

926218

926 127 - 926 231
not inclusive



COOLING FAN
S U N O N



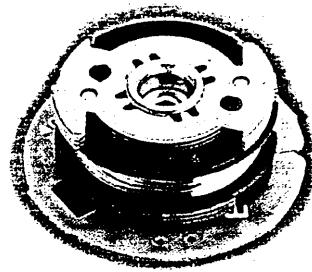
PRODUCT G U I D E

SPECIALIST IN FAN
DESIGN & PRODUCTION



PATENTED MOTOR DESIGN

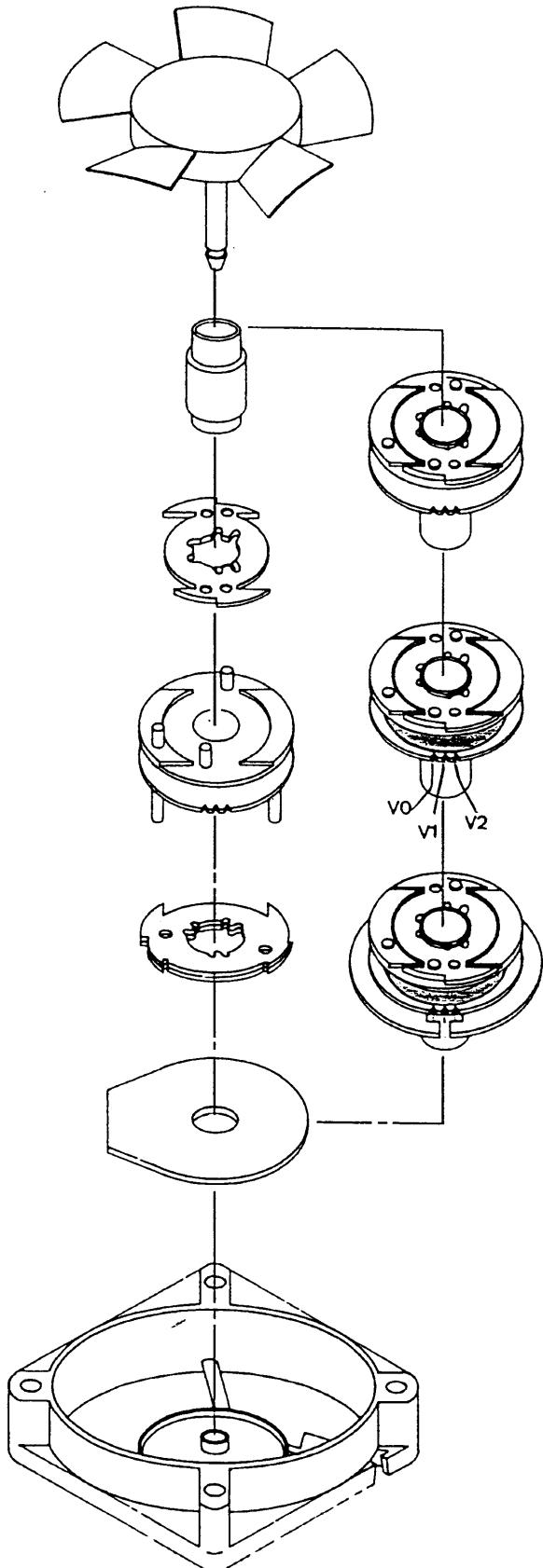
BRUSHLESS DC FANS



THE ADVANTAGES OF SUNON PATENTED MOTOR DESIGN

1. Allows creation of the smallest and thinnest Brushless DC Fan Motor in the world.
2. The bobbin design protects the winding coils from abrasion and damage during assembly.
3. Ease of manufacture and assembly providing low cost and high reliability.
4. Superior dielectric strength due to the unique wound bobbin construction of the Sunon design.
5. Increased performance to size ratio due to smaller hub design which allows for larger fan blades.
6. Increased torque through more poles to reduce the power consumption of fan motor. Example: Dual poles can be augmented into four, six and eight poles respectively.
7. The notches in the bobbin separate the 3 coil wires which adjoin v0, v1 and v2 to the circuit board provided the protection from a short circuit condition.
8. Acquired patents in 23 countries in this revolutionary design motor.

U.S. PATENT NO:5,093,599 • 4,987,331

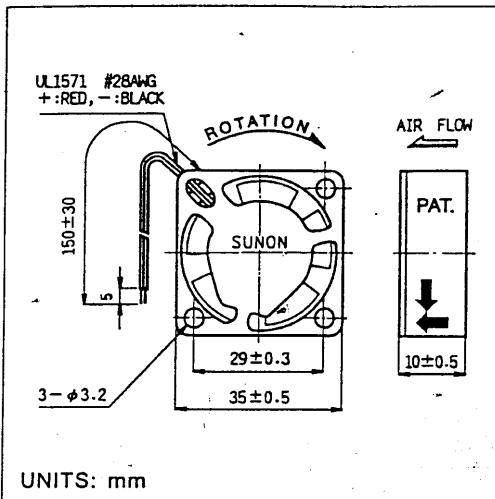


PRODUCT GUIDE

BRUSHLESS DC FANS



DIMENSIONS



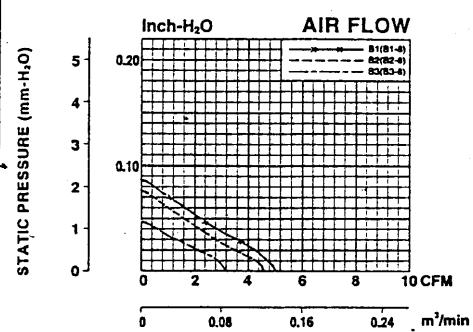
35 x 35 x 10mm

- 3.2 to 5.2 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 28 AWG UL Rating Leadwire, "+ Red and "- Black
- UL, CUR & TUV Approval

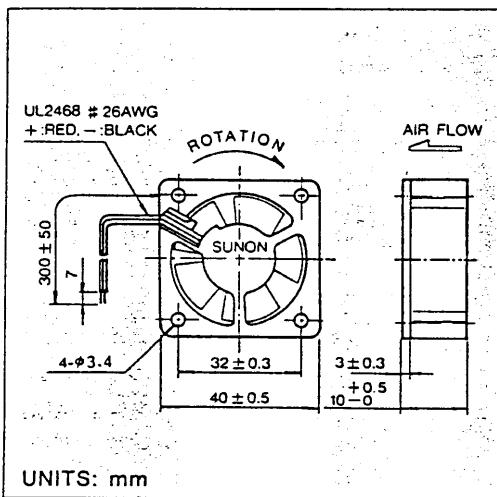
PERFORMANCE

899-996

● : 5V/12V



DIMENSIONS



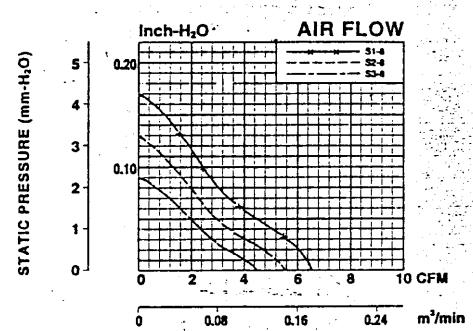
40 x 40 x 10mm

- 4.5 to 6.9 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless DC Motor Design
- Available with 4 Poles or 8 Poles Motor
- Locked Rotor Protection
- Low Power Consumption
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 26 AWG UL Rating Leadwire, "+ Red and "- Black
- UL, CUR & TUV Approval

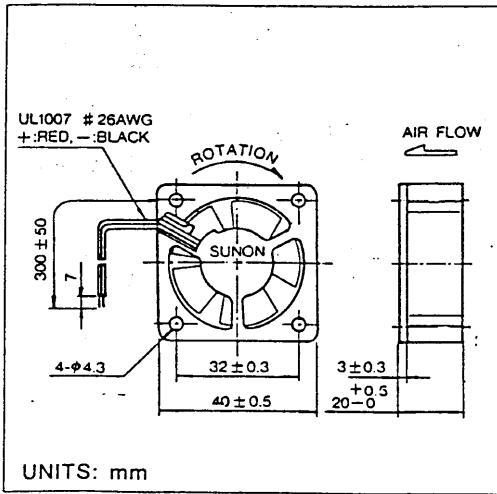
PERFORMANCE

899-902

○ : 5V/12V



DIMENSIONS

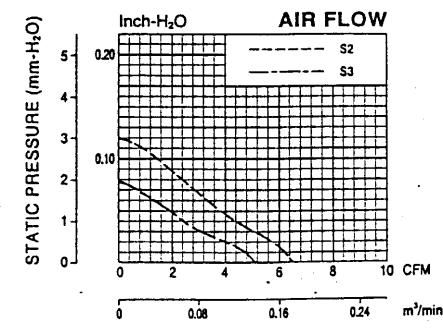


40 x 40 x 20mm

- 5.2 to 7.0 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 4 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 26 AWG UL Rating Leadwire, "+ Red and "- Black
- UL, CUR & TUV Approval

PERFORMANCE

○ : 5V/12V



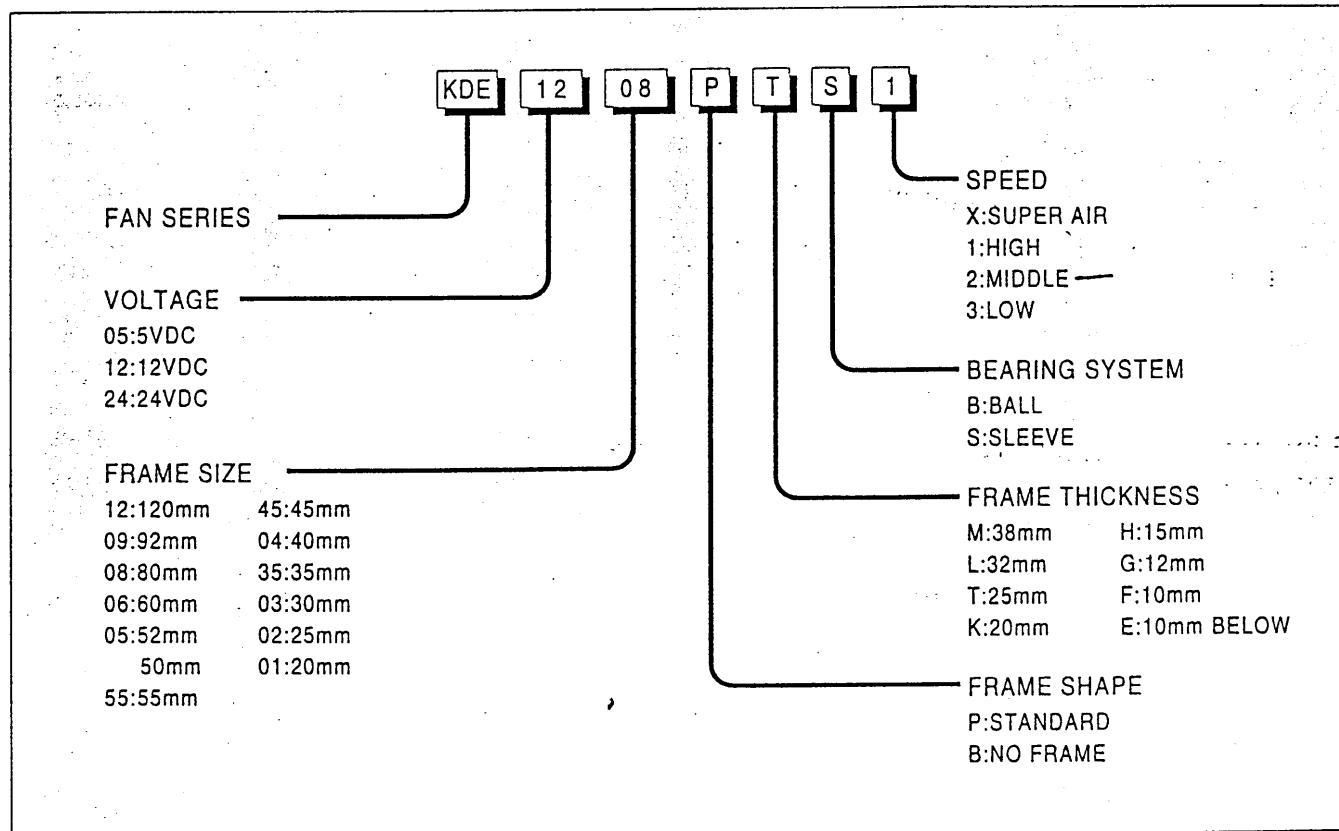
GENERAL DATA



BRUSHLESS DC FANS

MOTOR:	Patented Brushless DC motor design
FRAME:	Injection molded non-flammable black thermoplastic UL 94V-O Rating
IMPELLER:	Injection molded non-flammable black thermoplastic UL 94V-O Rating
BEARING:	Precision, life-lubricated ball bearing system
INSULATION:	Precision, oil-impregnated sintered sleeve bearing system
INSULATION RESISTANCE:	Class E integral ground system rated @ 100°C
DIELECTRIC STRENGTH:	More than 500M ohm between internal stator and lead wire (+)
SAFETY PROTECTION:	measured by DC 500V
OPERATING TEMPERATURE:	600VAC for one minute
STORAGE TEMPERATURE:	-10 to +70°C
OPERATING VOLTAGE:	-40 to +80°C
PROFESSIONAL DESIGN:	Rated Voltage ± 15%
	Should you have any other special requirements, we are willing to design accordingly.

MODEL NUMBERING SYSTEM



NOMENCLATURE

Basic Model Number for Brushless DC fan is with four poles motor.

Suffixes have the following significance:

- 6/-8: Motor with six poles / Motor with eight poles
 - 6A: Motor (six poles) protection by IC
 - 6AS: Motor (six poles) protection by IC combined with a temperature sensor
 - 6AM: Motor (six poles) protection by IC combined with an alarm
 - 6AD: Motor combination of 6AS and 6AM
 - 6AR: Motor (six poles) protection by IC combined with 2-speed
 - 6B: Motor (six poles) without automatic restart function
- Not all suffixes are available on all models.



SPECIFICATION CHART

BRUSHLESS DC FANS

SPECIFICATIONS

Dimensions	Model	Voltage (VDC)	Bearing ○Sleeve ●Ball	Current (AMP)	Input (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H ₂ O)	Noise (dBA)
mm									
20x20x10	KDE0501PFB2-8 KDE0501PFB3-8	5 5	● ●	0.10 0.06	0.5 0.3	14000 8500	0.65 0.43	0.15 0.065	25.5 21
	KDE0502PFB1-8 KDE0502PFB2-8 KDE0502PFB3-8	5 5 5	● ● ●	0.17 0.12 0.06	0.9 0.6 0.3	13000 10000 7000	2.4 2.0 1.3	0.20 0.16 0.09	25.5 24 23
25x25x10	KDE1202PFB1 KDE1202PFB2 KDE1202PFB3	12 12 12	● ● ●	0.14 0.10 0.08	1.7 1.2 0.9	13000 10000 7000	2.4 2.0 1.3	0.20 0.16 0.09	25.5 24 23
30x30x10	KDE0503PFB1-8 KDE0503PFB2-8 KDE0503PFB3-8	5 5 5	● ● ●	0.18 0.12 0.06	0.9 0.6 0.3	9500 8000 5500	3.5 3.0 2.3	0.14 0.11 0.07	22.5 20.5 18.5
35x35x10	KDE1203PFB1 KDE1203PFB2 KDE1203PFB3	12 12 12	● ● ●	0.13 0.12 0.08	1.6 1.5 0.9	9500 8000 5500	3.5 3.0 2.3	0.14 0.11 0.07	22.5 20.5 18.5
40x40x10	KDE0535PFB1-8 KDE0535PFB2-8 KDE0535PFB3-8	5 5 5	● ● ●	0.19 0.13 0.07	1.0 0.7 0.3	7000 6000 4500	5.2 4.5 3.2	0.09 0.08 0.05	22.5 21 18
40x40x20	KDE1235PFB1 KDE1235PFB2 KDE1235PFB3	12 12 12	● ● ●	0.13 0.12 0.08	1.7 1.5 0.9	7000 6000 4500	5.2 4.5 3.2	0.09 0.08 0.05	22.5 21 18
45x45x10	KDE0504PFS1-8 KDE0504PFS2-8 KDE0504PFS3-8	5 5 5	○ ○ ○	0.15 0.11 0.08	0.7 0.6 0.4	7300 6500 4500	6.9 6.2 4.5	0.19 0.14 0.09	25.5 24.5 22.8
50x50x10	KDE0504PFB1-8 KDE0504PFB2-8 KDE0504PFB3-8	5 5 5	● ● ●	0.15 0.11 0.08	0.7 0.6 0.4	7300 6500 5300	6.9 6.2 4.8	0.19 0.14 0.10	25.5 24.5 23.5
	KDE1204PFS1-8 KDE1204PFS2-8 KDE1204PFS3-8	12 12 12	○ ○ ○	0.06 0.05 0.04	0.7 0.6 0.5	7000 6000 4500	6.6 5.6 4.5	0.17 0.13 0.09	25 24 22.8
	KDE1204PFB1-8 KDE1204PFB2-8 KDE1204PFB3-8	12 12 12	● ● ●	0.06 0.05 0.04	0.7 0.6 0.5	7300 6500 5300	6.9 6.2 4.8	0.19 0.14 0.10	25.5 24.5 23.5
	KDE0504PKS2 KDE0504PKS3	5 5	○ ○	0.21 0.14	1.0 0.7	6000 4500	6.5 5.2	0.12 0.08	25.5 22.8
	KDE1204PKS2 KDE1204PKS3	12 12	○ ○	0.07 0.05	0.9 0.6	6000 4500	6.5 5.2	0.12 0.08	25.5 22.8
	KDE0504PKB2 KDE0504PKB3	5 5	● ●	0.21 0.14	1.0 0.7	6500 5300	7.0 6.2	0.16 0.12	26.5 24.0
926-127 550-966	KDE1204PKB2 KDE1204PKB3	12 12	● ●	0.07 0.05	0.9 0.6	6400 5000	6.8 6.0	0.15 0.11	26.5 23.5
926-139(24V)	KDE0545PFS1-8 KDE0545PFS2-8 KDE0545PFS3-8	5 5 5	○ ○ ○	0.16 0.12 0.09	0.8 0.6 0.4	6000 5200 4000	8 7 5.5	0.14 0.11 0.07	28.5 27 23
	KDE0545PFB1-8 KDE0545PFB2-8 KDE0545PFB3-8	5 5 5	● ● ●	0.16 0.12 0.09	0.8 0.6 0.4	6300 5500 4500	9 7.5 6.2	0.155 0.12 0.095	29 28 26
	KDE1245PFS1-8 KDE1245PFS2-8 KDE1245PFS3-8	12 12 12	○ ○ ○	0.07 0.06 0.04	0.8 0.7 0.5	6000 5200 4000	8 7 5.5	0.14 0.11 0.07	28.5 27 23
	KDE1245PFB1-8 KDE1245PFB2-8 KDE1245PFB3-8	12 12 12	● ● ●	0.07 0.06 0.04	0.8 0.7 0.5	6300 5500 4500	9 7.5 6.2	0.155 0.12 0.095	29 28 26
	KDE0505PFS1-8 KDE0505PFS2-8 KDE0505PFS3-8	5 5 5	○ ○ ○	0.17 0.13 0.09	0.9 0.6 0.4	5100 4300 3500	9.6 8 7	0.105 0.09 0.065	30.5 29 21
	KDE0505PFB1-8 KDE0505PFB2-8 KDE0505PFB3-8	5 5 5	● ● ●	0.17 0.13 0.09	0.9 0.6 0.4	5400 4700 3800	10.2 9.2 7.2	0.11 0.10 0.07	31.5 30 22
	KDE1205PFS1-8 KDE1205PFS2-8 KDE1205PFS3-8	12 12 12	○ ○ ○	0.07 0.06 0.04	0.9 0.7 0.5	5100 4300 3500	9.6 8 7	0.105 0.09 0.065	30.5 29 21
	KDE1205PFB1-8 KDE1205PFB2-8 KDE1205PFB3-8	12 12 12	● ● ●	0.07 0.06 0.04	0.9 0.7 0.5	5400 4700 3800	10.2 9.2 7.2	0.11 0.10 0.07	31.5 30 22

Specifications subject to change without notice

SPECIFICATION CHART

BRUSHLESS DC FANS



SPECIFICATIONS

Dimensions	Model	Voltage	Bearing	Current	Input	Speed	Air Flow	Static Pressure	Noise
			○Sleeve						
mm		(VDC)	●Ball	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dBA)
52x52x15	KDE0505PHS2	5	○	0.38	1.9	5000	12.4	0.14	27
	KDE0505PHS3	5	○	0.24	1.2	4000	7.6	0.12	24
	KDE1205PHS2	12	○	0.14	1.7	5000	12.4	0.14	27
	KDE1205PHS3	12	○	0.08	0.9	4000	7.6	0.12	24
	KDE0505PHB2	5	●	0.38	1.9	5300	12.7	0.16	27.8
	KDE0505PHB3	5	●	0.24	1.2	4300	8.5	0.14	25.4
	KDE1205PHB2	12	●	0.14	1.7	5300	12.7	0.16	27.8
	KDE1205PHB3	12	●	0.08	0.9	4300	8.5	0.14	25.4
60x60x15	KDE0506PHS2	5	○	0.39	1.9	4000	17.8	0.135	31
	KDE0506PHS3	5	○	0.24	1.2	3300	14.8	0.11	26
	KDE1206PHS2	12	○	0.16	1.9	4000	17.8	0.135	31
	KDE1206PHS3	12	○	0.09	1.2	3300	14.8	0.11	26
	KDE1206PHB2	12	●	0.16	1.9	4200	18.5	0.15	31.5
	KDE1206PHB3	12	●	0.09	1.2	3500	15.2	0.13	26.5
60x60x25	KDE1206PTS1	12	○	0.19	2.3	4500	21.7	0.20	34
	KDE1206PTS2	12	○	0.13	1.6	3800	17.6	0.15	31
	KDE1206PTS3	12	○	0.09	1.1	3300	15.9	0.10	26.7
	KDE2406PTS1	24	○	0.11	2.6	4500	21.7	0.20	34
	KDE2406PTS2	24	○	0.08	1.9	3800	17.6	0.15	31
	KDE2406PTS3	24	○	0.06	1.4	3300	15.9	0.10	26.7
	KDE1206PTB1	12	●	0.19	2.2	5100	22.1	0.22	34.3
80x80x25	KDE1206PTB2	12	●	0.12	1.4	4300	18	0.16	31.3
	KDE1206PTB3	12	●	0.09	1.1	3600	16.2	0.11	27
	KDE1208PTS1-6A/B	12	○	0.22	2.6	3000	41.7	0.18	34
	KDE1208PTS2-6A/B	12	○	0.16	2.0	2650	34.4	0.16	30
	KDE1208PTS3-6	12	○	0.12	1.4	2200	29.4	0.11	24.5
	KDE2408PTS1-6A/B	24	○	0.12	2.9	3000	41.7	0.18	34
	KDE2408PTS2-6A/B	24	○	0.10	2.4	2650	34.4	0.16	30
Similar 551-004/926-164 551-016/926-176	KDE2408PTS3-6	24	○	0.07	1.7	2200	29.4	0.11	24.5
	KDE1208PTB1-6A/B	12	●	0.22	2.6	3200	42.5	0.23	36.5
	KDE1208PTB2-6A/B	12	●	0.16	2.0	2800	35	0.20	32.5
	KDE1208PTB3-6	12	●	0.12	1.4	2500	30	0.14	28.5
	KDE1209PTS1-6A/B	12	○	0.23	2.8	2800	50	0.17	35
	KDE1209PTS2-6A/B	12	○	0.18	2.1	2500	44	0.15	33
	KDE1209PTS3-6	12	○	0.13	1.6	2100	39	0.11	27
92x92x25 Similar 551-030/926-188 551-048/926-190	KDE2409PTS1-6A/B	24	○	0.12	2.9	2800	50	0.17	35
	KDE2409PTS2-6A/B	24	○	0.09	2.2	2500	44	0.15	33
	KDE2409PTS3-6	24	○	0.07	1.7	2100	39	0.11	27
	KDE1209PTB1-6A/B	12	●	0.23	2.8	3000	51	0.20	37
	KDE1209PTB2-6A/B	12	●	0.18	2.1	2600	45	0.18	34
	KDE1209PTB3-6	12	●	0.13	1.6	2300	40	0.13	28
	KDE1212PTS1-6A	12	○	0.45	5.4	3000	88	0.27	44
120x120x25	KDE1212PTS2-6A	12	○	0.30	3.6	2700	78	0.21	40
	KDE1212PTS3-6A	12	○	0.20	2.4	2300	67	0.16	35
	KDE2412PTS1-6A	24	○	0.25	6.0	3000	88	0.27	44
	KDE2412PTS2-6A	24	○	0.20	4.8	2700	78	0.21	40
	KDE2412PTS3-6A	24	○	0.13	3.1	2300	67	0.16	35
120x120x25 26-206/551-053 26-218/551-065	KDE1212PTB1-6A	12	●	0.45	5.4	3100	90	0.28	44.5
	KDE1212PTB2-6A	12	●	0.30	3.6	2800	80	0.22	41
	KDE1212PTB3-6A	12	●	0.20	2.4	2400	69	0.17	35.5
	KDE2412PTB1-6A	24	●	0.25	6.0	3100	90	0.28	44.5
	KDE2412PTB2-6A	24	●	0.20	4.8	2800	80	0.22	41
120x120x38 6-229/551-077	KDE2412PTB3-6A	24	●	0.13	3.1	2400	69	0.17	35.5
	KDE1212PMSX-6A	12	○	0.63	7.6	3100	119	0.32	45
	KDE1212PMS1-6A	12	○	0.57	6.8	3000	107	0.30	41
	KDE1212PMS2-6A	12	○	0.43	5.1	2700	97	0.24	36
	KDE1212PMS3-6A	12	○	0.27	3.2	2300	83	0.18	34
	KDE2412PMSX-6A	24	○	0.33	7.9	3100	119	0.32	45
	KDE2412PMS1-6A	24	○	0.31	7.4	3000	107	0.30	41
120x120x38 6-231/551-087	KDE2412PMS2-6A	24	○	0.23	5.5	2700	97	0.24	36
	KDE2412PMS3-6A	24	○	0.17	4.0	2300	83	0.18	34
	KDE1212PMBX-6A	12	●	0.63	7.6	3150	120	0.34	46.5
	KDE1212PMB1-6A	12	●	0.57	6.8	3100	108	0.31	42
	KDE1212PMB2-6A	12	●	0.43	5.1	2800	98	0.25	36.5
120x120x38	KDE1212PMB3-6A	12	●	0.27	3.2	2400	84	0.19	35
	KDE2412PMBX-6A	24	●	0.33	7.9	3150	120	0.34	46.5
	KDE2412PMB1-6A	24	●	0.31	7.4	3100	108	0.31	42
	KDE2412PMB2-6A	24	●	0.23	5.5	2800	98	0.25	36.5
6-231/551-087	KDE2412PMB3-6A	24	●	0.17	4.0	2400	84	0.19	35

Specifications subject to change without notice

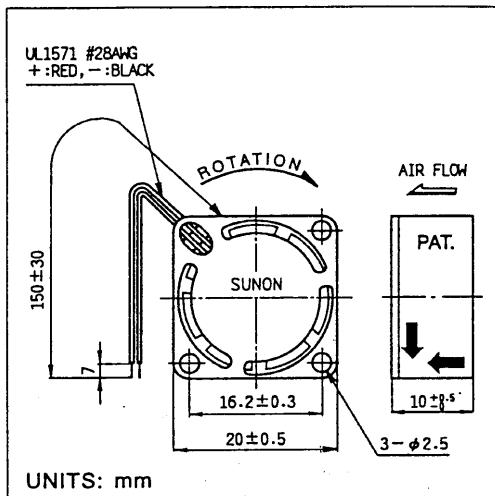
899-872|884|896|902



PRODUCT GUIDE

BRUSHLESS DC FANS

DIMENSIONS

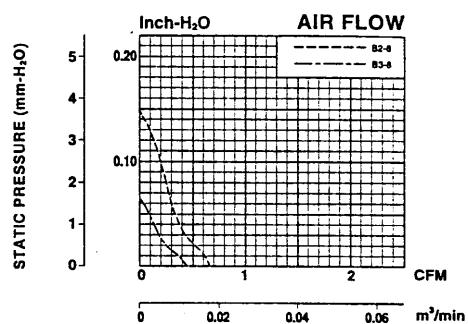


20 x 20 x 10mm

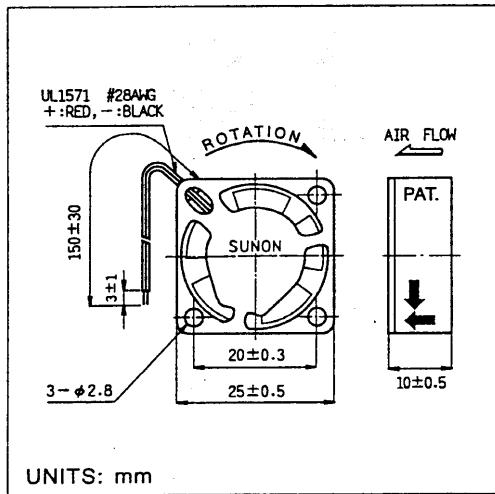
- 0.43 to 0.65 CFM
- 5 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 28 AWG UL Rating Leadwire, "+ Red and " - Black
- UL & CUR Approval

PERFORMANCE

● : 5V



DIMENSIONS

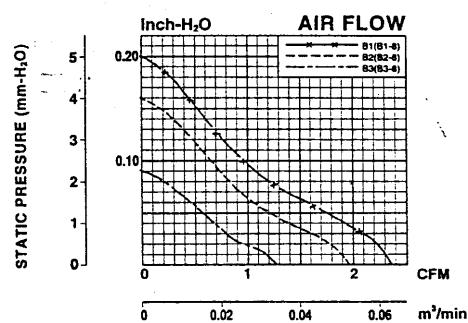


25 x 25 x 10mm

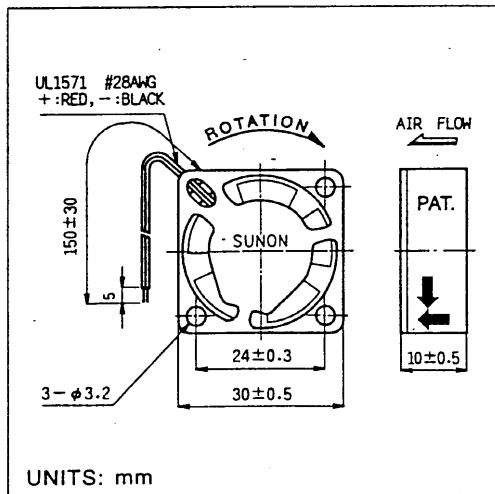
- 1.3 to 2.4 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 28 AWG UL Rating Leadwire, "+ Red and " - Black
- UL, CUR & TUV Approval

PERFORMANCE

● : 5V/12V



DIMENSIONS



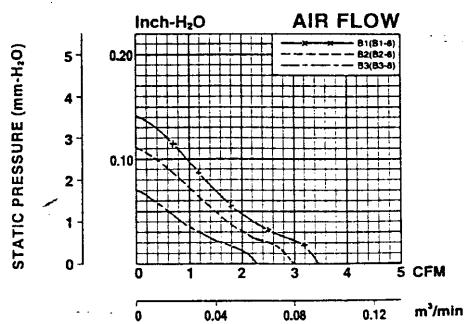
30 x 30 x 10mm

- 2.3 to 3.5 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 28 AWG UL Rating Leadwire, "+ Red and " - Black
- UL, CUR & TUV Approval

PERFORMANCE

899-884

● : 5V/12V

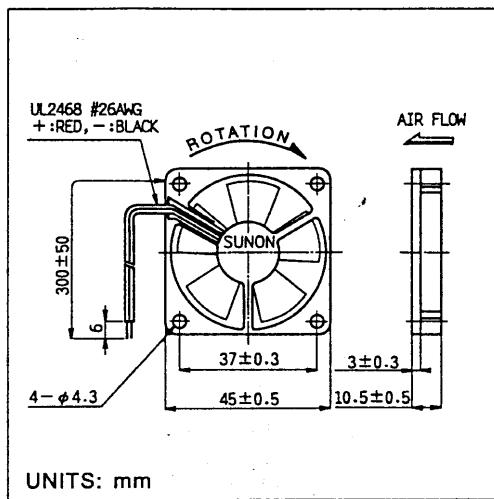




PRODUCT GUIDE

BRUSHLESS DC FANS

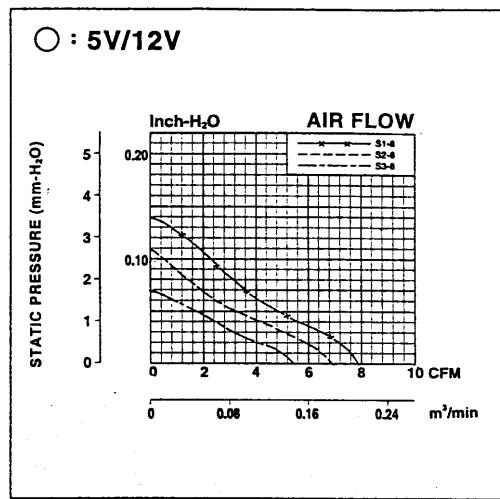
DIMENSIONS



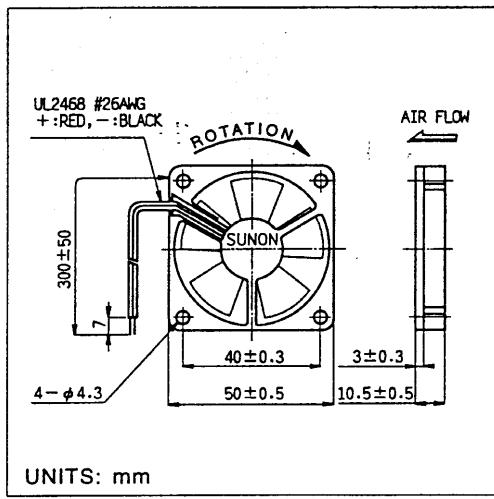
45 x 45 x 10mm

- 5.5 to 9.0 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Polarity Protected
- Low Power Consumption
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 26 AWG UL Rating Leadwire, "+ " Red and "- " Black
- UL, CUR & TUV Approval

PERFORMANCE



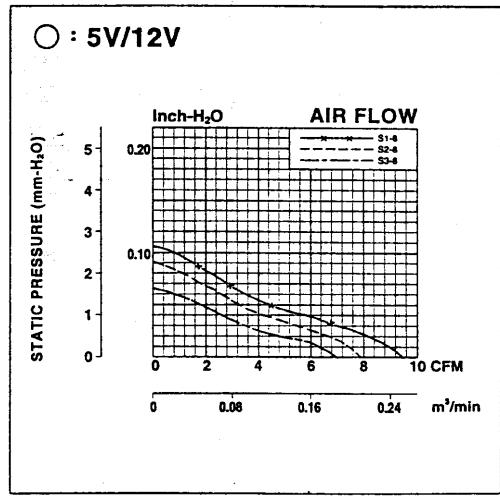
DIMENSIONS



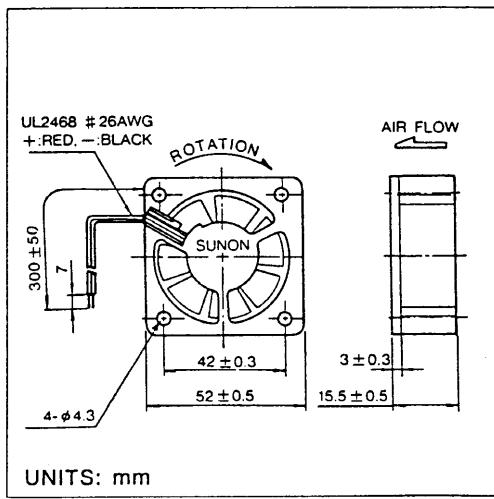
50 x 50 x 10mm

- 7.0 to 10.2 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 8 Poles DC Motor Design
- Locked Rotor Protection
- Low Power Consumption
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 26 AWG UL Rating Leadwire, "+ " Red and "- " Black
- UL, CUR & TUV Approval

PERFORMANCE



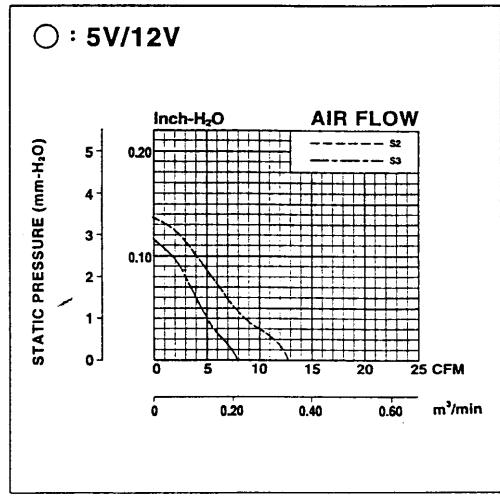
DIMENSIONS



52 x 52 x 15mm

- 7.6 to 12.7 CFM
- 5 and 12 VDC (nominal)
- Patented Single-coil Brushless 4 Poles DC Motor Design
- Locked Rotor Protection
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 26 AWG UL Rating Leadwire, "+ " Red and "- " Black
- UL, CUR & TUV Approval

PERFORMANCE

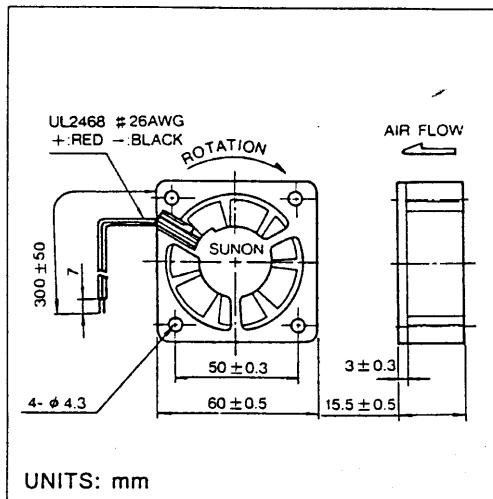


PRODUCT GUIDE

BRUSHLESS DC FANS

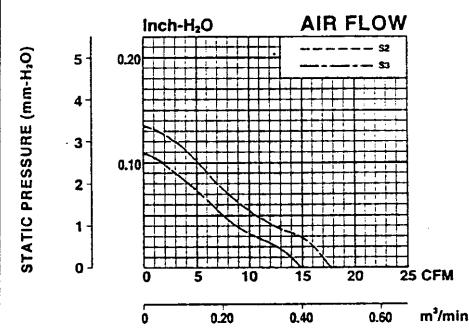


DIMENSIONS

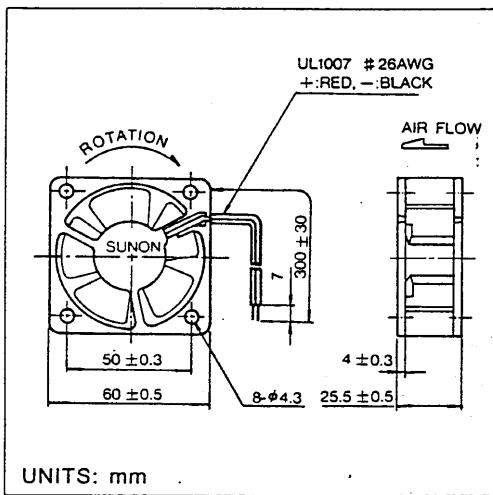


PERFORMANCE

○ : 5V/12V

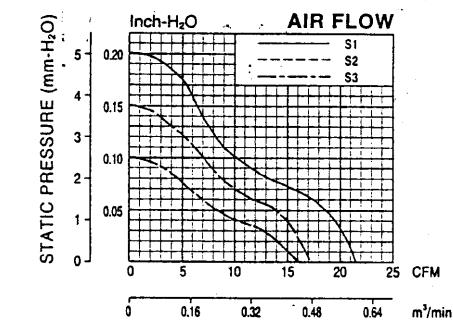


DIMENSIONS

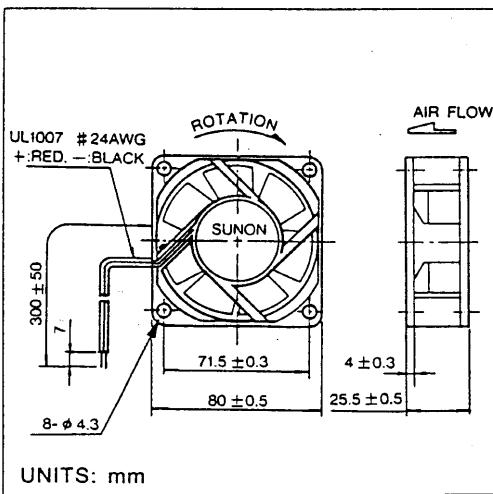


PERFORMANCE

○ : 12V/24V

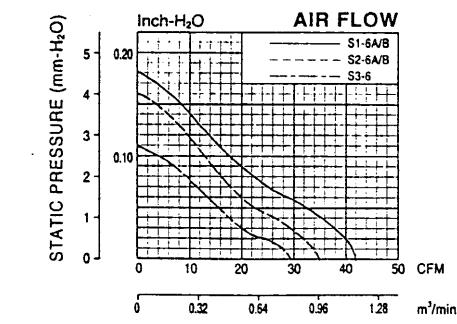


DIMENSIONS



PERFORMANCE

○ : 12V/24V

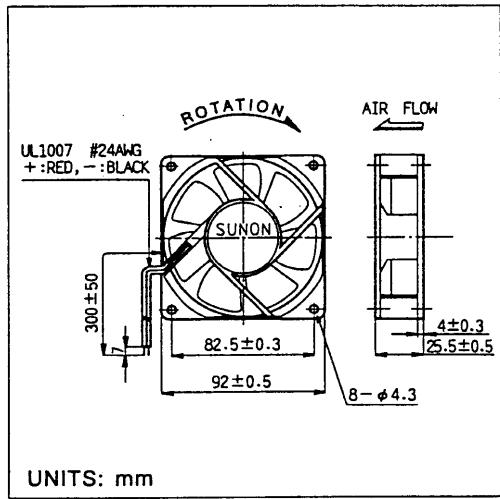




PRODUCT GUIDE

BRUSHLESS DC FANS

DIMENSIONS

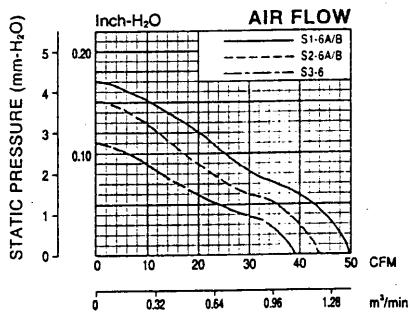


92 x 92 x 25mm

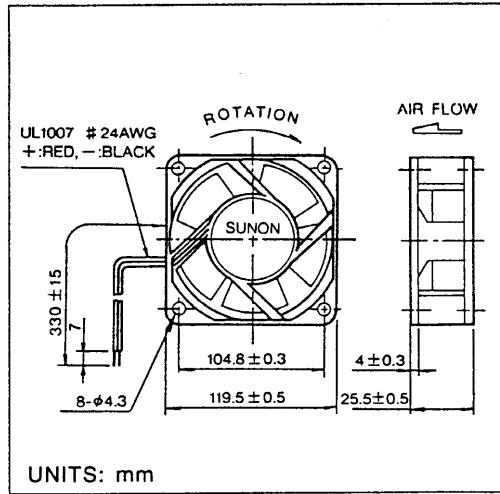
- 39 to 51 CFM
- 12 and 24 VDC (nominal)
- Patented Single-coil Brushless DC Motor Design
- Locked Rotor Protection
- Available with 4 Poles Motor or 6 Poles Motor
- Locked Rotor Protection
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 24 AWG UL Rating Leadwire, "+ Red and " - Black
- UL, CUR & TUV Approval

PERFORMANCE

○ : 12V/24V



DIMENSIONS

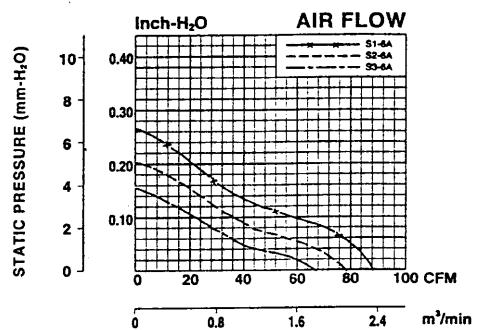


120 x 120 x 25mm

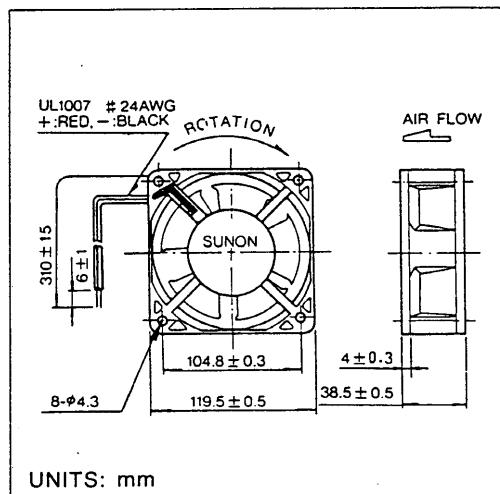
- 67 to 90 CFM
- 12 and 24 VDC (nominal)
- Patented Single-coil Brushless 6 Poles DC Motor Design
- DC Motor Protected by IC
- Locked Rotor Protection
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 24 AWG UL Rating Leadwire, "+ Red and " - Black

PERFORMANCE

○ : 12V/24V



DIMENSIONS



120 x 120 x 38mm

- 83 to 120 CFM
- 12 and 24 VDC (nominal)
- Patented Single-coil Brushless 6 Poles DC Motor Design
- DC Motor Protected by IC
- Locked Rotor Protection
- Polarity Protected
- Lubricated Sintered Sleeve Bearing System or Precision Ball Bearing System
- 24 AWG UL Rating Leadwire, "+ Red and " - Black
- UL, CUR & TUV Approval

PERFORMANCE

○ : 12V/24V

