

DATE: 2021/1/16 (YY/MM/DD)

Customer :

Confidential

# APPROVAL SHEET

RoHS Compliant

PRODUCT: SWITCHING POWER SUPPLY

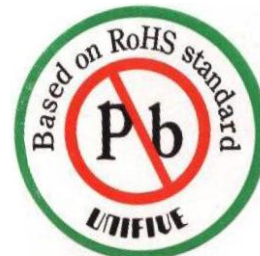
CUSTOMER MODEL:

MODEL: UOHC3240-2410-S

PART NO. U-0110

V :191111

V1



Receiver's stamp or signature

PLEASE APPROVE & RETURN BEFORE 2021/1/30  
OR WE WOULD REGARD IT BEEN CONFIRMED.

RESPONSIBLE	APPROVED	ISSUED
梁國康	楊紅梅	韋麗雲

### Revised History

NO.	Revised Date	Description	Approved	Issued
1	2019/11/11	FIRST ISSUED	楊紅梅	韋麗雲



UNIFIVE TECHNOLOGY CO., LTD

No. 149-20, Longfu 18th Rd., Nantun Dist., Taichung City 408, Taiwan

TEL : 04-2382-8806 FAX : 04-2382-8606

1.INPUT SPECIFICATION

2.OUTPUT SPECIFICATION

3.MECHANICAL

4.RELIABILITY

5.ENVIRONMENT

6.OUTLOOKING

7.QC CHECK

8.SAFETY

9.DIMENSION

10.PACKING

11.LABEL

UNIFIVE

## 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	100V INPUT VOLTAGE & OUTPUT AT FULL LOAD			3.6A
	200V INPUT VOLTAGE & OUTPUT AT FULL LOAD			1.8A
AC INRUSH CURRENT *1	100V INPUT VOLTAGE & FOR A COLD START AT 25°C			15A
	200V INPUT VOLTAGE & FOR A COLD START AT 25°C			30A
EFFICIENCY	100V INPUT VOLTAGE & OUTPUT AT FULL LOAD	88.00%		
	200V INPUT VOLTAGE & OUTPUT AT FULL LOAD	90.00%		
POWER FACTOR	100V INPUT VOLTAGE & OUTPUT AT FULL LOAD	0.99		
	200V INPUT VOLTAGE & OUTPUT AT FULL LOAD	0.95		
LEAKAGE CURRENT	100V INPUT VOLTAGE & OUTPUT AT FULL LOAD.			0.4mA
	200V INPUT VOLTAGE & OUTPUT AT FULL LOAD.			0.75mA

\*1:INPUT BRIDGE AND FUSE ARE LESS THAN I SQUARE (I<sup>2</sup>T) ENERGY CRITERIA AND NO DAMAGE AT 25°C COLD START, AT HOT START NO DAMAGE OCCURRED.

## 2. OUTPUT SPECIFICATION

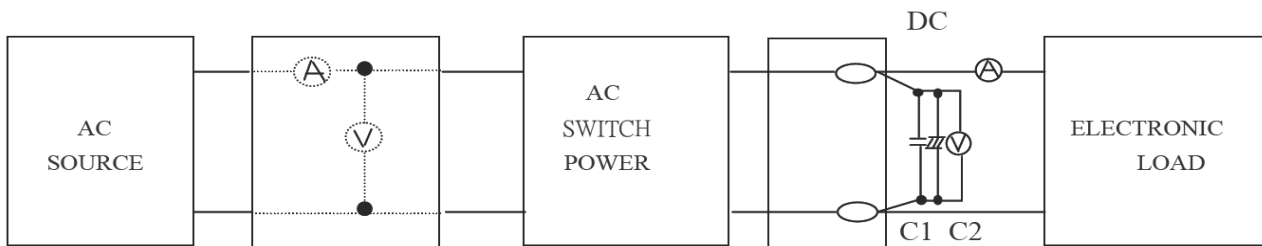
ITEM	SPECIFICATION	MIN	TYPICAL	MAX
NOMINAL DC OUTPUT VOLTAGE	OPTION		5Vdc	
			24Vdc	
DC OUTPUT VOLTAGE RANGE *2	TYPICAL OUTPUT VOLTAGE (5V)	4.75Vdc		5.25Vdc
	OUTPUT SETTING VOLTAGE (24V)	24.00Vdc		24.96Vdc
VARIABLE OUTPUT VOLTAGE	TYPICAL OUTPUT VOLTAGE (24V)	21.6Vdc		27.5Vdc
LOAD CURRENT	(5V)	0A		1A
	(24V) CONVECTION	0A		10A
	(24V) FORCED AIR*3	0A		12.5A
PEAK CURRENT	(24V)			20A 10s Duty<0.5
LINE REGULATION	(24V)		96mV	
	(5V)		40mV	
LOAD REGULATION	(24V)		150mV	
	(5V)		40mV	
RIPPLE	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 0°C~50°C (5V)			50mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 0°C~50°C (24V)			120mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , -10°C~0°C (5V)			90mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , -10°C~0°C (24V)			160mV

ITEM	SPECIFICATION	MIN	TYPICAL	MAX
NOISE	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 0°C~50°C (5V)			100mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 0°C~50°C (24V)			150mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , -10°C~0°C (5V)			140mV
	TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , -10°C~0°C (24V)			180mV
HOLD-UP TIME	TYPICAL INPUT VOLTAGE AND 50Hz, FULL LOAD, AT 25°C.	20mS		
TURN-ON DELAY	TYPICAL INPUT VOLTAGE, FULL LOAD, AT 25°C.			500mS
24V OVER CURRENT PROTECTION	LATCH OFF	20.2A		
24V SHORT CIRCUIT PROTECTION	LATCH OFF			
24V OVER TEMPERATURE	LATCH OFF			
24V OVER VOLTAGE PROTECTION	LATCH OFF	27.6V		33.6V
5V OVER CURRENT PROTECTION	AUTO-RECOVERY	1.5A		
5V SHORT CIRCUIT PROTECTION	AUTO-RECOVERY			
5V OVER VOLTAGE PROTECTION	LATCH OFF			9.5V
5V DYNAMIC TEST	TYPICAL INPUT VOLTAGE,20%-80% LOAD,TH 0.1mS TL 0.1mS, 100mA/uS	4.75V		5.25V
24V DYNAMIC TEST	TYPICAL INPUT VOLTAGE,0%-50% LOAD,TH 0.1mS TL 0.1mS, 1A/uS	22.8V		25.2V
24V DYNAMIC TEST	TYPICAL INPUT VOLTAGE,50%-100% LOAD,TH 0.1mS TL 0.1mS, 1A/uS	22.8V		25.2V

\*2 : +24V:0A-10A,+5V:0A-1A

\*3 CONDITION FOR FORCED AIR IS NO LESS THAN 15CFM.

#### \*TEST MEASURES



PARALLEL A 22UF ALUMINUM ELECTROLYTIC CAPACITOR AND 0.1UF CERAMICS CAPACITOR AT THE TEST POINT.  
THE POSITION OF TEST POINT IS 150MM FROM OUTPUT TERMINAL TO SYSTEM LOAD.

C1: 0.1 μ F CERAMICS CAPACITOR

C2: 22 μ 50V ALUMINUM CAPACITOR

## 3.MECHANICAL

ITEM	SPECIFICATION OR TEST CONDITION	ACCEPTANCE CRITERIA
VIBRATION	10-55HZ,19.6M/S <sup>2</sup> (2G),3MINUTES PERIOD, 60MINUTES EACH ALONG X,Y AND Z AXIS DIRECTION.	1.NOT TO BE BROKEN 2.CHARACTERISTIC TO BE WITHIN REGULATION SPECIFICATION AFTER THE TEST.

## 4.RELIABILITY

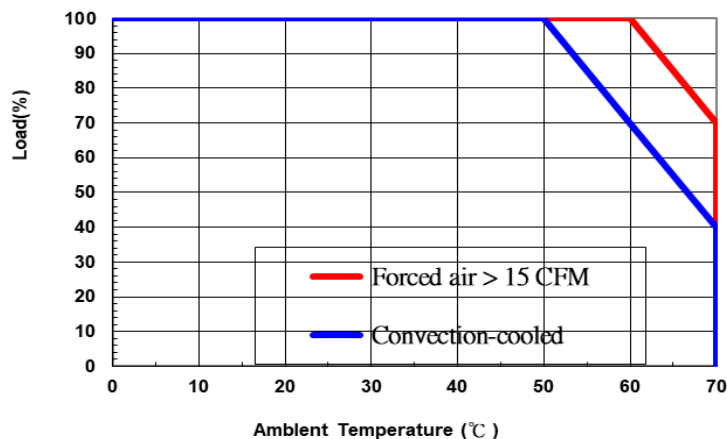
ITEM	TEST CONDITION	ACCEPTANCE CRITERIA
HI-POT TEST	1.BETWEEN INPUT( L,N) & OUTPUT(V+ , V-) 3000Vac 60 SECONDS 10mA, 2.BETWEEN INPUT( L,N) & INPUT( PE) 2000Vac 60 SECONDS 10mA, IT IS BASE ON EN62368-1 5.4.9 TEST PROCEDURE. FOR MASS PRODUCTION, IT(1) IS TESTED BY 3300Vac/1 SECOND. FOR MASS PRODUCTION, IT(2) IS TESTED BY 2200Vac/1 SECOND.	NO DAMAGE
INSULATION RESISTANCE	INPUT TO OUTPUT ,DC 500V	>100M $\Omega$
	INPUT TO FG ,DC 500V	>100M $\Omega$
MTBF	TYPICAL INPUT & FULL LOAD AT 50°C	100000 HOURS (min)
BURN-IN TEST	AT 30°C ( $\pm 10^\circ\text{C}$ ),TYPICAL INPUT VOLTAGE	2~4 HOURS

## 5.ENVIRONMENT

ITEM	SPECIFICATION OR TEST CONDITION	MIN	TYPICAL	MAX
OPERATING TEMPERATURE * 4	FULL LOAD	-10°C		50°C
	70% LOAD	-10°C		60°C
	40% LOAD	-10°C		70°C
STORAGE TEMPERATURE		-20°C		75°C
OPERATING HUMIDITY	NON-CONDENSING	20%RH		90%RH
STORAGE HUMIDITY	NON-CONDENSING	20%RH		90%RH

\* 4:

Derating Curve



## 6. OUTLOOKING

DIMENSION 180.0(L)\*84.0(W)\*47.6(H)mm TYP  
WEIGHT ABOUT 500 g

## 7. QC CHECK

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

- (1)OCP FUNCTION 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 (2019年1月1号開始有効)

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"

## 8. SAFETY

COMPLY SAFETY STANDARDS	STANDARD
CUL	UL60950/UL62368
CE-LVD	EN60950/EN62368

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

## 8.1 EMC

## 8.1.1 EMI

MEET VCCI class B , FCC class B , CISPR 32 class B , EN55032

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.

8.1.2 EMS

THE EUT HAS BEEN TESTED ACCORDING TO THE FOLLOWING SPECIFICATIONS:

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

IMMUNITY(EN 55024:2010+A1:2015)			
STANDARD	TEST TYPE	RESULT	REMARKS
EN 61000-4-2:2009	STATIC ELECTRICITY IMMUNITY TEST TEST CONDITIONS: (1)RATED INPUT AC230V (2)RATED LOAD (3)AMBIENT TEMP. 25±10°C (4)CONTACT DISCHARGE VOLTAGE 8KV(LEVEL4)	MEET	CONDITIONS OF ACCEPTABILITY (1)NO PROTECTION CIRCUIT FAILURE. (2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE. (3)NO ANY OTHER FUNCTION FAILURE.
EN 61000-4-3: 2006+A1:2008 +A2:2010	RADIATED,RADIO-FREQUENCY, ELECTROMAGNETIC FIELD IMMUNITY TEST TEST CONDITIONS: (1)RATED INPUT AC230V (2)RATED LOAD (3)AMBIENT TEMP. 25±10°C (4)TESTING FIELD STRENGTH (LEVEL3) a. 10[V/m] (80MHz TO 1.0GHz) b. 3[V/m] (1.4GHz TO 2.0GHz) c. 1[V/m] (2.0GHz TO 2.7GHz)	MEET	CONDITIONS OF ACCEPTABILITY (1)NO PROTECTION CIRCUIT FAILURE. (2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE. (3)NO ANY OTHER FUNCTION FAILURE. (3)NO ANY OTHER FUNCTION FAILURE.
EN 61000-4-4:2012	ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST TEST CONDITIONS: (1)RATED INPUT AC230V (2)RATED LOAD (3)AMBIENT TEMP. 25±10°C (4)TEST PEAK VOLTAGE 4KV(LEVEL4)	MEET	CONDITIONS OF ACCEPTABILITY (1)NO PROTECTION CIRCUIT FAILURE. (2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE. (3)NO ANY OTHER FUNCTION FAILURE.
EN 61000-4-5:2014	SURGE IMMUNITY TEST TEST CONDITIONS: (1)RATED INPUT AC230V (2)RATED LOAD (3)AMBIENT TEMP. 25±10°C (4)TEST VOLTAGE LINE TO LINE 2KV(LEVEL3) LINE TO EARTH 4KV(LEVEL4)	MEET	CONDITIONS OF ACCEPTABILITY (1)THE POWER SUPPLY IS NOT STOP. (2)CIRCUIT DOES NOT MALFUNCTION. (3)NO ABNORMALITY OF THE INSULATION DESTRUCTION ETC. (4)PARTS ARE NOT DAMAGED.

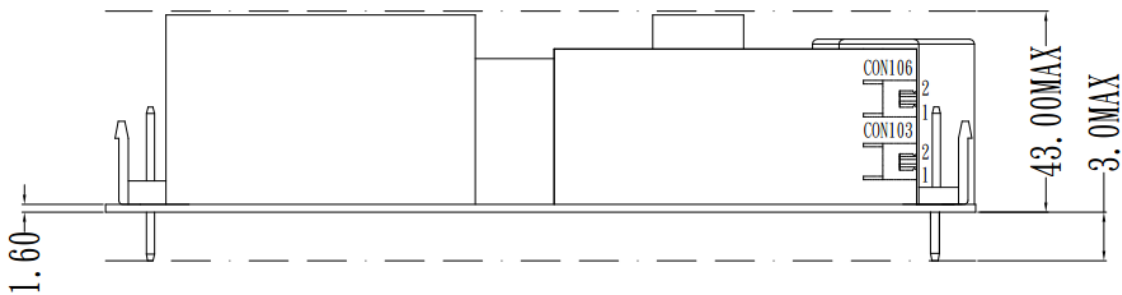
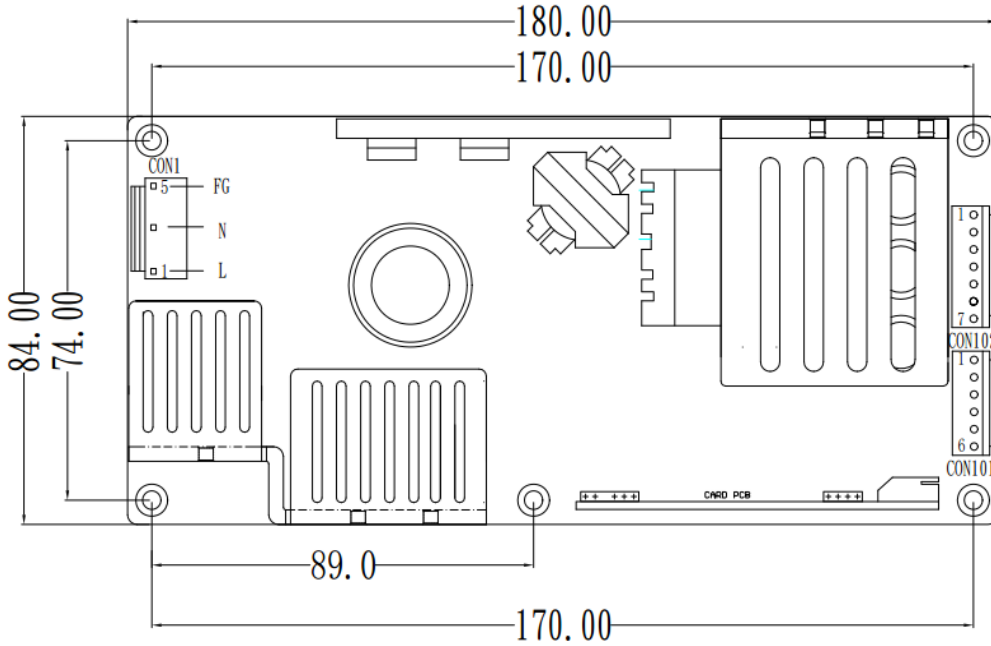
STANDARD	TEST TYPE	RESULT	REMARKS
EN 61000-4-6:2013	<p>IMMUNITY TO CONDUCTED DISTURBANCES, INDUCED BY RADIO-FREQUENCY FIELDS</p> <p>TEST CONDITIONS:</p> <p>(1)RATED INPUT AC230V</p> <p>(2)RATED LOAD</p> <p>(3)AMBIENT TEMP. 25±10°C</p> <p>(4) VOLTAGE LEVEL (E.M.F.) 10V (LEVEL3)</p>	MEET	<p>CONDITIONS OF ACCEPTABILITY</p> <p>(1)NO PROTECTION CIRCUIT FAILURE.</p> <p>(2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE.</p> <p>(3)NO ANY OTHER FUNCTION FAILURE.</p>
EN 61000-4-8:2010	<p>POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST.</p> <p>TEST CONDITIONS:</p> <p>(1)RATED INPUT AC230V</p> <p>(2)RATED LOAD</p> <p>(3)AMBIENT TEMP. 25±10°C</p> <p>(4) MAGNETIC FIELD STRENGTH 30A/m (LEVEL4)</p>	MEET	<p>CONDITIONS OF ACCEPTABILITY</p> <p>(1)NO PROTECTION CIRCUIT FAILURE.</p> <p>(2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE.</p> <p>(3)NO ANY OTHER FUNCTION FAILURE.</p> <p>(3)NO ANY OTHER FUNCTION FAILURE.</p>
EN 61000-4-11:2004	<p>VOLTAGE DIPS,SHORT INTERRUPTIONS AND VOLTAGE VARIATIONS IMMUNITY TESTS</p> <p>TEST CONDITIONS:</p> <p>(1)RATED INPUT AC230V</p> <p>a.30% REDUCTION AT 500mS MIN.</p> <p>B. 60% REDUCTION AT 200mS MIN.</p> <p>(2)RATED LOAD</p> <p>(3)AMBIENT TEMP. 25±10°C</p>	MEET	<p>CONDITIONS OF ACCEPTABILITY</p> <p>(1)NO PROTECTION CIRCUIT FAILURE.</p> <p>(2)NO OUTPUT VOLTAGE DROP WITH CONTROL CIRCUIT FAILURE.</p> <p>(3)NO ANY OTHER FUNCTION FAILURE.</p>
2016/C 272 /01 4.2.2.1	<p>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.".</p>	MEET	<p>A:THE RELATED INFORMATION IS SHOWED ON SPECIFICATION SHEET,WHEN THE LIMITED ROOM OF ADAPTOR.</p> <p>B:THE RELATED INFORMATION IS SHOWED ON THE RELATED PACKAGE,IF CUSTOMER REQUIREMENT.</p> <p>C:THE RELATED INFORMATION SHOWED ON THE END DEVICE.</p>



9.DIMENSION

TOLERANCE:±0.5

Unit:mm



Mounting Holes:5-Ø3.80



CON1

CON103

CON102

CON101

CON106

PIN	INPUT
1	AC(L)
2	
3	AC(N)
4	
5	FG
CON1:INPUT CONNECT	
MODEL:5P-VH-B	
(THE EQUIVALENT)	

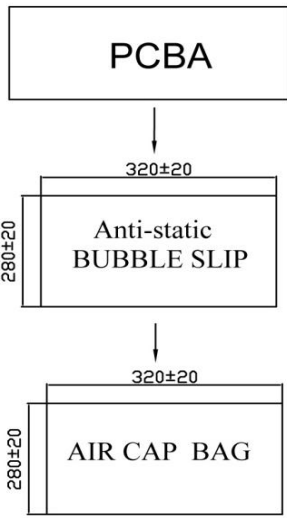
PIN	REMOTE
1	RC(+)
2	RC(-)
CON103:REMOTE CONNECT	
MODEL:B2B-XH-A	
(THE EQUIVALENT)	

PIN	OUTPUT
1-7	-V
CON102:OUTPUT CONNECT	
MODEL:B7P-VH	
(THE EQUIVALENT)	

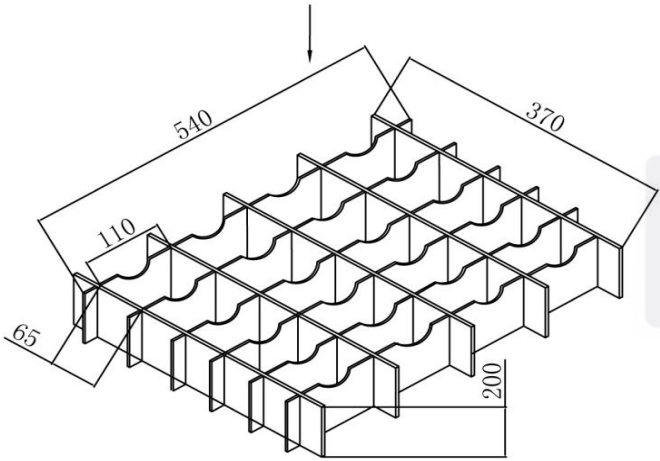
PIN	OUTPUT
1-6	+V
CON101:OUTPUT CONNECT	
MODEL:B6P-VH	
(THE EQUIVALENT)	

PIN	OUTPUT
1	5V(+)
2	5V(-)
CON106:OUTPUT CONNECT	
MODEL:B2B-XH-A	
(THE EQUIVALENT)	

10.PACKING

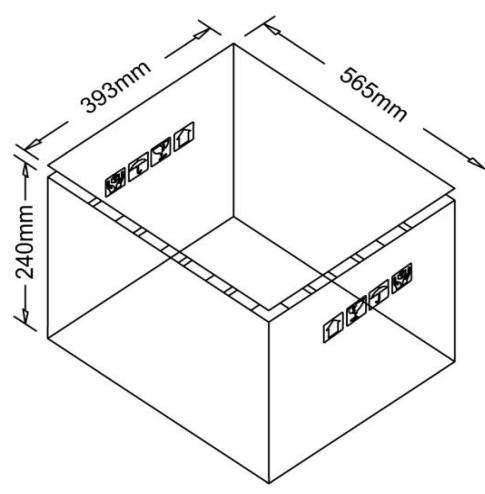
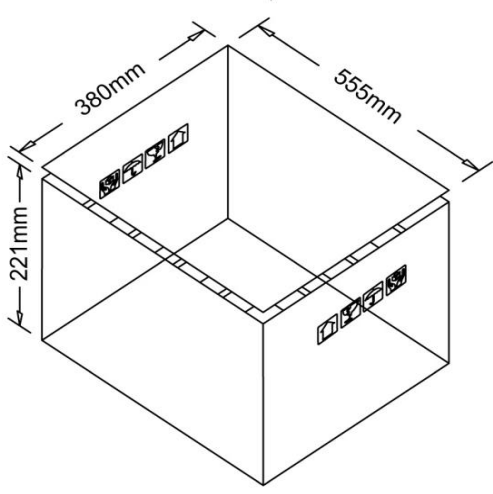
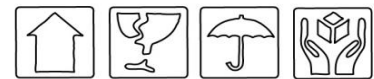


Do not put the product into the bubble bag, just rope the bubble bag around the product  
 包裝時產品不用放入氣泡袋中，直接放在氣泡袋表面卷一層



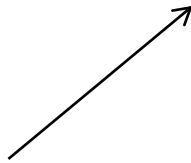
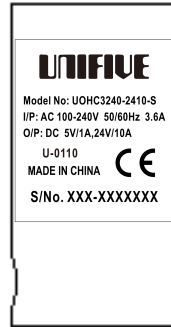
CELL PARTITION

Q'TY: 20pcs (4\*5\*1)

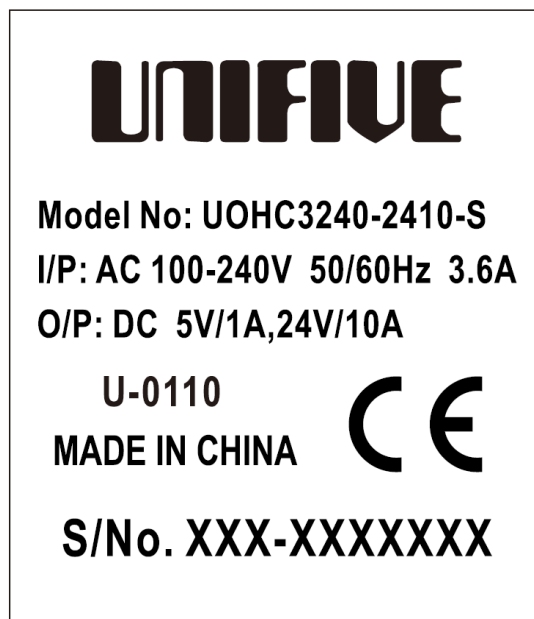


TOLERANCE: ±5mm

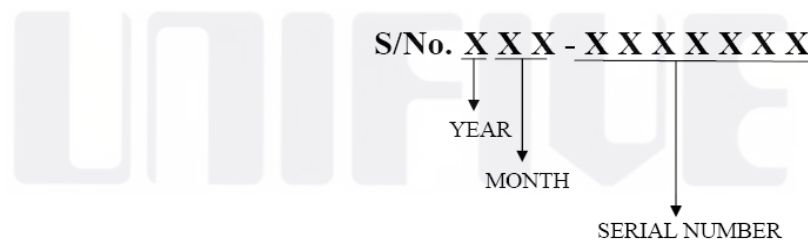
11.LABEL (BLACK WORD ON SILVER BASE)



(LABEL SHOULD BE STICKED ON C1)



LABEL SIZE : 28\*32 mm (TOLERANCE: ± 0.3mm)



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

- ex. 2019/11...K11-XXXXXXX
- 2020/01...L01-XXXXXXX
- 2021/01...M01-XXXXXXX
- 2022/01...N01-XXXXXXX
- 2023/01...P01-XXXXXXX
- 2024/01...Q01-XXXXXXX
- 2025/01...R01-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)