

Approved : Tatsuya Mano
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Prepared : Satoshi Uetani
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No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1) Meets the undermentioned standard. FCC Part15 classB, VCCI classB CISPR22 classB, EN55022-B EN55011-B	ok
2	Radiated emission	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1) Meets the undermentioned standard. FCC Part15 classB, VCCI classB CISPR22 classB, EN55022-B EN55011-B	ok
3	Harmonic current (EN61000-3-2)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1) Meets the undermentioned standard. EN61000-3-2 classA	ok
4	Static electricity immunity test (EN61000-4-2)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Contact discharge voltage 8[kV] (Level 4) (5) Testing circuitry Fig.1	(1) No protection circuit failure. (2) No output voltage drop with control circuit failure. (3) No any other function failure.	ok
5	Radiated, radio-frequency, electromagnetic field immunity test (EN61000-4-3)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing field strength (Level 3) ① 10[V/m] (80MHz to 1.0GHz) (5) Testing circuitry Fig.3	(1) No protection circuit failure. (2) No output voltage drop with control circuit failure. (3) No any other function failure.	ok
6	Electrical fast transient/ burst immunity test (EN61000-4-4)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test peak voltage 4[kV] (Level 4) (5) Testing circuitry Fig.1	(1) No protection circuit failure. (2) No output voltage drop with control circuit failure. (3) No any other function failure.	ok
7	Surge immunity test (EN61000-4-5)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test voltage Line to line 2[kV] (Level 3) Line to earth 4[kV] (Level 4) (5) Testing circuitry Fig.2	(1) The power supply is not stop (2) Circuit does not malfunction. (3) No abnormality of the insulation destruction etc. (4) Parts are no damaged.	ok
8	Immunity to conducted disturbances, induced by radio-frequency fields. (EN61000-4-6)	(1) Rated input AC230V (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Voltage level (e.m.f.) 10[V] (Level 3) (5) Testing circuitry Fig.3	(1) No protection circuit failure. (2) No output voltage drop with control circuit failure. (3) No any other function failure.	ok
9	Voltage dips, short interruptions and voltage variations immunity test (EN61000-4-11)	(1) Rated input AC230V - 30% reduction at 10ms min. - 60% reduction at 100ms min. - 95% reduction at 5s min. - $\pm 10\%$ variation at 15 minutes (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1) No protection circuit failure. (2) No output voltage drop with control circuit failure. (3) No any other function failure.	ok

○ Testing circuitry

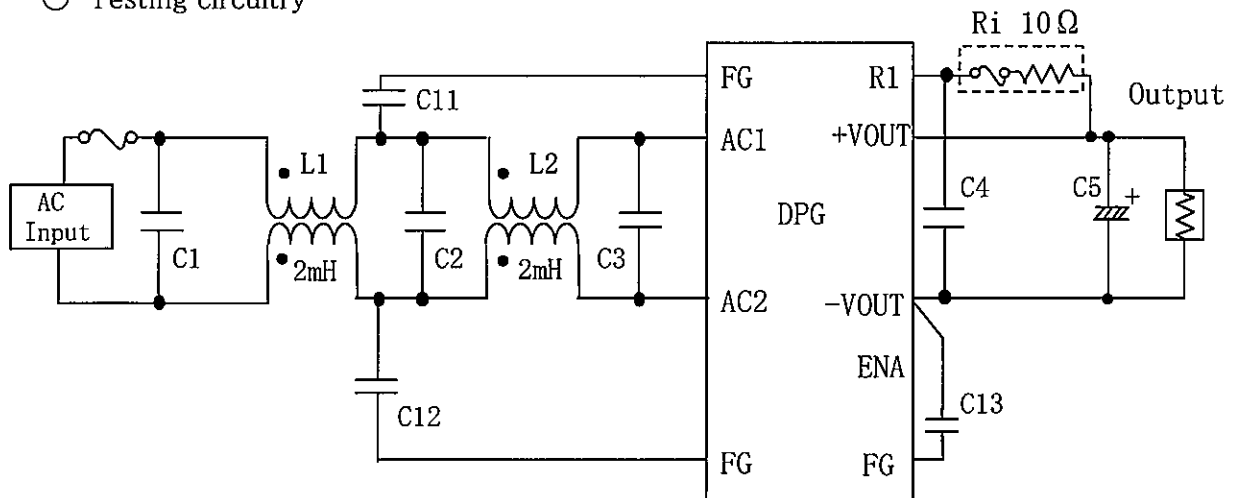


Fig.1 Testing circuitry

- C1, C2, C4 : 0.68uF 250V Film Capacitor ×2
- C3 : 1.0uF 250V Film Capacitor ×2
- C5 : 560uF 450V Electrolytic Capacitor
- C11, C12, C13 : 2200pF Ceramic Capacitor
- L1, L2 : SC-15-200 (NEC TOKIN)

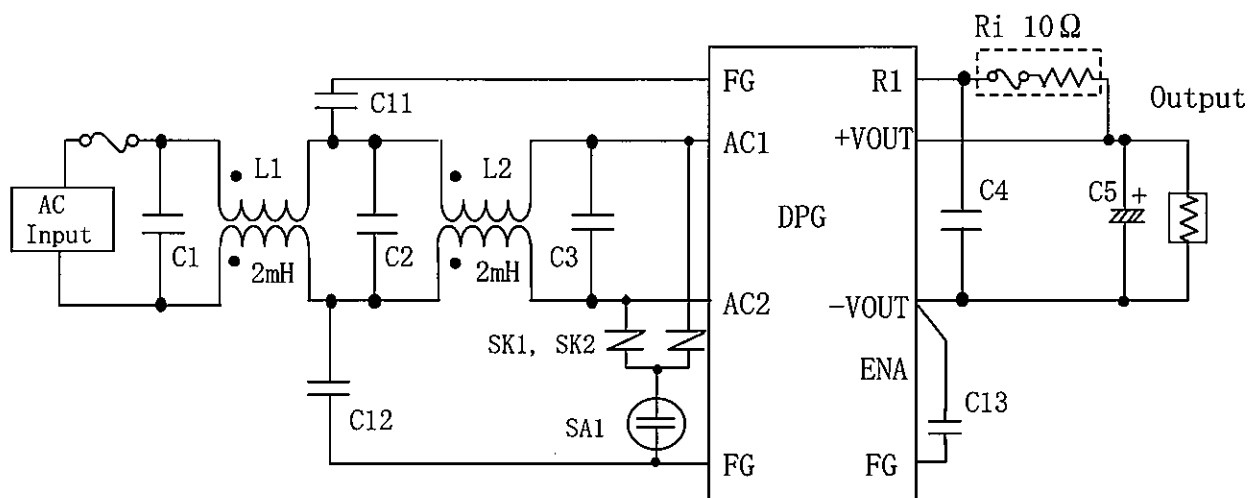


Fig.2 Surge immunity Testing circuitry

- C1, C2, C4 : 0.68uF 250V Film Capacitor ×2
- C3 : 1.0uF 250V Film Capacitor ×2
- C5 : 560uF 450V Electrolytic Capacitor
- C11, C12, C13 : 2200pF Ceramic Capacitor
- L1, L2 : SC-15-200 (NEC TOKIN)
- SK1, SK2 : TND10V-471K (NIPPON CHEMI-CON CORP.)
- SA1 : DSA-302MA (MITSUBISHI MATERIALS COAP.)

C1, C2, C4 : 0.68uF 250V Film Capacitor ×2
C3 : 1.0uF 250V Film Capacitor ×2
C5 : 560uF 450V Electrolytic Capacitor
C11, C12, C13 : 2200pF Ceramic Capacitor
L1, L2 : SC-15-200 (NEC TOKIN)