

TEST REPORT

Product: Ceiling Fans

Model No.: KF640011US, KF640011US-01HZZ-001,
KF640011US-02HZZ-001

Applicant: Zhongshan Huazhen Electric Appliance
Co. LTD

Address: Zone A, Sixth Floor, Building 1, No. 16,
Fuqing Fourth Road, Yongxing Industrial
Zone, Henglan Town, Zhongshan City,
Guangdong Province, China

Test Sort: Consignment Test

Dongguan NTEK Testing Service Co., Ltd.

TEST REPORT

Reference No...... : DGH251117033J

Applicant..... : Zhongshan Huazhen Electric Appliance Co. LTD

Address..... : Zone A, Sixth Floor, Building 1, No. 16, Fuqing Fourth Road, Yongxing Industrial Zone, Henglan Town, Zhongshan City, Guangdong Province, China

Manufacturer : Zhongshan Huazhen Electric Appliance Co. LTD

Address..... : Zone A, Sixth Floor, Building 1, No. 16, Fuqing Fourth Road, Yongxing Industrial Zone, Henglan Town, Zhongshan City, Guangdong Province, China

Product Name..... : Ceiling Fans

Model No...... : KF640011US, KF640011US-01HZZ-001, KF640011US-02HZZ-001 (Note: All models are identical except for the specific model name and colors.)

Brand..... : FUFU&GAGA

Total pages..... : 14 Pages

Standards..... : 10 CFR 430, Appendix U to subpart B
Uniform Test Method for Measuring the Energy Consumption of Ceiling Fans
California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609: Appliance Efficiency Regulations

Test items..... : Ceiling Fan

Date of Receipt sample..... : 2025/11/17

Date of Test..... : 2025/11/19

Date of Issue..... : 2025/11/25

Test Result..... : Pass; The product tested complies with the Energy Efficiency Standard of DOE&CEC, starting on January 21, 2020.

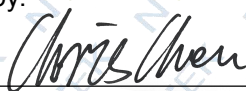
***Remarks:**

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory. The report would be invalid without specific stamp of test institute and the signatures of tester and approver.

Prepared By:

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Tel: +86-0769-23301618
Fax: +86-0769-23301618

Compiled by:



Chris Chen / Project Engineer

Approved by:



Jeff Yang / Manager



| Test items particulars: | |
|--|----------------------------|
| Item | Data |
| Model number of Unit Under Tested | KF640011US |
| Serial number | N/A |
| Condition of sample(s) | Prototype |
| Product Type | Ceiling Fan with Light Kit |
| Product Class | Standard |
| Fan Size [in] | 52 |
| Number of fan speeds | 6 |
| Type of Fan Speed Control | Remote control |
| Fan speed controls separate from lighting controls? | Yes |
| The capability of reversible fan action? | Yes |
| Airflow direction | Reversible |
| Thickness of edges of blades [mm] | 14.0 |
| Thickness of edges of blades [inch] | 0.551 |
| Maximum distance between lowest point on the fan blades and the ceiling [inch] | 11 |
| Minimum distance between lowest point on the fan blades and the ceiling [inch] | 11 |
| Maximum Tip speed threshold [m/s] | 10.8 |
| Maximum Tip speed threshold [fpm] | 2124 |

Sample 1, Air Delivery Test at Low Speed - First Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity | 45 | Current (A) | 0.123 |
| Rotate speed (RPM) | 96 | Power (W) | 6.81 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 188.98 | 165.35 | 155.51 | 129.92 | 159.94 | 0.0873 | 13.96 |
| 2 | 206.69 | 204.72 | 175.20 | 165.35 | 187.99 | 0.6981 | 131.24 |
| 3 | 190.94 | 173.23 | 173.23 | 155.51 | 173.23 | 1.3963 | 241.88 |
| 4 | 179.13 | 212.60 | 242.13 | 208.66 | 210.63 | 2.0944 | 441.14 |
| 5 | 196.85 | 236.22 | 224.41 | 175.20 | 208.17 | 2.7925 | 581.31 |
| 6 | 157.48 | 179.13 | 149.61 | 177.17 | 165.85 | 3.4907 | 578.92 |
| 7 | 116.14 | 118.11 | 100.39 | 116.14 | 112.70 | 4.1888 | 472.06 |
| 8 | 43.31 | 49.21 | 45.28 | 51.18 | 47.24 | 4.8869 | 230.88 |
| Total airflow [CFM]: | | | | | | | 2691.40 |

Sample 1, Air Delivery Test at Low Speed - Second Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity | 45 | Current (A) | 0.122 |
| Rotate speed (RPM) | 95 | Power (W) | 6.78 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 167.32 | 155.51 | 163.39 | 143.70 | 157.48 | 0.0873 | 13.75 |
| 2 | 196.85 | 238.19 | 167.32 | 147.64 | 187.50 | 0.6981 | 130.89 |
| 3 | 185.04 | 185.04 | 153.54 | 149.61 | 168.31 | 1.3963 | 235.01 |
| 4 | 157.48 | 216.54 | 261.81 | 250.00 | 221.46 | 2.0944 | 463.82 |
| 5 | 212.60 | 236.22 | 210.63 | 179.13 | 209.65 | 2.7925 | 585.44 |
| 6 | 151.57 | 185.04 | 173.23 | 196.85 | 176.67 | 3.4907 | 616.71 |
| 7 | 106.30 | 98.43 | 88.58 | 98.43 | 97.93 | 4.1888 | 410.22 |
| 8 | 31.50 | 57.09 | 41.34 | 47.24 | 44.29 | 4.8869 | 216.45 |
| Total airflow [CFM]: | | | | | | | 2672.29 |

Sample 1, Air Delivery Test at High Speed - First Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity (%) | 45 | Current (A) | 0.485 |
| Rotate speed (RPM) | 152 | Power (W) | 32.13 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 255.91 | 289.37 | 238.19 | 190.94 | 243.60 | 0.0873 | 21.27 |
| 2 | 285.43 | 297.24 | 344.49 | 330.71 | 314.47 | 0.6981 | 219.53 |
| 3 | 275.59 | 275.59 | 263.78 | 263.78 | 269.69 | 1.3963 | 376.56 |
| 4 | 277.56 | 324.80 | 289.37 | 362.20 | 313.48 | 2.0944 | 656.56 |
| 5 | 240.16 | 210.63 | 214.57 | 218.50 | 220.96 | 2.7925 | 617.04 |
| 6 | 206.69 | 177.17 | 210.63 | 214.57 | 202.26 | 3.4907 | 706.04 |
| 7 | 187.01 | 216.54 | 224.41 | 242.13 | 217.52 | 4.1888 | 911.15 |
| 8 | 98.43 | 90.55 | 108.27 | 110.24 | 101.87 | 4.8869 | 497.83 |
| Total airflow [CFM]: | | | | | | | 4005.98 |

Sample 1, Air Delivery Test at High Speed - Second Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity (%) | 45 | Current (A) | 0.484 |
| Rotate speed (RPM) | 153 | Power (W) | 32.11 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 273.62 | 326.77 | 248.03 | 212.60 | 265.26 | 0.0873 | 23.16 |
| 2 | 328.74 | 251.97 | 293.31 | 301.18 | 293.80 | 0.6981 | 205.10 |
| 3 | 253.94 | 295.28 | 210.63 | 250.00 | 252.46 | 1.3963 | 352.51 |
| 4 | 255.91 | 301.18 | 312.99 | 358.27 | 307.09 | 2.0944 | 643.16 |
| 5 | 238.19 | 210.63 | 206.69 | 224.41 | 219.98 | 2.7925 | 614.30 |
| 6 | 183.07 | 143.70 | 234.25 | 257.87 | 204.72 | 3.4907 | 714.63 |
| 7 | 165.35 | 238.19 | 214.57 | 265.75 | 220.96 | 4.1888 | 925.58 |
| 8 | 100.39 | 82.68 | 124.02 | 104.33 | 102.85 | 4.8869 | 502.64 |
| Total airflow [CFM]: | | | | | | | 3981.07 |

Sample 2, Air Delivery Test at Low Speed - First Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity | 45 | Current (A) | 0.122 |
| Rotate speed (RPM) | 93 | Power (W) | 6.71 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 202.76 | 159.45 | 149.61 | 108.27 | 155.02 | 0.0873 | 13.53 |
| 2 | 210.63 | 234.25 | 155.51 | 147.64 | 187.01 | 0.6981 | 130.55 |
| 3 | 224.41 | 188.98 | 173.23 | 137.80 | 181.10 | 1.3963 | 252.87 |
| 4 | 155.51 | 200.79 | 212.60 | 198.82 | 191.93 | 2.0944 | 401.98 |
| 5 | 159.45 | 214.57 | 183.07 | 177.17 | 183.56 | 2.7925 | 512.60 |
| 6 | 185.04 | 143.70 | 171.26 | 204.72 | 176.18 | 3.4907 | 615.00 |
| 7 | 106.30 | 139.76 | 114.17 | 127.95 | 122.05 | 4.1888 | 511.23 |
| 8 | 64.96 | 47.24 | 45.28 | 61.02 | 54.63 | 4.8869 | 266.95 |
| Total airflow [CFM]: | | | | | | | 2704.71 |

Sample 2, Air Delivery Test at Low Speed - Second Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity | 45 | Current (A) | 0.122 |
| Rotate speed (RPM) | 92 | Power (W) | 6.7 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 242.13 | 159.45 | 122.05 | 94.49 | 154.53 | 0.0873 | 13.49 |
| 2 | 179.13 | 279.53 | 129.92 | 169.29 | 189.47 | 0.6981 | 132.27 |
| 3 | 190.94 | 177.17 | 139.76 | 149.61 | 164.37 | 1.3963 | 229.51 |
| 4 | 145.67 | 190.94 | 236.22 | 185.04 | 189.47 | 2.0944 | 396.82 |
| 5 | 129.92 | 228.35 | 153.54 | 141.73 | 163.39 | 2.7925 | 456.25 |
| 6 | 147.64 | 141.73 | 192.91 | 242.13 | 181.10 | 3.4907 | 632.17 |
| 7 | 124.02 | 145.67 | 155.51 | 116.14 | 135.33 | 4.1888 | 566.89 |
| 8 | 51.18 | 41.34 | 82.68 | 62.99 | 59.55 | 4.8869 | 291.00 |
| Total airflow [CFM]: | | | | | | | 2718.41 |

Sample 2, Air Delivery Test at High Speed - First Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity (%) | 45 | Current (A) | 0.483 |
| Rotate speed (RPM) | 155 | Power (W) | 32.02 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 297.24 | 263.78 | 216.54 | 177.17 | 238.68 | 0.0873 | 20.84 |
| 2 | 297.24 | 255.91 | 340.55 | 326.77 | 305.12 | 0.6981 | 213.00 |
| 3 | 311.02 | 309.06 | 210.63 | 257.87 | 272.15 | 1.3963 | 380.00 |
| 4 | 311.02 | 348.43 | 253.94 | 401.57 | 328.74 | 2.0944 | 688.51 |
| 5 | 279.53 | 175.20 | 173.23 | 232.28 | 215.06 | 2.7925 | 600.55 |
| 6 | 210.63 | 202.76 | 183.07 | 232.28 | 207.19 | 3.4907 | 723.22 |
| 7 | 165.35 | 212.60 | 192.91 | 232.28 | 200.79 | 4.1888 | 841.06 |
| 8 | 92.52 | 88.58 | 116.14 | 108.27 | 101.38 | 4.8869 | 495.42 |
| Total airflow [CFM]: | | | | | | | 3962.61 |

Sample 2, Air Delivery Test at High Speed - Second Set

| Item | Value | Item | Value |
|---------------------------|-------|----------------|-------|
| Barometric pressure (hPa) | 1011 | Voltage (V) | 120 |
| Room temperature (°C) | 23.5 | Frequency (Hz) | 60 |
| Relative humidity (%) | 45 | Current (A) | 0.483 |
| Rotate speed (RPM) | 156 | Power (W) | 32.01 |

| Sensor # | Velocity in FPM - Axis # | | | | Average Vel. [FPM] | Circle area [sq. Ft.] | Airflow [CFM] |
|----------------------|--------------------------|--------|--------|--------|--------------------|-----------------------|---------------|
| | A | B | C | D | | | |
| 1 | 324.80 | 273.62 | 206.69 | 220.47 | 256.40 | 0.0873 | 22.38 |
| 2 | 364.17 | 242.13 | 261.81 | 316.93 | 296.26 | 0.6981 | 206.82 |
| 3 | 273.62 | 316.93 | 204.72 | 224.41 | 254.92 | 1.3963 | 355.95 |
| 4 | 210.63 | 265.75 | 324.80 | 383.86 | 296.26 | 2.0944 | 620.49 |
| 5 | 234.25 | 228.35 | 214.57 | 179.13 | 214.07 | 2.7925 | 597.80 |
| 6 | 171.26 | 133.86 | 271.65 | 301.18 | 219.49 | 3.4907 | 766.17 |
| 7 | 181.10 | 251.97 | 204.72 | 248.03 | 221.46 | 4.1888 | 927.64 |
| 8 | 90.55 | 66.93 | 90.55 | 108.27 | 89.07 | 4.8869 | 435.30 |
| Total airflow [CFM]: | | | | | | | 3932.54 |

Standby power

| Item | Sample 1 | Sample 2 |
|-------------------------------|----------|----------|
| Voltage (V) | 120 | 120 |
| Frequency (Hz) | 60 | 60 |
| Total harmonic content (%) | 1.6 | 1.6 |
| Accumulated energy (mWh) | 152 | 153 |
| Period of measurement (min) | 10 | 10 |
| Standby or off mode power (W) | 0.91 | 0.92 |

Conclusion(Standard)

| Item | Airflow [CFM] | | Power [W] | | Standby [W] | Efficiency [CFM/W] |
|---|---------------|---------|-----------|-------|-------------|--------------------|
| | Low | High | Low | High | | |
| Sample 1 | 2681.84 | 3993.53 | 6.80 | 32.12 | 0.91 | 148.5 |
| Sample 2 | 2711.56 | 3947.58 | 6.71 | 32.02 | 0.92 | 148.5 |
| Number of samples | 2 | 2 | 2 | 2 | 2 | 2 |
| Mean | 2696.70 | 3970.55 | 6.75 | 32.07 | 0.92 | 148.50 |
| Standard deviation | 21.02 | 32.49 | 0.06 | 0.07 | 0.01 | 0.00 |
| LCL _{0.90} /0.9 for Airflow and Efficiency | 2945.51 | 4333.15 | N/A | N/A | N/A | 165.00 |
| UCL _{0.95} /1.1 for Power | N/A | N/A | 6.39 | 29.45 | 0.86 | N/A |
| Declarable value | 2697 | 3971 | 6.8 | 32.07 | 0.92 | 148.50 |
| Minimum Efficiency on and after January 21, 2020 | | | | | | 71.83 |
| Verdict | | | | | | Pass |

Photo of appliance:



View of test sample

--END--

STATEMENT

1. Any objections must be raised to NTEK within 15 days since the date when the report is received.
2. The test results in the report only apply to the tested sample.
3. The test report shall be invalid without all the signatures of testing engineers, reviewer and approver.
4. This inspection report is invalid without "special seal for testing".
5. It should not be reproduced except in full, without the written approval of our laboratory.
6. The copy approved for reproduction shall be sealed and confirmed.
7. The "*" in the inspection item is the subcontract inspection item.
8. The remaining samples must be retrieving within three months after receiving the inspection report. If they are not retrieved after the deadline, our company will handle them by itself.

Company Name: Dongguan NTEK Testing service Co., Ltd.

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