

A302-300-F3                      DC-AC    Power Inverter  
 I/P:24VDC  
 O/P:230VAC 50Hz

### OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	AC VOLTAGE	230VAC(Typ)	I/P:24VDC O/P:NO LOAD Ta:25°C	228.9VAC	P
2	AC VOLTAGE REGULATION	-10% ~ +10% (Typ)	I/P:20VDC~30VDC O/P:FULL LOAD Ta:25°C	180~242VAC	NOTE1
3	LOAD REGULATION	NONE	I/P:24VDC O/P: NO ~ FULL LOAD Ta:25°C	213.4~228.9VAC	P
4	AC WAVEFORM	MODIFIED SINE WAVE	I/P:24VDC O/P:FULL LOAD Ta:25°C	Modified sine wave	P
5	AC FREQUENCY	50Hz ±1%	I/P:24VDC O/P:MIN LOAD Ta:25°C	50.00Hz	P
6	CONTINUOUS POWER	300W (Max)	I/P:24VDC O/P:FULL LOAD Ta:25°C	300W	P
7	SURGE POWER	600W (Max)	I/P:24VDC O/P:TESTING Ta:25°C	4026W (18.3A)	P

### INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	20VDC ~ 30VDC (Typ)	I/P: TESTING O/P:MIN LOAD Ta:25°C	19.4~30.3VDC	P
2	EFFICIENCY	85% (TYP)	I/P:24VDC O/P:FULL LOAD Ta:25°C	85.9%	P
3	NO LOAD CURRENT DRAW	0.2A (Max)	I/P: 24VDC O/P:NO LOAD Ta:25°C	0.17A	P
4	DC INPUT CURRENT	15A (Typ)	I/P:24VDC O/P:FULL LOAD Ta:25°C	14.4A	P

## PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	BAT. LOW ALARM	19.2~20.8VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	19.4VDC	P
2	BAT. LOW SHUTDOWN	18.7~20.3VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	18.8VDC 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:24VDC O/P:TESTING Ta:25°C	340W	P
5	OVER VOLTAGE PROTECTION	30~32VDC	I/P:TESTING O/P:NO LOAD Ta:25°C	30.3VDC SHUT DOWN RESET RE-POWER ON	P
6	OUTPUT SHORT PROTECTION	YES	I/P:24VDC O/P:SHORT Ta:25°C	TEST OK SHUT DOWN	P
7	OVER TEMPERATURE PROTECTION	40°C~50°C	I/P:24VDC O/P:FULL LAOD FAN LOCK Ta:25°C	41.3°C(NTC) SHUT DOWN RESET RE-POWER ON	P
8	FAN CONTROL	>100W OR >40°C FAN ON	I/P:24VDC O/P:TESTING Ta:25°C	140W FAN ON OR 38.6°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:24VDC O/P:300W LOAD Ta=25°C			P

NO	Position	P/N	TEMP Ta=25°C
1	T1	EEL-28	103.8°C
2	C23	1000u/35V fuhjyyu 105°C TNR 13.5*20	61.8°C
3	C11	100u/400V fuhjyyu 85°C LP 22*32	59.6°C
4	Q12	IRF840B	49.3°C
5	Q7	IRF 540	58.9°C
6	D1	HER506G	83.2°C
7	RT	URI 310	38.7°C



**OTHER**

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C11 IS THE MOST CRITICAL COMPONENT I/P:24VDC O/P:300W Ta=25°C LIFE TIME=11631HRS			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
2003.12.5	A302-300-F3	PASS	T.K.CHENG	MAX LIN