File E89936 Project 97SC00704

Issued: April 17, 1997 Revised: March 15, 2005

REPORT

ON

COMPONENT - ELECTRIC FAN

Mineba-Matsushita Motor Corp Nagano-Ken, Japan

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DESCRIPTION

PRODUCT COVERED:

Component - Electric Fans, Models 2406KL-04W, followed by -BXY where "X" represents digits 1 thru 6, 7, or 8, and "Y" represents digits 0 or 9. Model 2406KL-04W-B36-LS1. Model 2406KL-05W-BXY where X represents 1 thru 5 and Y represents 0 thru 9. Model 2406KL-04W-BXY-KZZ where "X" represents digits 1 through 6, "Y" represents digits 0 thru 9 and "ZZ" represents digits any combination of numbers or letters. Model 2406KL-09W-B40. Models 2406KL-04W-B1X, -B2X, -B3X, -B4X, and -B5X where "X" represents 5 thru 8. Model 2406KL-05W-B59-XQY, where "X" may be any numbers and "Y" may be any numbers or any alphabets.

ELECTRICAL RATINGS:

Model No.	Volts (dc)	Amperes
2406KL-04W-B1Y	12	0.06
2406KL-04W-B2Y	12	0.10
2406KL-04W-B3Y	12	0.12
2406KL-04W-B36-LS1	12	0.14
2406KL-04W-B4Y	12	0.17
2406KL-04W-B5Y	12	0.21
2406KL-04W-B7Y	12	0.28
2406KL-04W-B8Y	12	0.40
2406KL-05W-B1Y	24	0.05
2406KL-05W-B2Y	24	0.08
2406KL-05W-B3Y	24	0.08
2406KL-05W-B4Y	24	0.09
2406KL-05W-B5Y	24	0.13
2406KL-09W-B40	14	0.13
2406KL-04W-B1Y-KZZ	12	0.06
2406KL-04W-B2Y-KZZ	12	0.10
2406KL-04W-B3Y-KZZ	12	0.12
2406KL-04W-B4Y-KZZ	12	0.17
2406KL-04W-B5Y-KZZ	12	0.21
2406KL-04W-B1X	12	0.06
2406KL-04W-B2X	12	0.10
2406KL-04W-B3X	12	0.12
2406KL-04W-B4X	12	0.17
2406KL-04W-B5X	12	0.21
2406KL-05W-B59-XQY	24	0.13

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ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE:

The models described in this Report are provided with a solid state control circuitry that incorporates a current limiting, current shutdown circuit which shuts the fan off under locked rotor conditions.

Conditions of Acceptability -

For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

The following items are limitations to be considered during the end-use investigation:

- 1. This investigation was established to cover a Class A insulating system for all fans described in this Report.
- 2. The suitability of these fans when operating under normal or abnormal conditions, within an appliance or enclosure, should be determined for each application.
- 3. The suitability of these fans for use when exposed to water, oil, Freon, chemicals, X-rays, ultraviolet rays, and the like, has not been determined by this investigation.
- 4. The acceptability of the external leads of the models described in this Report should be determined for each application with regard to size, temperature limitations, and any other elements that might be required in the end-use product.
- 5. The thermoplastic enclosures of these fans have not been subjected to the Flammability (3/4 in. flame), Mold Stress Distortion, and/or Ball Impact (5 ft lb.) Tests as described in Standard UL 746C during this investigation.

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- 6. The solid state control circuitry provided with the models described in this Report has not been evaluated for motor protection during this investigation. The need for such evaluation shall be considered in the end-product investigation. For informational purposes, representative samples of these fans were subjected to a 7-Hour Abnormal Operation Test.
- 7. These fans have not been evaluated for use with solid state speed control devices. Suitability for such usage should be evaluated in the end-use product.
- 8. The suitability of the adhesive-backed aluminum labels provided with the fans described in this Report for permanence of marking has not been determined during this investigation and should be judged in the end-use application.
- 9. The fans shall be mounted and enclosed in accordance with the frame and enclosure requirements of the end product. Suitable enclosures or guards shall be provided for the fan blades to reduce the risk of injury to persons.
- 10. * Temperature Test conducted on the fans described in this Report was done in an average ambient temperature of 25°C. The suitability of these fans when they are intended to operate in a higher ambient temperature should be evaluated during the end-use investigation. The Temperature Test on Model 2406KL-04W-B89 was conducted in an ambient temperature of 60°C; coil temperatures measured 78°C. Suitability of bobbin material type 420SE0 by GE Plastics Japan rated 75°C Elec RTI shall be determined in the end use.
- 11. The minimum flammability rating of the plastic used for the fan frame and fan blades of the fans described in this Report is 94V-0.
- 12. The minimum flammability rating of the printed wiring boards used in the fans described in this Report is 94V-1.
- 13. The suitability of the adhesive-backed stainless steel sheet provided with between fans and pressure-sensitive adhesive label described in this Report has not been determined during this investigation and should be judged in the end-use application.