

DATE: 2023/11/1 (YY/MM/DD)

Customer : ASKA ELECTRIC SERVICE CO.,LTD.

Confidential

APPROVAL SHEET

RoHS Compliant

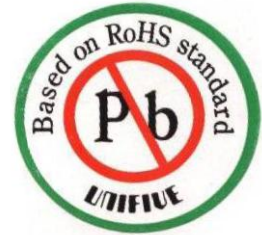
PRODUCT : SWITCHING POWER SUPPLY

MODEL : UNOWT3010-120900SA

PART NO. : JASK-0627Z

VER. : 231101 V1

CUSTOMER NO. :



Receiver's stamp or signature

PLEASE APPROVE & RETURN BEFORE 2023/11/15
OR WE WOULD REGARD IT BEEN CONFIRMED.

RESPONSIBLE	APPROVED	ISSUED
梁國康 2023/11/1	楊紅梅 2023/11/1	張穎穎 2023/11/1

「 Due to market conditions or safety regulations change, we may submit your request for a change in parts or safety specifications. If you have not placed an order for more than two years, we will not initiate these changes until we receive a new order from you, and we will reconfirm it and get back to you as to whether you can continue production or need to make changes. 」

「 No part of this specification may be reproduced or reprinted in any form or by any means without the prior written permission of the Company. 」

「 The disclaimer applicable to the product described in this specification document is stated on <https://en.unifive.com/quality-assurance.html>

Signing back this specification document will be considered as agreeing to the disclaimer. 」

UNIFIVE

UNIFIVE CO., LTD

Revised History

NO.	Revised Date	Description		ISSUED
		After	Before	
	2023/11/1	FIRST ISSUED		張穎穎

PS:  CHANGE MARKING

CONTENTS :

1.INPUT SPECIFICATION

2.OUTPUT SPECIFICATION

3.MECHANICAL

4.RELIABILITY

5.ENVIRONMENT

6.OUTPUT DERATING

7.OUTLOOKING

8.QC CHECK

9.STANDARD

10.PRODUCT DRAWING

11.PACKING

12.LABEL



1.INPUT SPECIFICATION

ITEM	SPECIFICATION	MIN	TYPICAL	MAX
AC INPUT VOLTAGE	SINGLE PHASE		100~240Vac	
AC INPUT VOLTAGE RANGE	SINGLE PHASE	85Vac		265Vac
AC INPUT FREQUENCY	SINGLE PHASE	47Hz	50/60Hz	63Hz
AC INPUT CURRENT	TYPICAL INPUT VOLTAGE & OUTPUT AT FULL LOAD.		0.23A	0.33A
AC INRUSH CURRENT	TYPICAL INPUT VOLTAGE & FOR A COLD START AT 25°C . AC 100V(*1)			15A
	TYPICAL INPUT VOLTAGE & FOR A COLD START AT 25°C . AC 200V(*1)			30A
EFFICIENCY	THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI	82.38%		
STAND BY CONSUMPTION	THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI			0.1W
LEAKAGE CURRENT	MAX INPUT VOLTAGE			5mA r.m.s or 7.07mA peak

2.OUTPUT SPECIFICATION

ITEM	SPECIFICATION	MIN	TYPICAL	MAX
NOMINAL DC OUTPUT VOLTAGE			12Vdc	
DC OUTPUT VOLTAGE RANGE	TYPICAL OUTPUT VOLTAGE (ADJUSTABLE)	10.8Vdc		13.2Vdc
LOAD CURRENT	OPERATING TEMPERATURE -10°C ~ 50°C			0.9A
OUTPUT POWER				10.8W
RIPPLE & NOISE	TYPICAL INPUT VOLTAGE ,0-100% LOAD CURRENT ,0°C ~ 60°C			150mV
	TYPICAL INPUT VOLTAGE , 0-100% LOAD CURRENT , -10°C ~ 0°C			180mV
HOLD-UP TIME	AT TYPICAL INPUT VOLTAGE AND FULL LOAD ,50Hz	20mS		
TURN-ON DELAY	TYPICAL INPUT VOLTAGE AND FULL LOAD CURRENT			3S
DYNAMIC TEST	TYPICAL INPUT VOLTAGE,20%-80% LOAD,TH 5mS TL 5mS, 100mA/uS	10.8Vdc		13.2Vdc

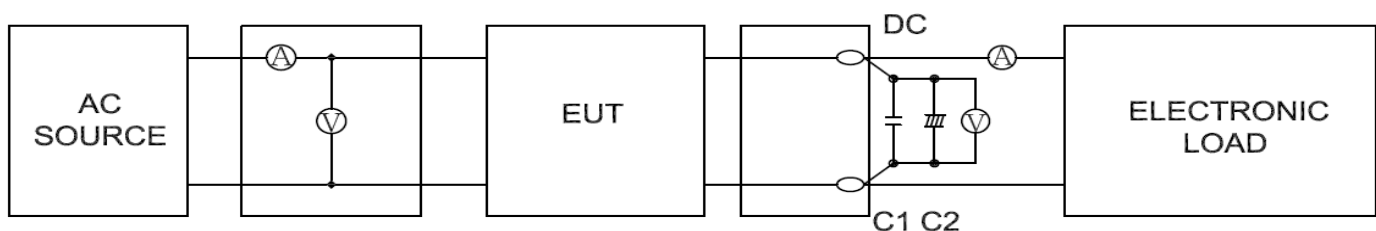
PROTECTION

OVER CURRENT PROTECTION	AUTO RECOVERY	0.95A		
SHORT CIRCUIT PROTECTION	THE ADAPTOR SHALL NOT DAMAGE BY SHORT TO THE DC OUTPUT GROUND			
OVER VOLTAGE PROTECTION	LATCH	13.8Vdc		16.2Vdc

NOTES :

*1.NOT APPLICABLE FOR THE IN-RUSH CURRENT TO NOISE FILTER FOR LESS THAN 0.2mS.

TEST MEASURES



C1: 0.1μ F CERAMICS CAPACITOR

C2: 100μ 100V ALUMINUM CAPACITOR

THE BANDWIDTH OF OSCILLOSCOPE IS SET WITH 100MHz

USE CABLE LENGTH 150mm FOR RIPPLE TEST

3.MECHANICAL

ITEM	SPECIFICATION OR TEST CONDITION	ACCEPTANCE CRITERIA
VIBRATION	DURATION:30MINUTES AMPLITUDE:0.35mm FREQUENCY RANGE:10Hz...55Hz...10Hz 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 50/60Hz	TEMPERATURE RISEN MEET SAFETY APPROVALED AT THE SURFACE OF CASE
HI-POT TEST	1.BETWEEN INPUT(L,N) & OUTPUT(V+) 2829Vac or 4000Vdc 60 SECONDS 10mA,2.BETWEEN INPUT(L,N) & INPUT(PE) 1768Vac or 2500Vdc 60 SECONDS 10mA,IT IS BASE ON IEC/EN62368-1 5.4.9 TEST PROCEDURE.FOR MASS PRODUCTION, IT(1) IS TESTED BY 2829Vac or 4000Vdc 1 SECOND.FOR MASS PRODUCTION, IT(2) IS TESTED BY 1768Vac or 2500Vdc 1 SECOND.	NO DAMAGE
INSULATION RESISTANCE	INPUT TO OUTPUT, DC 500V	>50M Ω (below at R.H 70%). >10M Ω (at R.H 71 ~ 95%). *Put it into normal temperature & humidity for 24H,when testing. (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	AIR DISCHARGE $\pm 8\text{KV}$ CONTACT DISCHARGE $\pm 4\text{KV}$	NO DAMAGE 1 ROUND/SEC ABOVE
IEC61000-4-5 SURGE WITHSTAND	Line to Line $\pm 1\text{KV}$; Line to FG $\pm 2\text{KV}$	NO DAMAGE

5.ENVIRONMENT

ITEM	SPECIFICATION OR TEST CONDITION	MIN	TYPICAL	MAX
OPERATING TEMPERATURE	Convection : -10 - +70°C (-10 - +50°C:100%, +60°C:70%, +70°C:20%)	-10°C		70°C
STORAGE TEMPERATURE		-30°C		75°C
OPERATING HUMIDITY	NON-CONDENSING	5%RH		95%RH
STORAGE HUMIDITY	NON-CONDENSING	5%RH		95%RH

6.OUTPUT DERATING

*COOLING: CONVECTION COOLING

LOADING CONDITION(%)	Ta (°C)	-10~50	55	60	70
	Mounting B,C	100	100	70	20
	Mounting A,D,E,F	100	85	70	20

*COOLING: FORCED AIR COOLING

LOADING CONDITION(%)	Ta (°C)	-10~60	70
	Mounting (A~F)	100	70

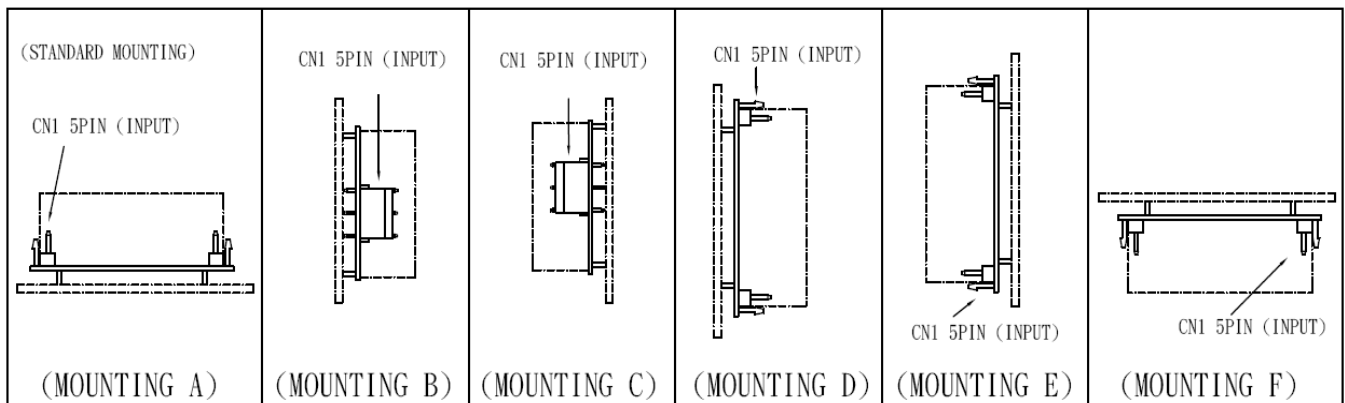
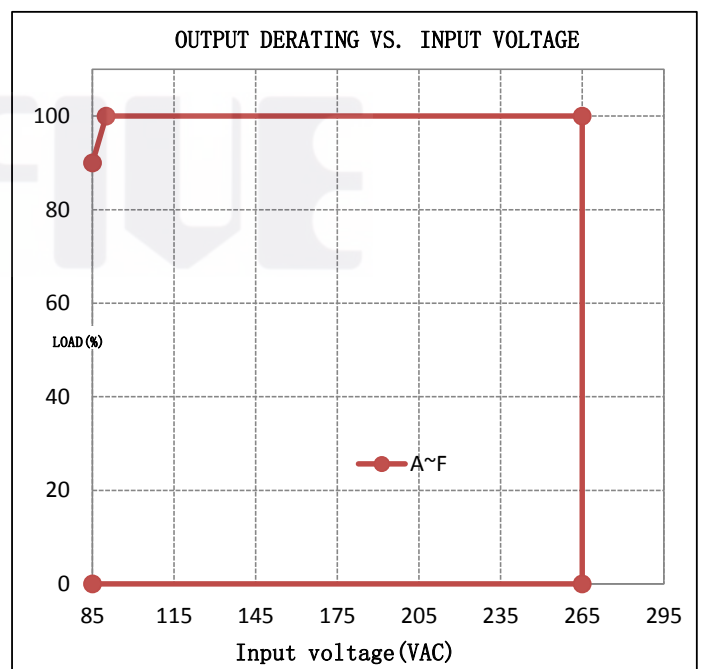
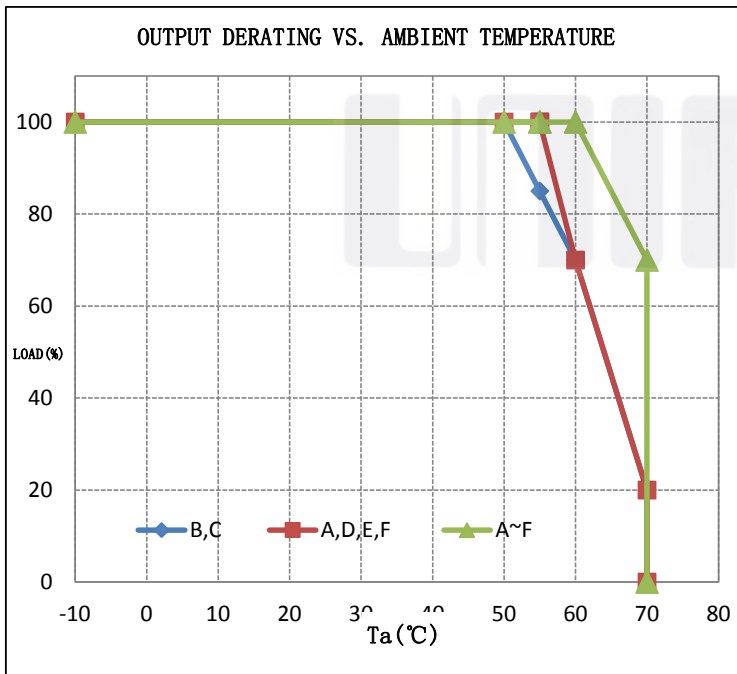
Air Velocity>0.7m/s: Air must flow through component side.

OUTPUT DERATING VS. INPUT VOLTAGE

LOADING CONDITION(%)	Input voltage	85VAC	90VAVC-265VAC
	All Mounting (A~F)	90	100

*COOLING: Forced air corresponds to the following graphs
(▲ A~F).

Convection cooling corresponds to the following graphs (◆ B,C),(■ A,D,E,F).



7.OUTLOOKING

DIMENSION 73.5(L)*50.0(W)*22.0(H) TYP
WEIGHT ABOUT 50g

8.QC CHECK

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

- (1)DC OUTPUT VOLTAGE CHECK
- (2)HI-POT&INSULATION CHECK
- (3)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"

9.STANDARD

SAFETY

COMPLY SAFETY STANDARDS	STANDARD
CE-LVD	MEET EN 62368-1

Manufacturer: UNIFIVE TECHNOLOGY (SHENZHEN) CO., LTD.

Factory Address: 101,201,301,BLDG E DATIANYANG INDUSTRIAL ZONE LONGMEN VLG

HONGXING SONGGANG ST BAOAN DISTRICT SHENZHEN GUANDONG, 518105 CHINA

RoHS

COMPLY STANDARDS	STANDARD
RoHS	2011/65/EU及2015/863/EU

EMC (EMI+EMS)

COMPLY STANDARDS	STANDARD
FCC	FCC Part 15
VCCI	CLASS B
CE	EN55032,EN55035 CISPR32 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
The value which list on the spec,were tested by resistance.

EMS

THE EUT HAS BEEN TESTED ACCORDING TO THE FOLLOWING SPECIFICATIONS:

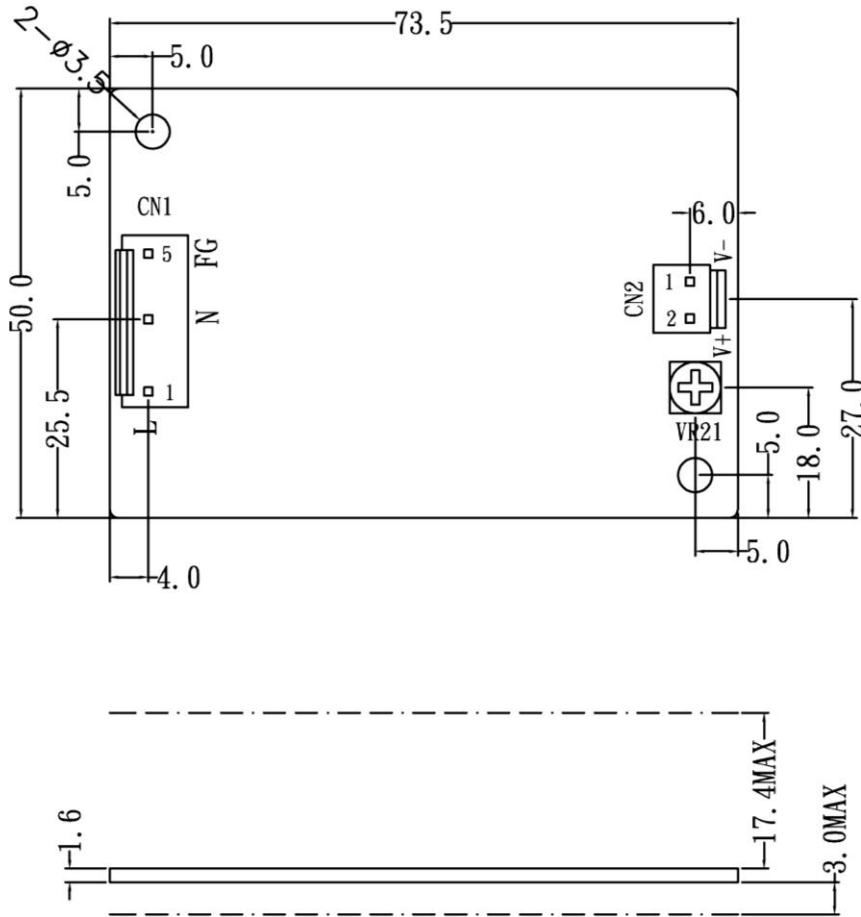
EMISSION			
STANDARD	TEST TYPE	RESULT	REMARKS
EN 55032 :2015	CONDUCTED TEST	PASS	COMPLY WITH THE CLASS B LIMIT
	RADIATED TEST	PASS	COMPLY WITH THE CLASS B LIMIT
EN 61000-3-2:2014	HARMONIC CURRENT EMISSIONS	PASS	COMPLY WITH THE CLASS A LIMIT
EN61000-3-3:2013	VOLTAGE FLUCTUATIONS & FLICKER	PASS	COMPLY WITH THE REQUIREMENTS.

IMMUNITY(EN55035 : 2017)			
STANDARD	TEST TYPE	RESULT	REMARKS
EN 61000-4-2:2009	ELECTROSTATIC DISCHARGE IMMUNITY TEST	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION B
EN 61000-4-3: 2006+A1:2008+A2:2010	RADIATED,RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION A
EN 61000-4-4:2012	ELECTRICAL FAST TRANSIENT / BURST IMMUNITY TEST.	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION B
EN 61000-4-5:2014+A1:2017	SURGE IMMUNITY TEST	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION B
EN 61000-4-6:2014	IMMUNITY TO CONDUCTED DISTURBANCES, INDUCED BY RADIO-FREQUENCY FIELDS	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION A
EN 61000-4-8:2010	POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST.	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION A
EN 61000-4-11:2004+A1:2017	VOLTAGE DIPS,SHORT INTERRUPTIONS AND VOLTAGE VARIATIONS IMMUNITY TESTS	PASS	COMPLY WITH THE REQUIREMENTS OF VOLTAGE DIPS: 1.>95% 0.5 CYCLE REDUCTION-PERFORMANCE CRITERION B 2. 30% 25 CYCLE REDUCTION-PERFORMANCE CRITERION C VOLTAGE INTERRUPTIONS: 3.>95% 250 CYCLE REDUCTION-PERFORMANCE CRITERION C
4.2.7	BROADBAND IMPULSE NOISE DISTURBANCES,REPETITIVE	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION A
	BROADBAND IMPULSE NOISE DISTURBANCES,ISOLATED	PASS	COMPLY WITH THE REQUIREMENTS OF PERFORMANCE CRITERION B
2016/C 272/01 4.2.2.1	MANUFACTURERS TO INDICATE THE FOLLOWING THREE ELEMENTS: THEIR (1) NAME (2) REGISTERED TRADE NAME OR REGISTERED TRADE MARK (192) AND (3) THE ADDRESS AT WHICH THEY CAN BE CONTACTED, ON THE PRODUCT OR, WHERE THAT IS NOT POSSIBLE, ON ITS PACKAGING OR IN A DOCUMENT ACCOMPANYING THE PRODUCT."	PASS	A:THE RELATED INFORMATION IS SHOWED ON SPECIFICATION SHEET,WHEN THE LIMITED ROOM OF ADAPTOR. B:THE RELATED INFORMATION IS SHOWED ON THE RELATED PACKAGE,IF CUSTOMER REQUIREMENT. C:THE RELATED INFORMATION SHOWED ON THE END DEVICE.

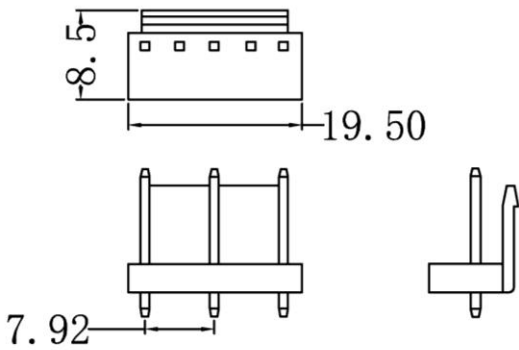
10.PRODUCT DRAWING

TOLERANCE: ±0.5

Unit:mm

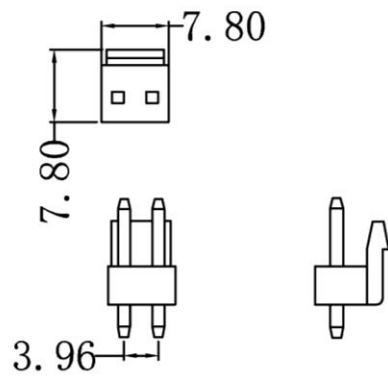


CN1



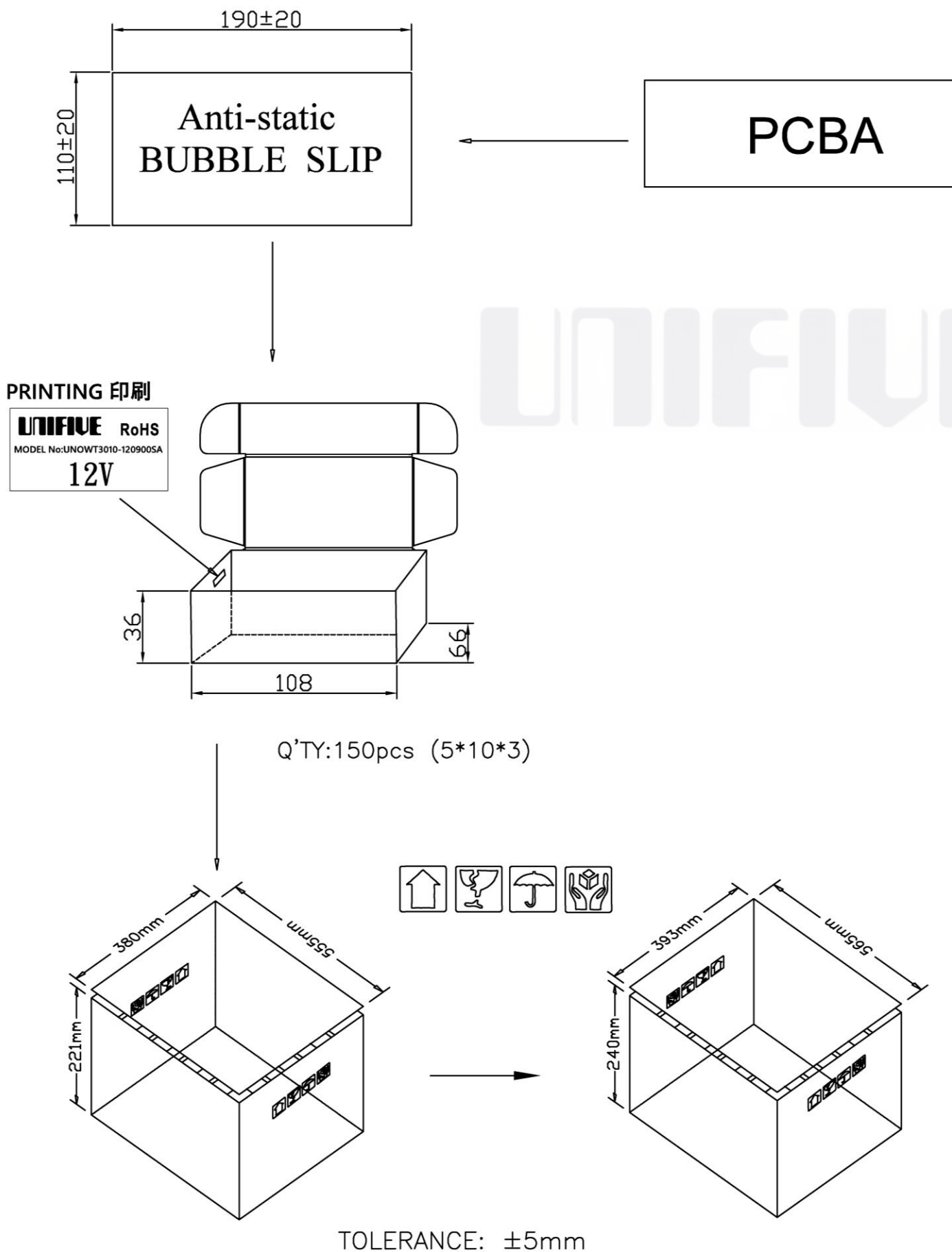
CN1: INPUT CONNECT
 MODEL: JSW A3963WV-5P 5PIN PIN2, 4無
 (THE EQUIVALENT)

CN2

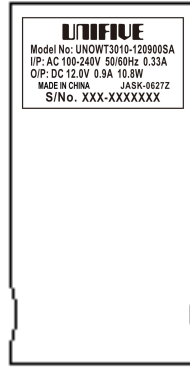


CN2: OUTPUT CONNECT
 MODEL: JSW 2PIN A3963WV-2P P=3.96
 (THE EQUIVALENT)

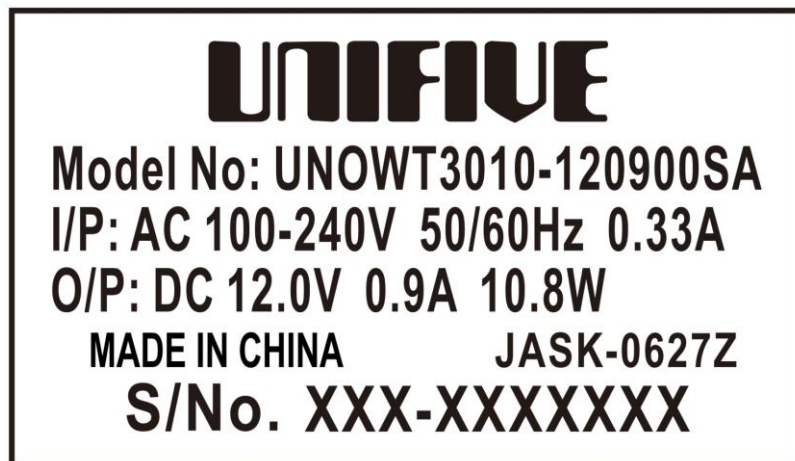
11.PACKING



12.LABEL (BLACK WORD ON SILVER BASE)

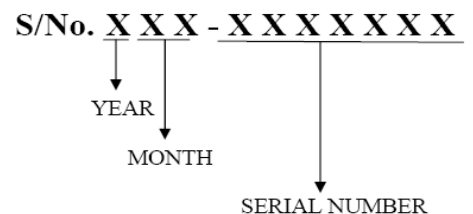


(LABEL SHOULD BE STICKED ON C2)



LABEL SIZE : 18*10 mm (TOLERANCE: ± 0.3mm)

注：CE LOGO会在PCB板上呈现
 NOTE : The CE LOGO will be displayed on the PCB board



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

- ex. 2023/11...P11-XXXXXXX
- 2024/01...Q01-XXXXXXX
- 2025/01...R01-XXXXXXX
- 2026/01...S01-XXXXXXX
- 2027/01...T01-XXXXXXX

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

