



ELECTRONICS TESTING CENTER, TAIWAN
ADDRESS: NO.5 HSIN HO 2 RD., AN PIN INDUSTRIAL PARK,
TAINAN, TAIWAN
TEL:06-2925787 FAX:06-2650302
<http://www.etc.org.tw>



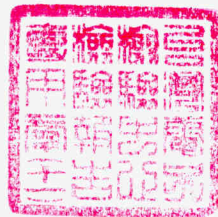
Testing Laboratory
1161

Ind. Ser. No. : 14-06-NEF-008

Issue Date : 2014 / 7 / 3

TEST REPORT

Ind. Ser. No.	: 14-06-NEF-008
Applicant	: Qualtek Electronics Corporation
Address	: 7610 Jenther Drive Mentor, Ohio 44060 U.S.A.
Products	: Axial fans
Model	: See the following sheets
Quantity	: 11 sets
Date of Receipt	:
Date of Testing	: Reference : ETC's Report NO.14-06-NEF-003
Test specification	: IEC60529 Edition 2.1 2001-02 Electronics Testing Center, Taiwan – Southern Taiwan Industry
Inspection Site	: Service Department (TAF Certification No:1161)
Ambient Environment	: IP5X Temp. $26 \pm 1^{\circ}\text{C}$, R.H. $52 \pm 2\%$ IPX4 Temp. $26 \pm 1^{\circ}\text{C}$, R.H. $58 \pm 2\%$
Testing Item	: IP54
Test condition	: See the following sheets
Test result	: PASS (Reference : ETC's Report NO.14-06-NEF-003)



The test results relate only to the items tested.

The report shall not be reproduced except in full without the written approval of Electronics Testing Center, Taiwan.

This inspection has carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care, this certification is not intended to believe the sellers from their contractual obligations.

.....

Tested by : Yip Lieh Fu.
2014.7.3.

Southern Taiwan Industry
Service Department

Approved by : Wang Wang 2014.7.03

Southern Taiwan Industry
Service Department



TEST REPORT

Ind. Ser. No. : 14-06-NEF-008

Model

Plastic Impeller	:	FDA2-17251xxxx3F (round)
		FDA2-17238xxxx3F
		FDA2-17251xxxx3F
		FDA2-17255xxxx3F
Steel Impeller	:	FDA2-17251xxxx4F (round)
		FDA2-17238xxxx4F
		FDA2-17251xxxx4F
		FDA2-17255xxxx4F
		FDA2-25489xxxx4F
		FDA2-22580xxxx4F
	FDA2-28080xxxx4F	



TEST REPORT

Ind. Ser. No. : 14-06-NEF-008

Testing Item: IP54

Testing Conditions :

(1) IP5X :

- (1) Maximum depression of 2kPa (20mbar) °
- (2) The test shall be continued for a period of 8 hours °

(2) IPX4 :

- (1) The oscillating tube has spray hole over the whole 180° of the semicircle .
- (2) The tube is caused to oscillate through an angle of almost 360° , 180° on either side of the vertical , the time for one complete oscillation (2×360°) be
- (3) The duration of the test is 10 min.
- (4) Mean flow rate per hole $qv1=0.07 \text{ l/min}$

Testing Result :

Request/Experiment	Results	Remark
Accordance with IEC60529 13.1,13.4and 13.5 test. The protection is satisfactory if, on inspection, talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety.	There are some traces of dust inside, but not impaired safety.	IP5X
After testing in accordance with appropriate requirements of IEC60529 14.1,14.2.4 and 14.3	There are some traces of water inside, but not impaired safety.	IPX4

NOTE : This report does not imply the assessment of CORD of the EUT.



TEST REPORT

Ind. Ser. No. : 14-06-NEF-008

Utilized testing equipments

used	Kind of Instrument	Manufacturer	Model Serial NO.
✓	TEMP/HUM RECORDER Cal. Date:2014/05/06 Recommended Recal Date:2015 / 05 / 05	KIMO	KH210-AO/13491047-001
	Electrical Safety Compliance Analyzer	EXTECH	7452/E992214
	AC 20Kv 200mA	Asis	SYT-20kV200mA/S97-004
	Push And Pull Dynamometer with Linear Scale (0...50N)	PTL	P10.35/5001028
	Push-Pull gauge	ALGOL	NK-300/30954
	Protractor	—	A7028-J (0° ~ 90°)
✓	Stop Watch Clock Alarm Cal. Date:2013/09/03 Recommended Recal Date:2014/09/02	CATIGA	CT-500
✓	Test rod,1mm	E.D.&D.	TRP-02
	Test rod,2.5mm	ASIA QTECH	TRP-1/0803
	Test sphere 50mm	ASIA QTECH	TSP-1/0801
	Test finger	PTL	P10.14/5001023/13502009-001
	Test sphere 12.5mm	ASIA QTECH	TSP-2/0802
✓	DUST TEST CHAMBER Cal. Date:2014/04/18 Recommended Recal Date:2015/04/17	PTL	P14.41/5050255
	Drip Box (IPX1~IPX2)	PTL	P01.18/5080026
✓	Oscillating Tube (IPX3~IPX4)	PTL	P02.27/5080027
	Hose Nozzle (IPX5)	PTL	P03.26/5080028
	Hose Nozzle (IPX6)	PTL	P03.28/5080029
	Water Butt (IPX7~8)	—	—

Axial fans : IP5X Test Photo



Axial fans : IPX4 Test Photo



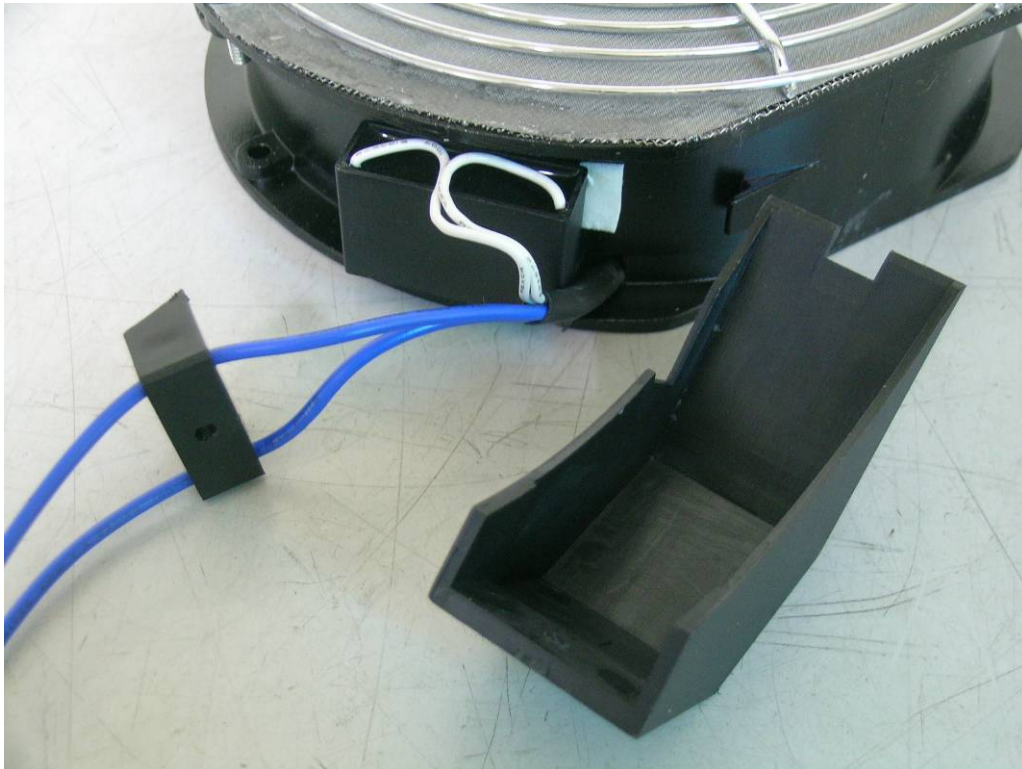
Appearance : FDA2-17238xxxx4F



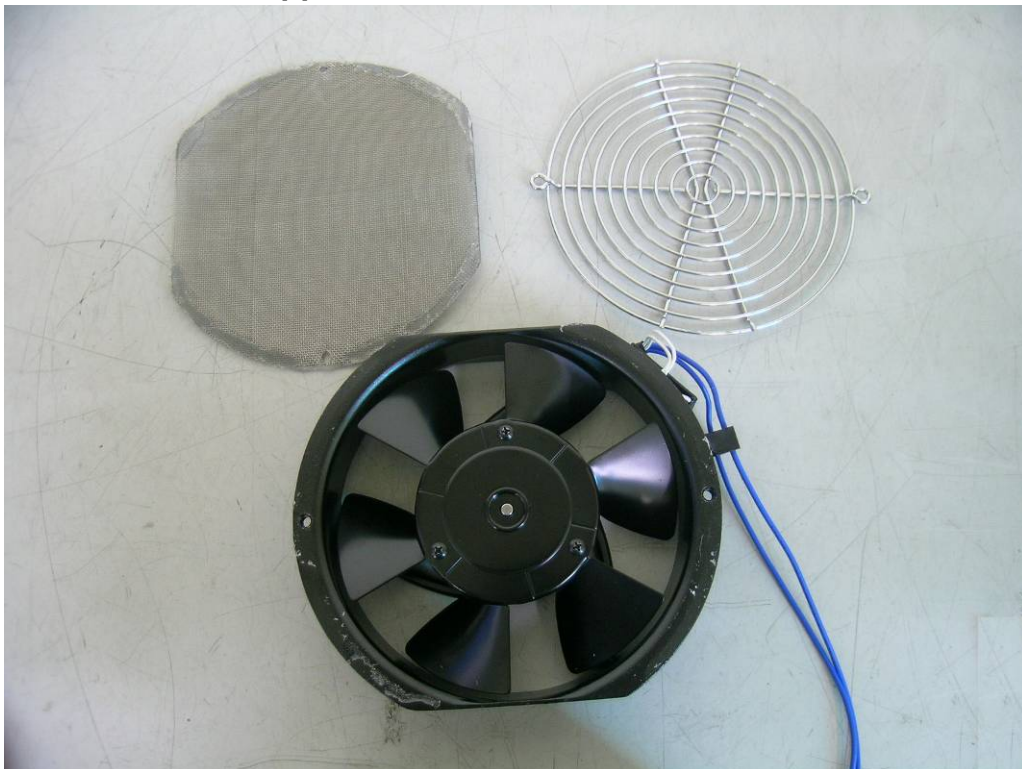
Appearance : FDA2-17238xxxx4F



Appearance : FDA2-17238xxx4F



Appearance : FDA2-17238xxx4F



Inside : FDA2-17238xxxx4F



Appearance : FDA2-17238xxxx3F



Inside : FDA2-17238xxxx3F



Appearance : FDA2-17251xxxx4F



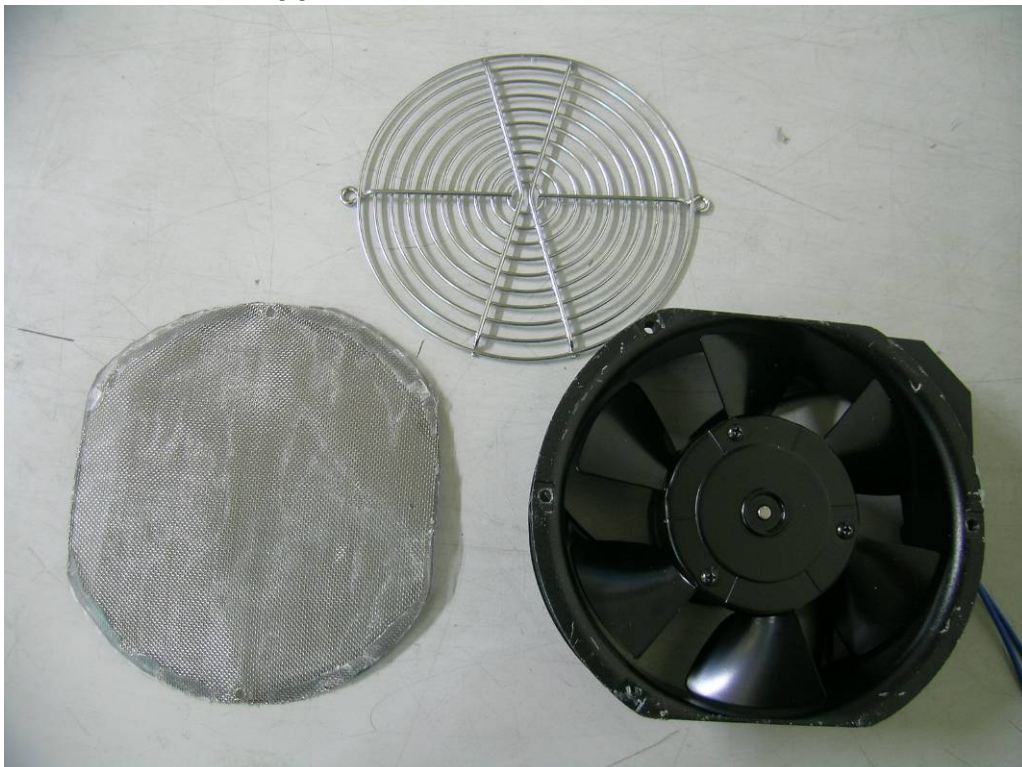
Appearance : FDA2-17251xxxx4F



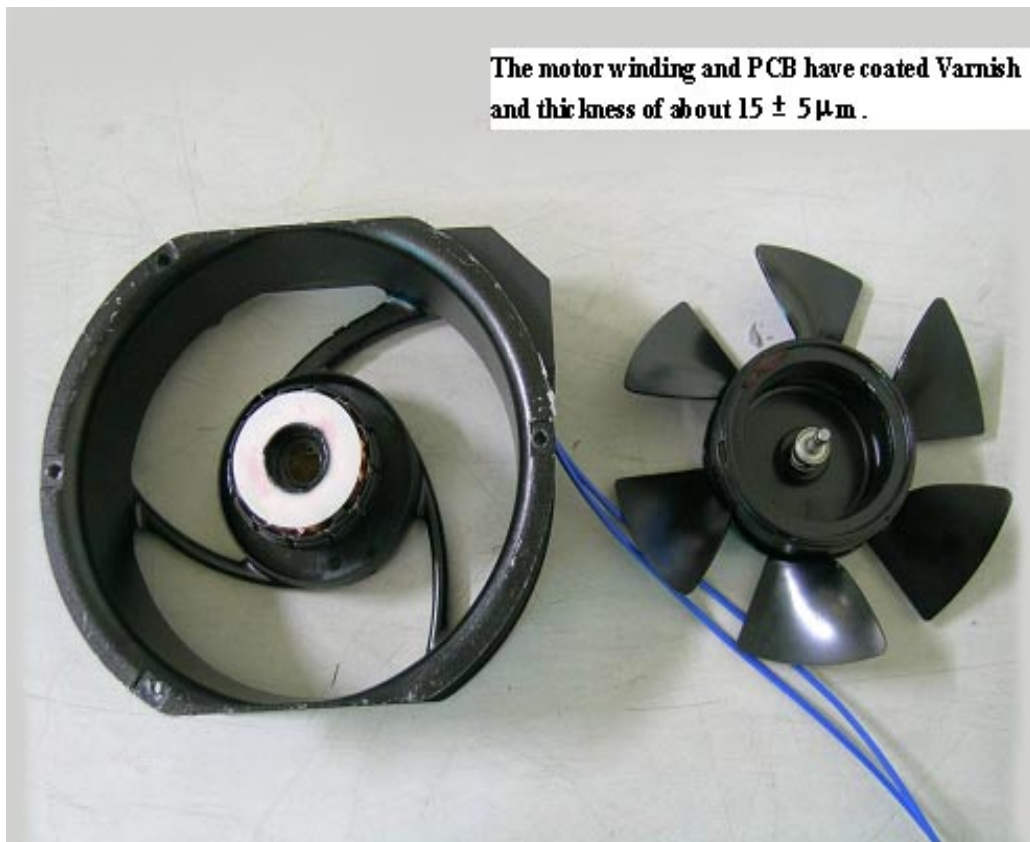
Appearance : FDA2-17251xxxx4F



Appearance : FDA2-17251xxxx4F



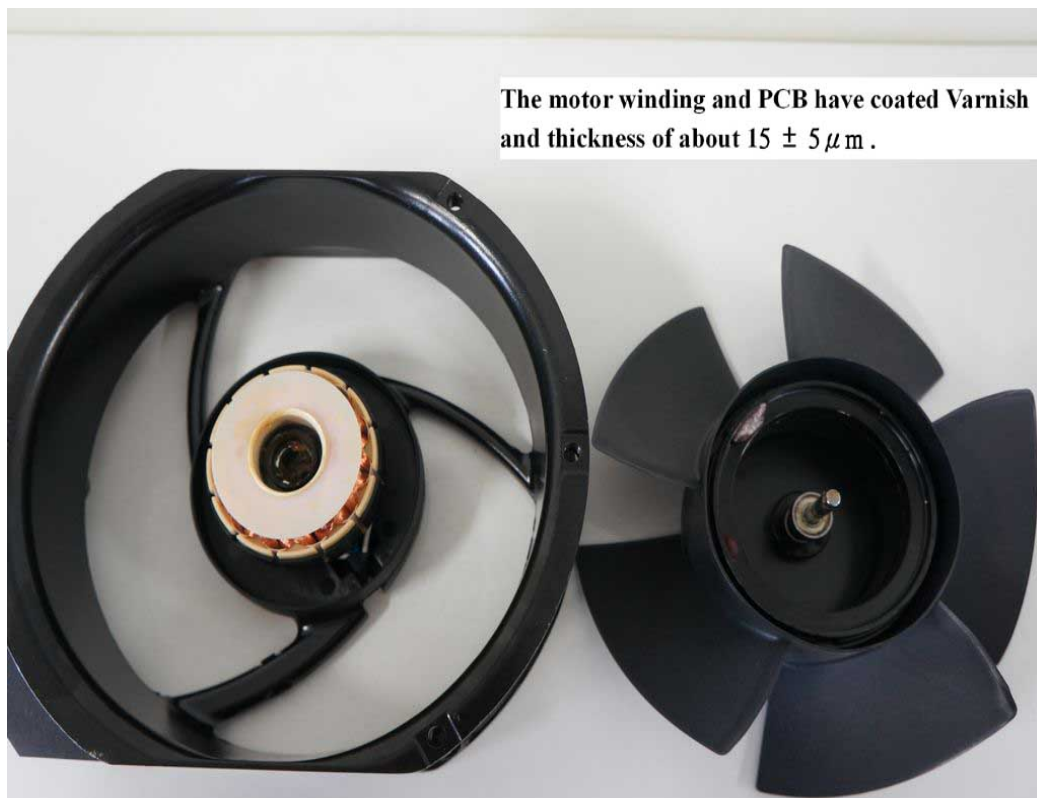
Inside : FDA2-17251xxxx4F



Appearance : FDA2-17251xxxx3F



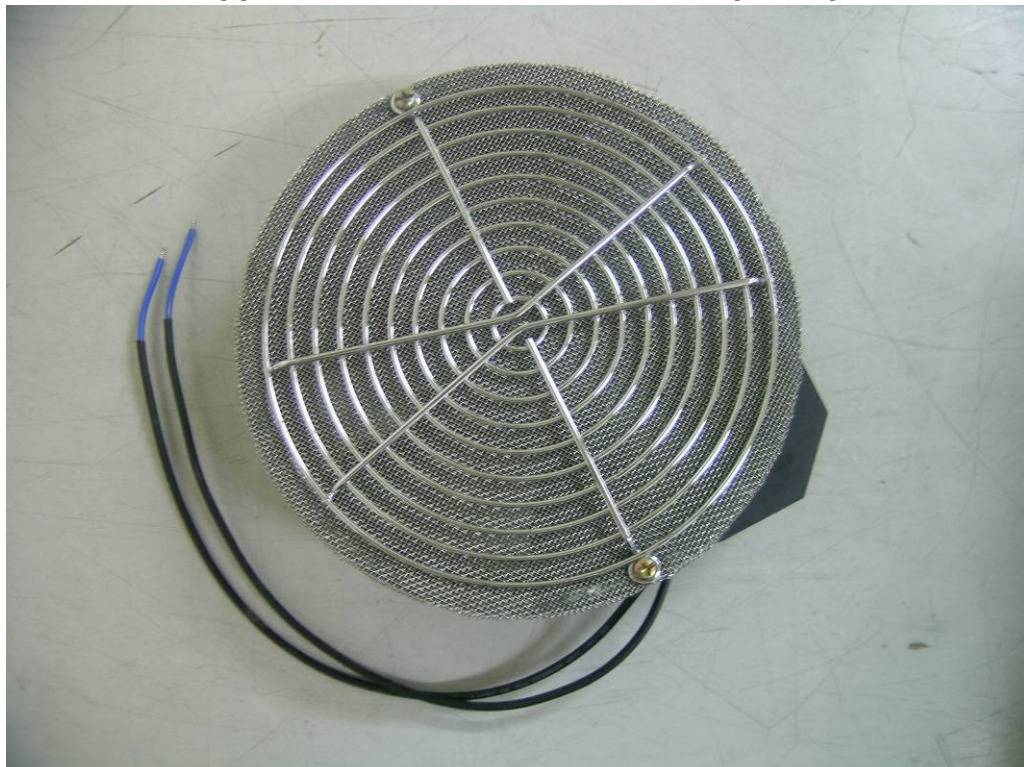
Inside : FDA2-17251xxxx3F



Appearance : FDA2-17251xxxx4F (round)



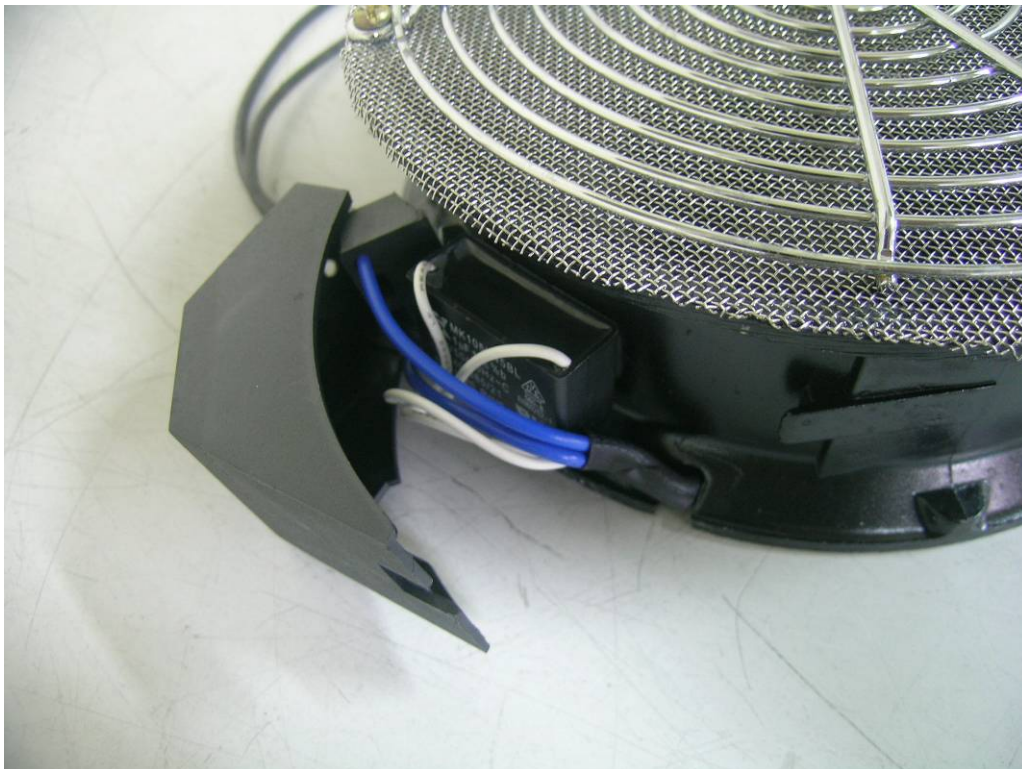
Appearance : FDA2-17251xxxx4F (round)



Appearance : FDA2-17251xxxx4F (round)



Appearance : FDA2-17251xxxx4F (round)



Inside : FDA2-17251xxxx4F (round)

The motor winding and PCB have coated Varnish
and thickness of about $15 \pm 5 \mu\text{m}$.



Appearance : FDA2-17251xxxx3F (round)



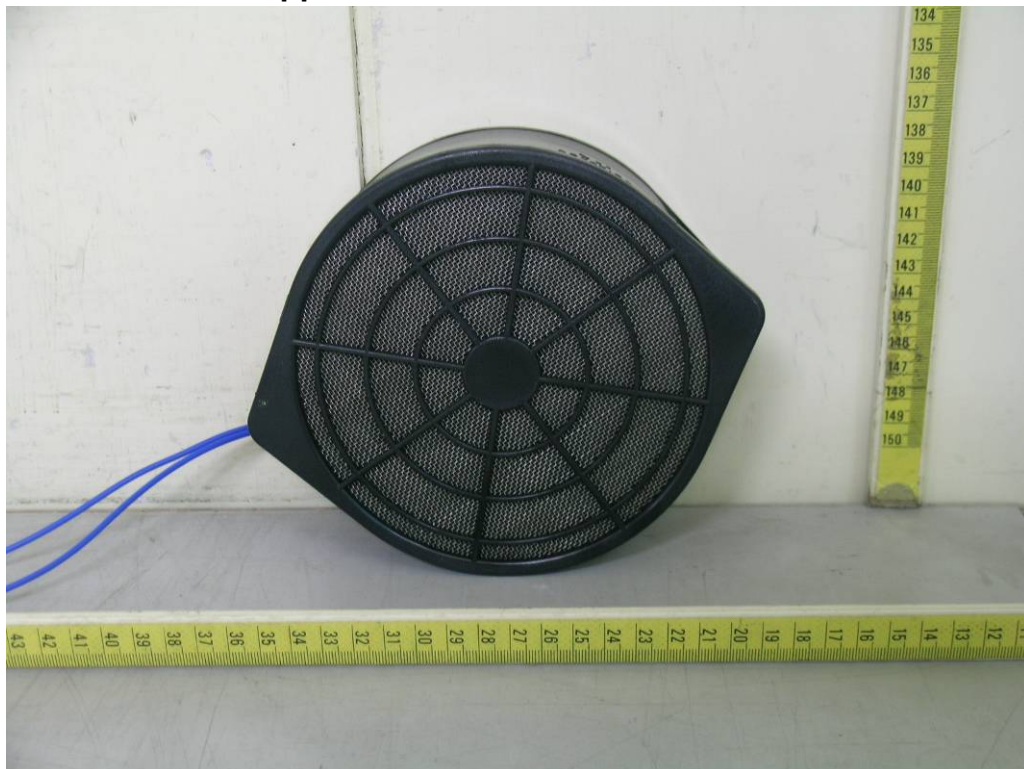
Inside : FDA2-17251xxxx3F (round)



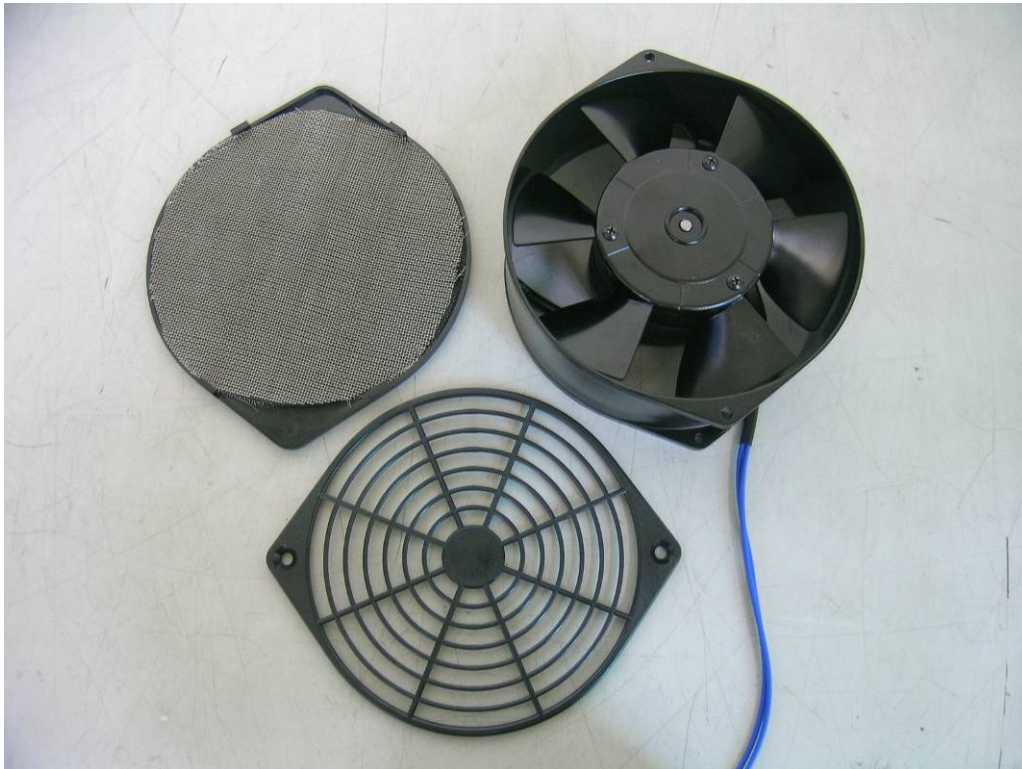
Appearance : FDA2-17255xxxx4F



Appearance : FDA2-17255xxxx4F



Appearance : FDA2-17255xxxx4F



Inside : FDA2-17255xxxx4F



Appearance : FDA2-17255xxxx3F



Inside : FDA2-17255xxxx3F





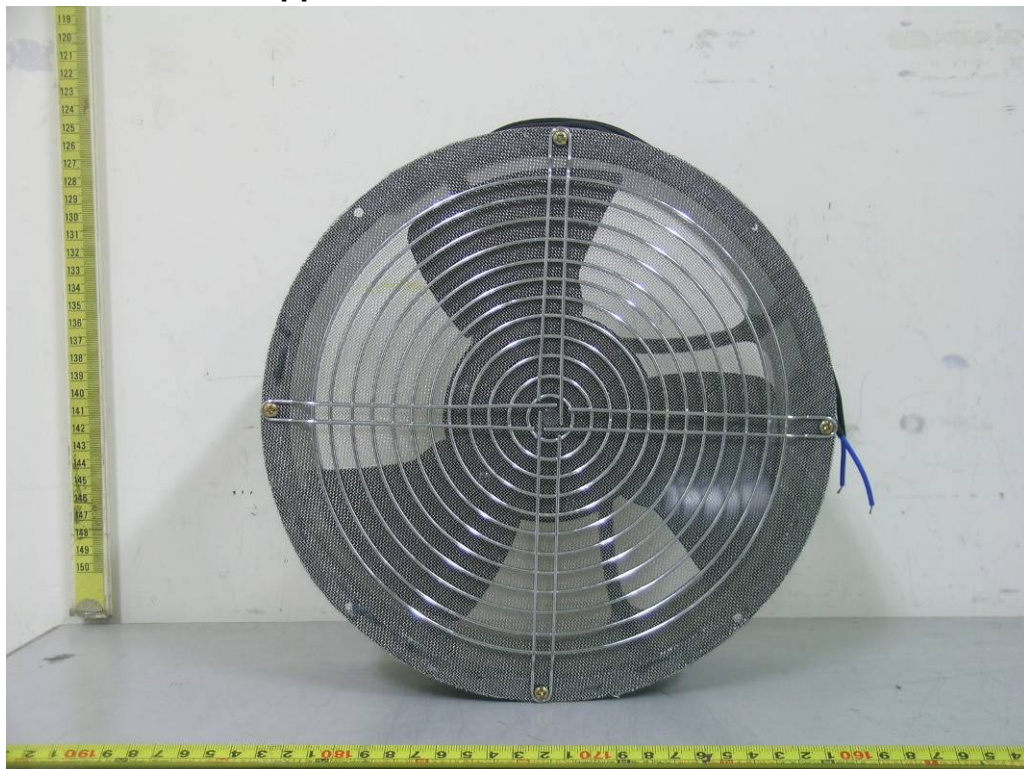
TEST REPORT

Ind. Ser. No. : 14-06-NEF-008

Appearance : FDA2-25489xxxx4F



Appearance : FDA2-25489xxxx4F



Appearance : FDA2-25489xxxx4F

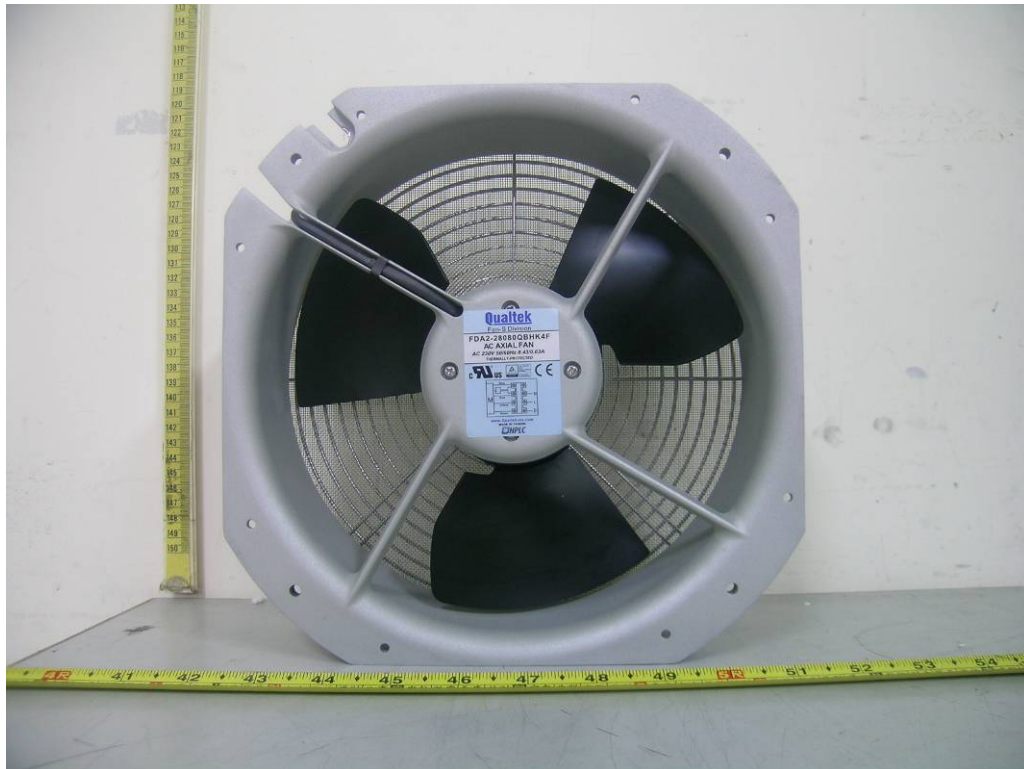


Inside : FDA2-25489xxxx4F

The motor winding and PCB have coated Varnish
and thickness of about $15 \pm 5 \mu\text{m}$.



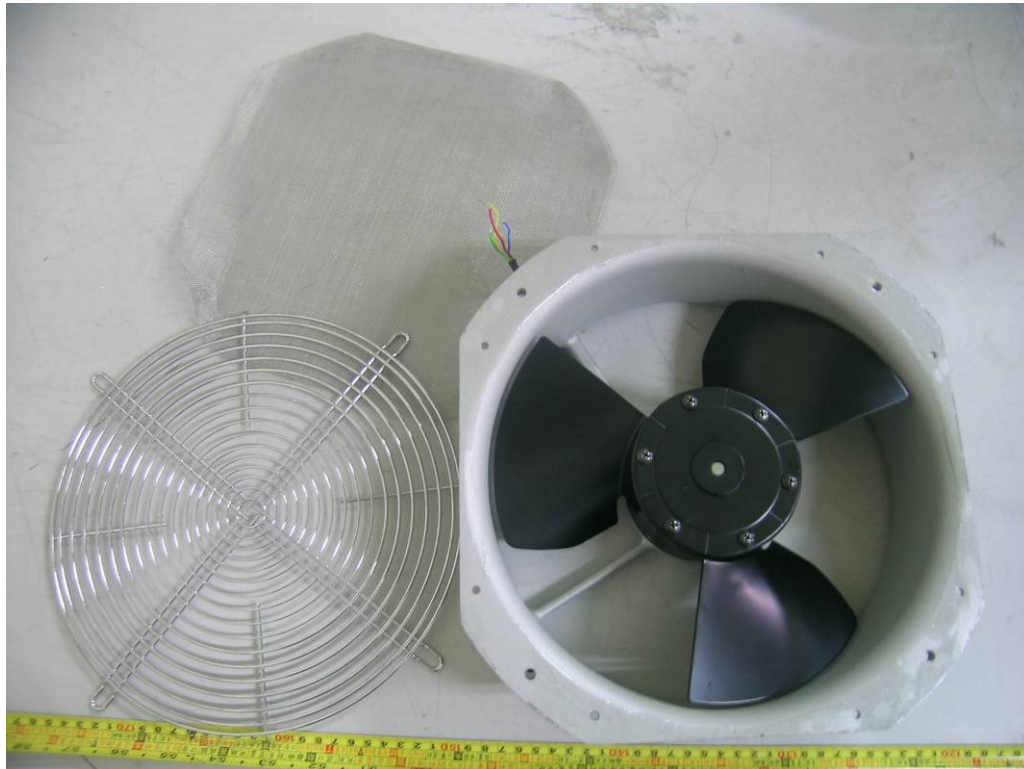
Appearance : FDA2-28080xxxx4F



Appearance : FDA2-28080xxxx4F



Appearance : FDA2-28080xxxx4F



Inside : FDA2-28080xxxx4F



Appearance : FDA2-22580xxxx4F



Appearance : FDA2-22580xxxx4F



Appearance : FDA2-22580xxxx4F



Inside : FDA2-22580xxxx4F

