

CPRI

TEST REPORT



Central Power Research Institute

(A Govt. of India Society)

P.B.No. 8066, Sadashivanagar Post Office,

Sir C.V. Raman Road,

Bangalore – 560 080 (INDIA)

CENTRAL POWER RESEARCH INSTITUTE



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TEST REPORT

Test Report Number : 323EATDFAN13S0004 **Dated:** 14.06.2013
Name & Address of the customer : M/s Versa Drives Pvt Ltd
351B/2A, Uzhaipalar Street, G.N.Mills PO
Coimbatore - 641029

Name & Address of the Manufacturer : M/s Versa Drives Pvt Ltd
351B/2A, Uzhaipalar Street, G.N.Mills PO
Coimbatore - 641029

Particulars of sample tested :
Condition of the sample on Receipt : New
Type : 1200 mm Sweep, 220 - 240V, 50 Hz, Super X Series
Designation : Electric Ceiling Fan
Serial Number : MX1.13060014
Number of Samples Tested : One
Date(s) of test (s) : 15.05.2013 To 31.05.2013
CPRI Sample Code No : EATDFAN13S0004

Particulars of test Conducted :
Test in accordance with :
Standard/ Specification : As per IS: 374 – 1979 (With Amendments up to 06)
Sampling Plan : Not Applicable
Customer's requirement : -Nil-
Deviations if any : Winding Insulation : Class ' F '

Names of the witnessing persons
Customer's representatives : Mr. P. Pon Karthik Kumar
Other than Customer's representatives : -Nil-
Test Subcontracted with : None
address of the laboratory :

Documents constituting this report
(In words)
Number of sheets : Six only
Number of oscillograms : -Nil-
Number of graphs : -Nil-
Number of photos : -Nil-
Number of Test circuit Diagrams : -Nil-
Number of drawings : -Nil-

(A.LOURDHUNADHAN)
Test Engineer


(GUJJALA B. BALARAMU)
Head of the Division

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TEST RESULT

Sl. No	Test Conducted	Clause Reference/ Specified Requirements / conditions	Results/values obtained
1.	Size	Clause 3.0: Standard size of the ceiling fan=1200mm	S0004 Measured Size = 1202 mm
2.	Design and General construction	Clause 6.0: 6.1) Enclosures : 6.1.1) Enclosure Type 6.1.2) The enclosures of all-insulated fans may form part or whole of the supplementary or reinforced insulation 6.3) Blades : 6.4) Heat Resistance: 6.5) Moisture Resistance : 6.6) Bearings : Instruction for the proper lubrication of bearings 6.7) Protective Measures: Basic / Double or Reinforced Insulation 6.7.1) Indication / Marking of Earthing Terminal 6.8) Protection Against Direct Contact : Accessibility of live parts shall not be possible 6.9) Capacitors: 6.10) Suspension System: Adequate Strength 6.11) Components Replacement 6.12) Parts Providing degree of Protection against moisture 6.13) Corrosion of current carrying parts	<p style="text-align: center;">--- Complies --- ---Supplementary insulation---</p> <p style="text-align: center;">--- Complies --- --- Complies --- ---Not Applicable --- (Regulator not used) FAG Double side shielded deep groove ball bearing used.</p> <p>--- With basic insulation only, with the accessible metal parts designed to be connected to an Earthing terminal or contact --- Earthing Contact provided Live parts are not Accessible No capacitor --- Complies--- test carried out as specified in clause 10.14 under type test --- Not Applicable --- Not possible to remove the parts without the aid of a tool --- Complies ---</p>


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3.	Finish	Clause 7.7 Surface Protection of Motor and Blades	--- Complies ---
4.	Speed regulators	Clause 7.9: 7.9.1) Speed Regulators 7.9.2) The ideal Speed Differences 7.9.3) Provision of Discharge Capacitors in the OFF position 7.9.4) Regulator Handle or Knob 7.9.5) The Mechanism of the Regulator contact at each running position 7.9.6) Protection Against Moving Current Carrying Parts 7.9.7) Electronic Type Regulator 7.9.8) Voltage Drop across Electronic Type Regulator	--- Complies --- --- Complies --- --- Not Applicable --- --- Not Applicable --- --- Not Applicable --- --- Not Applicable --- --- Not Applicable --- --- Not Applicable ---
5.	Interchangeability	Clause 7.11: The Motor of the fan of a particular size and model and its associated regulator & set of Blades shall be Interchangeable	--- Complies ---
6.	Test for Air delivery & Service value	Clause 10.3: The minimum air delivery shall be 200 m ³ /minute The minimum service value shall be 4.0 m ³ /min/w	220.80 m ³ /min 6.55 m ³ /min/w

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7.	Test for Temperature Rise	Clause 10.4: The temperature rise measured on different parts shall not be more than as below: a) Winding of the fan motor = 110 °C (Class F Insulation) b) On the Frame enclosing regulator = 40 °C c) On the External surface of capacitor = 45 °C	RY = 33.86 °C YB = 33.86 °C BR = 36.71 °C --- Not Applicable --- --- Not Applicable ---
8.	Test for leakage current	Clause 10.5: The Leakage current measured shall not exceed 750 μA (Peak) Between current carrying terminal and body	692.86 μA (Peak)
9.	Test for High Voltage	Clause 10.6: There shall be no break down or flashover when test voltage is applied for one minute between : <u>Fan Motor</u> a) Live parts & body – 1500 V b) Live parts & other inaccessible metal part - 1500V <u>Fan regulator</u> a) Any terminal & body – 1500 V b) Terminals with regulator in OFF position – 1500V	Withstood Withstood --- Not Applicable --- --- Not Applicable ---
10.	Test for insulation Resistance	Clause 10.7: The insulation resistance shall not be less then 2 Mega ohms measured between: <u>Fan motor</u> a) Live terminal & body <u>Fan regulator</u> a) Live terminal & body	>20GΩ --- Not Applicable ---
11.	Test for starting	Clause 10.8: The fan shall be capable of starting 10 times at lowest speed step of regulator at 85 Percent of its test voltage.	Fan started satisfactorily


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12.	Test for fan speed & input	Clause 10.9: a) Speed b) Input power (W) c) Power factor	390 rpm 33.7 W 0.99
13.	Test for Earthing connection	Clause 10.10: The resistance value shall not exceed 0.1 Ohm	0.021 Ω
14.	Test for suspension system	Clause 10.14: The suspension system of the ceiling fan shall withstand a tensile load of 1000kg and a torsion load of 500-kg cm	--- Withstood ---
15.	Test for Creepage distance & clearance	Clause 10.15: Creepage distance shall not be less than: a) Between live parts of different polarity - 3mm b) Between live parts & other metal parts - 4mm Clearance shall not be less than: a) Between live parts of different polarity - 2.5mm b) Between live parts & other metal parts - 3mm	Measured Values in mm: 9.01 9.80 4.48 3.20

Note: Infra-Red Remote speed command control used for speed variation.

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NOTE

- a) The Test results relate only to the item(s) tested.
- b) Publication or reproduction of the test report /Certificate in any form other than by complete set of the whole test report /Certificate and in the language written is not permitted without the written consent of CPRI.
- c) Any Corrections/erasure invalidates the test Report/Certificate
- d) NABL has Accredited this laboratory as per ISO 17025-2005 standard for the tests carried out.
- e) Any anomaly/discrepancy in the test report /Certificate should be brought to the notice of CPRI within 45 days from the date of issue.
- f) The verification of the sample drawings by CPRI is limited to dimensional checks only wherever possible.

A handwritten signature in black ink, appearing to be 'S. R. D.', is written above the title 'Test Engineer'.

Test Engineer