</b>	380~420	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1
<b>440</b>	440~480	50/60	17/15	2700/3150	45/55		1.3/1.6		0.17/0.22		4.32/5.59		40	2/1



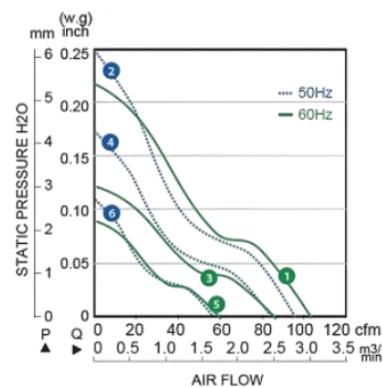
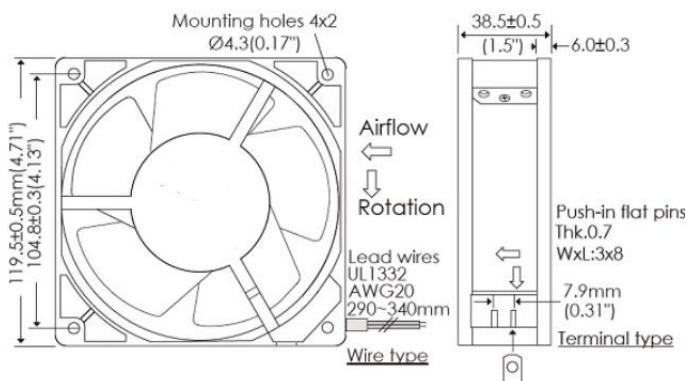
## 120x120x38

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	<i>Shaded pole induction, outer rotor, 1-phase</i>
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP55</i>
<b>Frame:</b>	<i>Aluminum die cast, black color(AP)</i>
<b>Impeller:</b>	<i>5 blades, all metal</i>
<b>Bearing:</b>	<i>Two ball bearings</i>
<b>Rotation:</b>	<i>CCW seen on rotor, air direction V, exhaust over struts</i>
<b>Connection:</b>	<i>Wire lead or terminal flat pin connecting</i>
<b>Weight:</b>	<i>566g</i>
<b>Dielectric Strength:</b>	<i>Over 1 min. at 1,500 VAC, 0.5mA, 50/60 Hz</i>
<b>Insulation Resistance:</b>	<i>Over 100 MΩ at DC 500V</i>
<b>Signal Output:</b>	<i>Optional: Tachometer output F/G</i>
<b>Operating Temp:</b>	<i>Ambient non-condensing -30~+80C</i>
<b>Storage Temp:</b>	<i>-40C~+100C (at 65%RH)</i>
<b>Life Expectancy:</b>	<i>L10 50K hours at 55C</i>



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ	
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min
<b>115</b>	100~120	50/60	21/20	2650/3100	90/105	2.05.2003	0.25/0.22	6.35/5.59	48	2/1	
<b>115</b>	100~120	50/60	14/13	2250/2500	75/83	2.1/2.4	0.17/0.12	4.32/3.05	43	4/3	
<b>115</b>	100~120	50/60	12/9	1800/2100	65/69	1.08.2002	0.11/0.09	2.79/2.29	32	6/5	
<b>115</b>	100~120	50/60	12/9	1600/1700	53/60	1.5/1.7	0.10/0.08	2.54/2.03	30	8/7	
<b>230</b>	200~240	50/60	21/9	2650/3100	90/105	2.05.2003	0.25/0.22	6.35/5.59	48	2/1	
<b>230</b>	200~240	50/60	14/13	2250/2500	75/83	2.1/2.4	0.17/0.12	4.32/3.05	43	4/3	
<b>230</b>	200~240	50/60	12/9	1800/2100	65/69	1.08.2002	0.11/0.09	2.79/2.29	32	6/5	
<b>230</b>	200~240	50/60	12/9	1600/1700	53/60	1.5/1.7	0.10/0.08	2.54/2.03	30	8/7	



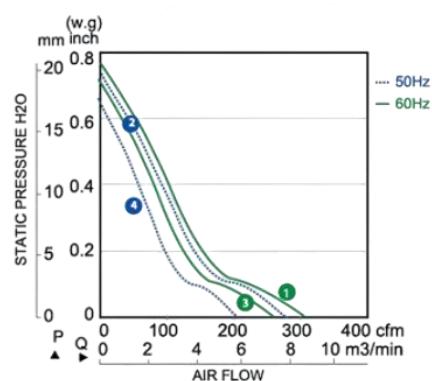
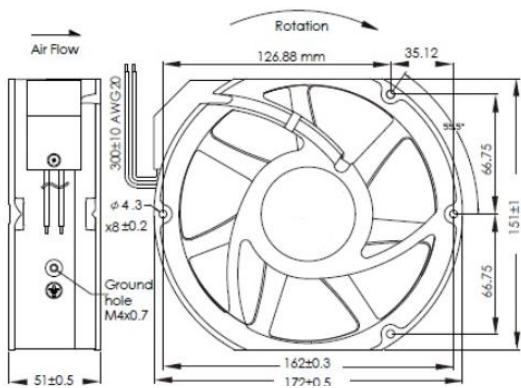
## 172x150x51

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Capacitor induction, inner rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP55
<b>Frame:</b>	Aluminum die-cast, black color treatment
<b>Impeller:</b>	All metal fan blades design
<b>Bearing:</b>	Two high precision permanently lubricated ball bearings
<b>Rotation:</b>	CCW looking at rotor, air inlet side of housing
<b>Connection:</b>	Wire leads or push-in terminal pin connecting for option
<b>Weight:</b>	800 g (1.32 Lbs)
<b>Dielectric Strength:</b>	Over 1 minute at 1,500 VAC, 0.5mA, 50/60 Hz
<b>Insulation Resistance:</b>	Over 100 Mega Ohm at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, tachometer output F/G
<b>Operating Temp:</b>	Ambient non-condensing -30C~+75C
<b>Storage Temp:</b>	-40~+100C (at 65%RH)
<b>Life Expectancy:</b>	MTBF Formula L10 indoor life test 120K hours at 35C, 45K hours at 60C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
					CFM	m3/min	Inch/H2O	mm		
<b>115</b>	100~120	50/60	47/42	2850/3300	280/310	7.9/8.8	0.69/0.74	17.53/18.8	61	2/1
<b>115</b>	100~120	50/60	35/32	2400/2500	230/240	6.5/6.8	0.63/0.65	16/16.51	52	4/3
<b>230</b>	200~240	50/60	47/42	2850/3300	280/310	7.9/8.8	0.69/0.74	17.53/18.8	61	2/1
<b>230</b>	200~240	50/60	35/32	2400/2500	230/240	6.5/6.8	0.63/0.65	16/16.51	52	4/3
<b>115</b>	100~120	50/60	47/42	2850/3300	280/310	7.9/8.8	0.69/0.74	17.53/18.8	61	2/1
<b>230</b>	200~240									
<b>115</b>	100~120	50/60	35/32	2400/2500	230/240	6.5/6.8	0.63/0.65	16/16.51	52	4/3
<b>230</b>	200~240									
<b>380</b>	380~420	50/60	47/42	2850/3300	280/310	7.9/8.8	0.69/0.74	17.53/18.8	61	2/1
<b>440</b>	440~480	50/60	47/42	2850/3300	280/310	7.9/8.8	0.69/0.74	17.53/18.8	61	2/1



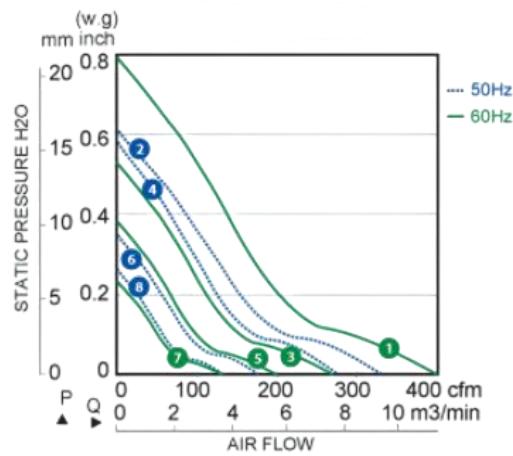
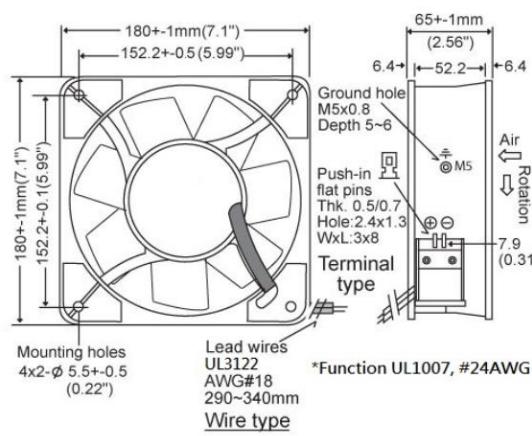
## 180x180x65

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP56, (IP68 Option)
<b>Frame:</b>	Aluminum die cast, natural color(AN)
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1800 g (3.96 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output F/G
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ				
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)
<b>100</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
<b>115</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
<b>115</b>	100~120	50/60	55/65	2300/2200	275/265	7.8/7.5		0.58/0.52		14.73/13.21	53	4/3		
<b>115</b>	100~120	50/60	20/30	1500/1600	185/200	5.2/5.7		0.35/0.38		8.89/9.65	42	6/5		
<b>115</b>	100~120	50/60	18/25	1100/1000	130/125	3.7/3.5		0.25/0.23		6.35/5.84	35	8/7		
<b>115</b>	100~120	50/60	3/4	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
			11/13	2300/2200	275/265	7.8/7.5		0.58/0.52		14.73/13.21	53	4/3		
<b>200</b>	200~240	50/60	60/80	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
<b>230</b>	200~240	50/60	60/80	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
<b>230</b>	200~240	50/60	55/65	2300/2200	275/265	7.8/7.5		0.58/0.52		14.73/13.21	53	4/3		
<b>230</b>	200~240	50/60	20/30	1500/1600	185/200	5.2/5.7		0.35/0.38		8.89/9.65	42	6/5		
<b>230</b>	200~240	50/60	18/25	1100/1000	130/125	3.7/3.5		0.25/0.23		6.35/5.84	35	8/7		
<b>230</b>	200~240	50/60	3/4	2750/3250	330/400	9.3/11.3		0.75/0.8		19.05/20.32	65	2/1		
			11/13	2300/2200	275/265	7.8/7.5		0.58/0.52		14.73/13.21	53	4/3		



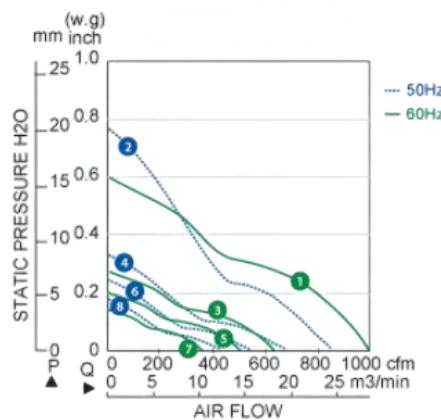
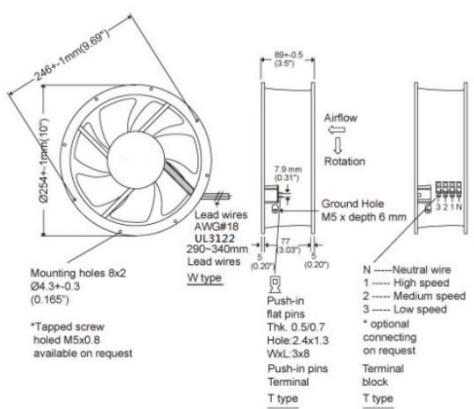
## 254x89

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP56, (IP68 Option)
<b>Frame:</b>	Aluminum die cast, natural color
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,550 g (5.6Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ	
					VAC	VAC	Hz	RPM	CFM	m3/min	Inch/H2O
<b>115</b>	100~120	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	
<b>115</b>	100~120	50/60	80/95	2300/2200	660/620	18.7/17.6	0.33/0.27	8.38/6.86	63	4/3	
<b>115</b>	100~120	50/60	32/40	1450/1700	485/570	13.7/16.1	0.25/0.20	6.35/5.08	46	6/5	
<b>115</b>	100~120	50/60	24/33	1200/1100	420/370	11.9/10.5	0.18/0.14	4.57/3.56	34	8/7	
<b>115</b>	100~120	50/60	19/21	2800/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	
			16/19	2300/2200	660/620	18.7/17.6	0.33/0.27	8.38/6.86	63	4/3	
<b>115</b>	100~120	50/60	4/5	1600/1500	560/500	15.9/14.2	0.25/0.20	6.35/5.08	46	6/5	
			8/11	1200/1100	420/370	11.9/10.5	0.18/0.14	4.57/3.56	34	8/7	
<b>230</b>	200~240	50/60	95/105	2750/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	
<b>230</b>	200~240	50/60	80/95	2300/2200	660/620	18.7/17.6	0.33/0.27	8.38/6.86	63	4/3	
<b>230</b>	200~240	50/60	32/40	1450/1700	485/570	13.7/16.1	0.25/0.20	6.35/5.08	46	6/5	
<b>230</b>	200~240	50/60	24/33	1200/1250	420/438	11.9/12.4	0.18/0.15	4.57/3.81	34	8/7	
<b>230</b>	200~240	50/60	19/21	2800/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	
			16/19	2400/2300	738/708	20.09/20.2 0	0.33/0.27	8.38/6.86	63	4/3	
<b>380</b>	380~420	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	
<b>440</b>	440~480	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60	19.81/15.2 4	70	2/1	



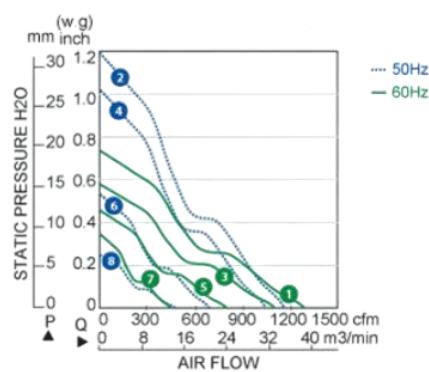
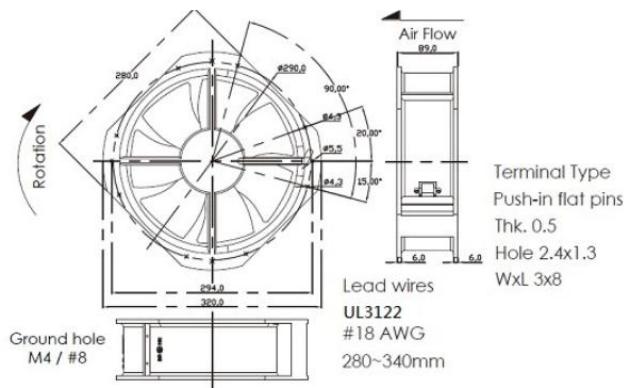
## 280x280x89

## AC AXIAL FANS WITH METAL IMPELLER

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP56, (IP68 Option)
<b>Frame:</b>	Aluminum die cast, natural color, or black
<b>Impeller:</b>	7 blades, all metal steel
<b>Bearing:</b>	Maintenance-free 2 ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin or Terminal block option
<b>Weight:</b>	3,400g (7.4 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 1mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C, 80K hours at 35C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>115</b>	100~120	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>115</b>	100~120	50/60	110/180	2400/2500	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
<b>115</b>	100~120	50/60	26/35	1200/1100	460/450	13.12.2007	0.25/0.35	6.35/8.89	34	8/7
<b>115</b>	100~120	50/60	155/210	2750/2900	1150/1250	32.6/35.4	1.2/0.75	30.48/19.05	73	2/1
			110/180	2400/2450	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
			26/35	1200/1100	460/450	13.12.2007	0.25/0.35	6.35/8.89	34	8/7
<b>230</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	110/180	2400/2500	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>230</b>	200~240	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
<b>230</b>	200~240	50/60	26/35	1200/1100	460/450	13.12.2007	0.35/0.25	8.89/6.35	34	8/7
<b>240</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	155/210	2750/2900	1150/1000	32.6/28.3	1.2/0.75	30.48/19.05	73	2/1
			110/180	2400/2300	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>230</b>	200~240	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
			26/35	1200/1100	460/450	13.12.2007	0.25/0.35	6.35/8.89	34	8/7



## HEAT RESISTANT AXIAL FANS



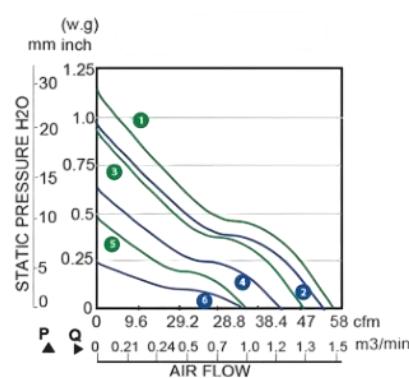
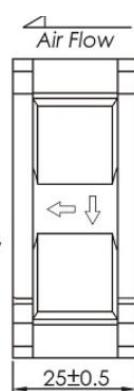
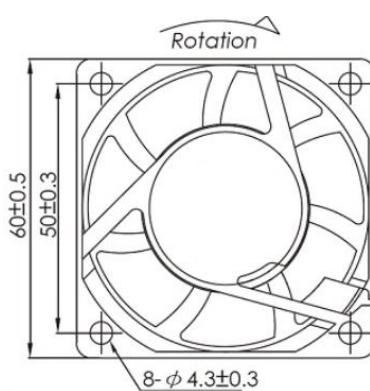
## 60x60x25

## DC AXIAL HEAT RESISTANT FANS

<b>Motor Type:</b>	DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP55,56,68 optional request
<b>Frame:</b>	Aluminum die cast, Natural color
<b>Impeller:</b>	7 blades, glass fiber reinforced thermoplastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	96g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-10C~+100C
<b>Storage Temp:</b>	-40C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					VDC	VDC	m3/min	Inch/H2O	mm	db(A)
<b>12</b>	7~13.2	14.4	1.2	9800	57	1.6	Oca.17	29.72	66	1
<b>12</b>	7~13.2	9	0.75	8200	54	1.5	0.94	23.88	65	2
<b>12</b>	7~13.2	7.2	0.6	7500	49	1.4	0.787	19.99	63	3
<b>12</b>	7~13.2	6	0.5	6800	45	1.3	0.559	14.2	56	4
<b>12</b>	7~13.2	4.8	0.4	6000	40	1.1	0.433	11	53	5
<b>12</b>	7~13.2	2.4	0.2	5000	35	1	0.25	6.35	40	6
<b>24</b>	14~26.4	8.4	0.35	8200	54	1.5	0.94	23.88	65	2
<b>24</b>	14~26.4	7.2	0.3	7500	49	1.4	0.787	19.99	63	3
<b>24</b>	14~26.4	6	0.25	6800	45	1.3	0.559	14.2	56	4
<b>24</b>	14~26.4	4.8	0.2	6000	40	1.1	0.433	11	53	5
<b>24</b>	14~26.4	3.6	0.15	5000	35	1	0.25	Haz.35	40	6



## 120x120x38

## DC AXIAL HEAT RESISTANT FANS

**Motor Type:** Brushless DC Motor, auto cutoff, auto restart

**Burnout Protection:** Electronically protected, polarity protected

**IP Protection:** IP55,56,68 optional request

**Frame:** Glass fiber reinforced thermoplastic, rated UL94V-0

**Impeller:** 7 blades, glass fiber reinforced plastic, rated UL94V-0

**Bearing:** Two ball bearings

**Rotation:** CCW seen on rotor

**Connection:** Wire lead

**Weight:** 320g

**Dielectric Strength:** 500 VAC/min. Max leakage 500mA

**Speed Control:** Optional: PWM, S/C NTC thermister

**Signal Output:** Optional: RD Rotation Detactor, FG Frequency Generator

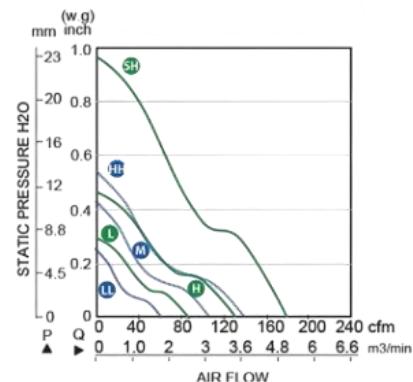
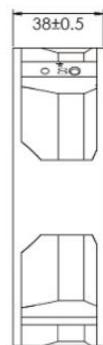
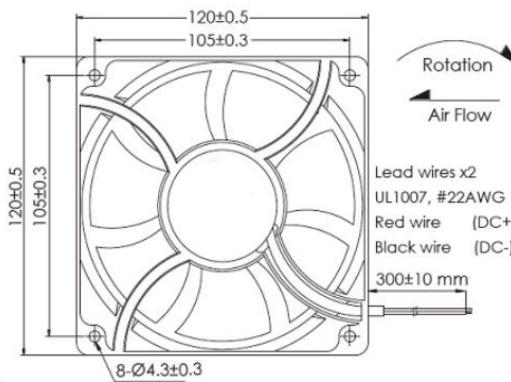
**Operating Temp:** -10C~+100C

**Storage Temp:** -40C~+75C (at 65%RH)

**Life Expectancy:** L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	8~13.8	10.6 (~17)	0.88 (~1.43)	4200	180	5.1	0.98	24.89	54	SH
<b>12</b>	8~13.8	8.4 (~10)	0.7 (~0.9)	3200	136	3.9	0.56	14.22	48	HH
<b>12</b>	8~13.8	6.0	0.50	2900	124	3.5	0.47	11.94	44	H
<b>12</b>	8~13.8	4.8	0.40	2600	115	3.3	0.43	10.92	41	M
<b>12</b>	8~13.8	2.4	0.2	2000	90	2.5	0.32	8.13	35	L
<b>12</b>	8~13.8	2.4	0.2	1500	68	1.9	0.24	6.1	28	LL
<b>24</b>	15~26	10.3 (~22)	0.43 (~0.9)	4200	180	5.5	0.98	24.89	54	SH
<b>24</b>	15~26	8.4 (~11)	0.35 (~0.48)	3200	136	3.9	0.56	14.22	48	HH
<b>24</b>	15~26	5.5 (~12)	0.23 (~0.5)	2900	124	3.5	0.47	11.94	44	H
<b>24</b>	18~27	4.6 (~8)	0.19 (~0.34)	2600	115	3.3	0.43	10.92	41	M
<b>24</b>	18~27.6	3.6	0.15	2000	90	2.5	0.32	8.13	35	L
<b>24</b>	18~27.6	3.6	0.15	1500	68	1.9	0.24	6.1	28	LL
<b>48</b>	28~55	10.6 (~20)	0.22 (~0.41)	4200	180	5.1	0.98	24.89	54	SH
<b>48</b>	28~55	7.7 (~15)	0.16 (~0.3)	3200	136	3.9	0.56	14.22	48	HH
<b>48</b>	28~55	5.0 (~14)	0.10 (~0.29)	2900	124	3.5	0.47	11.94	44	H
<b>48</b>	28~55.2	3.8 (~7)	0.08 (~0.14)	2600	115	3.3	0.43	10.92	41	M
<b>48</b>	30~56	3.4	0.07	2000	90	2.5	0.32	8.13	35	L
<b>48</b>	30~56	3.4	0.07	1500	68	1.9	0.24	6.1	28	LL

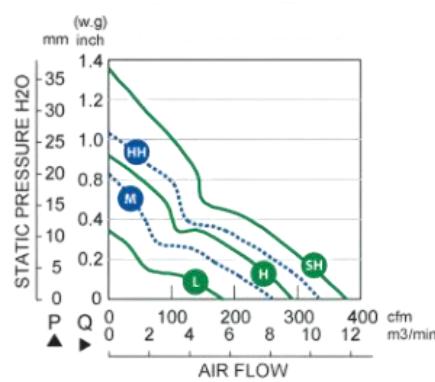
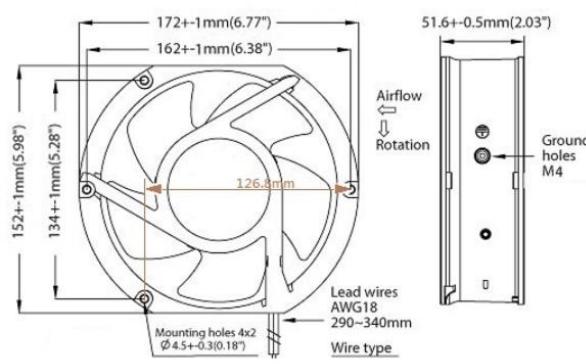


**172x150x51**
**DC AXIAL HEAT RESISTANT FANS**

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP55,56,68 optional request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	610g (1.3Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 500mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-10C~+100C
<b>Storage Temp:</b>	-40C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
					RPM	CFM	m3/min	Inch/H2O		
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	8~13.8	23	1.9	4000	291	8.2	0.91	23.11	61.5	H
<b>12</b>	8~13.8	13.2	1.1	3500	263	7.4	0.82	20.83	57	M
<b>12</b>	8~13.8	5.5	0.45	2500	187	5.3	0.35	8.89	52	L
<b>24</b>	15~27	63.6	2.65	5200	378	10.7	1.36	34.54	68	SH
<b>24</b>	15~27	50.4	2.1	4400	323	9.1	1.06	26.92	63.5	HH
<b>24</b>	15~27.6	24 (~31.2)	0.97 (~1.3)	4000	291	8.2	0.91	23.11	61.5	H
<b>24</b>	17~27.6	13 (~19.2)	0.52 (~0.8)	3500	263	7.4	0.82	20.83	57	M
<b>24</b>	17~28	5	0.20	2500	187	5.3	0.35	8.89	52	L
<b>48</b>	22~53	62.4	1.3	5200	378	10.7	1.36	34.54	68	SH
<b>48</b>	22~53	49.4	1.3	4400	323	9.1	1.06	26.92	63.5	HH
<b>48</b>	22~56	23.5	0.48	4000	291	8.2	0.91	23.Kas	61.5	H
<b>48</b>	24~58	14.5	0.30	3500	263	7.4	0.82	20.83	57	M
<b>48</b>	24~63	5.8	0.12	2500	187	5.3	0.35	8.89	52	L



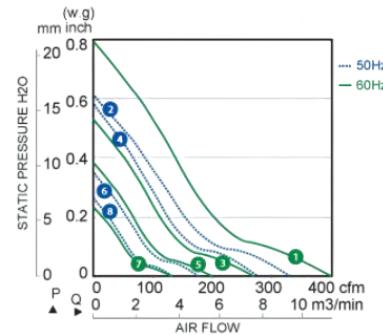
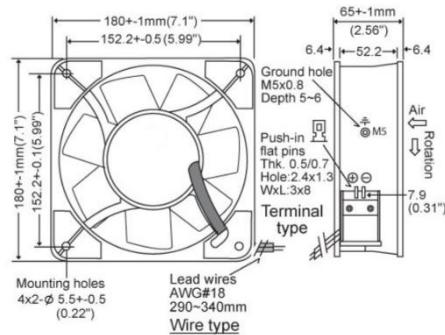
## 180x180x89

## AC AXIAL HEAT RESISTANT FANS

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermal protector
<b>IP Protection:</b>	IP56, IP68
<b>Frame:</b>	Aluminum die cast, natural color(AN)
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1800 g (3.96 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional:R/D alarm output, tachometer output F/G
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>100</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8	19.05/20.32	65	2/1
<b>115</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	65	2/1
<b>115</b>	100~120	50/60	55/65	2300/2200	275/265	7.8/7.5	0.58/0.52	14.73/13.21	53	4/3
<b>115</b>	100~120	50/60	20/30	1500/1600	185/200	5.2/5.7	0.35/0.38	8.89/9.65	42	6/5
<b>115</b>	100~120	50/60	18/25	1100/1000	130/125	3.7/3.5	0.25/0.23	6.35/5.84	35	8/7
<b>115</b>	100~120	50/60	3/4	2750/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	65	2/1
			11/13	2300/2200	275/265	7.8/7.5	0.58/0.52	14.73/13.21	53	4/3
<b>115</b>	100~120	50/60	2/3	1500/1600	185/200	5.2/5.7	0.35/0.38	8.89/9.65	42	6/5
			18/25	1100/1000	130/125	3.7/3.5	0.25/0.23	6.35/5.84	35	8/7
<b>230</b>	200~240	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8	19.05/20.32	65	2/1
<b>230</b>	200~240	50/60	55/65	2300/2200	275/265	7.8/7.5	0.58/0.52	14.73/13.21	53	4/3
<b>230</b>	200~240	50/60	20/30	1500/1600	185/200	5.2/5.7	0.35/0.38	8.89/9.65	42	6/5
<b>230</b>	200~240	50/60	18/25	1100/1000	130/125	3.7/3.5	0.25/0.23	6.35/5.84	35	8/7
<b>230</b>	200~240	50/60	3/4	2750/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	65	2/1
			11/13	2300/2200	275/265	7.8/7.5	0.58/0.52	14.73/13.21	53	4/3
<b>115</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	65	2/1
<b>/230</b>	200~240									
<b>380</b>	380~440	50/60	60/80	2800/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	64	2/1
<b>440</b>	380~440(~480)	50/60	60/80	2800/3250	330/400	9.3/11.3	0.6/0.8	15.24/20.32	64	2/1

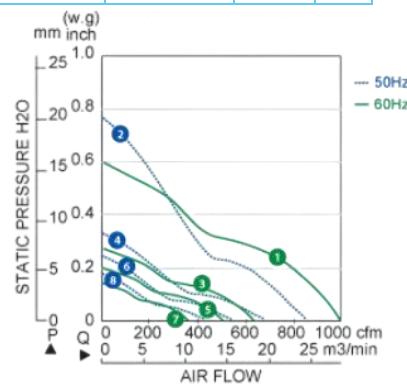
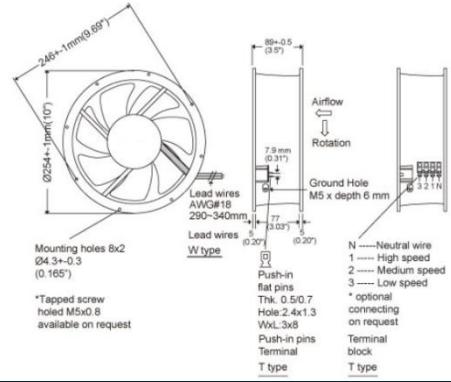


**254x89****AC AXIAL HEAT RESISTANT FANS**

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP56, IP68
<b>Frame:</b>	Aluminum die cast, natural color
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,550 g (5.6Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 0.5mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ		
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O
<b>115</b>	100~120	50/60	95/105	2800/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1
<b>115</b>	100~120	50/60	80/95	2300/2200	660/620		18.7/17.6	0.33/0.27		8.38/6.86	63	4/3
<b>115</b>	100~120	50/60	32/40	1450/1700	485/570		13.7/16.1	0.25/0.20		6.35/5.08	46	6/5
<b>115</b>	100~120	50/60	24/33	1200/1100	420/370		11.9/10.5	0.18/0.14		4.57/3.56	34	8/7
<b>115</b>	100~120	50/60	19/21	2800/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1
			16/19	2300/2200	660/620		18.7/17.6	0.33/0.27		8.38/6.86	63	4/3
<b>115</b>	100~120	50/60	4/5	1600/1500	560/500		15.9/14.2	0.25/0.20		6.35/5.08	46	6/5
			8/11	1200/1100	420/370		11.9/10.5	0.18/0.14		4.57/3.56	34	8/7
<b>230</b>	200~240	50/60	95/105	2750/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1
<b>230</b>	200~240	50/60	80/95	2300/2200	660/620		18.7/17.6	0.33/0.27		8.38/6.86	63	4/3
<b>230</b>	200~240	50/60	32/40	1450/1700	485/570		13.7/16.1	0.25/0.20		6.35/5.08	46	6/5
<b>230</b>	200~240	50/60	24/33	1200/1100	420/370		11.9/10.5	0.18/0.14		4.57/3.56	34	8/7
<b>230</b>	200~240	50/60	19/21	2800/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1
			16/19	2400/2300	738/708		20.09/20.20	0.33/0.27		8.38/6.86	63	4/3
<b>230</b>	200~240	50/60	4/5	1600/1500	560/500		15.9/14.2	0.25/0.20		6.35/5.08	46	6/5
			8/11	1200/1100	420/370		11.9/10.5	0.18/0.14		4.57/3.56	34	8/7
<b>115</b>	100~120	50/60	95/105	2750/3250	840/1000		23.8/28.3	1.05/1.15		26.67/29.21	70	2/1
<b>230</b>	200~240											
<b>380</b>	380~420	50/60	95/105	2800/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1
<b>440</b>	440~480	50/60	95/105	2800/3250	840/1000		23.8/28.3	0.78/0.60		19.81/15.24	70	2/1



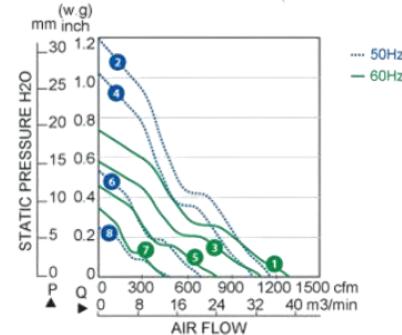
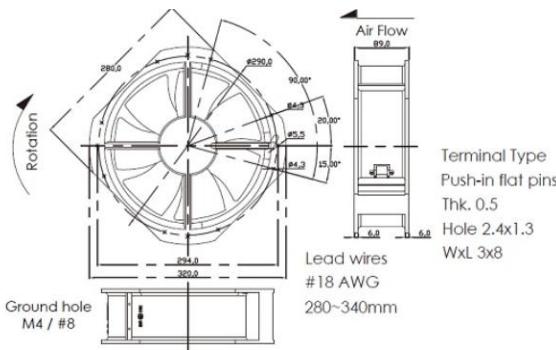
## 280x280x89

## AC AXIAL HEAT RESISTANT FANS

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermal protector
<b>IP Protection:</b>	IP56, IP68
<b>Frame:</b>	Aluminum die cast, natural color, or black
<b>Impeller:</b>	7 blades, all metal steel
<b>Bearing:</b>	Maintenance-free 2 ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin or Terminal block option
<b>Weight:</b>	3,400g (7.4 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 1mA, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C, 80K hours at 35C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ	
					VAC	VAC	Hz	Watt	RPM		
<b>115</b>	100~120	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1
<b>115</b>	100~120	50/60	110/180	2400/2500	1000/1050	28.3/29.7		1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4		0.53/0.45	13.46/11.43	46	6/5
<b>115</b>	100~120	50/60	26/35	1200/1100	460/450	13.12.2007		0.25/0.35	6.35/8.89	34	8/7
<b>115</b>	100~120	50/60	31/42	2750/2900	1150/1250	32.6/35.4		1.2/0.75	30.48/19.05	73	2/1
			11/18	2400/2450	1000/1050	28.3/29.7		1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4		0.53/0.45	13.46/11.43	46	6/5
			26/35	1200/1100	460/450	13.12.2007		0.25/0.35	6.35/8.89	34	8/7
<b>230</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	110/180	2400/2500	1000/1050	28.3/29.7		1.02/0.59	25.91/14.99	62	4/3
<b>230</b>	200~240	50/60	32/43	1500/1600	620/650	17.6/18.4		0.53/0.45	13.46/11.43	46	6/5
<b>230</b>	200~240	50/60	26/35	1200/1100	460/450	13.12.2007		0.35/0.25	8.89/6.35	34	8/7
<b>240</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	31/42	2750/2900	1150/1000	32.6/28.3		1.2/0.75	30.48/19.05	73	2/1
			11/18	2400/2300	1000/1050	28.3/29.7		1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	155/210	2800/3000	1150/1250	32.6/35.4		1.2/0.68	30.48/17.27	73	2/1
/230	200~240										
<b>48</b>	48~58	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1
<b>380</b>	380~420	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1
<b>440</b>	440~480	50/60	155/210	2800/3200	1150/1300	32.6/36.8		1.2/0.75	30.48/19.05	73	2/1



## IP68/69K AXIAL FANS



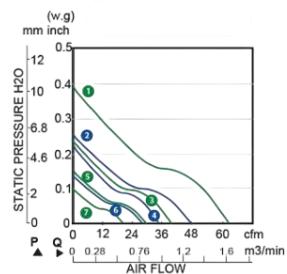
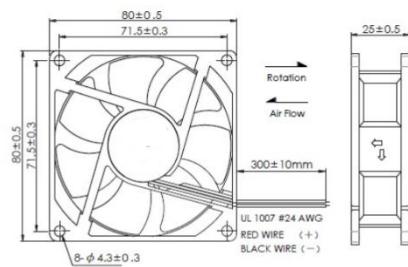
## 80x80x25

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff auto restart optional only
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	78g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 500mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
5	4~6	1.4	0.28	3200	40	1.1	0.23	5.84	33	HH
5	4~7	1.4	0.28	2800	35	1	0.22	5.59	32	H
5	4~7	1.0	0.20	2200	30	0.8	0.15	3.81	27	M
5	4~7	0.8	0.15	1800	22	0.6	0.10	2.54	21	L
12	8~13.8	2.2 (~6.2)	0.18 (~0.52)	5000	64	1.8	0.4	10.16	42	-
12	8~13.8	2.2	0.18	3800	48	1.4	0.26	6.6	35	HH
12	8~13.8	2.2	0.18	3300	40	1.1	0.23	5.84	33	H
12	8~14	1.8	0.15	2700	32	0.9	0.16	4.06	28	M
12	8~14	1.4	0.12	2000	22	0.6	0.10	2.54	21	L
24	12~27.6	2.9 (~6)	0.12 (~0.25)	5000	64	1.8	0.4	10.16	42	-
24	12~27.6	2.9 (~4.8)	0.12 (~0.2)	3800	48	1.4	0.26	6.6	35	HH
24	12~27.6	2.9	0.12	3300	40	1.1	0.23	5.84	33	H
24	12~27.6	2.4	0.10	2700	32	0.9	0.16	4.06	28	M
24	12~28	2.0	0.08	2000	22	0.6	0.10	2.54	21	L
48	34~56	4.3	0.09	5000	64	1.8	0.4	10.16	42	-
48	34~56	3.8	0.08	3800	48	1.4	0.26	6.6	35	HH
48	34~56	3.4	0.07	3300	40	1.1	0.23	5.84	33	H
48	34~56	2.4	0.05	2700	32	0.9	0.16	4.06	28	M



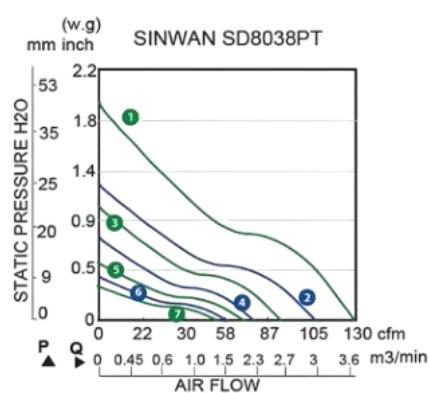
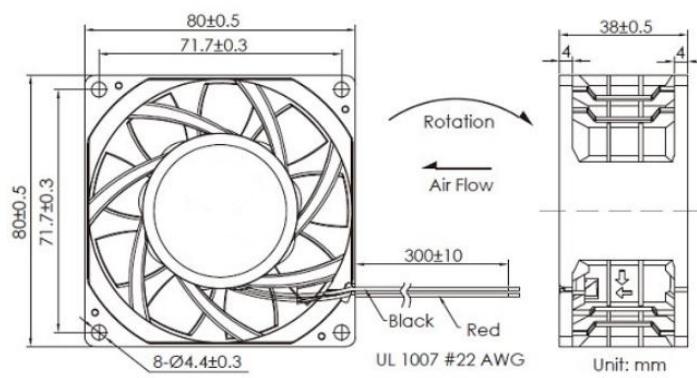
## 80x80x38

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	9 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	210g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG Tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
12	7~13.2	42	3,5	9000	132	3.7	2	50.8	66	1
12	7~13.2	24	2	7500	107	3	1.36	34.54	62	2
12	7~13.2	15	1.25	6500	93	2.6	1.0	25.4	59	3
12	7~13.2	10.8	0.9	5800	82	2.3	0.78	19.81	52	4
12	7~13.2	7.2	0.6	5000	71	2	0.58	14.73	49	5
12	7~13.2	4.8	0.4	4200	60	1.7	0.41	10.41	45	6
12	7~13.2	3.6	0.3	3500	50	1.4	0.28	7.11	41	7
24	14~26.4	45.6	1.9	9000	132	3.7	2	50.8	66	1
24	14~26.4	21.6	0.9	7500	107	3	1.36	34.54	62	2
24	14~26.4	14.4	0.6	6500	93	2.6	1.0	25.4	59	3
24	14~26.4	10.8	0.45	5800	82	2.3	0.78	19.81	52	4
24	14~26.4	7.2	0.3	5000	71	2	0.58	14.73	49	5
24	14~26.4	6.0	0.25	4200	60	1.7	0.41	10.41	45	6
24	14~26.4	4.8	0.2	3500	50	1.4	0.28	7.11	41	7
48	28~56	43.2	0.9	9000	132	3.7	2	50.8	66	1



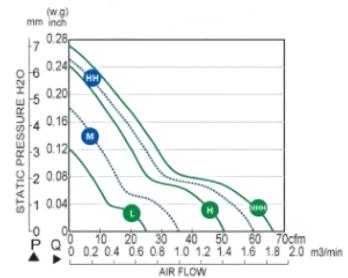
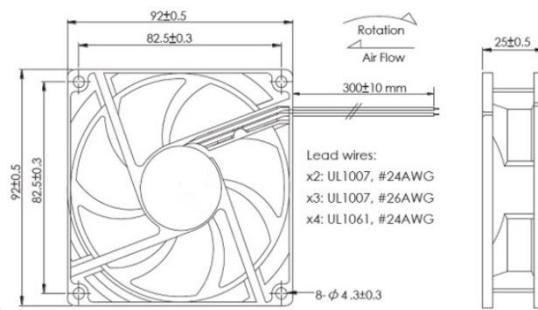
## 92x92x25

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	80g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 500mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister on request
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
<b>VDC</b>	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>5</b>	4~7	1.5	0.32	2400	35	1	0.22	5.59	33	H
<b>5</b>	4~7	1.3	0.25	2100	32	0.9	0.15	3.81	27	M
<b>5</b>	4~7	0.9	0.18	1600	25	0.7	0.12	3.05	23	L
<b>12</b>	7~13.6	3.0	0.29	3600	66	1.9	0.27	6.86	43	HHH
<b>12</b>	7~13.6	3.0	0.29	3300	60	1.7	0.25	6.35	38	HH
<b>12</b>	7~13.6	3.0	0.29	2900	50	1.4	0.24	6.1	35	H
<b>12</b>	7~13.6	2.1	0.20	2500	35	1	0.18	4.57	30	M
<b>12</b>	7~13.6	1.4	0.12	1800	25	0.7	0.12	3.05	23	L
<b>24</b>	12~27	3.5	0.18	3600	66	1.9	0.27	6.86	43	HHH
<b>24</b>	12~27	3.5	0.18	3300	60	1.7	0.25	6.35	38	HH
<b>24</b>	12~27	3.5	0.18	2900	50	1.4	0.24	6.1	33	H
<b>24</b>	12~27	2.8	0.12	2500	35	1	0.18	4.57	30	M
<b>24</b>	12~27	2.4	0.10	1800	25	0.7	0.12	3.05	23	L
<b>48</b>	28~55	4.3	0.09	3600	66	1.9	0.27	6.86	43	HHH
<b>48</b>	28~55	4.3	0.09	3300	60	1.7	0.25	6.35	38	HH
<b>48</b>	28~55	4.3	0.09	2900	50	1.4	0.24	6.1	32	H
<b>48</b>	32~56	2.4	0.05	2500	35	1	0.18	4.57	30	M
<b>48</b>	32~56	1.9	0.04	2100	32	0.9	0.15	3.81	27	L



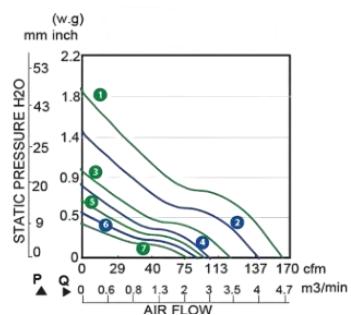
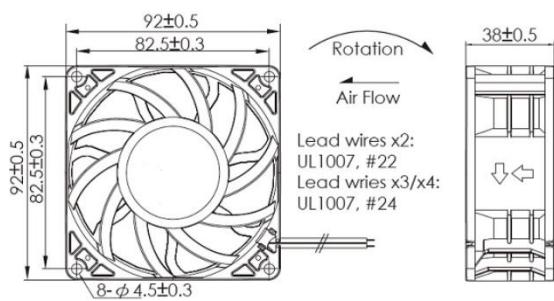
## 92x92x38

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	200g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow	Max.Static Pressure	Noise Level	PQ Curves		
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	7~13.2	42	3.5	8000	168	4.8	1.9	48.26	72	1
<b>12</b>	7~13.2	36	3.0	7000	147	4.2	1.46	37.08	67	2
<b>12</b>	7~13.2	24	2.0	6000	125	3.5	1.12	28.45	64	3
<b>12</b>	7~13.2	18	1.5	5000	110	3.1	0.86	21.84	58	4
<b>12</b>	7~13.2	12	1.0	4500	100	2.8	0.7	17.78	56	5
<b>12</b>	7~13.2	9.6	0.8	4000	89	2.5	0.55	13.97	53	6
<b>12</b>	7~13.2	7.2	0.6	3500	78	2.2	0.42	10.67	50	7
<b>24</b>	14~26.4	39.6	1.65	8000	168	4.8	1.9	48.26	72	1
<b>24</b>	14~26.4	26.4	1.1	7000	147	4.2	1.46	37.08	67	2
<b>24</b>	14~26.4	21.6	0.9	6000	125	3.5	1.12	28.45	64	3
<b>24</b>	14~26.4	10.8	0.45	5000	110	3.1	0.86	21.84	58	4
<b>24</b>	14~26.4	9.6	0.4	4500	100	2.8	0.7	17.78	56	5
<b>24</b>	14~26.4	7.2	0.3	4000	89	2.5	0.55	13.97	53	6
<b>24</b>	14~26.4	4.8	0.2	3500	78	2.2	0.42	10.67	50	7
<b>48</b>	28~56	43.2	0.9	8000	168	4.8	1.9	48.26	72	1
<b>48</b>	28~56	28.8	0.6	7000	147	4.2	1.46	37.08	67	2
<b>48</b>	28~56	19.2	0.4	6000	125	3.5	1.12	28.45	64	3
<b>48</b>	28~56	14.4	0.3	5000	110	3.1	0.86	21.84	58	4
<b>48</b>	28~56	12	0.25	4500	100	2.8	0.7	17.78	56	5
<b>48</b>	28~56	9.6	0.2	4000	89	2.5	0.55	13.97	53	6
<b>48</b>	28~56	7.2	0.15	3500	78	2.2	0.42	10.67	50	7



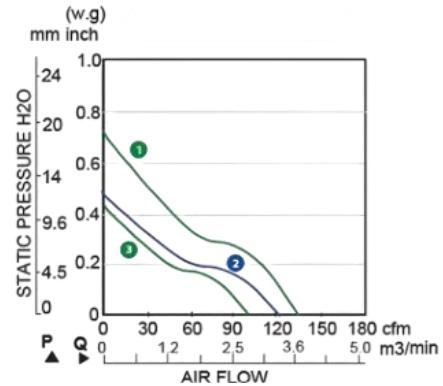
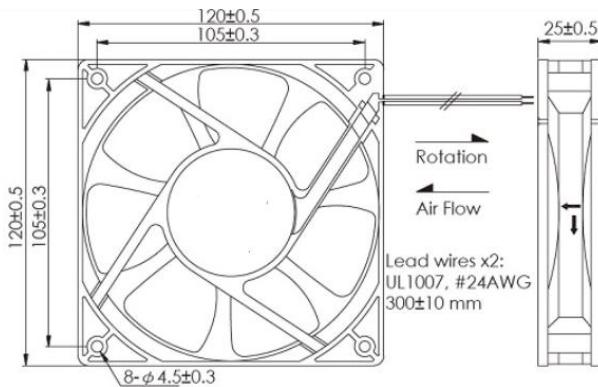
## 120x120x25

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	7 blades, glass fiber reinforced thermoplastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	155g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
24	14~26.4	20.4	0.85	5000	135	3.8	0.75	19.05	55	1
24	14~26.4	15.6	0.65	4000	121	3.4	0.51	12.95	52	2
24	14~26.4	10.8	0.45	3500	107	3	0.42	10.67	48	3
48	28~56	31.2	0.65	5000	135	3.8	0.75	19.05	55	1
48	28~56	24	0.5	4000	121	3.4	0.51	12.95	52	2
48	28~56	16.8	0.35	3500	107	3	0.42	10.67	48	3



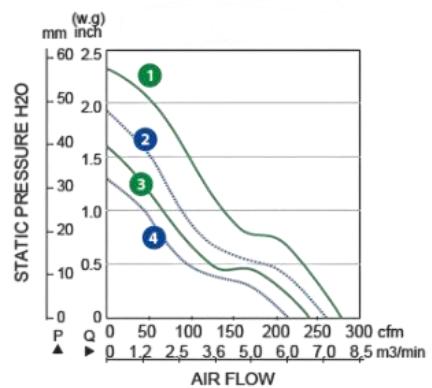
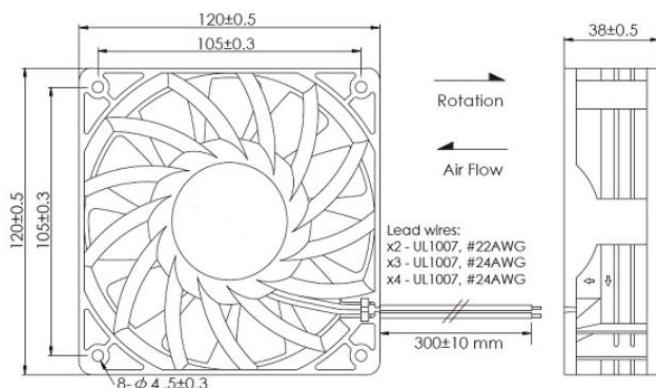
## 120x120x38

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Glass fiber reinforced thermoplastic, rated UL94V-0
<b>Impeller:</b>	11 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	315g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
12	8~13.8	45.6	3.8	5000	236	6.7	1.6	40.64	60	3
12	8~13.8	33.6	2.8	4500	215	6.1	1.3	33.02	58	4
24	14~26.4	58.8	2.45	5500	260	7.4	1.9	48.26	62	2
24	14~26.4	45.6	1.9	5000	236	6.7	1.6	40.64	60	3
24	14~26.4	33.6	1.4	4500	215	6.1	1.3	33.02	58	4
48	28~56	76.8	1.6	6000	285	8.1	2.3	58.42	64	1
48	28~56	55.2	1.15	5500	260	7.4	1.9	48.26	62	2
48	28~56	43.2	0.9	5000	236	6.7	1.6	40.64	60	3
48	28~56	33.6	0.7	4500	215	6.1	1.3	33.02	58	4



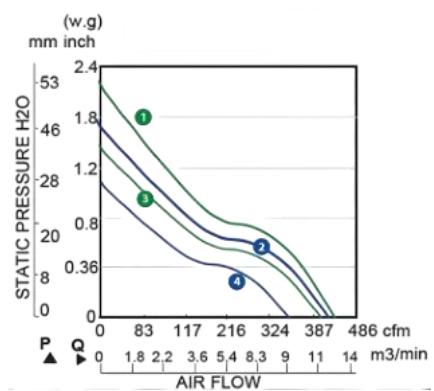
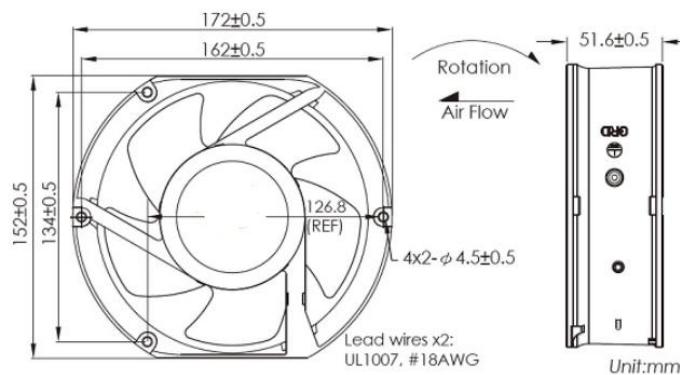
## 172x150x51

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor
<b>Burnout Protection:</b>	Electronically protected, Polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	610g
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 5mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves		
					VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm
<b>24</b>	14~26.4	78	3.25	5500	400	11.3		1.52		38.61	69	3
<b>24</b>	14~26.4	43.2	1.8	4500	330	9.3		1.11		28.19	64	4
<b>48</b>	28~56	124.8	2.6	6500	472	13.4		2.12		53.85	73	1
<b>48</b>	28~56	96	2	6000	436	12.3		1.8		45.72	71	2
<b>48</b>	28~56	69.6	1.45	5500	400	11.3		1.52		38.61	69	3
<b>48</b>	28~56	40.8	0.85	4500	330	9.3		1.11		28.19	64	4



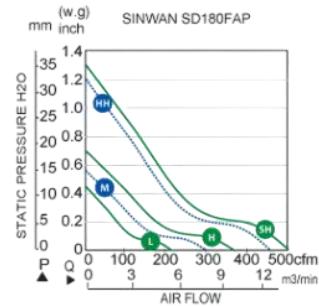
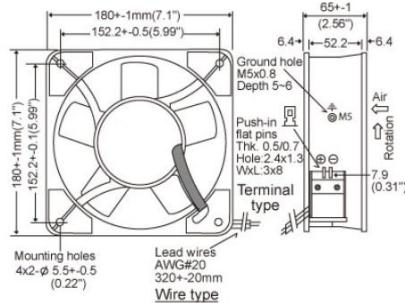
## 180x180x65

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	5 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1450g (3.2Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 500mA
<b>Speed Control:</b>	Optional: PWM, S/C NTC thermister
<b>Signal Output:</b>	Optional: RD alarm output, FG tachometer output
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow	Max.Static Pressure	Noise Level	PQ Curves		
VDC	VDC	Watt	Amp	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>12</b>	9~13.8	64.8	5.4	3700	490	13.9	1.25	31.75	68	SH
<b>12</b>	9~13.8	50.4	4.2	3400	460	13	1.1	27.94	63	HH
<b>12</b>	9~13.8	23	1.9	2800	375	10.6	0.7	17.78	53	H
<b>12</b>	10~14	13.2(~18)	1.1(~1.5)	2200	300	8.5	0.58	14.73	46	M
<b>12</b>	10~14	5.5	0.45	1500	215	6.1	0.42	10.67	36	L
<b>24</b>	12~27.6	63.6	2.65	3800	500	14.2	1.3	33.02	69	SH
<b>24</b>	12~27.6	50.4(~60)	2.1(~2.5)	3500	470	13.3	1.2	30.48	65	HH
<b>24</b>	12~27.6	24(~27.6)	0.97(~1.15)	2800	375	10.6	0.7	17.78	53	H
<b>24</b>	12~28	13(~14.88)	0.52(~0.62)	2200	300	8.5	0.58	14.73	46	M
<b>24</b>	15~28	5	0.20	1500	215	6.1	0.42	10.67	36	L
<b>48</b>	24~55	62.4	1.3	3800	500	14.2	1.3	33.02	69	SH
<b>48</b>	24~55	49.4	1.03	3500	470	13.3	1.2	30.48	65	HH
<b>48</b>	24~55	23.5	0.48	2800	375	10.6	0.7	17.78	53	H
<b>48</b>	28~60	14.5	0.30	2200	300	8.5	0.58	14.73	46	M
<b>48</b>	30~63	5.8	0.12	1500	215	6.1	0.42	Eki.67	36	L



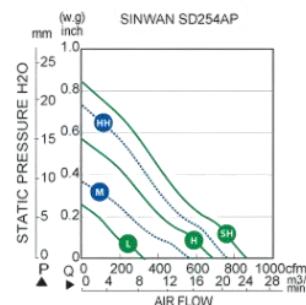
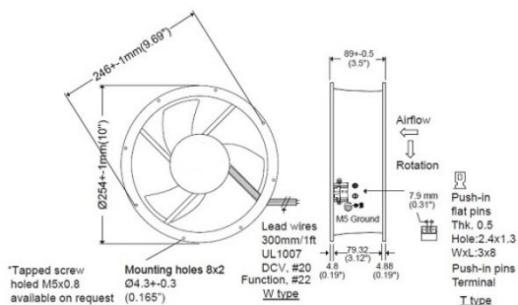
## 254x89

## DC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Brushless DC Motor, auto cutoff, auto restart
<b>Burnout Protection:</b>	Electronically protected, polarity protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color treatment
<b>Impeller:</b>	3 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads or push-in flat pins terminal connecting, terminal block optional.
<b>Weight:</b>	1,830g (4Lbs)
<b>Dielectric Strength:</b>	500 VAC/min. Max leakage 500mA
<b>Speed Control:</b>	Optional: PWM, SC NTC thermister, 0~10V control voltage SV
<b>Signal Output:</b>	Optional: RD alarm, tachometer FG outputs
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 90K hours at 35C, 40K hours at 60C



Rated Volt	Voltage Range	Input Power	Rated Current	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ Curves
<b>VDC</b>	<b>VDC</b>	<b>Watt</b>	<b>Amp</b>	<b>RPM</b>	<b>CFM</b>	<b>m3/min</b>	<b>Inch/H2O</b>	<b>mm</b>	<b>db(A)</b>	
<b>12</b>	9~13	64.8	5.4	2400	830	23.5	0.78	19.81	60	SH
<b>12</b>	9~13	50.4	4.2	2200	750	21.2	0.69	17.53	56	HH
<b>12</b>	9~13	23(~37.2)	1.9(~3.1)	2000	690	19.5	0.58	14.73	47	H
<b>12</b>	9~14	13.2(~18)	1.1(~1.5)	1650	550	15.6	0.37	9.4	39	M
<b>12</b>	10~16	5.5	0.45	1000	350	9.9	0.25	6.35	28	L
<b>24</b>	16~27	100.8	4.2	3000	1000	28.3	1.05	26.67	75	SHH
<b>24</b>	16~27	63.6	2.65	2500	850	24.1	0.83	21.08	62	SH
<b>24</b>	16~27	50.4	2.0	2300	760	21.5	0.71	18.03	58	HH
<b>24</b>	16~27	36	1.5	2000	690	19.5	0.58	14.73	47	H
<b>24</b>	16~27.6	28.8	1.2	1650	550	15.6	0.37	9.4	39	M
<b>48</b>	24~53	96	2	3000	1000	28.3	1.05	26.67	75	SHH
<b>48</b>	24~53	62.4	1.3	2500	850	24.1	0.83	21.08	62	SH
<b>48</b>	24~53	62.4	1.3	2300	760	21.5	0.71	18.03	58	HH
<b>48</b>	24~53	48	1.0	2000	690	19.5	0.58	14.73	49	H



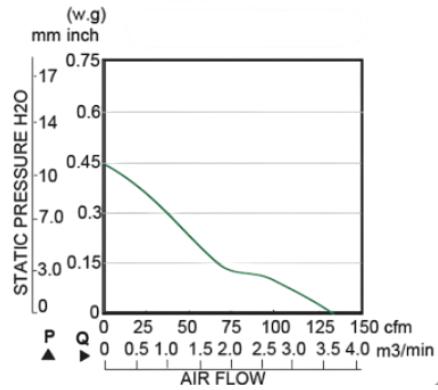
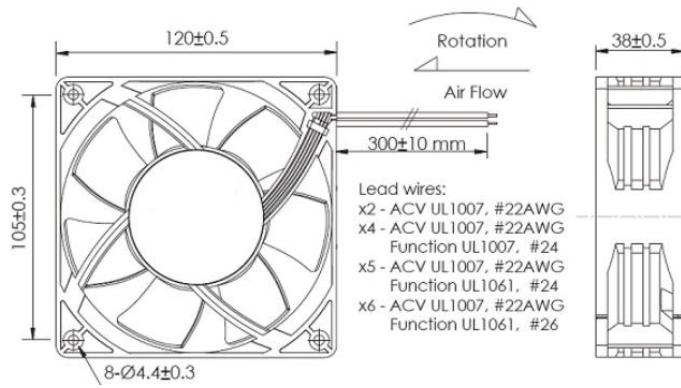
## 120x120x38

## AC IP68/69K AXIAL FANS

<b>Motor Type:</b>	AC Motor
<b>Burnout Protection:</b>	<i>Impedance protected</i>
<b>IP Protection:</b>	<i>IP68 or IP69K optional on request</i>
<b>Frame:</b>	PBT UL94-V0
<b>Impeller:</b>	7 blades, glass fiber reinforced plastic, rated UL94V-0
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or Terminal flat pin connecting
<b>Weight:</b>	310g
<b>Dielectric Strength:</b>	1,500 VAC/min
<b>Insulation Resistance:</b>	100 MΩ at DC 500VDC
<b>Signal Output:</b>	Optional: RD Rotation Detactor, FG Frequency Generator
<b>Operating Temp:</b>	-20C~+65C
<b>Storage Temp:</b>	-20C~+75C (at 65%RH)
<b>Life Expectancy:</b>	L10 70K hours at 40C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>115</b>	100~120	50/60	10/8	3000	135	3.8	0.45	11.43	48	1
<b>230</b>	200~240	50/60	10/8	3000	135	3.8	0.45	11.43	48	1



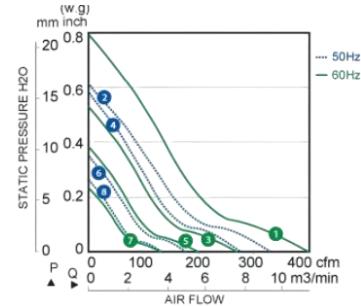
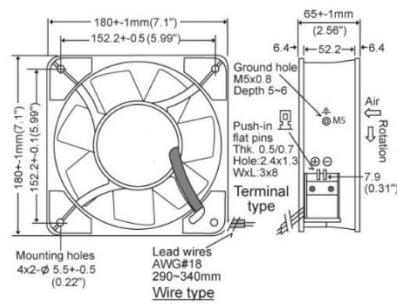
## 180x180x65

## AC IP68/69K AXIAL FANS

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	1,800g (3.96Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, tachometer output F/G
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ	
					VAC	VAC	Hz	Watt	RPM		
<b>100</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
<b>115</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
<b>115</b>	100~120	50/60	55/65	2300/2200	275/265	7.8/7.5	0.58/0.52		14.73/13.21	53	4/3
<b>115</b>	100~120	50/60	20/30	1500/1600	185/200	5.2/5.7	0.35/0.38		8.89/9.65	42	6/5
<b>115</b>	100~120	50/60	18/25	1100/1000	130/125	3.7/3.5	0.25/0.23		6.35/5.84	35	8/7
<b>115</b>	100~120	50/60	3/4	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
			11/13	2300/2200	275/265	7.8/7.5	0.58/0.52		14.73/13.21	53	4/3
<b>115</b>	100~120	50/60	2/3	1500/1600	185/200	5.2/5.7	0.35/0.38		8.89/9.65	42	6/5
			18/25	1100/1000	130/125	3.7/3.5	0.25/0.23		6.35/5.84	35	8/7
<b>200</b>	200~240	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
<b>230</b>	200~240	50/60	55/65	2300/2200	275/265	7.8/7.5	0.58/0.52		14.73/13.21	53	4/3
<b>230</b>	200~240	50/60	3/4	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
<b>230</b>	200~240	50/60	11/13	2300/2200	275/265	7.8/7.5	0.58/0.52		14.73/13.21	53	4/3
<b>230</b>	200~240	50/60	2/3	1500/1600	185/200	5.2/5.7	0.35/0.38		8.89/9.65	42	6/5
			18/25	1100/1000	130/125	3.7/3.5	0.25/0.23		6.35/5.84	35	8/7
<b>115</b>	100~120	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	65	2/1
<b>/230</b>	200~240										
<b>380</b>	380~440	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	64	2/1
<b>440</b>	380~440(~480)	50/60	60/80	2750/3250	330/400	9.3/11.3	0.75/0.8		19.05/20.32	64	2/1

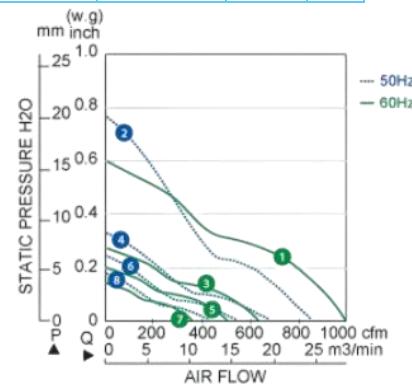
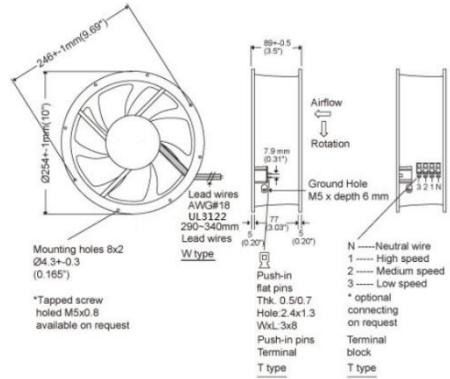


**254x89****AC IP68/69K AXIAL FANS**

<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	7 blades, all metal
<b>Bearing:</b>	Two ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire lead or terminal flat pin connecting
<b>Weight:</b>	2,550g (5.6Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ		
					VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O
<b>115</b>	100~120	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1
<b>115</b>	100~120	50/60	80/95	2300/2200	660/620	18.7/17.6	0.33/0.27			8.38/6.86	63	4/3
<b>115</b>	100~120	50/60	32/40	1450/1700	485/570	13.7/16.1	0.25/0.20			6.35/5.08	46	6/5
<b>115</b>	100~120	50/60	24/33	1200/1100	420/370	11.9/10.5	0.18/0.14			4.57/3.56	34	8/7
<b>115</b>	100~120	50/60	19/21	2800/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1
			16/19	2300/2200	660/620	18.7/17.6	0.33/0.27			8.38/6.86	63	4/3
<b>115</b>	100~120	50/60	4/5	1600/1500	560/500	15.9/14.2	0.25/0.20			6.35/5.08	46	6/5
			8/11	1200/1100	420/370	11.9/10.5	0.18/0.14			4.57/3.56	34	8/7
<b>230</b>	200~240	50/60	95/105	2750/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1
<b>230</b>	200~240	50/60	80/95	2300/2200	660/620	18.7/17.6	0.33/0.27			8.38/6.86	63	4/3
<b>230</b>	200~240	50/60	32/40	1450/1700	485/570	13.7/16.1	0.25/0.20			6.35/5.08	46	6/5
<b>230</b>	200~240	50/60	24/33	1200/1100	420/370	11.9/10.5	0.18/0.14			4.57/3.56	34	8/7
<b>230</b>	200~240	50/60	19/21	2800/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1
			16/19	2400/2300	738/708	20.09/20.20	0.33/0.27			8.38/6.86	63	4/3
<b>230</b>	200~240	50/60	4/5	1600/1500	560/500	15.9/14.2	0.25/0.20			6.35/5.08	46	6/5
			8/11	1200/1100	420/370	11.9/10.5	0.18/0.14			4.57/3.56	34	8/7
<b>115</b>	100~120	50/60	95/105	2750/3250	840/1000	23.8/28.3	1.05/1.15			26.67/29.21	70	2/1
<b>230</b>	200~240											
<b>380</b>	380~420	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1
<b>440</b>	440~480	50/60	95/105	2800/3250	840/1000	23.8/28.3	0.78/0.60			19.81/15.24	70	2/1



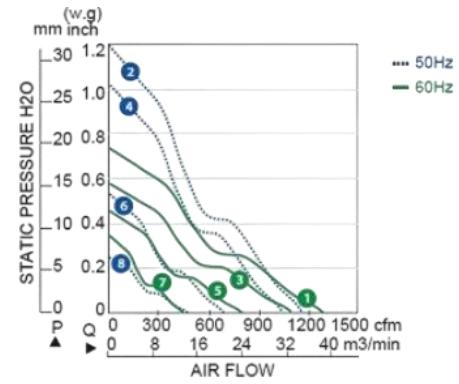
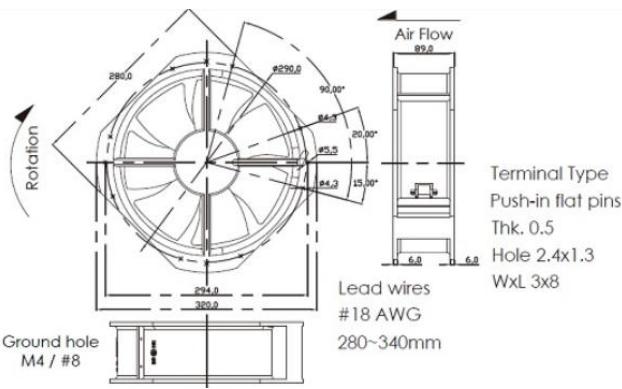
## 280x280x89

## AC IP68/69K AXIAL FANS

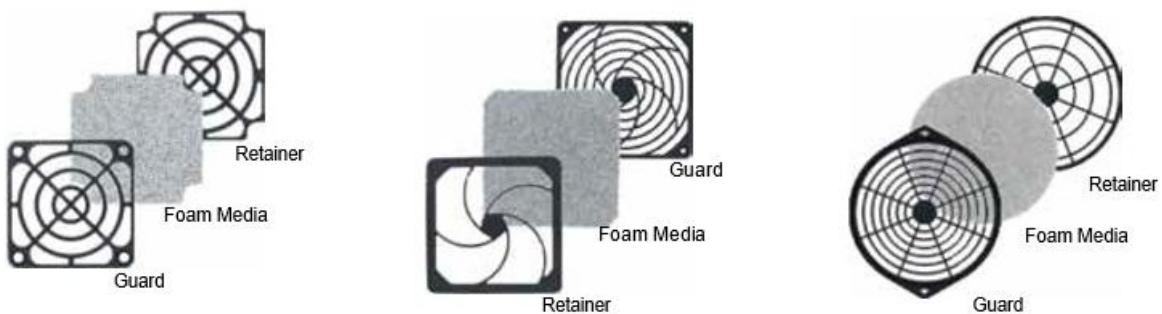
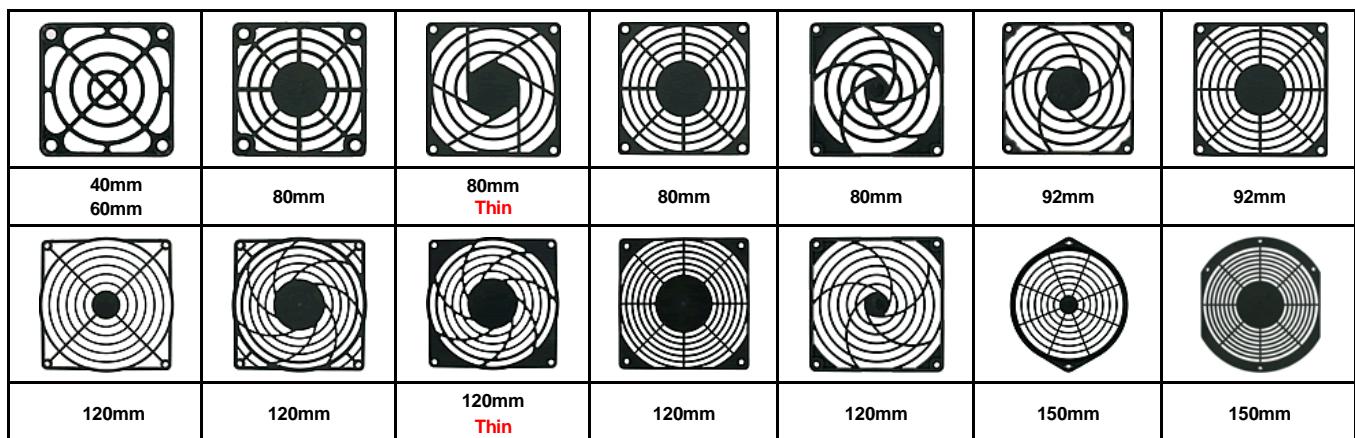
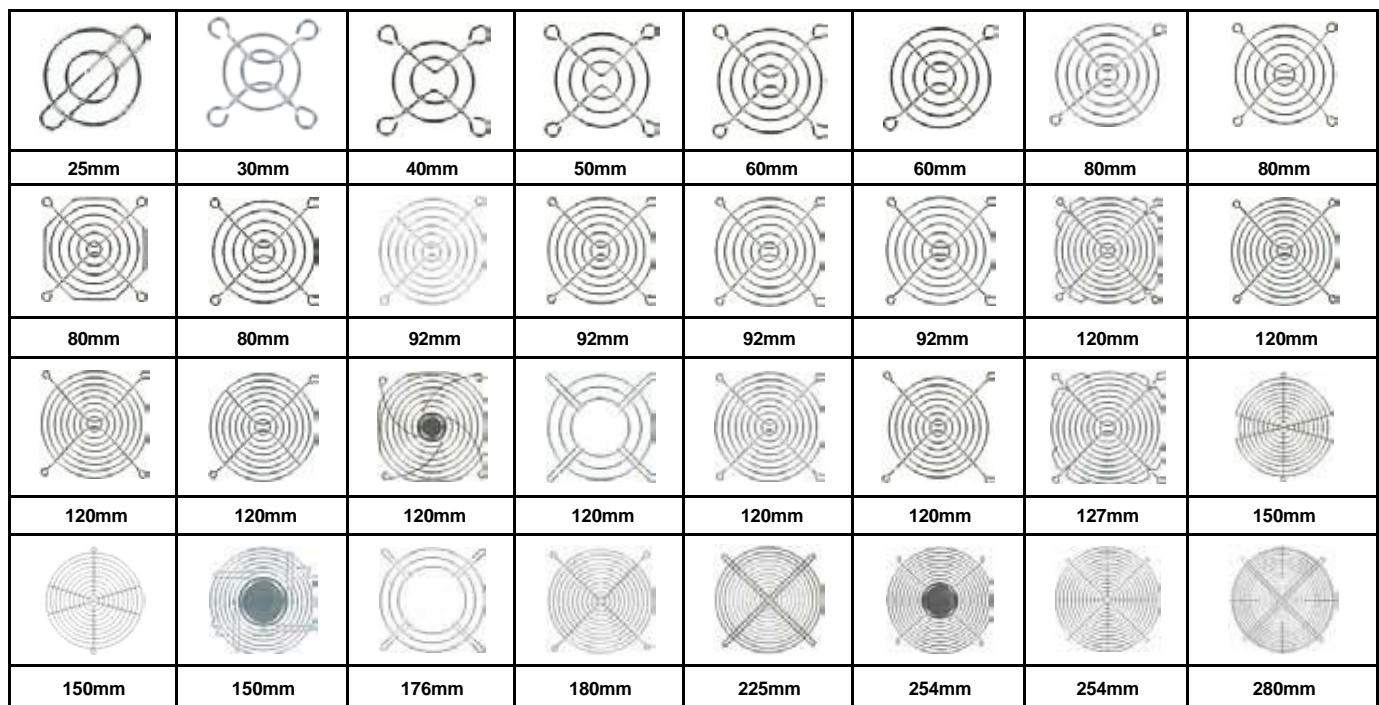
<b>Motor Type:</b>	Capacitor induction, outer rotor, 1-phase
<b>Burnout Protection:</b>	Thermally protected
<b>IP Protection:</b>	IP68 or IP69K optional on request
<b>Frame:</b>	Aluminum die cast, black color
<b>Impeller:</b>	7 blades, all metal steel
<b>Bearing:</b>	Maintenance-free 2 ball bearings
<b>Rotation:</b>	CCW seen on rotor
<b>Connection:</b>	Wire leads, terminal flat pin or Terminal block option
<b>Weight:</b>	3,400g (7.4 Lbs)
<b>Dielectric Strength:</b>	Over 1 min. at 1,500 VAC, 50/60Hz
<b>Insulation Resistance:</b>	Over 100 MΩ at DC 500V
<b>Signal Output:</b>	Optional: R/D alarm output, F/G tachometer output
<b>Operating Temp:</b>	Ambient non-condensing -30~+80C
<b>Storage Temp:</b>	-40C~+100C (at 65%RH)
<b>Life Expectancy:</b>	L10 50K hours at 55C, 80K hours at 35C



Rated Volt	Voltage Range	Freq	Input Power	Ref. Speed	Max.Airflow		Max.Static Pressure		Noise Level	PQ
VAC	VAC	Hz	Watt	RPM	CFM	m3/min	Inch/H2O	mm	db(A)	
<b>115</b>	100~120	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>115</b>	100~120	50/60	110/180	2400/2500	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
<b>115</b>	100~120	50/60	26/35	1200/1100	460/450	13.12.2007	0.35/0.25	8.89/6.35	34	8/7
<b>115</b>	100~120	50/60	155/210	2750/2900	1150/1250	32.6/35.4	1.2/0.75	30.48/19.05	73	2/1
			110/180	2400/2450	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
			26/35	1200/1100	460/450	13.12.2007	0.25/0.35	6.35/8.89	34	8/7
<b>230</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	110/180	2400/2500	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>230</b>	200~240	50/60	32/43	1500/1600	620/650	17.6/18.4	0.53/0.45	13.46/11.43	46	6/5
<b>230</b>	200~240	50/60	26/35	1100/1000	450/410	12.7/11.6	0.32/0.22	8.13/5.59	32	8/7
<b>240</b>	200~240	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>230</b>	200~240	50/60	155/210	2750/2900	1150/1000	32.6/28.3	1.2/0.75	30.48/19.05	73	2/1
			110/180	2400/2300	1000/1050	28.3/29.7	1.02/0.59	25.91/14.99	62	4/3
<b>115</b>	100~120	50/60	155/210	2800/3000	1150/1250	32.6/35.4	1.2/0.68	30.48/17.27	73	2/1
<b>230</b>	200~240									
<b>380</b>	380~420	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1
<b>440</b>	440~480	50/60	155/210	2800/3200	1150/1300	32.6/36.8	1.2/0.75	30.48/19.05	73	2/1



## FAN GUARDS





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