

DC FAN LIFE EXPERIMENT REPORT

Available for these models with lower speed and same physical structure. All model may be followed by Rxx or Fxx series suffixes. This test report applies to EFB 50x50x15mm series as the right table

Representative Test P/N: EFB0512VHBBBN

Equipment: 1.Oven: OVT-150EX, Logicom 2. DC Source: Topward 6303

Minimum Test Duration: 3,750 hours min. 13.5VDC and at the temperature cycling: 95°C /47hrs, 105°C/1hr

Requirement: Hella Axial Fan for headlamp application (DV plan head lamp std _v00)

L-02 Life test - high-temperature endurance test

1. DUT operating mode : Intermittent, 46 h operating [13.5V] at 95C, 1 h [0V] at 95C and 1 h [13.5V] at 105C

2. Test temperature: 47hrs 95°C /1hr 105° C

3. Test duration: 3750 hours.

Duration is based on section 12.3.1 Arrhenius model,

with operating time $T_{OP} > 8\,000$ h and the following operating time % :

4. Sample Size: 25 pcs.

Ambient operating temperature [°C]	Operating time [%]
-40	6
23	20
80	65
100	8
105	1

Sample Status: DV

Test Progress:

Date for Test Beginning	Date for Test Termination (at least)	Current Test Status			Current Total Test Time (hours)
01-Apr-16	26-Sep-16	<input type="checkbox"/> In process	<input checked="" type="checkbox"/> In process (exceed requested)	<input type="checkbox"/> Termination	4,141

Acceptance Criteria :

1/ Noise Specification: 41 dBA max measured at 1m with 13.5V

2/ Current (Av): Max: 0.17 A at rated voltage (13.5V)

			Test Result	<input checked="" type="checkbox"/> Accept	
				<input type="checkbox"/> Reject	
QE File No.	Time-out for function test or others (hours)	Date of issue	Reported By	Approved By	
TH16FNL015_L02_STD	539	13-Oct-16	Natthichakorn	Yesesaeng	

BGN(dBA): 17.8
RH(%): 56

Temp.(°C): 23.2
Noise distance (cm): 50

P(inHg): 30.32
Noise cor. (dB): 0

Form ฉบับ



DC FAN FUNCTION TEST RECORD FOR CUSTOMIZED LIFE EXPERIMENT

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Required Test Time (hrs)	Date for Test Beginning	Date for Test Termination	Sample Size (pcs):	Failure (pcs):	Current Total Test Time (hrs)
3,750	1-Apr-16	26-Sep-16	25	0	4,141
Representative Test P/N: EFB0512VHBBBN			Current Test Status	<input type="checkbox"/> In process <input checked="" type="checkbox"/> In process (exceed requested)	<input type="checkbox"/> Termination
Equipment: 1.Oven: OVT-150EX, Logicom 2. DC Source: Topward 6303					

Test Data Between Initial Test and Final Test

Sample No.	Initial Test	Final Test	Deviation (%)	Initial Test	Final Test	Deviation (%)	Initial @13.5V	Initial @13.5V	Deviation dB
	Current Spec. max (mA)	Current Spec. max (mA)		Speed Ref. (RPM)	Speed Ref. (RPM)		Noise at 1 m Max (dB A)	Noise at 1 m Max (dB A)	
	170	170		7600	7600		41	41	
L2.1	147	158	7.8	7480	8583	14.7	35.3	38.9	3.6
L2.2	146	160	9.3	7540	8711	15.5	36.3	38.8	2.5
L2.3	145	160	10.3	7560	8714	15.3	34.3	38.9	4.6
L2.4	120	146	21.3	7590	8734	15.1	34.5	38.9	4.4
L2.5	112	145	29.1	7840	8439	7.6	34.2	38.9	4.7
L2.6	103	130	26.7	7410	9168	23.7	32.0	39.0	7.0
L2.7	116	145	24.7	7520	8348	11.0	32.6	38.7	6.1
L2.8	116	145	24.6	7710	8966	16.3	35.6	39.0	3.4
L2.9	117	145	23.6	7750	8788	13.4	33.5	39.0	5.5
L2.10	120	146	21.5	7710	9072	17.7	33.0	38.7	5.7
L2.11	126	146	15.9	7530	8964	19.0	32.0	39.0	7.0
L2.12	126	158	25.6	7380	8491	15.1	31.5	39.0	7.5
L2.13	124	152	22.7	7680	8725	13.6	33.0	38.7	5.7
L2.14	123	146	18.7	7749	8859	14.3	31.4	38.7	7.3
L2.15	121	145	20.2	7800	8738	12.0	35.5	38.4	2.9
L2.16	122	146	19.5	7810	8934	14.4	33.6	39.0	5.4
L2.17	145	146	0.8	7520	8459	12.5	33.5	38.8	5.3
L2.18	144	155	7.8	7310	8716	19.2	32.5	38.9	6.4
L2.19	143	156	9.2	7950	8655	8.9	33.7	38.8	5.1
L2.20	146	156	7.2	7680	8295	8.0	31.1	38.6	7.5
L2.21	148	157	5.9	7610	8247	8.4	33.1	38.9	5.9
L2.22	146	159	8.6	7710	9008	16.8	32.5	38.7	6.2
L2.23	148	156	5.7	7645	8488	11.0	32.1	38.7	6.5
L2.24	145	156	7.4	7600	8951	17.8	30.3	38.8	8.5
L2.25	143	160	11.7	7650	8846	15.6	33.5	38.6	5.1
X-bar	132	151	-	7629	8716	-	33.2	38.8	-
σ	14	7	-	151	249	-	1.5	0.2	-

QE File No.	Time-out for function test or others (hours)	Date of issue	Reported By	Approved By
TH16FNL015_L02_STD	539	13-Oct-16	Natthichakorn	Yesesaeng