



TEST REPORT

MODEL NAME : UP150S12W1

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1. DESIGN VERIFY TEST

1-1. INPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
VOLTAGE RANGE	90~132VAC	I/P: testing O/P:full load Ta:25℃	test ok	P
FREQUENCY RANGE	47~63Hz no damage osc	I/P:100~120VAC O/P:full~min. load Ta:25℃	test ok	P
EFFICIENCY	85% typ.	I/P:100VAC O/P:full load Ta:25℃	84.7%	P
AC CURRENT	2.2A/100VAC typ.	I/P:100VAC O/P:full load Ta:25℃	2.3A/100VAC	P
INRUSH CURRENT	40A typ. cold start	I/P:100VAC O/P:full load Ta:25℃	35A	P
LEAKAGE CURRENT	1.4mA max.	I/P:100VAC O/P:min. load Ta:25℃	1.3mA	P

1-2. OUTPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
RIPPLE&NOISE	170mVp-p max.	I/P:100VAC O/P:full load Ta:25℃	70mV	P
VOLTAGE ADJ. RANGE	12V± 5%	I/P:100VAC O/P:min. load Ta:25℃	11~13V/100VAC	P
VOLTAGE TOLERANCE	12V± 3%	I/P:90VAC/132VAC O/P:full/min. load Ta:25℃	±0.5%	P
LINE REGULATION	12V± 1%	I/P:90~132VAC O/P:full load Ta:25℃	±0.08%	P

LOAD REGULATION	12V± 2%	I/P:100VAC O/P:full~min. load Ta:25 °C	±0.41%	P
SETUP TIME	3000ms/100VAC max.	I/P:100VAC O/P:full load Ta:25 °C	780ms /100VAC	P
RISE TIME	100ms/100VAC max.	I/P:100VAC O/P:full load Ta:25	21.8ms/100VAC	P
HOLD UP TIME	10ms/100VAC typ.	I/P:100VAC O/P:full load Ta:25	12.8ms/100VAC	P

1-3. PROTECTION FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
SHORT PROTECTION	short every output 1 hour no damage	I/P:120VAC O/P:full load Ta:25 °C	no damage, recovers automatically after fault removed	P
OVER LOAD PROTECTION	110% min.	I/P:100VAC O/P:testing Ta:25 °C	120% recovers automatically after fault removed	P
OVER VOLTAGE PROTECTION	115~140%	I/P:100VAC O/P:min. load Ta:25 °C	130% recovers automatically after fault removed	P
OVER TEMP. PROTECTION	temp. sensor:95±10 °C no damage	I/P:100VAC O/P:full load	O.T.P active, recovers automatically after fault removed	P

2. SAFETY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
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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℃	I/P-O/P:3.5mA I/P-F/G:2.4mA O/P-F/G:2.0mA 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℃	I/P-O/P: ∞ I/P-F/G: ∞ O/P-F/G: ∞ no damage	P

3. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
LOW TEMP. TURN ON TEST	turn on after 2hour	I/P:100VAC O/P:full load Ta:-20℃	test ok	P
STORAGE TEMP. TEST	no damage	1.thermal shock temp.: -40~+75℃ 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: 100VAC 75% load, AC on/off test (turn on 58sec,turn off 2sec)	test ok	P
VIBRATION TEST	no damage	1.CATON&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