



# TEST REPORT

MODEL NAME : UP30S24F

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## 1. DESIGN VERIFY TEST

### 1-1. INPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
VOLTAGE RANGE	90~264VAC	I/P: testing O/P:full load Ta:25 °C	test ok	P
FREQUENCY RANGE	47~63Hz no damage osc	I/P:90~264VAC O/P:full~min. load Ta:25 °C	test ok	P
EFFICIENCY	83% typ.	I/P:230VAC O/P:full load Ta:25 °C	86.8%	P
AC CURRENT	0.47A/115VAC typ. 0.27A/230VAC typ.	I/P:115VAC I/P:230VAC O/P:full load Ta:25 °C	0.48A/115VAC 0.26A/230VAC	P
INRUSH CURRENT	60A typ. cold start	I/P:230VAC O/P:full load Ta:25 °C	51.2A	P

### 1-2. OUTPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
RIPPLE&NOISE	290mVp-p max.	I/P:230VAC O/P:full load Ta:25 °C	90mV	P
VOLTAGE ADJ. RANGE	24V ± 5%	I/P:115VAC I/P:230VAC O/P:min. load Ta:25 °C	22.5~25.5V/115VAC 22.5~25.5V/230VAC	P
VOLTAGE TOLERANCE	24V ± 3%	I/P:100VAC/264VAC O/P:full/min. load Ta:25 °C	0.66%	P
LINE REGULATION	24V ± 1%	I/P:100~264VAC O/P:full load Ta:25 °C	0.41%	P
LOAD REGULATION	24V ± 2%	I/P:230VAC O/P:full~min. load Ta:25 °C	0.66%	P

<b>SETUP TIME</b>	3000ms/115VAC max. 3000ms/230VAC max.	I/P:115VAC I/P:230VAC O/P:full load Ta:25 °C	1080ms/115VAC 678ms/230VAC	<b>P</b>
<b>RISE TIME</b>	100ms/115VAC max. 100ms/230VAC max.	I/P:115VAC I/P:230VAC O/P:full load Ta:25	36ms/115VAC 36ms/230VAC	<b>P</b>
<b>HOLD UP TIME</b>	15ms/115VAC typ. 50ms/230VAC typ.	I/P:115VAC I/P:230VAC O/P:full load Ta:25	12ms/115VAC 50ms/230VAC	<b>P</b>

### 1-3. PROTECTION FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
<b>SHORT PROTECTION</b>	short every output 1 hour no damage	I/P:264VAC O/P:full load Ta:25 °C	no damage, recovers automatically after fault removed	<b>P</b>
<b>OVER LOAD PROTECTION</b>	110% min.	I/P:115VAC I/P:230VAC O/P:testing Ta:25 °C	170%/115VAC 170%/230VAC recovers automatically after fault removed	<b>P</b>
<b>OVER VOLTAGE PROTECTION</b>	115~140%	I/P:115VAC I/P:230VAC O/P:min. load Ta:25 °C	130%/115VAC 130%/230VAC recovers automatically after fault removed	<b>P</b>

## 2. SAFETY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
WITHSTAND VOLTAGE	I/P-O/P:3KVAC/1min<10mA	I/P-O/P:3KVAC/1min Ta:25℃	I/P-O/P:2mA no damage	P
ISOLATION RESISTANCE	I/O-O/P:500VDC>100MΩ	I/P-O/P:500VDC Ta:25℃	I/P-O/P:∞ no damage	P

## 3. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
LOW TEMP. TURN ON TEST	turn on after 2hour	I/P:230VAC O/P:full load Ta:-20℃	test ok	P
STORAGE TEMP. TEST	no damage	1.thermal shock temp.: -40~+80℃ 2.test time low & high temp.:30min/each 3.total cycle:5cycle 4.input/output condition:static	test ok	P
THERMAL SHOCK TEST	no damage	1.thermal shock temp.: -20~+50℃ 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	P
VIBRATION TEST	no damage	1CATON&1SET 1.wave form:sine wave 2.frequency:10~500Hz 3.sweep time:10min./sweep cycle 4.acceleration:2G 5.test time:60min. in each(X,Y,Z) 6.Ta:25℃	test ok	P