

DATE: 2020/2/29 (YY/MM/DD)

Customer : ASKA ELECTRIC SERVICE CO.,LTD

Confidential

# APPROVAL SHEET

RoHS Compliant

PRODUCT: AC ADAPTOR

MODEL: UA310-0520

PART NO. JASK-0353PZD

V :200229

V4



Receiver's stamp or signature

PLEASE APPROVE & RETURN BEFORE 2020/3/14  
OR WE WOULD REGARD IT BEEN CONFIRMED.

| RESPONSIBLE | APPROVED | ISSUED |
|-------------|----------|--------|
| 梁經理         | 楊紅梅      | 韋麗雲    |

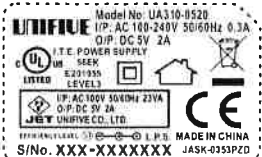
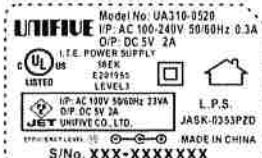
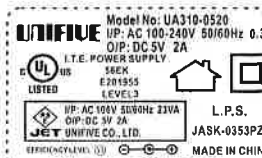
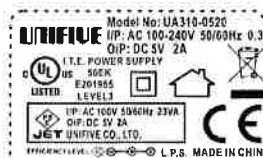
## Revised History

| NO. | Revised Date | Description                                                                          | Approved | ISSUED |
|-----|--------------|--------------------------------------------------------------------------------------|----------|--------|
| 1   | 2016/1/25    | FIRST ISSUED                                                                         | 楊紅梅      | 封芳轉    |
| 2   | 2016/4/19    | CHANGE LABEL & WEIGHT                                                                | 楊紅梅      | 楊容     |
| 3   | 2016/6/14    | CHANGE LABEL & ADD CE REPORT & SAFETY                                                | 楊紅梅      | 譚碧琴    |
| 4   | 2020/2/29    | CHANGE LABEL & DIMENSION & DELETE CE REPORT & SAFETY & UPDATE STANDARD OF RoHS & EMI | 楊紅梅      | 韋麗雲    |

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# Revised History

| Revised Date | Description                                                                                                                                                         |                                                                                                                                                                       |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | After                                                                                                                                                               | Before                                                                                                                                                                |
| 2016/4/19    | 56EK<br>E201955<br>LEVEL3                                                                                                                                           | 56EK<br>E357481<br>LEVEL3                                                                                                                                             |
|              | WEIGHT : ABOUT 61g                                                                                                                                                  | WEIGHT : ABOUT 73g                                                                                                                                                    |
|              | CHANGE LABEL & WEIGHT                                                                                                                                               |                                                                                                                                                                       |
| 2016/6/14    |   |   |
|              | CHANGE LABEL & ADD CE REPORT & SAFETY                                                                                                                               |                                                                                                                                                                       |
| 2020/2/29    |                                                                                  |                                                                                  |
|              | CHANGE LABEL & DIMENSION & DELETE CE REPORT & SAFETY & UPDATE STANDARD OF RoHS & EMI                                                                                |                                                                                                                                                                       |
|              |                                                                                                                                                                     |                                                                                                                                                                       |
|              |                                                                                                                                                                     |                                                                                                                                                                       |
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## 1.INPUT SPECIFICATION

| ITEM                   | SPECIFICATION                                       | MIN    | TYPICAL    | MAX    |
|------------------------|-----------------------------------------------------|--------|------------|--------|
| AC INPUT VOLTAGE       | SINGLE PHASE                                        |        | 100~240Vac |        |
| AC INPUT VOLTAGE RANGE | SINGLE PHASE                                        | 90Vac  |            | 264Vac |
| AC INPUT FREQUENCY     | SINGLE PHASE                                        | 47Hz   | 50/60Hz    | 63Hz   |
| AC INPUT CURRENT       | TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD.         |        | 0.23A      | 0.3A   |
| AC INRUSH CURRENT      | TYPICAL INPUT VOLTAGE&FOR A COLD START AT 25°C.     |        |            | 40A    |
| DOE EFFICIENCY         | THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI | 78.70% |            |        |
| STAND BY CONSUMPTION   | THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI |        |            | 0.1W   |
| LEAKAGE CURRENT        | MAX INPUT VOLTAGE                                   |        |            | 0.25mA |

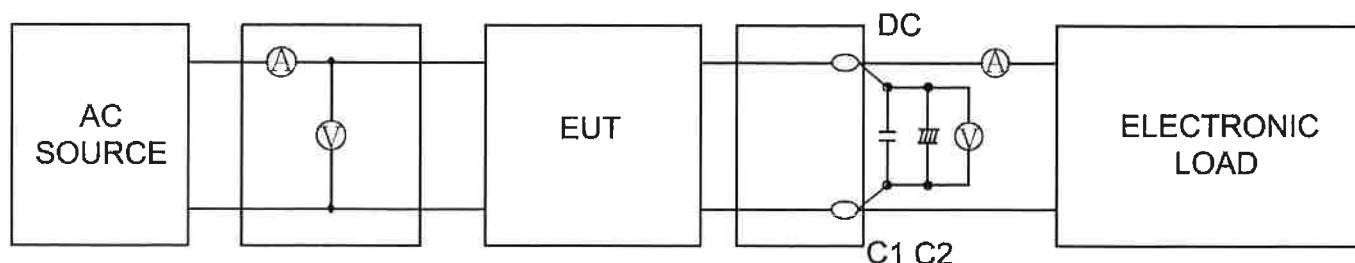
## 2.OUTPUT SPECIFICATION

| ITEM                      | SPECIFICATION                                              | MIN     | TYPICAL | MAX     |
|---------------------------|------------------------------------------------------------|---------|---------|---------|
| NOMINAL DC OUTPUT VOLTAGE |                                                            |         | 5Vdc    |         |
| DC OUTPUT VOLTAGE RANGE   | TYPICAL OUTPUT VOLTAGE                                     | 4.75Vdc |         | 5.25Vdc |
| LOAD CURRENT              |                                                            |         |         | 2A      |
| RIPPLE                    | TYPICAL INPUT VOLTAGE , FULL LOAD CURRENT , 25°C           |         |         | 100mV   |
| NOISE                     | TYPICAL INPUT VOLTAGE , FULL LOAD CURRENT , 25°C           |         |         | 100mV   |
| HOLD-UP TIME              | AT TYPICAL INPUT VOLTAGE AND FULL LOAD ,50Hz               | 10mS    |         |         |
| TURN-ON DELAY             | TYPICAL INPUT VOLTAGE AND FULL LOAD CURRENT                |         |         | 2S      |
| DYNAMIC TEST              | TYPICAL INPUT VOLTAGE,20%-80% LOAD,TH 5mS TL 5mS, 100mA/us | 4.5Vdc  |         | 5.5Vdc  |

## PROTECTION

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| OVER CURRENT PROTECTION  | AUTO RECOVERY                                                 |
| SHORT CIRCUIT PROTECTION | THE ADAPTOR SHALL NOT DAMAGE BY SHORT TO THE DC OUTPUT GROUND |
| OVER VOLTAGE PROTECTION  | AUTO RECOVERY                                                 |

## \*TEST MEASURES



C1: 0.1μ F CERAMICS CAPACITOR

C2: 10μ 100V ALUMINUM CAPACITOR

THE BANDWIDTH OF OSCILLOSCOPE IS SET WITH 20MHZ

## 3.MECHANICAL

| ITEM         | SPECIFICATION OR TEST CONDITION                                                                                                                                                                                                                                   | ACCEPTANCE CRITERIA                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| BENDING TEST | NORMAL TEMPERATURE<br>THE PLUG SHALL WITHSTAND WEIGHT OF 2.94N,IT SWINGS FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 500 TIMES MIN.,S/R SHALL WITHSTAND WEIGHT OF 2.94N. IT SWING FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 500 TIMES MIN.,BENDING SPEED 40CYCLE/MIN. | NO SHORT CIRCUIT<br>NO BREAKAGE OF THE CORD                             |
| VIBRATION    | DURATION:30MINUTES<br>AMPLITUDE:0.35mm<br>FREQUENCY RANGE:10Hz...55Hz...10Hz<br>SWEEP RANGE: APPROXIMATELY 1 OCTAVE / MIN                                                                                                                                         | THERE SHALL BE NO ABNORMALITY ON THE APPEARANCE STRUCTURE AND OPERATING |

## 4.RELIABILITY

| ITEM                          | TEST CONDITION                                                                                                                                    | ACCEPTANCE CRITERIA                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TEMPERATURE UP WITH FULL LOAD | TEST AT SURFACE OF THE CASE WITH TYPICAL AC INPUT AND FULL LOAD IN OUTPUT<br>50/60Hz                                                              | TEMPERATURE RISEN MEET SAFETY APPROVALED AT THE SURFACE OF CASE                                                                                                             |
| HI-POT TEST                   | BETWEEN INPUT & OUTPUT 3000Vac 60 SECONDS 10mA.IT IS BASE ON EN60950 5.2.2 TEST PROCEDURE.FOR MASS PRODUCTION, IT IS TESTED BY 3300Vac /1 SECOND. | NO DAMAGE                                                                                                                                                                   |
| INSULATION RESISTANCE         | INPUT TO OUTPUT, DC 500V                                                                                                                          | >50M $\Omega$ (below at R.H 70%).<br>>10M $\Omega$ (at R.H 71 ~ 95% ).<br>*Put it into normal temperature & humidity for 24H,when testing.<br>(Ta:20~30 °C , below R.H 70%) |
| MTBF                          | TYPICAL INPUT & FULL LOAD AT 25°C                                                                                                                 | 100000 HOURS (min)                                                                                                                                                          |
| BURN-IN TEST                  | AT 30°C ( $\pm 10^{\circ}\text{C}$ ),TYPICAL INPUT VOLTAGE                                                                                        | 2~4 HOURS                                                                                                                                                                   |
| IEC61000-4-2 ESD TEST LEVEL2  | AIR DISCHARGE $\pm 8\text{KV}$<br>CONTACT DISCHARGE $\pm 4\text{KV}$                                                                              | NO DAMAGE 1 ROUND/SEC ABOVE                                                                                                                                                 |
| IEC61000-4-5 SURGE WITHSTAND  | $\pm 1\text{KV}$                                                                                                                                  | NO DAMAGE                                                                                                                                                                   |

## 5.ENVIRONMENT

| ITEM                  | SPECIFICATION OR TEST CONDITION | MIN   | TYPICAL | MAX   |
|-----------------------|---------------------------------|-------|---------|-------|
| OPERATING TEMPERATURE |                                 | 0°C   |         | 40°C  |
| STORAGE TEMPERATURE   |                                 | -20°C |         | 65°C  |
| OPERATING HUMIDITY    | NON-CONDENSING                  | 5%RH  |         | 95%RH |
| STORAGE HUMIDITY      | NON-CONDENSING                  | 5%RH  |         | 95%RH |

## 6.OUTLOOKING

|                                                        |                            |
|--------------------------------------------------------|----------------------------|
| DIMENSION                                              | 45.8(L)*33.3(W)*25.4(H)TYP |
| WEIGHT                                                 | ABOUT 61g                  |
| AC INPUT TYPE                                          | WALL MOUNT                 |
| DC OUTPUT TYPE                                         | 5.5*2.1*9.5                |
| DC OUTPUT CABLE                                        | USE UL 1185 20 AWG WIRE    |
| INDICATION                                             | LASER MARKING              |
| FLAMMABILITY OF POWER SUPPLY ADAPTER ENCLOSURE IS 94V0 |                            |
| FLAMMABILITY OF PWB IS 94V0                            |                            |

## 7.SAFETY

| COMPLY SAFETY STANDARDS | STANDARD  |
|-------------------------|-----------|
| PSE                     | 電気用品安全法   |
| CUL                     | UL60950-1 |

| EMI                                                |
|----------------------------------------------------|
| MEET VCCI class B , FCC class B , CISPR 32 class B |

The EMC result will be affected when connecting of end device. The end user should be re-test the EMC of the complete set of equipments

## 8.QC CHECK

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

- (1)DC PLUG POLE CHECK
- (2)DC OUTPUT VOLTAGE CHECK
- (3)HI-POT&INSULATION CHECK
- (4)OUTLOOKING CHECK

## STANDARD OF RoHS

| NO. | chemical substances group             |
|-----|---------------------------------------|
| 1   | Cadmium                               |
| 2   | Chromium(VI)                          |
| 3   | Lead                                  |
| 4   | Mercury                               |
| 5   | Polybrominated biphenyls (PBBs)       |
| 6   | Polybrominated diphenyl ethers(PBDEs) |

Effective in 1st Jan. 2019

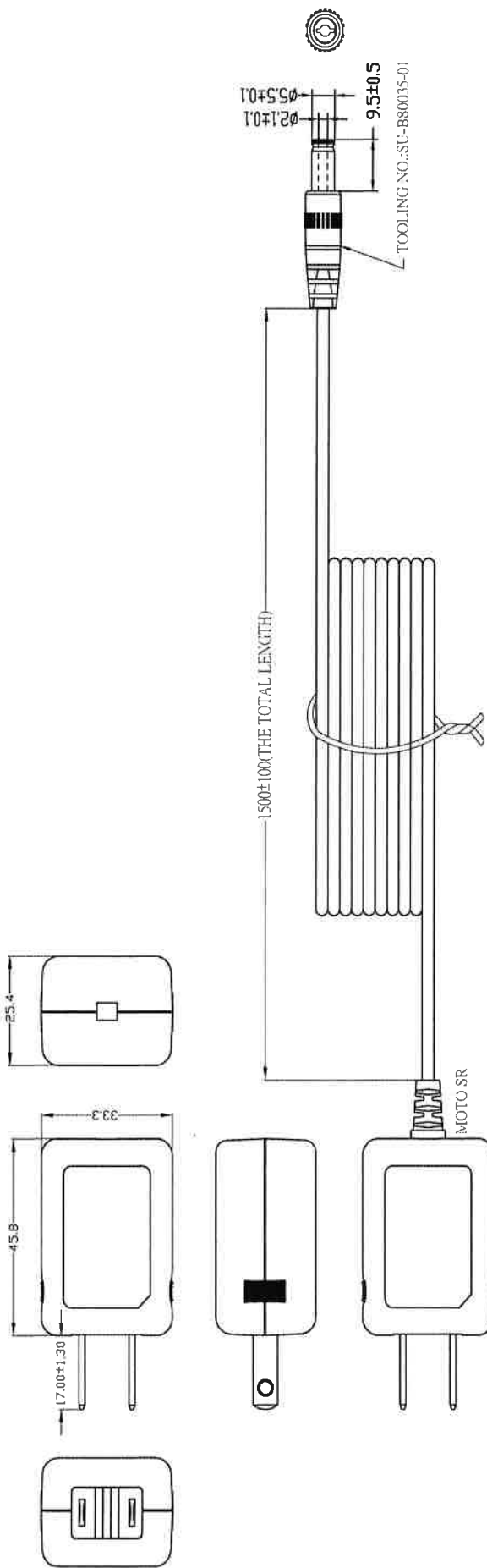
| NO. | chemical substances group           |
|-----|-------------------------------------|
| 1   | Bis (2-ethylhexyl) phthalate (DEHP) |
| 2   | Butyl benzyl phthalate (BBP)        |
| 3   | Dibutyl phthalate (DBP)             |
| 4   | Diisobutyl phthalate (DIBP)         |

FOR ENVIRONMENTAL IMPACT SUBSTANCES CONTAINED IN PARTS. COMPLY WITH "RoHS 2.0"

The value which list on the spec,were tested by resistance.

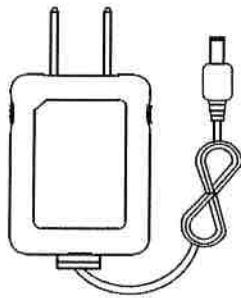
9.DIMENSION

CASE TOLERANCE:  $\pm 0.8\text{mm}$



MEMO: Fork insulation with tonometer groove type

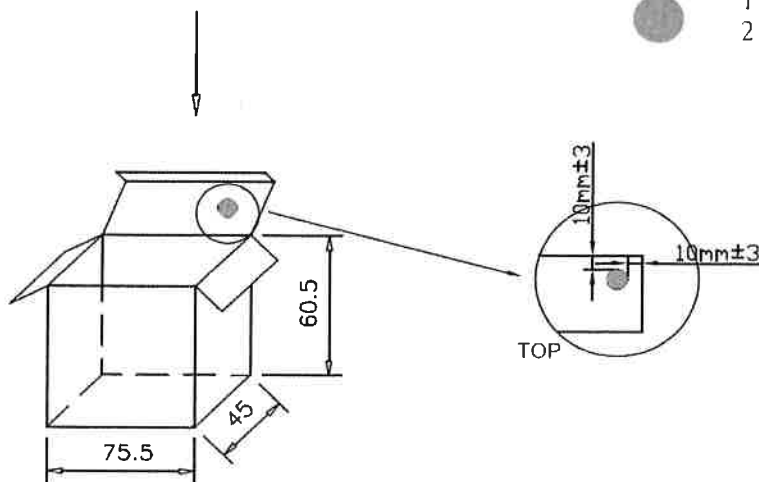
## 10.PACKING



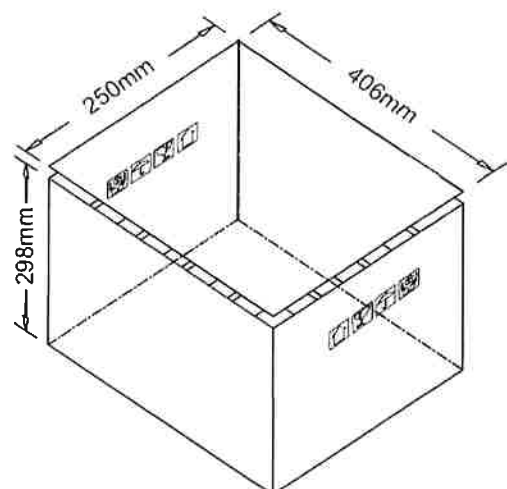
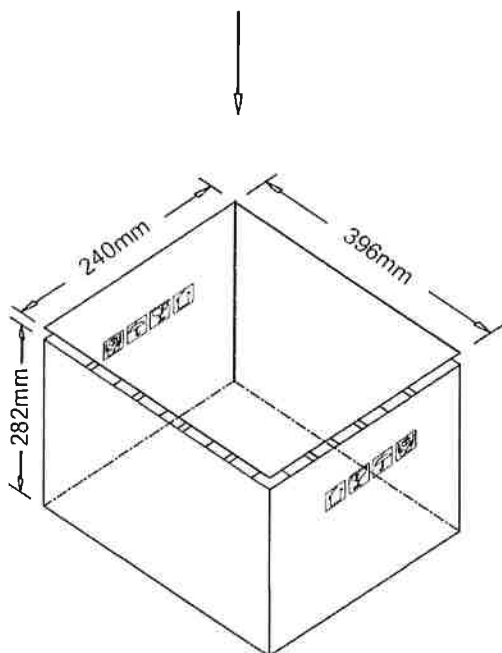
GREEN LABEL :



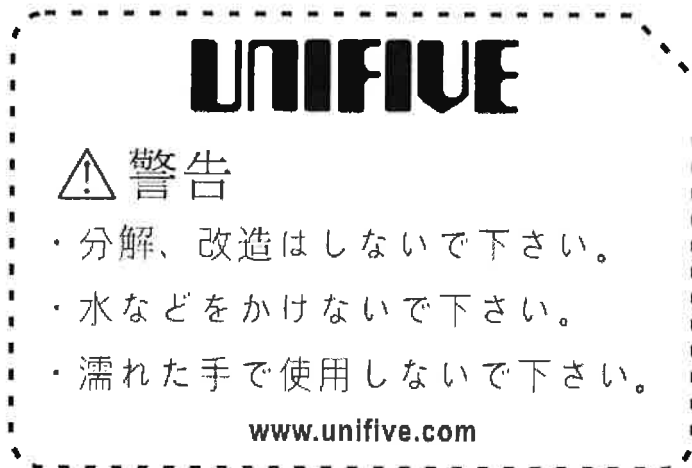
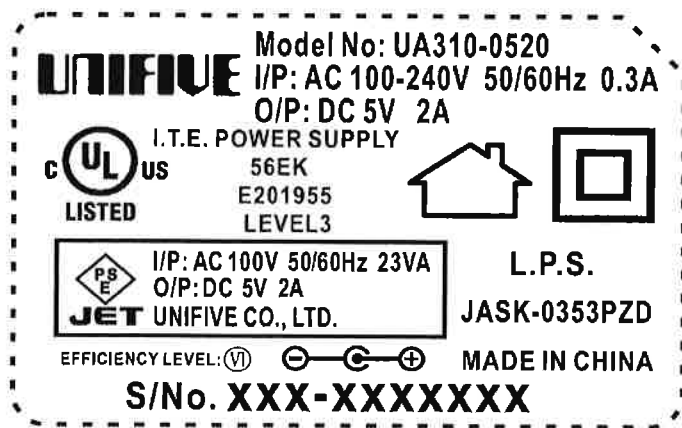
- 1、color: green 3405C
- 2、size:  $\varnothing 8\text{mm}$



Q'TY: 100pcs(5\*5\*4)

TOLERANCE:  $\pm 5\text{mm}$

## 11.LABEL (LASER MARKING )



S/NO.XXX-XXXXXXXX

↓ ↓ ↓  
 YEAR MONTH SERIAL NUMBER

About S/N No. From the year of 2010, notation of year will be as below;

ex. 2019/12...K12-XXXXXXXX

2020/01...L01-XXXXXXXX

2021/01...M01-XXXXXXXX

2022/01...N01-XXXXXXXX

2023/01...P01-XXXXXXXX

2024/01...Q01-XXXXXXXX

2025/01...R01-XXXXXXXX

(A,B,C~Z)the letters of "I" and "O" will not be used.(In order not to make confusion of 1 and 0)