

承認書

Specification For Approval

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| COMPANY NAME | |
| CUSTOMER P/N | |
| PRODUCT NAME | AC/DC ADAPTER |
| PARTS P/N | CP045030 |
| DATE | 2009-12-15 |

| APPROVED BY | CHECKED BY | PREPARED BY | CUSTOMER APPROVAL SIGNATURE |
|-------------|------------|-------------|-----------------------------|
| | | | |

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1. FEATURE:

- INPUT :UNIVERSAL 100-240 Vac/47-63 Hz INPUT, WITHOUT ANY SLIDE SWITCH
- OUTPUT :+4.5V / 0-0.3A
- DIMENSION :63(D)*39(W)*67(H) mm
- EFFICIENCY :.75%

- EMI :CISPR 22/FCC/VCCI CLASS B; CONDUCTED & RADIATED MEETED
- HIGH FREQUENCY DESIGN, LESS POWER CONSUMPTION
- OVER VOLTAGE PROTECTION, SHORT CIRCUITED PROTECTION, OVER POWER PROTECTION
- CAN BE USED AT TEL COMMUNICATION, COMPUTER, INDUSTRIAL CONTORLLER & OA SYSTEM

2. INPUT:

| | |
|-----------------------------|--|
| 2.1 VOLTAGE | UNIVERSAL 100~240Vac,SINGLE PHASE |
| 2.2 FREQUENCY | 47HZ~63HZ |
| 2.3 CURRENT | 0.5A Max |
| 2.4 INRUSH CURRENT | 10A Max/100Vac;20A Max/240Vac (COLD STABT AT 25°C FULL LOAD) |
| 2.5 EFFICIENCY | >75% (AT NOMINAL LINE VOLTAGE FULL LOAD) |
| 2.6 INPUT POWER DISSIPATION | UNDER 0.4W < ZERO LOAD 115V/60HZ INPUT |
| | UNDER 0.4W < ZERO LOAD 230V/50HZ INPUT |

3. OUTPUT:

| | | |
|---------------|----------------|-------------------------------|
| 3.1 DC OUTPUT | VOLTAGE | +4.5V ±5% |
| | CURRENT | 0.3A Max |
| | REGULATION | 4.28V Min~4.5V Typ.~4.73V Max |
| | RIPPLE & NOISE | 45mV Max |
| | TOTAL POWER | 1.35W Max |

NOTE: FOR RIPPLE & NOISE MEASUREMENT, USE A 20MHZ BAND WIDTH FREQUENCY OSCILLOSCOPE, AND ADD A 0.1uF MULTILAYER CAP. AND A LOW ESR ELECTROLYTICCAP. (10uF) AT OUTPUT CONNECTOR TERMINALS. (AT NOMINAL LINE VOLTAGE FULL LOAD)

4. PROTECTION:

| | |
|------------------------------|---|
| 4.1 OVER VOLTAGE PROTECTION | Vout*(110%~140%) |
| 4.2 SHORT CIRCUIT PROTECTION | AUTOMATIC RECOVERY AFTER SHORT-CIRCUIT FAULT REMOVED |
| 4.3 OVER POWER PROTECTION | THE ADAPTER PROVIDE PROTECTION AT 110%-140% OF RATED OUTPUT POWER |

NOTE: WHEN PROTECTION CIRCUIT IS WORKING THE POWER SUPPLY WILL SHUTDOWN, ONCE THE ABNORMAL CONDITIONS ARE REMOVED. THE POWER SUPPLY WILL RESTART AUTOMATICALLY.

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5. SAFETY AND EMI REQUIREMENT:

5.1 SAFETY REQUIREMENT

b. DIELECTRIC STRENGTH :10mA Max. CUT OFF CURRENT

| | |
|-----------------------------|------------------------|
| (1):PRIMARY TO SECONDARY | : 1800Vac FOR 1 MINUTE |
| (2):PRIMARY TO FRAME GROUND | : 1500Vac FOR 1 MINUTE |

c. INSULATION RESISTANCE:

| | |
|-----------------------------|------------------------|
| (1):PRIMARY TO SECONDARY | : 10 M OHMS FOR 500Vdc |
| (2):PRIMARY TO FRAME GROUND | : 10 M OHMS FOR 500Vdc |

5.2 EMI REQUIREMENT MEET CISPR 22/FCC/VCC1, CLASS B

5.3 LEAKAGE CURRENT LESS THAN 3.5mA

6.OPERATION & ENVIRONMENT PERFORMANCE:

6.1 TEMPERATURE RANGE

| | |
|-----------|--------------|
| OPERATING | 0°C ~ +40°C |
| STORAGE | -40°C ~+70°C |

6.2 HUMIDITY RANGE (NON CONDENSING)

| | |
|-----------|--------------|
| OPERATING | 10% ~ 90% RH |
| STORAGE | 5% ~ 95% RH |

6.3 COOLING

SHOULD OPERATE WITHOUT FAN

7.M.T.B.F.:

50000 HOURS Min ; 40°C SEE CONDITION

TEST REPORT

(I). LINE REGULATION TEST

Test result:

| Test condition | Spec. | Reading |
|-------------------|------------|---------|
| 90Vac / 50% load | 4.28~4.73V | 4.63V |
| 115Vac / 50% load | 4.28~4.73V | 4.63V |
| 132Vac / 50% load | 4.28~4.73V | 4.63V |
| 180Vac / 50% load | 4.28~4.73V | 4.63V |
| 230Vac / 50% load | 4.28~4.73v | 4.63V |
| 264Vac / 50% load | 4.28~4.73v | 4.63V |

(II). EFFICENCY TEST

Test result:

| Test condition | Spec. | Reading |
|--------------------|-------|---------|
| 115Vac / 100% load | >75% | 75% |
| 230Vac / 100% load | >75% | 75% |

(III). LOAD REGULATION TEST

Test result:

| Test condition | Spec. | Reading |
|--------------------|------------|---------|
| 115Vac / 0% load | 4.28~4.73V | 4.71V |
| 115Vac / 50% load | 4.28~4.73V | 4.63V |
| 115Vac / 100% load | 4.28~4.73V | 4.55V |
| 230Vac / 0% load | 4.28~4.73V | 4.71V |
| 230Vac / 50% load | 4.28~4.73V | 4.63V |
| 230Vac / 100% load | 4.28~4.73V | 4.55V |

(IV).RIPPLE & NOISE TEST

Test result:

| Test condition | Spec. | Reading |
|--------------------|----------|---------|
| 115Vac / 100% load | 45mV Max | 35mV |
| 230Vac / 100% load | 45mV Max | 30mV |

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(VI). OVER VOLTAGE PROTECTION

Test result:

| Test condition | Spec. | Reading |
|--------------------|------------------|---------|
| 115Vac / 100% load | Vout*(110%~140%) | 115% |
| 230Vac / 100% load | Vout*(110%~140%) | 125% |

(VII). RISE TIME

Test result:

| Test condition | Spec. | Reading |
|--------------------|----------|---------|
| 115Vac / 100% load | 70mS Max | 40mS |
| 230Vac / 100% load | 70mS Max | 50mS |

(VIII). OVER CURRENT PROTECTION

Test result:

| Test condition | Spec. | Reading |
|--------------------|------------------|---------|
| 115Vac / 100% load | Iout*(101%~160%) | 120% |
| 230Vac / 100% load | Iout*(101%~140%) | 128% |

(IX). SHORT CIRCUIT PROTECTION

Test result:

| Test condition | Spec. | Reading |
|--------------------|------------|---------|
| 115Vac / 100% load | Under 0.5W | OK |
| 230Vac / 100% load | Under 0.6W | OK |

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