



# TEST REPORT

MODEL NAME : UPF300S48CP2

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## 1. DESIGN VERIFY TEST

### 1-1. INPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
VOLTAGE RANGE	18~264VAC	I/P: testing O/P:full load Ta:25 °C	test ok	P
FREQUENCY RANGE	47~63Hz no damage osc	I/P:180~264VAC O/P:full~min. load Ta:25 °C	test ok	P
POWER FACTOR	0.95 min.	I/P:230VAC O/P:full load	PF=0.990/230VAC	P
EFFICIENCY	92% typ.	I/P:230VAC O/P:full load Ta:25 °C	91.7%	P
AC CURRENT	1.4A/230VAC typ.	I/P:230VAC O/P:full load Ta:25 °C	1.35A/230VAC	P
INRUSH CURRENT	60A typ. cold start	I/P:230VAC O/P:full load Ta:25°C	52A	P
LEAKAGE CURRENT	2.5mA max.	I/P:230VAC O/P:min. load Ta:25 °C	0.5mA	P

### 1-2. OUTPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
CONSTANT CURRENT REGION	O/P:24~48V/5.7±5%	I/P:230VAC O/P:CV mode Ta:25 °C	O/P=48V:5.7A O/P=53V:5.7A	P
CURRENT ADJ. RANGE	5.7A-30%/+5%	I/P:230VAC O/P:full load Ta:25 °C	4~6.3A	P
RIPPLE&NOISE	150mVp-p max.	I/P:230VAC O/P:full load Ta:25 °C	95mV p.p	P

SETUP TIME	3000ms/230VAC max.	I/P:230VAC O/P:full load Ta:25 °C	340ms/230VAC	P
RISE TIME	100ms/230VAC max.	I/P:230VAC O/P:full load Ta:25	18.9ms/230VAC	P
HOLD UP TIME	15ms/230VAC typ.	I/P:230VAC O/P:full load Ta:25	19.8ms/230VAC	P

## 1-3. PROTECTION FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
SHORT PROTECTION	short every output 1 hour no damage	I/P:264VAC O/P:full load Ta:25 °C	no damage, recovers automatically after fault removed	P
OVER VOLTAGE PROTECTION	115~140%	I/P:230VAC O/P:min. load Ta:25 °C	117%/230VAC recovers automatically after fault removed	P
OVER TEMP. PROTECTION	temp. sensor: 95±10 °C no damage	I/P:230VAC O/P:full load	O.T.P active, automatically after fault removed	P

## 2. SAFETY & EMC TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
WITHSTAND VOLTAGE	I/P-O/P:3KVAC/1min<10mA I/P-F/G:1.5KVAC/1min<10mA O/P-F/G:0.5KVAC/1min<10mA	I/P-O/P:3KVAC/1min I/P-F/G:1.5KVAC/1min O/P-F/G:0.5KVAC/1min Ta:25 °C	I/P-O/P:3.8mA I/P-F/G:1.6mA O/P-F/G:3.2mA no damage	P
ISOLATION RESISTANCE	I/O-O/P:500VDC>100MΩ I/O-F/G:500VDC>100MΩ O/P-F/G:500VDC>100MΩ	I/P-O/P:500VDC I/P-F/G:500VDC O/P-F/G:500VDC Ta:25 °C	I/P-O/P: ∞ I/P-F/G: ∞ O/P-F/G: ∞ no damage	P

<b>SURGE</b>	IEC61000-4-5 industry L-N:4KV L,N-PE:6KV	I/P:230VAC/50Hz O/P:full load Ta:25 °C	criteria A	<b>P</b>
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### 3. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
<b>LOW TEMP. TURN ON TEST</b>	turn on after 2hour	I/P:230VAC O/P:full load Ta:-40 °C	test ok	<b>P</b>
<b>STORAGE TEMP. TEST</b>	no damage	1.thermal shock temp.: -40~+80°C 2.test time low & high temp.:30min/each 3.total cycle:5cycle 4.input/output condition:static	test ok	<b>P</b>
<b>HIGH VOLT. HIGH TEMP. HIGH HUMI. TEST</b>	no damage after 12hour	I/P:264VAC O/P:full load Ta:70 °C HUMI.:95%RH	test ok	<b>P</b>
<b>THERMAL SHOCK TEST</b>	no damage	1.thermal shock temp.: -40~+70°C 2.test time low & high temp.:30min/each 3.total cycle:10cycle 4.input/output condition: 230VAC full load, AC on/off test (turn on 58sec,turn off 2sec)	test ok	<b>P</b>
<b>VIBRATION TEST</b>	no damage	1.CATON&iSET 1.wave form:sine wave 2.frequency:10~500Hz 3.sweep time:12min./sweep cycle 4.acceleration:5G 5.test time:72min. in each(X,Y,Z) 6.Ta:25 °C	test ok	<b>P</b>