



A301-300-F3

DC-AC

Modified Sine Wave Power Inverter

I/P:12VDC

O/P:230VAC 50Hz

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	AC VOLTAGE	230VAC(Typ)	I/P:12VDC O/P:NO LOAD Ta:25°C	228.8VAC	P
2	AC VOLTAGE REGULATION	-10% ~ +10% (Typ)	I/P:11VDC~15VDC O/P:FULL LOAD Ta:25°C	209~243VAC	P
3	LOAD REGULATION	NONE	I/P:12VDC O/P: NO ~ FULL LOAD Ta:25°C	221~230VAC	P
4	AC WAVEFORM	MODIFIED SINE WAVE	I/P:12VDC O/P:FULL LOAD Ta:25°C	Modified sine wave	P
5	AC FREQUENCY	50Hz \pm 1%	I/P:12VDC O/P:MIN LOAD Ta:25°C	50.00Hz	P
6	CONTINUOUS POWER	300W (Max)	I/P:12VDC O/P:FULL LOAD Ta:25°C	300W	P
7	SURGE POWER	600W (Max)	I/P:12VDC O/P:TESTING Ta:25°C	4848W (20.2A)	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	10VDC ~ 15VDC (Typ)	I/P: TESTING O/P:MIN LOAD Ta:25°C	9.53~15.2VDC	P
2	EFFICIENCY	82% (TYP)	I/P:12VDC O/P:FULL LOAD Ta:25°C	86.2%	P
3	NO LOAD CURRENT DRAW	0.36A (Max)	I/P: 12VDC O/P:NO LOAD Ta:25°C	0.25A	P
4	DC INPUT CURRENT	35A (Typ)	I/P:12VDC O/P:FULL LOAD Ta:25°C	29.5A	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	BAT. LOW ALARM	9.5~10.5VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	9.77VDC	P
2	BAT. LOW SHUTDOWN	9.0~10VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	9.53VDC SHUT DOWN RESET RE-POWER ON	P
3	INPUT POLARITY REVERSE	BY FUSE OPEN	I/P:TESTING O/P:NO LOAD Ta:25°C	FUSE OPEN OK RESET REPLACEMENT FUSE	P
4	OVER LOAD PROTECTION	YES	I/P:12VDC O/P:TESTING Ta:25°C	380W	P
5	OVER VOLTAGE PROTECTION	15~17VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	15.3VDC SHUT DOWN RESET RE-POWER ON	P
6	OUTPUT SHORT PROTECTION	YES	I/P:12VDC O/P:SHORT Ta:25°C	TEST OK BROKEN	P
7	OVER TEMPERATURE PROTECTION	40°C~50°C	I/P:12VDC O/P:FULL LAOD (FAN LOCK) Ta:25°C	44.6°C SHUT DOWN RESET RE-POWER ON	P
8	FAN CONTROL	>100W OR >40°C FAN ON	I/P:12VDC O/P:TESTING Ta:25°C	140W FAN ON OR 39°C (NTC) SHUT DOWN RESET RE-POWER ON	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 2HRS I/P:12VDC O/P:300W LOAD Ta=25°C 2. ROOM AMBIENT BURN-IN : 2HRS I/P:12VDC O/P:240W LOAD Ta=35°C			P

NO	Position	P/N	TEMP Ta=25°C	TEMP Ta=33°C
1	T1	EEL-35	88.2°C	73.2°C
2	C1	2200u/25V fuhjyyu 105°C TNR 13.5*25	69.3°C	58.8°C
3	C11	100u/400V fuhjyyu 85°C LP 22*32	49.1°C	48.3°C
4	Q12	IRF840B	53.4°C	48.4°C
5	Q18	P60NF06	66.8°C	56.4°C
6	D1	HER506G	92.4°C	78.1°C
7	NTC	URI 310	35.0°C	38.6°C



OTHER

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C11 IS THE MOST CRITICAL COMPONENT I/P:12VDC O/P:300W Ta=25°C LIFE TIME=11876HRS			P
2	MTBF	MIL-HDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE: 4.010518 M.T.B.F : 249344HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2003.12.10	A301-300-F3	PASS	T.K.CHENG	MAX LIN