



CQHS250 Safety test results

September 24, 2014

OS DESIGN DEPT.2

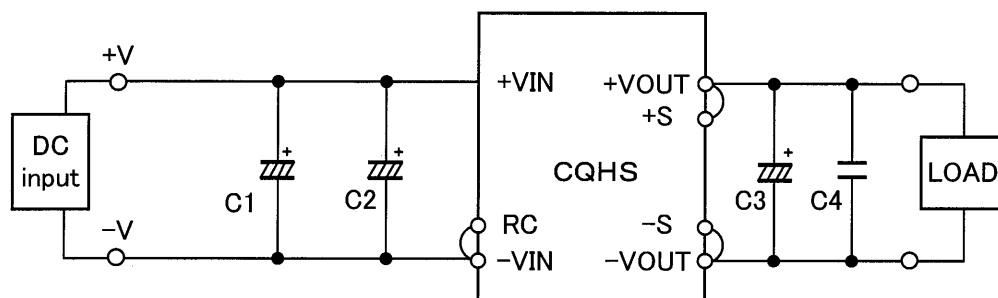
Approved: Yoshimichi Hirokawa
Yoshimichi Hirokawa

Prepared: Kenichi Tsukada
Kenichi Tsukada

No.	Test item	Test conditions	Conditions of acceptability	Result
1	High temp./overload test	(1) Input : Max.voltage, Min.voltage (2) Output : Overload (3) Test period : 48 hours (4) Testing circuit Fig.1	(1) Power supply is not failed.	OK
2	High voltage input test	(1) Input : 2 times of rated voltage (2) Output : Rated output (3) Ambient temp. : $25 \pm 10^{\circ}\text{C}$ (4) Testing circuit Fig.1	(1) No smoke, no fire.	OK
3	Low voltage input test	(1) Input Min. regulation voltage (2) Rated output (3) Test period : 48 hours	(1) Power supply is not failed.	OK
4	Input ON/OFF test	(1) Input : Max.voltage T= 2sec Duty= 50% (2) Output : Rated output (3) Ambient temp. : $25 \pm 10^{\circ}\text{C}$ (4) On/off period : 1,000 (5) Test circuit : Fig.1	(1) Power supply is not failed. (2) The surge current of each components should not exceed the rated value.	OK
5	Output ON/OFF test	(1) Rated input (DC48V) (2) Output 0% \longleftrightarrow 100% T= 2sec Duty= 50% (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) On/off period 1,000 (5) Testing circuitry Fig.1	(1) Power supply is not failed.	OK
6	Output-short start test	(1) Rated input (DC48V) (2) Output Short start (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Testing circuitry Fig.1	(1) Power supply is not failed.	OK
7	Output short test	(1) Rated input (DC48V) (2) Output Short (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test period 48 hours (5) Testing circuitry Fig.1	(1) Power supply is not failed.	OK
8	Withstand voltage test (High-pot test)	(1) Input Not applied. (2) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (3) The applied voltage is 1.4 times of specifications.	(1) Insulation breakdown ,flashover or electric arc is not occurred.	OK
9	Isolation resistance test	(1) Input Not applied. (2) Ambient temp. $25 \pm 10^{\circ}\text{C}$	(1) When a regulation voltage is applied, isolation resistance is 1.4 times of specifications.	OK
10	Vibration/impact test	Vibration (1)f=10~150Hz : 49.0m/s^2 (2)3 minutes period (3)60 minutes along X, Y and Z axis Impact (1) 196.1m/s^2 11ms (2)Once each X, Y and Z axis	(1) No degradation of electric characteristics after test. (2) No crack at solder joint. (3) No marked damage of appearance.	OK

COSEL

○ Test circuit



- C1, C2 : 100V 68 μ F Electlic capacitor (LXV NIPPON CHEMI-CON)
 C3 : CQHS2504832 50V 220 μ F Electlic capacitor (LXZ NIPPON CHEMI-CON)
 : CQHS2504850 100V 100 μ F Electlic capacitor (KY NIPPON CHEMI-CON)
 C4 : 100V 0.1 μ F Film capacitor (Nitsuko)

Fig.1 Testing circuitry