EMC TEST REPORT

Report No.: SH09090884-001 Amendment1

Applicant:	Ningbo Xiecheng Power Tools Co , Ltd.		
Address:	Tong Jiao Si Chunhu Town, Fenghua, Zhejiang, P. R. China		
Product:	Circular Saw	Related based report No.:	SH09090884-001
Brand Name:	---	Base test procedure:	EMC
Model No.:	See Annex I	Base testing laboratory:	
Rating(s):	230-240V~, 50Hz, 4700/min, Class II For details see Annex I	Intertek Testing Services Shanghai	
Issued by:	Intertek Testing Services Shanghai	Test procedure:	EMC
Date of issue:	September 29, 2010	Standard:	EN55014-1:2006 EN55014-2: 1997/+A1: 2001/ +A2: 2008 EN61000-3-2: 2006 EN61000-3-3: 2008

Amendment 1:

The original test report ref. No. SH09090884-001 dated January 27, 2010 was modified on September 29, 2010 to include the following additions and/or changes:

(1) New series M1Y-DU31 with twelve models were added in the report, which was identical with original series M1Y-DU26, except with integral laser module supplied by a certified safety isolated transformer.

(2) "*" means the standard has been updated by the new standards listed in this report. After technical evaluation all the tests were performed again on M1Y-DU31-185J-48-1500 and the worst data are listed.

This amendment test report should be read in conjunction with the based test report.

	Signature	Print Name	Title
Evaluated by:	Endman Zhao	Endman Zhao	Project Engineer
Approved by:	Teddy Yin	Teddy Yin	Reviewer

No.1	***Mains Terminal Continuous Disturbance Voltage***	***Pass***
No.2	***Disturbance Power***	***Pass***
No.3	***Harmonics***	***Pass***
No.4	***Voltage fluctuation-Flicker***	***Pass***
No.5	***Electrostatic Discharge (ESD)***	***Pass***
No.6	***Electric Fast Transient /Burst (EFT/B)***	***Pass***
No.7	***Surge***	***Pass***
No.8	***Injected current***	***Pass***
No.9	***Voltage dips and interruption***	***Pass***

Note: The item(s) in “bold & italic” means the additional tests has been performed, and test result will be listed in the ANNEX of this amendment report.

Annex I Models and ratings

Model	Rated power	Blade diameter	Soft starter	Laser	Guide plate
M1Y-DU09-160-38-1200	1200W	Ø160mm	No	No	Steel

M1Y-DU09-160J-38-1200	1200W	Ø160mm	No	Yes	Steel
M1Y-DU09-160R-38-1200	1200W	Ø160mm	Yes	No	Steel
M1Y-DU09-160JR-38-1200	1200W	Ø160mm	Yes	Yes	Steel
M1Y-DU09-160-38-1300	1300W	Ø160mm	No	No	Steel
M1Y-DU09-160J-38-1300	1300W	Ø160mm	No	Yes	Steel
M1Y-DU09-160R-38-1300	1300W	Ø160mm	Yes	No	Steel
M1Y-DU09-160JR-38-1300	1300W	Ø160mm	Yes	Yes	Steel
M1Y-DU26-185-38-1200	1200W	Ø185mm	No	No	Steel
M1Y-DU26-185J-38-1200	1200W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-38-1200	1200W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-38-1200	1200W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-38-1200	1200W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-38-1200	1200W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-38-1200	1200W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-38-1200	1200W	Ø185mm	Yes	Yes	Aluminum
M1Y-DU26-185-38-1300	1300W	Ø185mm	No	No	Steel
M1Y-DU26-185J-38-1300	1300W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-38-1300	1300W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-38-1300	1300W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-38-1300	1300W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-38-1300	1300W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-38-1300	1300W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-38-1300	1300W	Ø185mm	Yes	Yes	Aluminum
M1Y-DU26-185-43-1200	1200W	Ø185mm	No	No	Steel
M1Y-DU26-185J-43-1200	1200W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-43-1200	1200W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-43-1200	1200W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-43-1200	1200W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-43-1200	1200W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-43-1200	1200W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-43-1200	1200W	Ø185mm	Yes	Yes	Aluminum
M1Y-DU26-185-43-1300	1300W	Ø185mm	No	No	Steel
M1Y-DU26-185J-43-1300	1300W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-43-1300	1300W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-43-1300	1300W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-43-1300	1300W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-43-1300	1300W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-43-1300	1300W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-43-1300	1300W	Ø185mm	Yes	Yes	Aluminum

M1Y-DU26-185-48-1400	1400W	Ø185mm	No	No	Steel
M1Y-DU26-185J-48-1400	1400W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-48-1400	1400W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-48-1400	1400W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-48-1400	1400W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-48-1400	1400W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-48-1400	1400W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-48-1400	1400W	Ø185mm	Yes	Yes	Aluminum
M1Y-DU26-185-48-1500	1500W	Ø185mm	No	No	Steel
M1Y-DU26-185J-48-1500	1500W	Ø185mm	No	Yes	Steel
M1Y-DU26-185R-48-1500	1500W	Ø185mm	Yes	No	Steel
M1Y-DU26-185JR-48-1500	1500W	Ø185mm	Yes	Yes	Steel
M1Y-DU26-185L-48-1500	1500W	Ø185mm	No	No	Aluminum
M1Y-DU26-185LJ-48-1500	1500W	Ø185mm	No	Yes	Aluminum
M1Y-DU26-185LR-48-1500	1500W	Ø185mm	Yes	No	Aluminum
M1Y-DU26-185LJR-48-1500	1500W	Ø185mm	Yes	Yes	Aluminum
M1Y-DU09-190-38-1200	1200W	Ø190mm	No	No	Steel
M1Y-DU09-190J-38-1200	1200W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-38-1200	1200W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-38-1200	1200W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-38-1200	1200W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-38-1200	1200W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-38-1200	1200W	Ø190mm	Yes	No	Aluminum
M1Y-DU09-190LJR-38-1200	1200W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU09-190-38-1300	1300W	Ø190mm	No	No	Steel
M1Y-DU09-190J-38-1300	1300W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-38-1300	1300W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-38-1300	1300W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-38-1300	1300W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-38-1300	1300W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-38-1300	1300W	Ø190mm	Yes	No	Aluminum
M1Y-DU09-190LJR-38-1300	1300W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU09-190-43-1200	1200W	Ø190mm	No	No	Steel
M1Y-DU09-190J-43-1200	1200W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-43-1200	1200W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-43-1200	1200W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-43-1200	1200W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-43-1200	1200W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-43-1200	1200W	Ø190mm	Yes	No	Aluminum

M1Y-DU09-190LJR-43-1200	1200W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU09-190-43-1300	1300W	Ø190mm	No	No	Steel
M1Y-DU09-190J-43-1300	1300W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-43-1300	1300W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-43-1300	1300W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-43-1300	1300W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-43-1300	1300W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-43-1300	1300W	Ø190mm	Yes	No	Aluminum
M1Y-DU09-190LJR-43-1300	1300W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU09-190-48-1400	1400W	Ø190mm	No	No	Steel
M1Y-DU09-190J-48-1400	1400W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-48-1400	1400W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-48-1400	1400W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-48-1400	1400W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-48-1400	1400W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-48-1400	1400W	Ø190mm	Yes	No	Aluminum
M1Y-DU09-190LJR-48-1400	1400W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU09-190-48-1500	1500W	Ø190mm	No	No	Steel
M1Y-DU09-190J-48-1500	1500W	Ø190mm	No	Yes	Steel
M1Y-DU09-190R-48-1500	1500W	Ø190mm	Yes	No	Steel
M1Y-DU09-190JR-48-1500	1500W	Ø190mm	Yes	Yes	Steel
M1Y-DU09-190L-48-1500	1500W	Ø190mm	No	No	Aluminum
M1Y-DU09-190LJ-48-1500	1500W	Ø190mm	No	Yes	Aluminum
M1Y-DU09-190LR-48-1500	1500W	Ø190mm	Yes	No	Aluminum
M1Y-DU09-190LJR-48-1500	1500W	Ø190mm	Yes	Yes	Aluminum
M1Y-DU31-185J-38-1200	**1200W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-38-1200	**1200W**	**Ø185**	**No**	**Yes**	**Aluminum**
M1Y-DU31-185J-38-1300	**1300W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-38-1300	**1300W**	**Ø185**	**No**	**Yes**	**Aluminum**
M1Y-DU31-185J-43-1200	**1200W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-43-1200	**1200W**	**Ø185**	**No**	**Yes**	**Aluminum**
M1Y-DU31-185J-43-1300	**1300W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-43-1300	**1300W**	**Ø185**	**No**	**Yes**	**Aluminum**
M1Y-DU31-185J-48-1400	**1400W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-48-1400	**1400W**	**Ø185**	**No**	**Yes**	**Aluminum**
M1Y-DU31-185J-48-1500	**1500W**	**Ø185**	**No**	**Yes**	**Steel**
M1Y-DU31-185JL-48-1500	**1500W**	**Ø185**	**No**	**Yes**	**Aluminum**

Annex II Instrument list

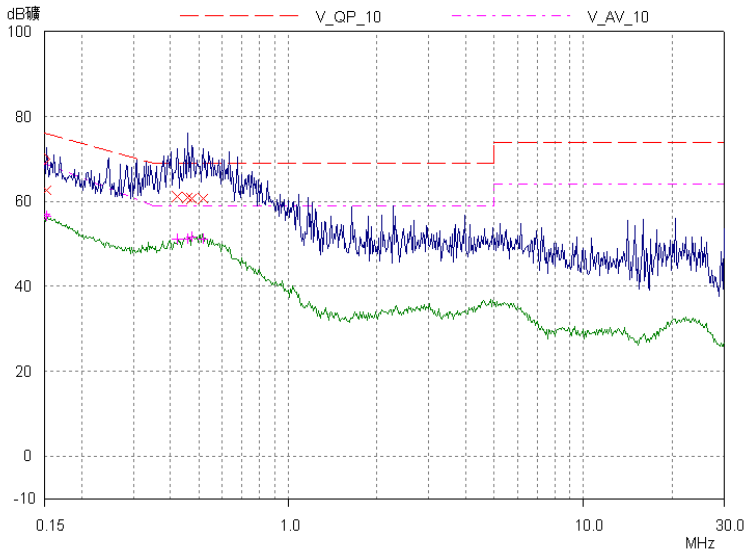
Selected	Instrument	EC no.	Model	Valid until date
☒	EMI test receiver	EC 2107	ESCS 30	2010-10-14
☒	A.M.N.	EC 3119	ESH2-Z5	2011-1-10
☐	A.M.N.	EC 3394	ENV 216	2010-10-19
☐	Voltage probe	EC 3405	ESH2-Z3	2011-1-11
☒	Absorbing clamp	EC 2108	MDS 21	2011-1-11
☐	Tri-loop	EC 3384	HXYZ 9170	2011-6-18
☒	Harmonic/Flicker sys.	EC 2110	5001ix/PACS-1	2011-1-21
☒	CDN	EC 2113-1	M216	2011-8-05
☐	CDN	EC 2113-2	M316	2011-8-05
☐	Click meter	EC 2253	CL55C	2011-8-19
☒	Signal generator	EC 2338	SML 01	2011-4-8
☐	Lum. Meter	EC 2451	TES 1332	2011-6-2
☒	ESD Gun	EC 2956	ditto	2011-4-12
☐	Motorise Variac	EC 2957	MV 2616	Not required
☒	Immunity system	EC 2958	UCS500M6	2011-1-22
☐	Capacitive clamp	EC 2959	HFK	Not required
☐	Immunity system	EC 2960	TSS500M	2011-1-11
☐	Immunity system	EC 2961	TSS500M4	2011-1-11
☒	Power amplifier	EC 3043-1	75A250	2011-8-16
☐	CDN	EC 3043-2	T2	2011-1-11
☒	Attenuator	EC 3043-3	ATT6/75	2011-1-10
☐	CDN	EC 3043-4	T4	2011-1-10
☐	DDC	EC 3043-5	DC2600	2011-1-10
☐	EM clamp	EC 3043-6	EM 101	2010-10-14
☐	Power sensor	EC 3043-7	PH 2000	2010-10-25
☐	Power meter	EC 3043-8	PM 2002	2010-10-25
☐	Attenuator	EC 3043-9	68-6-44	2011-1-10
☐	Impedance	EC 3043-10	R100	2011-1-10
☐	Impedance	EC 3043-11	R100	2011-1-10
☐	Impedance	EC 3043-12	R50	2011-1-10
☐	Signal generator	EC 3044-1	SMR20	2011-8-16
☐	Power amplifier	EC 3044-2	150W1000	2011-8-16

☐	Field sensor	EC 3044-3	FP6001	2011-4-9
☐	Power amplifier	EC 3044-4	25S1G4	2011-8-16
☐	DDC	EC 3044-5	DC6180A	2011-8-05
☐	DDC	EC 3044-6	DC7144A	2011-1-10
☐	Log-periodical antenna	EC 3044-7	AT1080	2011-4-8
☐	Horn antenna	EC 3044-8	AT4002	2011-8-24
☐	Field meter	EC 3044-9	FM5004	2011-4-9
☐	EMI test receiver	EC 3045	ESIB26	2010-10-14
☐	Broadband antenna	EC 4206	CBL 6112D	2011-6-18
☐	Fully anechoic chamber	EC 3047	-	2010-7-23
☐	Semi anechoic chamber	EC 3048	-	2010-10-31
☐	Horn antenna	EC 3049	HF906	2011-4-8
☐	ISN	EC 3754	FCC-TLISN-T2-02	2011-1-10
☐	ISN	EC 3755	FCC-TLISN-T4-02	2011-1-10
☐	ISN	EC 3756	FCC-TLISN-T8-02	2011-1-10
☐	Current probe	EC 3221	EZ-17	2011-1-11
☐	Pre-amplifier	EC 3222	pre-amp 18	2010-9-17
☒	Shielded room	EC 2838	GB88	2014-1-11
☒	Shielded room	EC 2839	GB88	2014-1-11
☐	Oscilloscope	EC 3515	DPO 4504	2011-1-18
☐	TV generator	EC 3555	TG39	2010-12-6

Annex III Test Result

Mains Terminal Continuous Disturbance Voltage

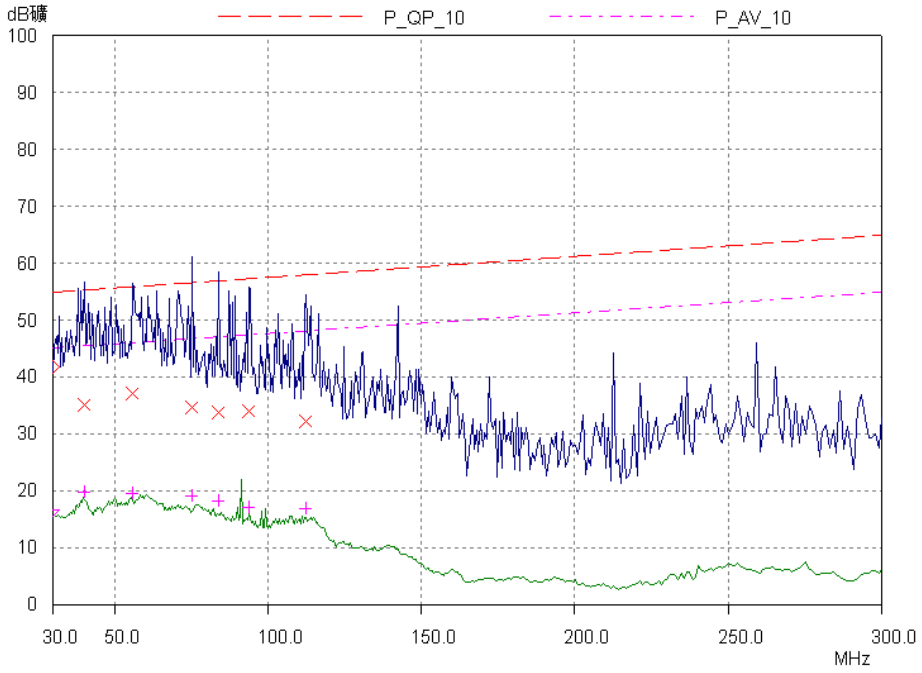
Temperature : 24°C Relative Humidity: 42%



Frequency (MHz)	Quasi-peak		Average	
	Disturbance level dB(µV)	Permitted limit dB(µV)	Disturbance level dB(µV)	Permitted limit dB(µV)
0.15	62.7	75.9	56.6	68.8
0.16	*	65.0	*	57.7
0.24	*	63.9	*	56.3
0.42	61.1	69.0	51.1	59.0
0.46	60.8	69.0	51.1	59.0
0.50	*	69.0	*	59.0
1.00	*	69.0	*	59.0
1.40	*	69.0	*	59.0
2.00	*	69.0	*	59.0
3.50	*	69.0	*	59.0
10.00	*	74.0	*	64.0
20.34	*	74.0	*	64.0
30.00	*	74.0	*	64.0
Note: * means the emission level 20dB below the relevant limit.				

Disturbance Power

Temperature : 24°C Relative Humidity: 42%



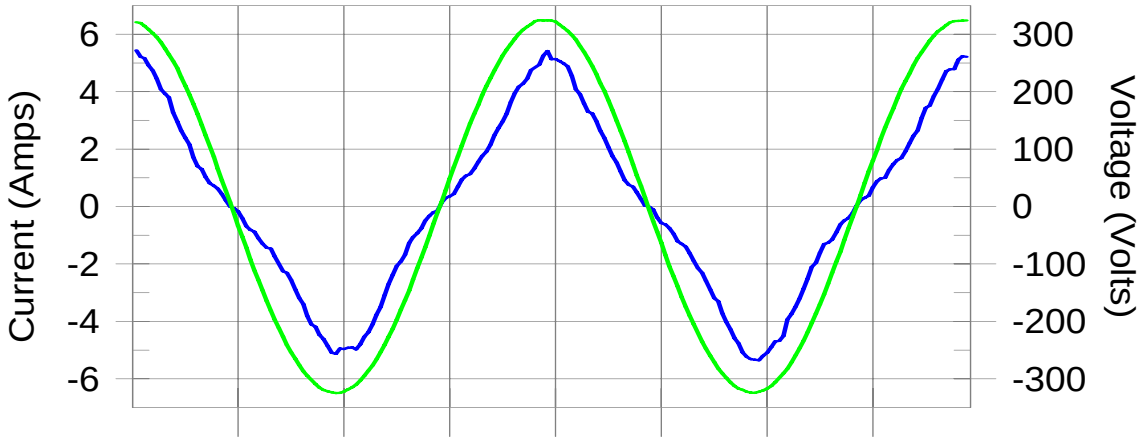
Frequency (MHz)	Quasi-peak		Average	
	Disturbance level dB(pW)	Permitted limit dB(pW)	Disturbance level dB(pW)	Permitted limit dB(pW)
30.00	*	55.0	*	45.0
55.70	37.1	56.0	*	46.0
60.00	*	56.2	*	46.2
90.00	*	57.3	*	47.3
150.00	*	59.4	*	49.4
180.00	*	60.6	*	50.6
220.00	*	62.0	*	52.0
300.00	*	65.0	*	55.0
Note: * means the emission level 20dB lower than the relevant limit.				

Harmonics

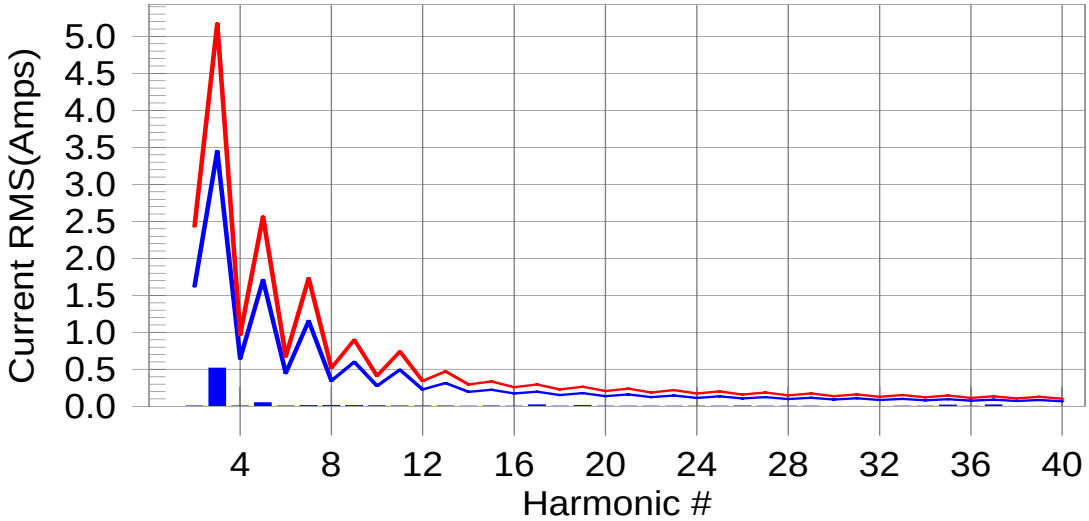
Temperature : 24°C Relative Humidity: 42%

Harmonics – Class-B per Ed. 3.2 (2009)(Run time) incl. inter-harmonics

Current & voltage waveforms



Harmonics and Class B limit line **European Limits**



Current Test Result Summary (Run time)

THC(A): 0.52 I-THD(%): 17.32 POHC(A): 0.028 POHC Limit(A): 0.468
Highest parameter values during test:

V_RMS (Volts):	**229.70**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**5.450**	**I_RMS (Amps):**	**3.152**
I_Fund (Amps):	**3.020**	**Crest Factor:**	**1.735**
Power (Watts):	**695.4**	**Power Factor:**	**0.985**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.005	1.620	0.0	0.005	2.430	0.00	Pass
3	0.519	3.450	15.0	0.520	5.175	10.04	Pass
4	0.006	0.645	0.0	0.006	0.968	0.00	Pass
5	0.049	1.710	2.9	0.049	2.565	1.93	Pass
6	0.006	0.450	0.0	0.006	0.675	0.00	Pass
7	0.013	1.155	0.0	0.013	1.733	0.00	Pass
8	0.014	0.345	0.0	0.014	0.518	0.00	Pass
9	0.011	0.600	0.0	0.011	0.900	0.00	Pass
10	0.009	0.276	0.0	0.009	0.414	0.00	Pass
11	0.006	0.495	0.0	0.006	0.743	0.00	Pass
12	0.005	0.230	0.0	0.005	0.344	0.00	Pass
13	0.005	0.315	0.0	0.005	0.473	0.00	Pass
14	0.004	0.197	0.0	0.004	0.296	0.00	Pass
15	0.007	0.225	0.0	0.007	0.338	0.00	Pass
16	0.004	0.173	0.0	0.004	0.259	0.00	Pass
17	0.021	0.199	10.7	0.021	0.297	7.22	Pass
18	0.005	0.153	0.0	0.005	0.230	0.00	Pass
19	0.015	0.178	0.0	0.015	0.266	0.00	Pass
20	0.004	0.138	0.0	0.004	0.207	0.00	Pass
21	0.004	0.161	0.0	0.005	0.241	0.00	Pass
22	0.004	0.125	0.0	0.004	0.188	0.00	Pass
23	0.004	0.147	0.0	0.004	0.220	0.00	Pass
24	0.004	0.115	0.0	0.005	0.173	0.00	Pass
25	0.003	0.135	0.0	0.003	0.203	0.00	Pass
26	0.007	0.106	0.0	0.007	0.159	0.00	Pass
27	0.004	0.125	0.0	0.004	0.188	0.00	Pass
28	0.004	0.099	0.0	0.004	0.148	0.00	Pass
29	0.004	0.116	0.0	0.004	0.175	0.00	Pass
30	0.002	0.092	0.0	0.002	0.138	0.00	Pass
31	0.003	0.110	0.0	0.003	0.163	0.00	Pass
32	0.003	0.086	0.0	0.003	0.129	0.00	Pass
33	0.004	0.102	0.0	0.005	0.153	0.00	Pass
34	0.003	0.081	0.0	0.004	0.122	0.00	Pass
35	0.020	0.096	20.4	0.020	0.145	13.58	Pass
36	0.004	0.077	0.0	0.004	0.115	0.00	Pass
37	0.020	0.092	22.1	0.020	0.137	14.87	Pass
38	0.003	0.073	0.0	0.003	0.109	0.00	Pass
39	0.003	0.087	0.0	0.003	0.130	0.00	Pass
40	0.002	0.069	0.0	0.002	0.104	0.00	Pass

Voltage fluctuation-Flicker

Temperature : 24°C Relative Humidity: 42%

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**229.79**			
Highest dt (%):	**4.57**	**Test limit (%):**	**3.30**	**Pass**
Time(mS) > dt:	**60.0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.61**	**Test limit (%):**	**3.30**	**Pass**
Average dmax (%):	**6.067**	**Test limit (%):**	**7.00**	**Pass**

Test Number	Dmax	
1	-5.766	
2	-5.943	
3	-4.465	
4	-5.712	
5	-4.239	
6	-9.775	Highest dmax (Disregarded)
7	-5.873	
8	-6.364	
9	-4.069	Lowest dmax (Disregarded)
10	-8.124	
11	-7.071	
12	-7.797	
13	-6.514	
14	-5.571	
15	-6.313	
16	-8.779	
17	-4.554	
18	-4.256	
19	-4.592	
20	-6.925	
21	-5.063	
22	-9.015	
23	-5.699	
24	-4.846	

The maximum absolute value of dmax is 9.775, the minimum is 4.069, and except these two test value, dmax is the average of rest 22 absolute values.

Calculated Dmax =6.067

Electrostatic Discharge (ESD)

Temperature : 23°C Relative Humidity: 45% Air Pressure: 101kPa

Test Result

Direct discharges were applied at the following selected points:

Test point #	Test level [kV]	Air/ Contact	Polarity (+/-)	Pass/ Fail	Comment
A	4	Contact	+/-	Pass	all touchable screws of enclosure
B	4	Contact	+/-	Pass	Accessible metal parts of the EUT
C	4	Air	+/-	Pass	Air gap of the switch, button
D	8	Air	+/-	Pass	The air in-taking opening
E	8	Air	+/-	Pass	Slots around the EUT

Indirect contact discharges were applied to the VCP and the HCP at the following selected points:

☒ For table top equipment

Point	Description	Point	Result
HCP f	0,1m from the front of the EUT	Edge of centre,corner on HCP	Pass
HCP b	0,1m from the back of the EUT	Edge of centre,corner on HCP	Pass
HCP r	0,1m from the right side of the EUT	Edge of centre,corner on HCP	Pass
HCP l	0,1m from the left side of the EUT	Edge of centre,corner on HCP	Pass
VCP f	0,1m from the front of the EUT	Edge of centre,corner on VCP	Pass
VCP b	0,1m from the back of the EUT	Edge of centre,corner on VCP	Pass
VCP r	0,1m from the right of the EUT	Edge of centre,corner on VCP	Pass
VCP l	0,1m from the left of the EUT	Edge of centre,corner on VCP	Pass

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT met the requirements of Performance A

Electric Fast Transient /Burst

Temperature : 23°C Relative Humidity: 45%

Test No. #	Level [kV]	Polarity +/-	Line for test	Result
1	1	+/-	a.c. Mains	Pass
2	X	+/-	X	NA
Notes: "NA" means not applicable. "X" is for other availiable lines.				

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT met the requirements of Performance A

Surge

Temperature : 23°C Relative Humidity: 45%

Test No. #	Level [kV]	Polarity +/-	Line for test	Result
1	0.5	+/-	a.c. Mains (line to line)	Pass
2	1	+/-	a.c. Mains (line to earth)	-
3	1	+/-	a.c. Mains (line to line)	Pass
4	2	+/-	a.c. Mains (line to earth)	-
5	X	+/-	X	NA
Notes: "NA" means not applicable. "X" is for other available lines				

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT met the requirements of Performance A

Injected Current

Temperature : 23°C Relative Humidity: 45%

Test No.	Frequency (MHz)	Level V (e.m.f.)	Amplitude modulation	Injected point	Result
1	0.15~80	3	1kHz 80%	a.c. Mains	Pass
2	0.15~80	1	1kHz 80%	Signal lines	-

Observation: All the functions were operated as normal during and after test.

Conclusion: The EUT met the requirements of Performance A

Voltage Dips short interruption and Voltage Variation Immunity Test

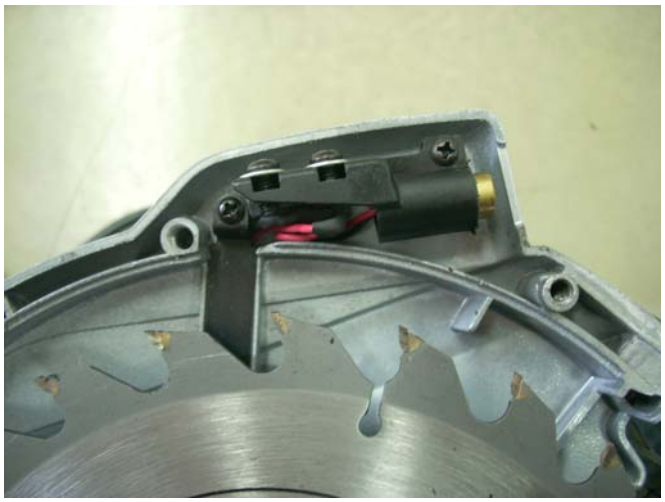
Temperature : 23°C Relative Humidity: 45%

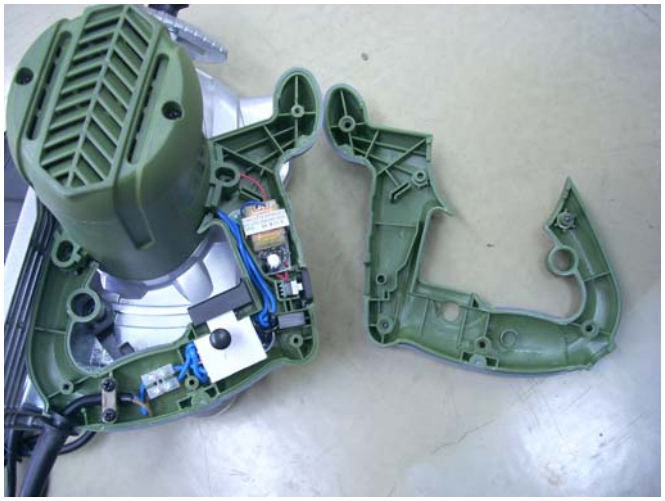
Test no.	Test level % UT	Voltage dip and short interruptions % UT	Duration (in periods)	Result	Comment
1	70	30%	25	Pass	-
2	40	60%	12	Pass	-
3	0	100%	0,5	Pass	-

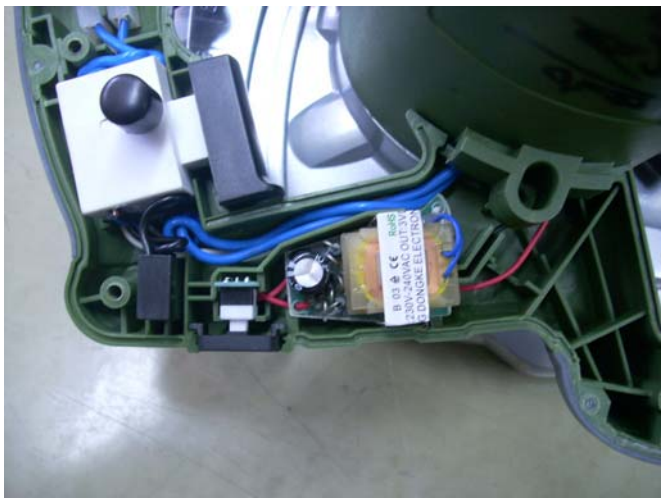
Observation: At test level of 70%, the EUT worked unsteadily. Once the interference is removed, it recovered its normal mode at once.

Conclusion: The EUT met the requirements of the standard.

Annex IV EUT Photos







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