



深圳市龙圣电子有限公司

SHENZHEN UNIONTOP ELECTRONIC CO., LTD

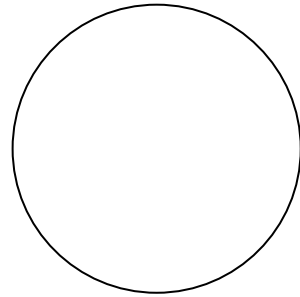
| | |
|-----------|---|
| PRODUCT: | Output 5V2.1A Wall Mount Switching Power Supply |
| MODEL: | UTS12-050210W2E |
| PART NO: | |
| VER: | A/1 |
| CUSTOMER: | |
| DATE: | |

| | |
|------|------------|
| 应用规格 | 电气用品安全法适合品 |
|------|------------|

返却希望日: 年 月 日

发行印

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| 受 领 印 栏 | |
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*未签回而下订单即视同认可!

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| 生 产 工 厂 |
| |

| 发 行 部 署 | | | | | | | |
|---------|--|-----|--|-----|--|-----|-----|
| 工 程 | | | | | | 品 管 | 业 务 |
| 责 任 者 | | 检 印 | | 经 办 | | | |

| NO. | 变更年月日 | 变 更 内 容 | 检 印 | 担 当 |
|-----|-------|---------|-----|-----|
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DESCRIPTION

Switching Power
Supply

SHEET NO.

1 OF 10

VER:

A/1

MODEL NO.

UTS12-050210W2E

PART NO.

- 1、 INPUT REQUIREMENT
- 2、 OUTPUT SPECIFICATION
- 3、 MECHANICAL
- 4、 RELIABILITY
- 5、 ENVIRONMENT
- 6、 OUTLOOKING
- 7、 SAFETY
- 8、 DIMENSION
- 9、 LABEL
- 10、 PACKING
- 11、 QC CHECK
- 12、 SAMPLE PRIMARY TEST REPORT
- 13、 SAMPLE TEST REPORT
- 14、 ENERGY STAR TEST REPORT

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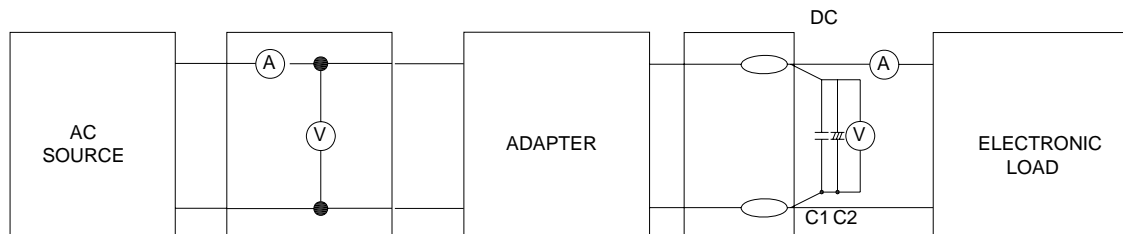
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1、 INPUT REQUIREMENT

| ITEM | SPECIFCATION | MIN | TYP. | MAX |
|-------------------------|---|--------|---------------|--------|
| NORMAL AC INPUT VOLTAGE | SINGLE PHASE | 100Vac | 110Vac/220Vac | 240Vac |
| AC INPUT VOLTAGE RANGE | SINGLE PHASE | 90Vac | 110Vac/220Vac | 264Vac |
| AC INPUT FREQUENCY | SINGLE PHASE | 47Hz | 50/60Hz | 63Hz |
| AC INPUT CURRENT | TYPICAL INPUT VOLTAGE&OUTPUT AT FULL LOAD. | | | 400mA |
| AC INRUSH CURRENT | TYPICAL INPUT VOLTAGE&OUTPUT AT FULL LOAD, 25°C | 30A | | 80A |
| EFFICIENCY | TYPICAL INPUT VOLTAGE&OUTPUT AT FULL LOAD. | 68.17% | | |

2、 OUTPUT SPECIFICATION

| ITEM | SPECIFCATION | MIN | TYP. | MAX |
|---------------------------|---|-------|------|-------|
| NORMAL DC OUTPUT VOLTAGE | | | 5VDc | |
| DC OUTPUT VOLTAGE RANGE | TYPICAL OUTPUT VOLTAGE | 4.75V | | 5.25V |
| LOAD CURRENT RANGE | | 0.0 A | | 2.1 A |
| PEAK LOAD CURRENT | TIME<60S | | | 1 A |
| RIPPLE | TYPICAL INPUT VOLTAGE, TYPICAL LOAD CURRENT, 25°C | | | 300mV |
| HOLD-UP TIME | AT TYPICAL INPUT VOLTAGE AND FULL LOAD | 10ms | | 30ms |
| TURN-ON DELAY | TYPICAL INPUT VOLTAGE AND TOP LOAD CURRENT | | | 3S |
| OVER CURRENT PROTECTION | AUTO RECOVERY | | | 3.5 A |
| SHORT CIRCUIT PROTECTION | THE ADAPTER SHALL NOT DAMAGE BY SHORT THE DC OUTPUT TO GROUND | | | |
| OVER VOLTAGE PROTECTION | | | 1V | 1V |
| NO LOAD POWER DISSIPATION | | | | 0.3W |

***TEST MEASURES**


C1 : 0.1uF CERAMICS CAPACITOR
 C2 : 10uF/50V ALUMINUM CAPACITOR



| | | | |
|-------------|------------------------|-----------------|----------|
| DESCRIPTION | Switching Power Supply | SHEET NO. | 3 OF 10 |
| | | VER: | A/1 |
| | MODEL NO. | UTS12-050210W2E | PART NO. |

3、MECHANICAL

| ITEM | SPECIFICATION OR TEST CONDITION | ACCEPTANCE CRITERIA |
|--------------|---|---|
| BENDING TEST | NORMAL TEMPERATURE THE CORD SHALL WITHSTAND WEIGHT OF 200g,SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60 DEG. 1000CYCLE TIMES MIN. S/R SHALL WITHSTAND WEIGHT OF 1N. SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 1000CYCLE TIMES MIN. BENDING SPEED 40CYCLE/MINUTE | NO SHORT CIRCUIT NO BREAKAGE OF THE CORD |
| VIBRATION | FREQUENCY RANGE:10~55Hz AMPLITUDE:1.5mm ACCELERATION:1G SWEEP 1MINUTE FOR X,Y,Z,AXIS EACH | THERE SHALL BENO ABNORMALITY ON THE APPEARANCE STRUCTURE AND OPERATING |

4、RELIABILITY

| ITEM | SPECIFICATION OR TEST CONDITION | ACCEPTANCE CRITERIA |
|----------------------------------|---|------------------------------------|
| TEMPERATURE UP WITH TYPICAL LOAD | TEST AT SURFACE OF THE CASE WITH TYPICAL AC INPUT AND TYPICAL LOAD IN OUTPUT 50/60Hz | TEMPERATURE UP UNDER 35 DEGREES |
| HI-POT TEST | INPUT TO OUTPUT GRADUALLY RAISED FROM 0 TO THE 4242Vdc/3000Vac AND HELD AT THAT VALUE FOR 1Minute,10mA | NO DAMAGE |
| INSULATION RESISTANCE | INPUT TO OUTPUT,DC 500V | >50M Ω |
| MTBF | TYPICAL INPUT&FULL LOAD,25 $^{\circ}$ C | 50000HOURS |
| LIFE | TYPICAL INPUT&FULL LOAD,40 $^{\circ}$ C TYPICAL INPUT&FULL LOAD,25 $^{\circ}$ C | 1YEARS ABOVE 2YEARS ABOVE |
| BURN-IN | AT 30 $^{\circ}$ C(\pm 10 $^{\circ}$ C),NORMAL INPUT VOLTAGE | 2~4 HOURS |

5、ENVIRONMENT

| ITEM | SPECIFICATION OR TEST CONDITION | min. | typ. | max. |
|-----------------------|---------------------------------|------------------|------|-----------------|
| OPERATING TEMPERATURE | | 0 $^{\circ}$ C | | 40 $^{\circ}$ C |
| STORAGE TEMPERATURE | | -20 $^{\circ}$ C | | 85 $^{\circ}$ C |
| OPERATING HUMIDITY | NON-CONDENSING | 5%RH | | 90%RH |
| STORAGE HUMIDITY | NON-CONDENSING | 5%RH | | 90%RH |

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MODEL NO.

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PART NO.

6、OUTLOOKING

DIMENSION : 68.5(L)*37.5(W)*45.5(H)mm

WEIGHT : ABOUT 60.8g

AC INPUT TYPE : WALL MOUNT

DC OUTPUT TYPE : /



DC OUTPUT CABLE : /

INDICATION : LABEL

CASE MATERIAL : ABS+PC

PCB MATERIAL : /

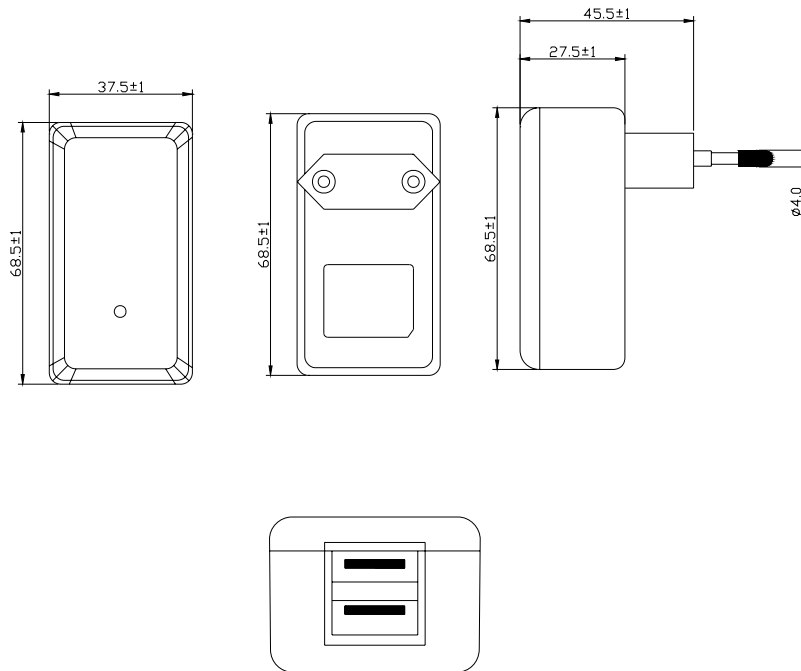
7、SAFETY

| Item | Country | Certified | Standard | Present |
|--------|-----------|-----------|-------------------------------|-------------------------------------|
| UL | USA | | UL60950-1 2 nd | <input type="checkbox"/> |
| CUL | Canada | | CSA C22.2 NO.60950-1 | <input type="checkbox"/> |
| FCC | USA | | PART 15 CLASS B | <input type="checkbox"/> |
| VDE/GS | Europe | | EN 60950-1 2 nd | <input type="checkbox"/> |
| CE | Europe | MEET | EN 60950-1 2 nd | <input checked="" type="checkbox"/> |
| BS/UK | Britain | | BS EN 60950-1 2 nd | <input type="checkbox"/> |
| SAA | Australia | | AS/NZS 60950-1 | <input type="checkbox"/> |
| CCC | China | | GB4943 | <input type="checkbox"/> |
| Ko | Korea | | K60950 | <input type="checkbox"/> |
| PSE | Japan | | J60950 (H20) | <input type="checkbox"/> |
| Others | | | | <input type="checkbox"/> |

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8、 DIMENSION



Unit : mm

| | ΦA | ΦB | C | D |
|------------------|---------|------|------|-----|
| DIMENSION | / | / | / | / |
| TOLERANCE | +0.1/-0 | ±0.1 | ±0.5 | ±50 |
| REMARK | BLACK | | | |



DESCRIPTION

Switching Power
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SHEET NO.

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VER:

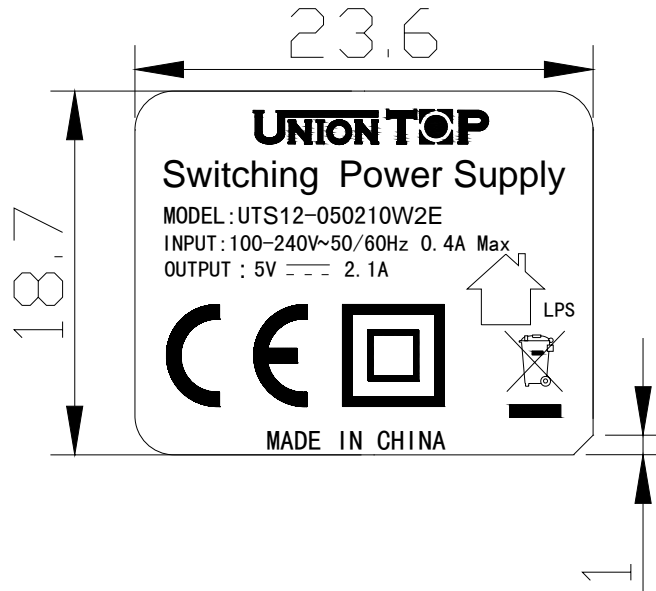
A/1

MODEL NO.

UTS12-050210W2E

PART NO.

9、 LABEL



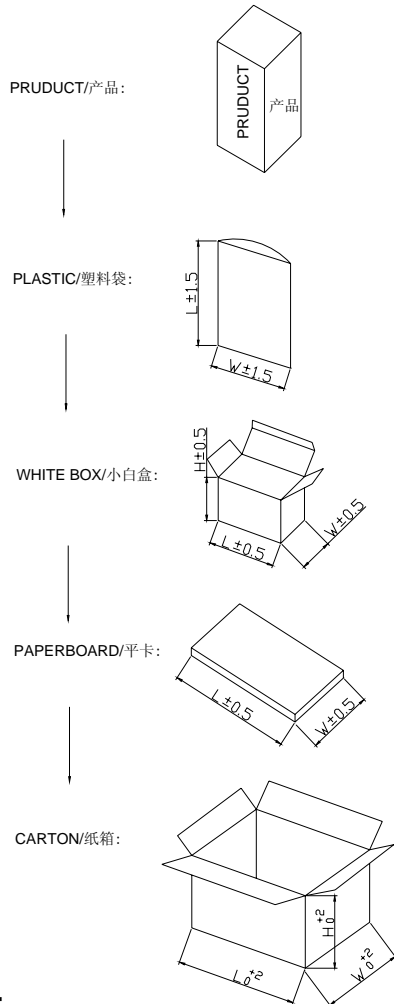
Notes:

1. Thickness: 0.1mm min., inflammation classes 94V-2 or better.
2. Color: **Black background with White letters**
3. Tolerance: -0.2mm

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10、PACKING



DIMENSION(UNIT IN cm):

| | L | W | H |
|------------|------|------|------|
| PLASTIC | 13.0 | 18.0 | \ |
| WHITE BOX | 95.0 | 80.0 | 35.0 |
| PAPERBOARD | 49.0 | 45.1 | \ |
| CARTON | 50.0 | 42.5 | 31.0 |

PACKING METHOD:

| | |
|-----------------------------|--|
| PAPERBOARD PLACEMENT METHOD | PUT A PAPERBOARD BETWEEN THE TOP AND BOTTOM,TOTAL 2PCS |
| PACKING METHOD | 25PCS/LAYER X 8 LAYERS |
| QTY | 200PCS |
| N.W. | 60.8g |
| G.W. | 14.5kg |

REMARK:

1. STORAGE CONDITION

TEMPERATURE: -10℃~+60℃ RELATIVE HUMIDITY: 30%~80%

2. STORAGE PERIOD: 6 MONTHES

3. ANLISTATIG: NO REQUIREMENT

4. PLEASE ADVISE IF ANY COMMENTS ABOUT THE PACKING INFORMATION.

OTHERWISE,THIS INFORMATION IS DEFAULTED AS CUSTOMER APPROVAL,AND WILL BE APPLIED TO PRODUCTION.



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VER:

A/1

MODEL NO.

UTS12-050210W2E

PART NO.

11、QC CHECK

ALL OF THE QUANTITY SHALL BE CHECKED BEFORE SHIPMENT,CHECK ITEM AS BELOW:

- (1) DC PLUG POLE CHECK
- (2) OCP FUNCTION CHECK
- (3) DC OUTPUT VOLTAGE CHECK
- (4) HIPOT&INSULATION CHECK
- (5) OUTLOOKING CHECK

12、SAMPLE PRIMARY TEST REPORT

| Test Items. | Test Condition | Unit | Sample Number and Test Result | | | | | | | | | | Pass/ Fail | |
|--|---------------------------------------|------|-------------------------------|----|----|----|----|----|----|----|----|-----|---------------|------|
| | | | 1# | 2# | 3# | 4# | 5# | 6# | 7# | 8# | 9# | 10# | | |
| Unload output voltage/(0.0A) <u>5±5%Vdc</u> | 100Vac | V | | | | | | | | | | | | PASS |
| | 240Vac | V | | | | | | | | | | | | PASS |
| Rated load output voltage/(<u>2.1A</u>) <u>5±5%Vdc</u> | 100Vac | V | | | | | | | | | | | | PASS |
| | 240Vac | V | | | | | | | | | | | | PASS |
| Output ripple & noise voltage≤ <u>300mV</u> (test at full loading) | 100Vac | mV | | | | | | | | | | | | PASS |
| | 240Vac | mV | | | | | | | | | | | | PASS |
| Short-circuit protection test (Short at end of DC plug) (SCP≤ <u>6W</u>) | 100Vac | W | | | | | | | | | | | | PASS |
| | 240Vac | W | | | | | | | | | | | | PASS |
| Overcurrent Protection (OCP≤ <u>3.5A</u>) | 100Vac | A | | | | | | | | | | | | PASS |
| | 240Vac | A | | | | | | | | | | | | PASS |
| Efficiency test (η ≥ <u>68.17%</u>) | 100Vac | % | | | | | | | | | | | | PASS |
| | 240Vac | % | | | | | | | | | | | | PASS |
| Hi-pot test | 4242Vdc or 3000Vac10mA/ 1Minute | | | | | | | | | | | | | PASS |

NOTES: The products which are no use in the three months need to aging test

三个月内完全不使用的产品需做老化测试

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| DESCRIPTION | Switching Power Supply | SHEET NO. | 9 OF 10 |
| | | VER: | A/1 |
| | MODEL NO. | UTS12-050210W2E | PART NO. |

13、SAMPLE TEST REPORT

| Items No | Test Items | Unit | Test condition & result | | | | Spec. Limit | Pass/ Fail |
|----------|---|--|-------------------------|----------------|----------------|----------------|----------------------------------|------------|
| | | | 90Vac 60Hz | 115Vac 60Hz | 230Vac 50Hz | 264Vac 50Hz | | |
| 1 | Unload input current | mA | | | | | — | - |
| 2 | Unload input power | W | | | | | ≤ <u>0.3W</u> | PASS |
| 3 | Rated load input current | mA | | | | | ≤ <u>400mA</u> | PASS |
| 4 | Rated load input power | W | | | | | — | - |
| 5 | Unload output voltage(0.0A) | V | | | | | <u>5±5%Vdc</u> | PASS |
| 6 | Rated load output voltage(<u>2.1A</u>) | V | | | | | <u>5±5%Vdc</u> | PASS |
| 7 | Rated load Output ripple&noise voltage (<u>300mV</u>) | mV | | | | | ≤ <u>300mVp-p</u> | PASS |
| 8 | Short-circuit test (Pin&lout) | W | | | | | ≤ <u>6W</u> | PASS |
| 9 | Over current protection | A | | | | | OCP ≤ <u>3.5A</u> | PASS |
| 10 | Output overshoot | % | / | / | / | / | ≤ <u>10%</u> | PASS |
| 11 | Turn on delay time | mS | / | / | / | / | ≤ <u>3000mS</u> | - |
| 12 | Hold up time | mS | / | / | / | / | ≥10mS/(115Vac) ≥20mS/(230Vac) | - |
| 13 | Efficiency | % | | | | | ≥ <u>68.17%</u> | PASS |
| 14 | Hi-pot test | Pri. to Sec. : 4242Vdc or 3000Vac, 1Minute, Cut off current ≤10mA | | | | | | PASS |
| 15 | Max. and Light load change test | Max. load to Light load: OK Light load to max. load: OK (90-264Vac) | | | | | | |
| 16 | Burn-in | Burn-in 4 Hrs, The sample OK | | | | | | |
| 17 | Appe. label and fusion | Appearance: <u>OK</u> , Label: <u>OK</u> , Fusion: <u>OK</u> | | | | | | |

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VER:

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PART NO.

14、ENERGY STAR TEST REPORT

| Items No. | Test parameter | Unit | Input voltage 115Vac/60Hz | | | | | | Spec. Limit | Pass /Fail |
|-----------|----------------|------|---------------------------|-----|-----|-----|----|----------|---------------------|------------|
| | | | 100% | 75% | 50% | 25% | 0% | Aver.Eff | | |
| 1 | Input current | mA | | | | | | | $\leq 400\text{mA}$ | Pass |
| 2 | Input power | W | | | | | | | - | - |
| 3 | Output current | A | | | | | | | - | - |
| 4 | Output voltage | V | | | | | | | - | - |
| 5 | Power factor | - | / | / | / | / | | | - | - |
| 6 | Efficiency | % | | | | | | | $\geq 68.17\%$ | Pass |

| Items No. | Test parameter | Unit | Input voltage 230Vac/50Hz | | | | | | Spec. Limit | Pass /Fail |
|-----------|----------------|------|---------------------------|-----|-----|-----|----|-----------|---------------------|------------|
| | | | 100% | 75% | 50% | 25% | 0% | Aver.Eff. | | |
| 1 | Input current | mA | | | | | | | $\leq 400\text{mA}$ | Pass |
| 2 | Input power | W | | | | | | | - | - |
| 3 | Output current | A | | | | | | | - | - |
| 4 | Output voltage | V | | | | | | | - | - |
| 5 | Power factor | - | / | / | / | / | | | - | - |
| 6 | Efficiency | % | | | | | | | $\geq 68.17\%$ | Pass |

Note: 1. Aver.Eff.Spec.($\geq 68.17\%$ Unload input power Spec.($\leq 0.3\text{W}$)for CEC LEVEL/)

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