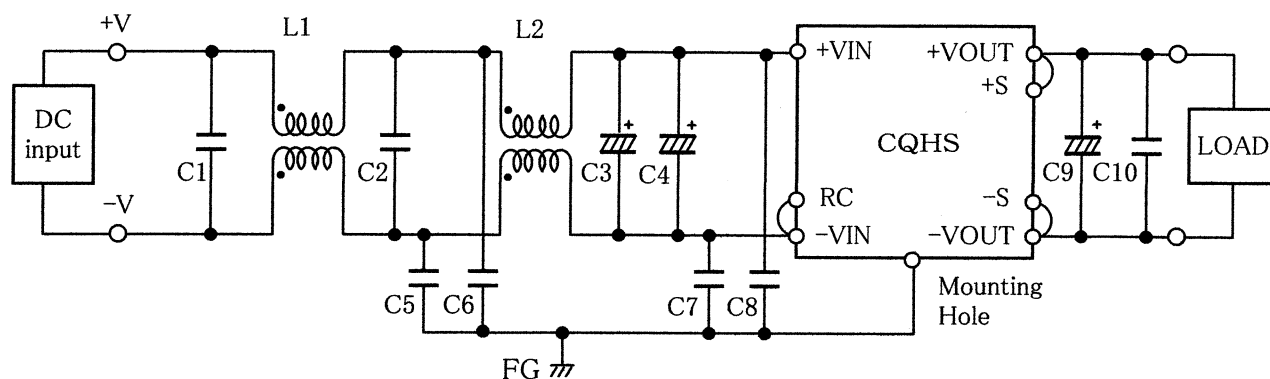


CQHS350 series EMI/EMS Test resultApproved : Yoshimichi Hirokawa
Yoshimichi HirokawaPrepared : Kenichi Tsukada
Kenichi Tsukada

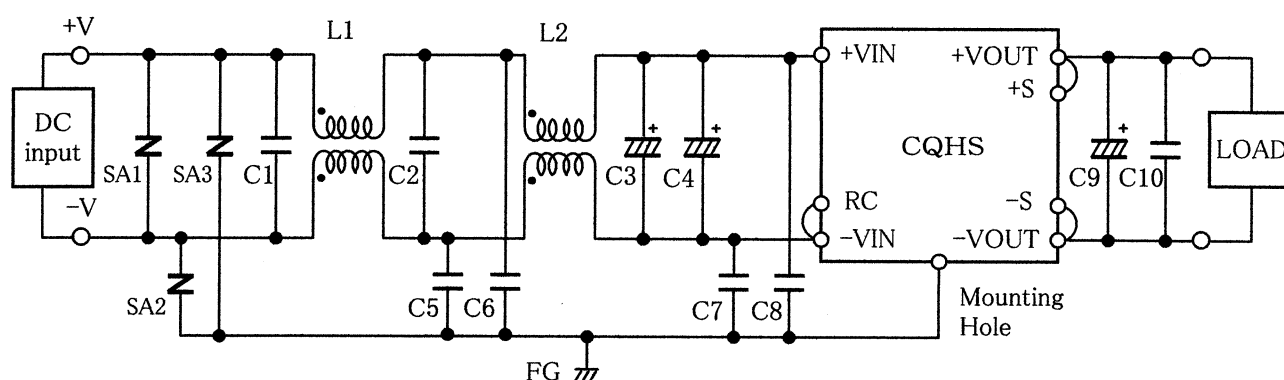
No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input(DC48V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR22 classA , EN55022-A	OK
2	Radiated emission	(1) Rated input(DC48V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1)Meets the undermentioned standard. FCC Part15 classA , VCCI classA CISPR22 classA , EN55022-A	OK
3	Static electricity immunity test (EN61000-4-2)	(1) Rated input(DC48V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Contact discharge voltage 8[kV] (EN61000-4-2 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
4	Radiated, radio-frequency, electromagnetic field immunity test (EN61000-4-3)	(1) Rated input(DC48V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4)Testing field strength 10[V/m] (EN61000-4-3 Level 3) (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	Electrical fast transient/ burst immunity test (EN61000-4-4)	(1) Rated input(DC48V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test peak voltage 4[kV] (IEC61000-4-4 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
6	Surge immunity test (EN61000-4-5)	(1) Rated input(DC48V) (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

COSEL



- L1, L2 : 0.5mH 15A Inductor (SC-15-05J NEC TOKIN)
 C1, C2 : 310V 2.2 μ F Film capacitor (OKAYA ELEC)
 C3, C4 : 100V 68 μ F Electic capacitor (LXV NIPPON CHEMI-CON)
 C5, C6, C7, C8 : 250V 4700pF Ceramic capacitor (Type KY MURATA)
 C9 : CQHS3504832 50V 470 μ F Electic capacitor (LXZ NIPPON CHEMI-CON)
 CQHS3504850 80V 330 μ F Electic capacitor (KY NIPPON CHEMI-CON)
 C10 : 100V 0.1 μ F Film capacitor (NITSUKO)

Fig.1 Testing circuitry



- L1, L2 : 0.5mH 15A Inductor (SC-15-05J NEC TOKIN)
 C1, C2 : 310V 2.2 μ F Film capacitor (OKAYA ELEC)
 C3 : 100V 68 μ F Electic capacitor (LXV NIPPON CHEMI-CON)
 C4 : 100V330 μ F Electic capacitor (LXV NIPPON CHEMI-CON)
 C5, C6, C7, C8 : 250V 4700pF Ceramic capacitor (Type KY MURATA)
 C9 : CQHS3504832 50V 470 μ F Electic capacitor (LXZ NIPPON CHEMI-CON)
 CQHS3504850 80V 330 μ F Electic capacitor (KY NIPPON CHEMI-CON)
 C10 : 100V 0.1 μ F Film capacitor (NITSUKO)
 SA1, SA2, SA3 : ERZV10D101 (PANASONIC)

Fig.2 Surge immunity Testing circuitry