

Specification for Approval

Customer : **VDI Group**

Part Name : **AC ADAPTER**

Description : **19Volts / 6.3Amps**

Model No. : **STD-19063 (LEVEL V)**

Customer P / N : **LEX1406**

Product P / N : **RXTD19063J15203**

Issued Date : **12 - Nov. - 2009**

Version : **1.1**

Issued Stamp :

Customer's Approval Signature

120W
Switching Power Adapter
SPECIFICATION

Model No. : **STD-19063 (LEVEL V)**

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Part No. : **RXTD19063J15203**

Version : **1.1**

Date : **12 - Nov. - 2009**

Approved	Checked	Prepared

LEX1406

■ Approval Documents/Spec. Revised Records

- Customer : VDI Group
- Model No. : STD-19063
- Original Documents Content : Spec. 19 Pages

Revised Records : No.	Date (mm/dd/yyyy)	Description (Before / After)	Page(s) Revised	Revised By (Adapter/Customer)	Version
1	11/04/2009	1. ISSUE		Wentsai	1.0
2	11/12/2009	1. Modify external box	P15	Wentsai	1.1

LEX1406

1. Feature :

- ◆ **Input** : Universal 100 ~ 240 Vac / 47 ~ 63 Hz Input, without any slide switch.
- ◆ **Output** : +19V / 0 ~ 6.3A
- ◆ **Case Dimension** : 168.1(L) * 65.9(W) * 39(H) mm
- ◆ **Efficiency** : Eff (av) \geq 87%
- ◆ **Safety** : CUL / UL / GS / PSE / BSMI / CCC / RCM
- ◆ **EMI** : CE / FCC Class B ; Conduction & Radiation Met.
- ◆ **Protection** : OVP (Over Voltage Protection) 、 SCP (Short Circuit Protection) 、 OCP (Over Current Protection) 、 OTP (Over Temperature Protection)
- ◆ **High frequency design** , less power consumption.
- ◆ **Suitable for usage at Telecommunication, Computer, Industrial Controller, & OA System.**
- ◆ **Meet Energy Star V / Eup (Stage 2) / MEPS V .**

2. Input :

2.1 Voltage	Universal 100~240Vac, single phase
2.2 Frequency	47 ~ 63 Hz
2.3 Current	1.6A Max.
2.4 Inrush Current	60A Max. / 240Vac (Cold start at 25 °C , full load)
2.5 Efficiency	Eff (av) \geq 87% (At 115 Vac & 230 Vac)
2.6 Power Consumption	Pi \leq 0.5 W (At 240Vac & No load)
2.7 Power Factor (PF)	Pi \geq 0.9 (At Full load)

$$\text{※Eff (av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

E1=efficiency with 25% rated load ; E2= efficiency with 50% rated load
E3=efficiency with 75% rated load ; E4= efficiency with 100% rated load

3. Output :

3.1 DC Output	Voltage	+19.00V \pm 5%
	Current	6.3 A Max.
	Regulation	18.05Vmin. ~ 19.0Vtyp. ~ 19.95Vmax.
	Ripple & Noise	120mV Max.
	Total Power	120W Max.

Remark : For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1 μ F multilayer Cap. and a Low ESR Electrolytic Cap. (10 μ F) at output connector terminals. (At nominal line voltage, full load)

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4. Protection :

4.1 Over Voltage Protection (OVP)	V out * (110% ~ 150%)
4.2 Short Circuit Protection (SCP)	Automatic recovery after short-circuit fault being removed
4.3 Over Current Protection(OCP)	I out * (110% ~ 150%)

Remark : When Short Circuit Protection or Over Current Protection is activated,the power supply will shutdown automatically. Once the abnormal condition resulting in the failure being removed, the power supply will restart accordingly. When Over Voltage Protection is activated, the power supply will latch.

5. Safety 、EMI and EMC Requirement :

5.1 Safety Requirement

a. Safety : CUL / UL / GS / PSE / BSMI / CCC / RCM

b. Dielectric Strength : Cut off current 10mA

(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 ohm for 500Vdc
(2)	Primary to Frame Ground	10 M ohm for 500Vdc

5.2 EMI Requirement : CE / FCC Class B ; Conduction & Radiation Met.

5.3 Leakage Current : Less than 3.5mA

5.4 Grounding Test : Resistance 0.1ohm Max. @ 25A

6. Operation and Environment Performance :

6.1 Temperature Range

Operating	+ 0°C ~ + 40°C
Storage	- 20 °C ~ + 80 °C

6.2 Humidity Range(Non-condensing)

Operating	20% ~ 80% RH
Storage	10% ~ 90% RH

6.3 Cooling : By natural air.

7. M.T.B.F. : 50,000 hours min. at 25°C, by MIL-HDBK-217F

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8.Mechanical :

8.1 Weight : 590g Typical

8.2 Cable Type : Black UL1185 AWG16

(Wire + Plug)

Plug : Interchangeable

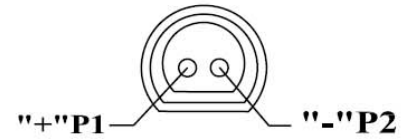
(Cannelure)

8.3 Cable Length : 1500mm

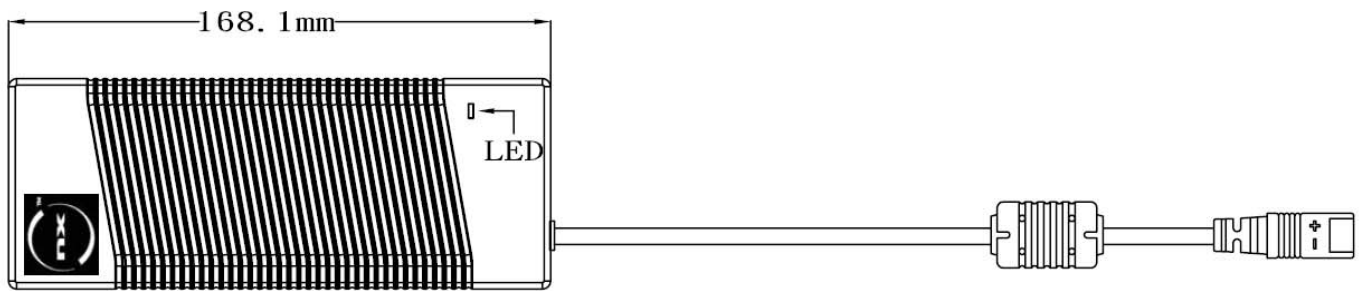
8.4 Case Dimension : 168.1mm(L)*65.9mm(W)*39mm(H)

8.5 Material Flammability : UL 94V-0

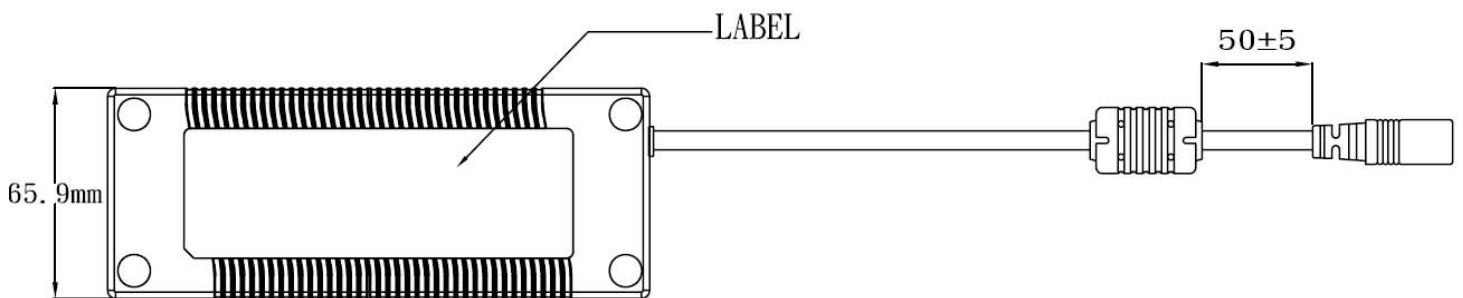
8.6 External Apperance : As drawing below (Scale → mm)



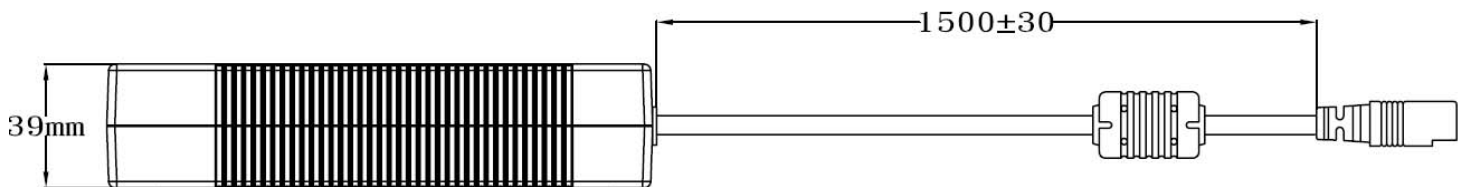
Output Cable Plug Pin Assignment



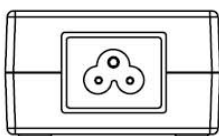
TOP-VIEW



BOTTOM-VIEW



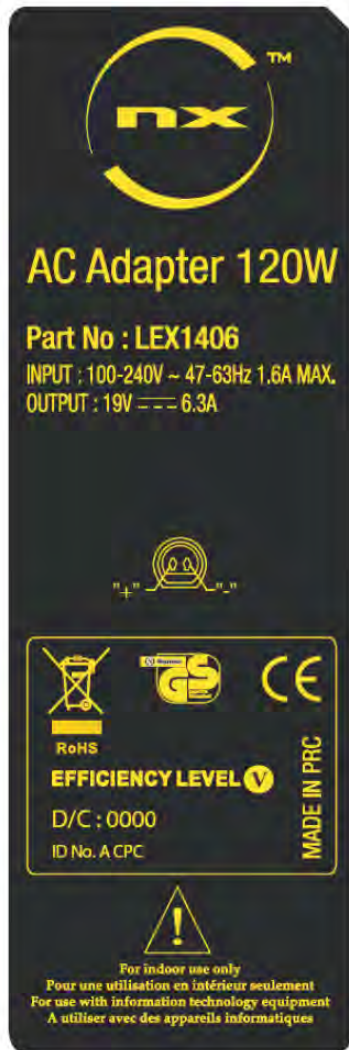
SIDE-VIEW



FRONT-VIEW

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8.7 Spec. Label Materials : Metalized Polyester Label (Silver Gloss)
Color : Black Background with Yellow (012C) Printing
Label Dimension : 39mm(H)*119mm(W)



"XXX"

Label supplier's code.
It is accurate that the number
of words depends on the real
finished product.

Label Part No. :9443017890

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8.8 Spec. Label Materials : Art paper + Gloss
Color : White Background with Black Printing
Label Dimension : 44mm(L)*20mm(W) +/-0.1mm
Label Thickness : 0.1mm

100%



Gen Code Label

Code Fournisseur (Supplier code) is :ABFJUI420A (供應商碼) 固定不變

N°commande (order number) is :ABF090900179 (訂單碼) 依每次訂單做變動

ABF090900179 為此次訂單碼

Barcode = 3660766415554 固定不變

400%



Label Part No. :9443017900

LEX1406

A. Line Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	18.05 V ~ 19.95 V	18.905V	18.894V	
115Vac / 50 % Load	18.05 V ~ 19.95 V	18.905V	18.894V	
132Vac / 50 % Load	18.05 V ~ 19.95 V	18.905V	18.894V	
180Vac / 50 % Load	18.05 V ~ 19.95 V	18.908V	18.895V	
230Vac / 50 % Load	18.05 V ~ 19.95 V	18.908V	18.895V	
264Vac / 50 % Load	18.05 V ~ 19.95 V	18.908V	18.896V	

B. Efficiency Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac	87 % Min.	88.27%	88.11%	
230Vac	87 % Min.	88.83%	88.78%	

$$\text{Eff (av)} = \frac{E1 + E2 + E3 + E4}{4}$$

E1=efficiency with 25% rated load ; E2= efficiency with 50% rated load
E3=efficiency with 75% rated load ; E4= efficiency with 100% rated load

C. Load Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 0 % Load	18.05 V ~ 19.95 V	19.217V	19.213V	
115Vac / 50 % Load	18.05 V ~ 19.95 V	18.907V	18.902V	
115Vac / 100 % Load	18.05 V ~ 19.95 V	18.615V	18.617V	
230Vac / 0 % Load	18.05 V ~ 19.95 V	19.216V	19.213V	
230Vac / 50 % Load	18.05 V ~ 19.95 V	18.909V	18.902V	
230Vac / 100 % Load	18.05 V ~ 19.95 V	18.616V	18.612V	

D. Ripple & Noise Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	120mV M ax.	72mV	87mV	
230Vac / 100 % Load	120mV M ax.	69mV	79mV	

E. Inrush Current

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230Vac / 100 % Load	60A Max	57.8A	57.9A	

F. Over Voltage Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Vout*(110%~150%)	118%	117%	
230Vac / 100 % Load	Vout*(110%~150%)	118%	117%	

G. Over Current Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Iout*(110%~150%)	119%	114%	
230Vac / 100 % Load	Iout*(110%~150%)	119%	114%	

H. Short Circuit Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Auto Recovery	OK	OK	
230Vac / 100 % Load	Auto Recovery	OK	OK	

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I. Input Power Consumption(No Load)

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
240Vac / 0 % Load	≤ 0.5 W	0.293W	0.309W	

J. Power Factor

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	≥ 0.9	0.990	0.990	
230Vac / 100 % Load	≥ 0.9	0.949	0.949	

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Efficiency Test Report

- A. Model Number : STD-19063 (19V / 6.3A)
- B. DC Power Cord : UL1185 , 16AWG , 1.5M
- C. Average Efficiency :
 Energy Star V 87% min.
 Eup (Stage 2) 87% min.
 MEPS V 87% min.
- D. NO Load Power Consumption :
 Energy Star V 0.5W max.
 Eup (Stage 2) 0.5W max.
 MEPS V 0.5W max.
- E. Testing Dequpment :
 1. AC Power Source : "APE" APW-110N
 2. Electronic Load : " PRODIGIT " 3356
 3. Power Meter : "IDRC"&"YOKOGAWACP-290 & WT210
 4. Digital Meter : " FLUKE " 45
- F. AC Input Voltage : 115Vac/60Hz

Reported Quantity	Load Conditions				
	100%* I ₀	75%* I ₀	50%* I ₀	25%* I ₀	0%* I ₀
Rms Output Current(mA)	6300mA	4725mA	3150mA	1575mA	0mA
Rms Output Voltage(V)	18.742V	18.894V	19.035V	19.172V	19.339V
Active Output Power(W)	118.07W	89.27W	59.96W	30.20W	0.00W
Rms Input Voltage(V)	115V	115V	115V	115V	115V
Rms Input Current(A)	1.191A	0.887A	0.602A	0.321A	0.018A
Rms Input Power(W)	135.60W	100.50W	67.30W	34.10W	0.06W
Voltage T.H.D.(%)	0.14	0.13	0.12	0.12	0.12
True Power Factor	0.990	0.986	0.972	0.924	0.060
Power Consumed by UUT(W)	17.53W	11.23W	7.34W	3.90W	0.06W
Efficiency	87.08%	88.83%	89.09%	88.55%	*
Average Efficiency	88.39%				*

- G. AC Input Voltage : 230Vac/50Hz

Reported Quantity	Load Conditions				
	100%* I ₀	75%* I ₀	50%* I ₀	25%* I ₀	0%* I ₀
Rms Output Current(mA)	6300mA	4725mA	3150mA	1575mA	0mA
Rms Output Voltage(V)	18.755V	18.901V	19.040V	19.181V	19.338V
Active Output Power(W)	118.16W	89.31W	59.98W	30.21W	0.00W
Rms Input Voltage(V)	230V	230V	230V	230V	230V
Rms Input Current(A)	0.615A	0.471A	0.331A	0.187A	0.031A
Rms Input Power(W)	133.80W	99.70W	68.30W	36.25W	0.29W
Voltage T.H.D.(%)	0.15	0.15	0.15	0.13	0.12
True Power Factor	0.948	0.923	0.899	0.843	0.038
Power Consumed by UUT(W)	15.64W	10.39W	8.32W	6.04W	0.29W
Efficiency	88.31%	89.58%	87.81%	83.34%	*
Average Efficiency	87.26%				*

Tester : Wentsai

LEX1406

AC Power Cord :

序號	名稱	用量	備注
1	H05VV-F 0.75/3G 黑色	1PC	1820±20(VL)
2	YP-22 黑色50P膠料	34g/PC	
3	黑色法國頭:98651	1PC	
4	YC-14 黑色50P膠料	18g/PC	
5	三爪磷青銅管:98714PS-0	2PCS	
6	YC-14內模	1PC	
7	三爪磷青銅管:98732PS-0	1PC	
8	迷你帶:L=130mm 黑色	1PC	

核准		日期
審核		日期
制圖		日期

型號		YP-22/YC-14
料號		

圖號	CY-V0010	版本	B
比例			

東莞永力電業有限公司	
客戶編號	永力
客戶料號	
材質	P.V.C
單位	mm

一般公差:

>040.50	
>1.040.50	
>10.01.0	
>20.022.0	

Angle: ±1°

Part Number : R425A418311

LEX1406

External Box :



Part Number : 9510006501

LEX1406

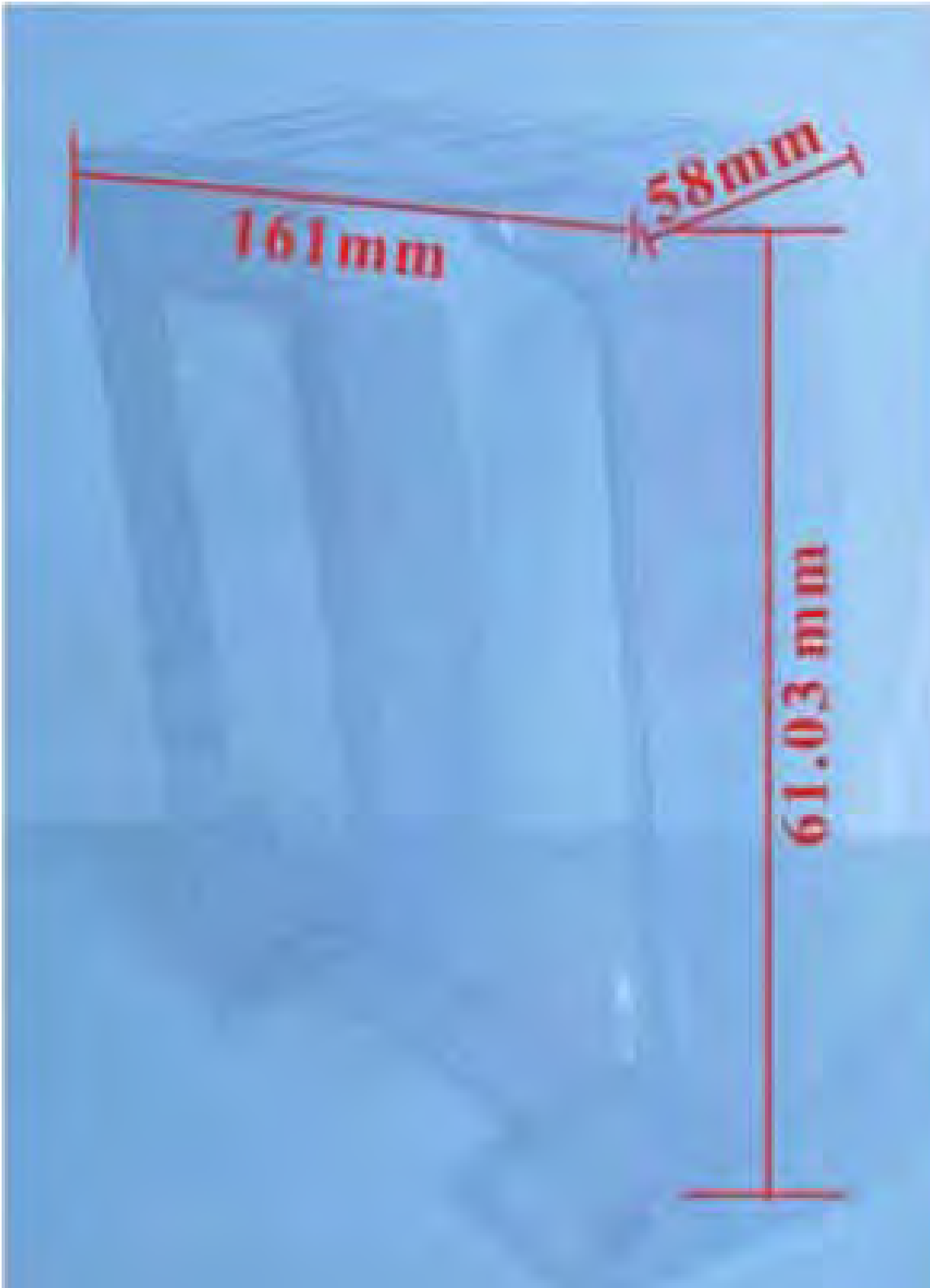
Inner Box :



Part Number : 9510006601

LEX1406

Blister :



Part Number : 95F0000601

LEX1406

Instructions :



276(L)*224(W)mm

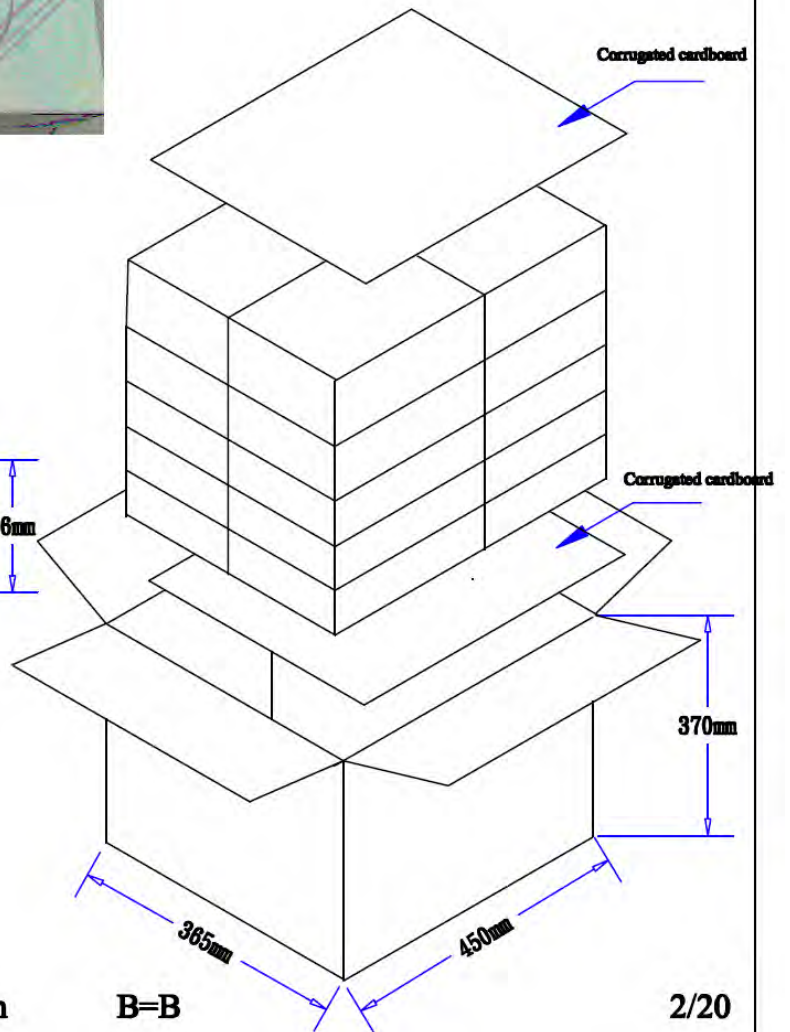
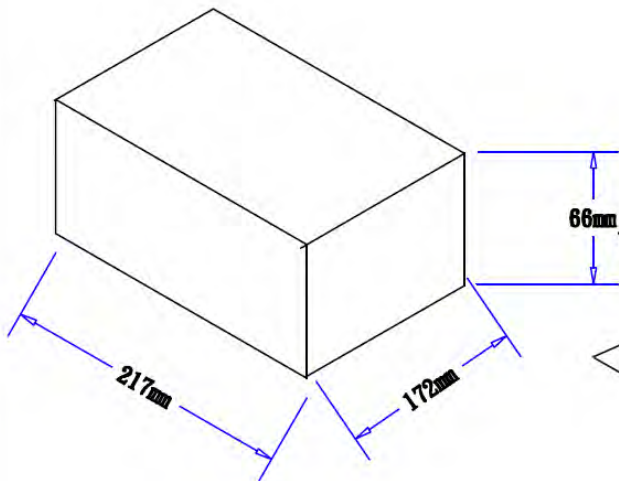
Part Number : 9470000001

LEX1406

MASTER CARTON PACKING INSTRUCTION :



REVISIONS				
SHOW	REV	DESCRIPTION	DATE	APPROVED
⚠	A	按客户要求, 初版制作	09/10/28	



1. Corrugated cardboard: 434*344*6mm
2. Q'ty: 4*5=20PCS
3. Master carton: L*W*H=450*365*370mm
4. Color box: L*W*H=217*172*66mm
5. Carton, box marks with dimension
6. Above materials should be compliance with RoHS

B=B

2/20

K=K

1/20

Customer supply

20/20

DRAWING NO. 09-10-28-1		APPROVAL2		
UNIT	YDI GROUP(36w-120W)	APPROVAL1		
NO.	ADT-0007	ENGINEER		
SCALE	REV. A	SHEET 1/1	DRAWN BY	