



# Test Report : GP25x13D

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AC-DC Triple Output Industrial Adaptor

## ■ DESIGN VERIFY TEST

Output Function Test

Input Function Test

Protection Function Test

## ■ SAFETY TEST

Safety Test

## ■ RELIABILITY TEST

Environment Test

Other test

**DESIGN VERIFY TEST**
**OUTPUT FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	V1 : 60mVp-p (Max) V2 : 120mVp-p (Max) V3 : 50mVp-p (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	V1 : 46 mVp-p V2 : 35 mVp-p V3 : 10 mVp-p	P
2	VOLTAGE TOLERANCE	V1 : -5% ~ +5% (Max) V2 : -5% ~ +5% (Max) V3 : -3% ~ +3% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	V1 : -2.50% ~ +2.02% V2 : -2.74% ~ +3.59% V3 : -0.34% ~ +3.59%	P
3	LINE REGULATION	V1 : -1% ~ +1% (Max) V2 : -1% ~ +1% (Max) V3 : -1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	V1 : -0.01% ~ +0.01% V2 : -0.02% ~ +0.03% V3 : -0.01% ~ +0.03%	P
4	LOAD REGULATION	V1 : -5% ~ +5% (Max) V2 : -5% ~ +5% (Max) V3 : -3% ~ +3% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	V1 : -1.92% ~ +1.16% V2 : -0.55% ~ +0.92% V3 : -1.25% ~ +0.18%	P
5	SET UP TIME	800 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	439 mS	P
6	RISE TIME	50 mS	I/P:230VAC O/P:FULL LOAD Ta:25°C	8.2 mS	P
7	HOLD UP TIME	16 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	17.8 mS	P

**INPUT FUNCTION TEST**

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	90VAC ~ 264VAC	I/P:TESTING O/P:FULL LOAD Ta:25°C	43V ~ 264V	P
2	FREQUENCY RANGE	47HZ - 63HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	80%	I/P:230VAC O/P:FULL LOAD Ta:25°C	80.28 % (115VAC) 81.01 % (230VAC)	P
4	AVERAGE EFFICIENCY	80.45% ( LEVEL VI) 80.45% ( Version 5)	I/P:115/230VAC O/P:25% 、 50% 、 75% 、 100% LOAD Ta:25°C	81.11 % (115VAC) 80.89 % (230VAC)	P
5	AC CURRENT	0.8A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.536 A	P
6	NO LOAD POWER CONSUMPTION	< 0.3W (Max)	I/P:230VAC O/P: NO LOAD Ta:25°C	0.15W	P

7	INRUSH CURRENT	< 60A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	62.5 A	P
8	LEAKAGE CURRENT	< 0.75mA	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG: 0.196mA N-FG: 0.195mA	P

## PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	110%~160%	I/P:230VAC O/P:TESTING Ta:25°C	139% HICCUP MODE RESET : AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	YES	I/P:230VAC O/P:MIN LOAD Ta:25°C	Clamp by ZENER diode ( Only +5V )	P
3	SHORT PROTECTION	SHORT OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

## ■ SAFETY TEST

### SAFETY TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	WITHSTAND VOLTAGE	I/P-O/P:4242 VDC/min	I/P-O/P:4242 VDC/min Ta:25°C	I/P-O/P: 0.03uA NO DAMAGE	P
2	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	I/P-O/P:500 VDC Ta:25°C	I/P-O/P>100MΩ NO DAMAGE	P

## RELIABILITY TEST

### ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:100% LOAD Ta=25°C 2. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P:100% LOAD Ta=40°C 3. HI AMBIENT BURN-IN : 16HRS I/P:230VAC O/P: 50% LOAD Ta=70°C			P
2	LOW TEMPERATURE TURN ON TEST	TURN ON AFTER 2 HOURS	I/P : 230VAC O/P : 100% LOAD Ta= -20°C	TEST : OK	P

### OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C6 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:100% LOAD Ta=25°C LIFE TIME= 84154HRS I/P:230 VAC O/P:100% LOAD Ta=40°C LIFE TIME= 33473HRS I/P:230 VAC O/P:50% LOAD Ta=70°C LIFE TIME= 38850HRS			P
2	MTBF	MIL-KDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE : 1.607146 M.T.B.F : 622221 HRS			P

TEST RESULT	TESTER	APPROVAL
PASS	PETER CHENG	VINCENT ZENG