



TEST REPORT

MODEL NAME : UP15oS24W2L

1. DESIGN VERIFY TEST

1-1. INPUT FUNCTION TEST

1-2. OUTPUT FUNCTION TEST

1-3. PROTECTION FUNCTION TEST

2. SAFETY&EMC TEST

3. RELIABILITY TEST

1. DESIGN VERIFY TEST

1-1. INPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
VOLTAGE RANGE	200~240VAC	I/P: testing O/P:full load Ta:25 °C	test ok	P
FREQUENCY RANGE	47~63Hz no damage osc	I/P:200~240VAC O/P:full~min. load Ta:25 °C	test ok	P
EFFICIENCY	93% typ.	I/P:220VAC O/P:full load Ta:25 °C	94%	P
AC CURRENT	1.3A/220VAC typ.	I/P:220VAC O/P:full load Ta:25 °C	1.21A/220VAC	P
INRUSH CURRENT	45A typ. cold start	I/P:220VAC O/P:full load Ta:25 °C	45.2A	P
LEAKAGE CURRENT	2mA max.	I/P:220VAC O/P:min. load Ta:25 °C	0.14mA	P

1-2. OUTPUT FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
RIPPLE&NOISE	900mVp-p max.	I/P:220VAC O/P:full load Ta:25 °C	786mV p.p	P
VOLTAGE TOLERANCE	24V± 2%	I/P:220VAC O/P:full/min. load Ta:25 °C	±0.8%	P
LINE REGULATION	24V± 1%	I/P:220VAC/240VAC O/P:75% load Ta:25 °C	± 0.32%	P
LOAD REGULATION	24V± 2%	I/P:220VAC O/P:full~min. load Ta:25 °C	± 0.65%	P

SETUP TIME	3000ms/220VAC max.	I/P:220VAC O/P:full load Ta:25 °C	124ms/220VAC	P
RISE TIME	100ms/220VAC max.	I/P:220VAC O/P:full load Ta:25	15.4ms/220VAC	P
HOLD UP TIME	5ms/220VAC typ.	I/P:220VAC O/P:full load Ta:25	6.4ms/220VAC	P

1-3. PROTECTION FUNCTION TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
SHORT PROTECTION	short every output 1 hour no damage	I/P:240VAC O/P:full load Ta:25 °C	no damage, recovers automatically after fault removed	P
OVER LOAD PROTECTION	110% min.	I/P:220VAC O/P:testing Ta:25 °C	123% recovers 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:0.8mA I/P-F/G:1.2mA O/P-F/G:0.1mA 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

3. RELIABILITY TEST

TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
LOW TEMP. TURN ON TEST	turn on after 2hour	I/P:220VAC O/P:full load Ta:-40℃	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.: -40~+70℃ 2.test time low & high temp.:30min/each 3.total cycle:10cycle 4.input/output condition: 220VAC 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