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BOBBINTRON ELECTRICAL CORPORATION

SPECIFICATION FOR APPROVED

APPROVED SIGNATURE
DATE :

CUSTOMER : DIGI **PART NO :** 24000115 **REV. A**

DESCRIPTION : AC to DC 43Watt Converter

PLEASE SIGN AND RETURN ONE COPY.

**ALL PRODUCTION UNITS WILL BE BUILT ACCORDING
TO THIS SPECIFICATIONS.**

MODEL NO: AP0431-T12 -01

AGENCY APPROVAL: _____

PRESENTED BY: Ben Yang **NO.** _____

CHECKED BY: JOHNSON LIN

APPROVED BY: MICHAEL CHEN

DATE : 09/04/2012

19F, NO.102, HSIN TAI WU ROAD SEC.1, HSIH-JR CITY, TAIPEI HSIEN, TAIWAN.

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EMAIL: harry@bobbintron.com

BOBBINTRON ELECTRICAL CORPORATION**SWITCHING POWER SUPPLY****SPECIFICATION****MODEL: AP0431-T12 -01****ISSUED : 09/04/2012****REV : A****1. Input**

- 1.1 Rated input voltage range : 100Vac-240Vac (universal)**
- 1.2 Input voltage rating : 90Vac-254Vac**
- 1.3 Input Frequency : 47Hz to 63Hz**
- 1.4 Rated input current : 1.2 A (rms) max. for 115VAC
0.6 A (rms) max. for 230VAC**
- 1.5 MAX. In-rush current : 35 A MAX. @ 115VAC
70 A max. @ 230Vac
at 25 °C ambient cold start**

2. Output characteristics:

- 2.1 Output voltage : +5V , +12V , -12V**
- 2.2 Max. load current : 5.0A , 1A , 0.5A**
- 2.3 Min load current : 0A , 0A , 0A**
- 2.4 Tolerance : -5% ~ +5% , -10% ~ +10% , -5% ~ +5%**
Combined load on +5V and +12V output must be 0.4A or higher.

- 2.5 Output Ripple & Noise : 50mV , 120mV , 200mV**

*** Ripple & Noise test conditions :**

- (1) Measured by-pass capacitors 0.1uF / 10uF at output connector terminal
And oscilloscope set at 20 MHz. (tested by oscilloscope)**

3. General characteristics :

- 3.1 Max. output power :** 43 watts continuous.
- 3.2 Efficiency :** 75% (Minimum) at Maximum load, 220Vac.
- 3.3 Turn on delay :** 3 second max. at 100Vac
- 3.4 Hold up time :** 10ms Min. at max load 120VAC
- 3.5 Transient response :** output return within $\pm 10\%$ tolerance of nominal voltage within 1m sec.
for 50% load change, 120Hz 50% duty cycle.
- 3.6 Over voltage protection :** Auto recovery
- 3.7 Short circuit protection :** protection against short circuit for output

- 3.7.1 (1) Any protect condition shall cause no damage and no component fail.
(2) Automatic recovery when removal of protect condition.**

4. Environmental :

- 4.1 Operating temperature :** 0°C to 40 °C
- 4.2 Storage temperature :** -20°C to 80°C
- 4.3 Operating relative humidity :** 10% to 85%
- 4.4 Storage relative humidity :** 5% to 95%

- 5. Safety requirement :** (1) UL 60950-1
(2) PSE (under certification)
(3) CE

- 6. EMI requirement :** CISPR EN55022 class B rules.

7. Hi-pot test :

7.1 Primary to secondary : 4,242VDC for 1 sec. 10mA

8. Reliability

**8.1 MTBF : 50K hours min.
@ full load at 25°C ambient temperature.**

8.2 Altitude : up to 2000 meters above sea level

9. Mechanical :

**9.1 Dimensions (Ref.) : 140 mm long
75 mm width
41 mm height**

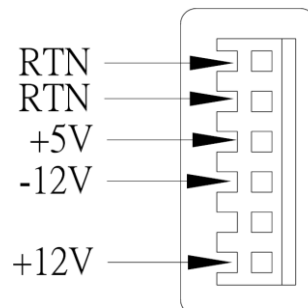
9.2 Weight (Ref.) : 500g

**9.3 Input connector : IEC320 C14
Color : Black**

**9.4 Output connector : CABLE : Length: 1830mm
PLUG : 6 PIN Molex
Color : Black**

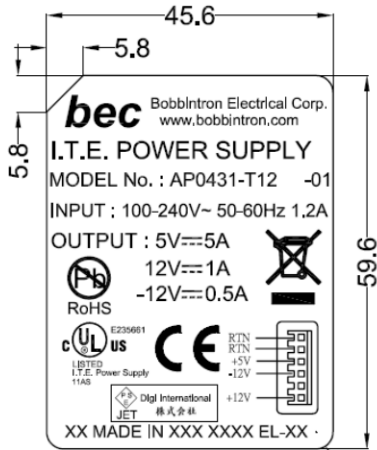
9.5 Pin Out configuration :

Location :



MARK	REV.	由 AUTODESK 教育產品製造 DESCRIPTION	DATE	ISSUED	APPROV.
	-	-	-	-	-
	-	-	-	-	-

CODE	FACTORY
	Bobbintron
HZ	GAIN SOUTH (Hui Zhou)

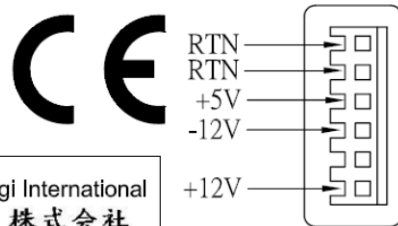
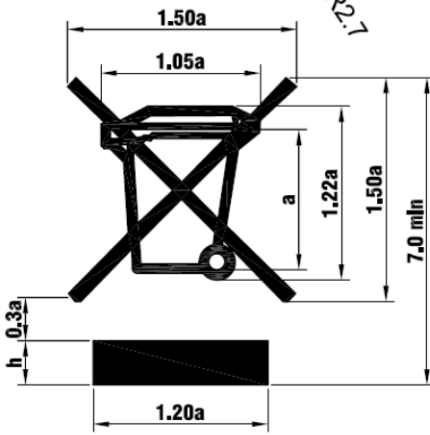


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I.T.E. POWER SUPPLY
MODEL No. : AP0431-T12 -01
INPUT : 100-240V~ 50-60Hz 1.2A
OUTPUT : 5V---5A
12V---1A
-12V---0.5A



12V---1A
-12V---0.5A



XX MADE IN XXX XXXX EL-XX

- h=0.3a or 1mm min
- NOTES:**
- 1.TOLERANCE: ±0.1mm
 - 2.MATERIAL: Metalized Poly Ester (Silver)
Natt NO.150 OPP
 - 3.COLOR: BLACK TEXT ON SILVER BASE
 - 4.PRINTING SHOULD BE FREE OF UNCLEAR PRINTING,
PEELING AND SCRACHES
 - 5.GLUE: TO MEET WITH UL APPROVAL

FACTORY CODE

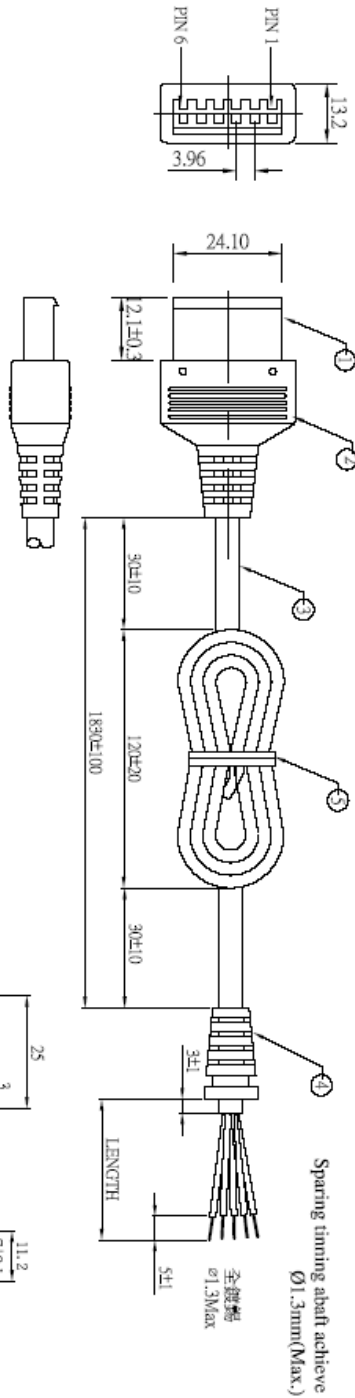
DATE CODE
XX XX
Year Month

MADE IN TAIWAN OR
CHINA CTRL BY OA

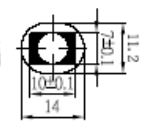
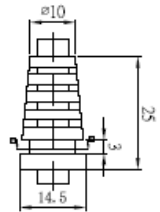
廠商UL
代碼

bec Bobbintron Electrical Corp. www.bobbintron.com			DESCRIPTION NAME PLATE	APPROVED
DIM.	TOL.	MATERIAL	MODEL NAME AP0431-T12 -01	E / E
~8	0.1		DWG NO. 101080102	CHECKED
8~25	0.12	QTY PCS/SET		
25~80	0.15	SCALE		
80~250	0.2	UNIT mm	PART NO.	DESIGNED Lillian 8/1/12
250~	0.3	SHEET OF		

REV	DESCRIPTION	BY	APP	DATE



PIN#	COLOR	SIGNAL	LENGTH
PIN1	黃色	RTN	55
PIN2	黑色	RTN	55
PIN3	紅色	+5V	55
PIN4	白色	-12V	75
PIN5	孔塞	KEY	-
PIN6	藍色	+12V	70



- 注:
- 電性測試
 - 耐壓測試:AC300V/秒,測試無異常;
 - 絕緣阻抗:DC 300V 50MΩ以上;
 - 導通測試:導通路、斷路、極性反。
- 二、DCR值:
L:芯線DCR值:48mΩ max.

- 三、曲折測試:
電線與PO頭吊重200g以角度±60°,
頻率30回/分,纏繞捲繩1000回不完
全斷線。
- 四、拉力測試:
電線與S/R間吊重5kg,纏繞1分鐘
無斷線脆裂等異常。

5	扎帶	有鐵絲 黑 橢圓
4	S/R	模具編號:ASR-6605 用料:黑色PVC
3	WIRE	UL2464 18AWG*3C(紅,黑,黃)+20AWG*2C (藍,白) 黑剛印字 OD:5.8
2	膠模	模具編號:DM-PG-3355 用料:黑色PVC
1	housing	Molex09-50-3061/Terminal 08-52-0072

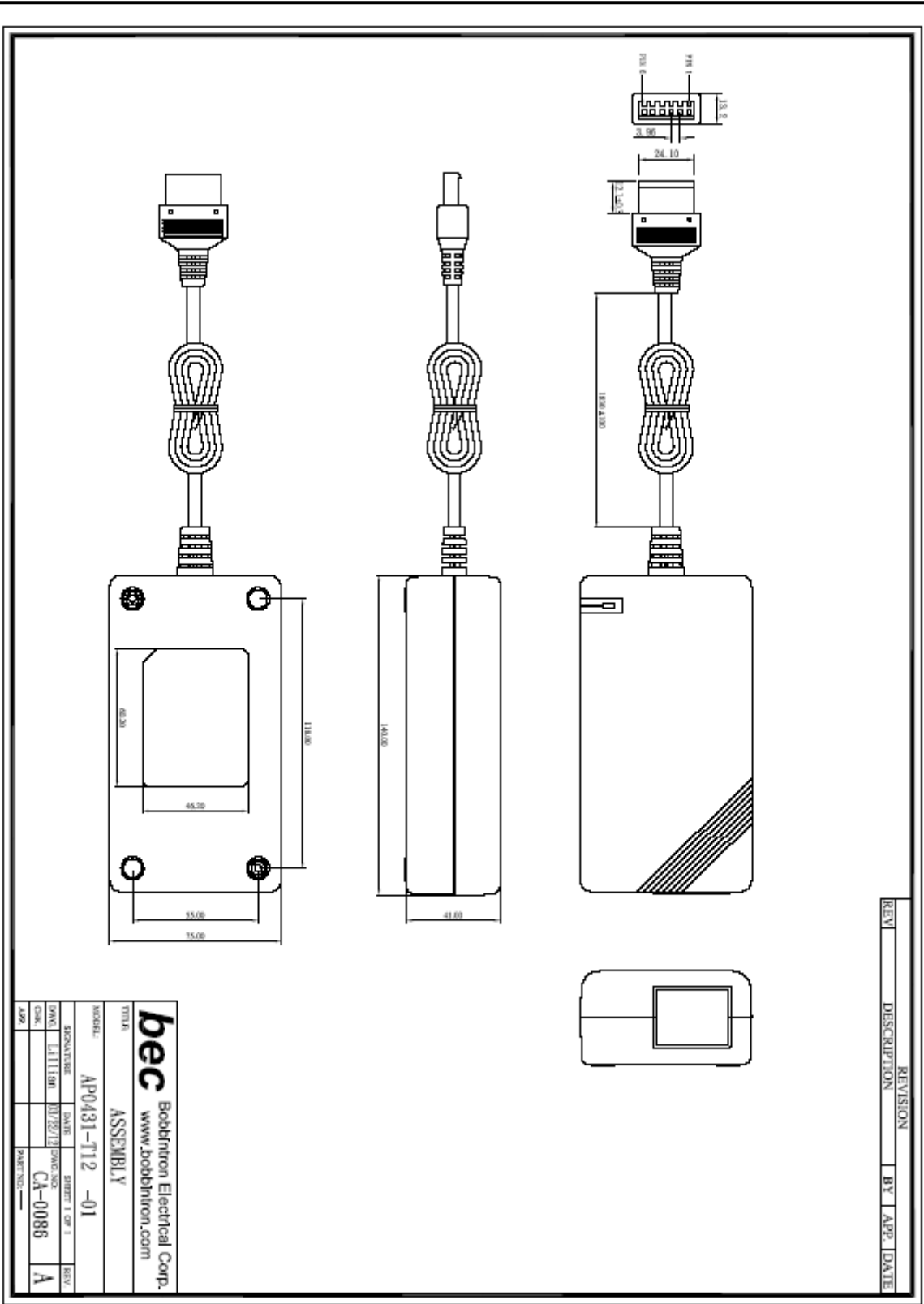
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MODEL: AP0431-T12 -01
TITLE: DC CORD

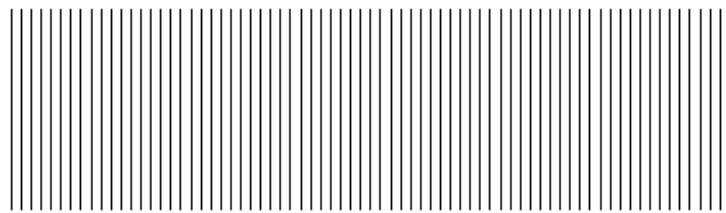
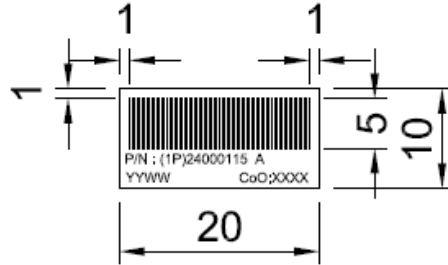
SIGNATURE	DATE	SHEET 1 OF 1	REV.
Lillian	2/22/12		

DWG. CHK.	DWG. NO.	REV.
	LI-0203	A

PART NO:G35-TL-0203-A



MARK	REV.	DESCRIPTION	DATE	ISSUED	APPROV.
	-	-	-	-	
	-	-	-	-	



P/N : (1P)24000115 A

YYWW

CoO:XXXX

年份

週數(01~52)

產地 (TAIWAN OR
CHINA CTRL BY OA)

P/N : (1P)24000115 A

版次(A~Z) 及()

條碼刷出時不需顯示

NOTES:

- MATERIAL:銅版紙
0.072 THK.
- COLOR:BLACK TEXT ON WHITE BASE
- PRINTING SHOULD BE FREE OF UNCLEAR PRINTING,
PEELING AND SCRACHES
- GLUE:TO MEET WITH UL APPROVAL
- 材質需符合ROHS
- 條碼CODE 128

bec Bobbintron Electrical Corp. www.bobbinttron.com		DESCRIPTION BAR CODE		APPROVED	
DIM.	TOL.		MATERIAL	MODEL NAME AP0431-T12 -01	E / E
~8	0.1		FINISH	DWG NO. NP-0363	CHECKED
8~25	0.12	QTY	PCS/SET	PART NO. G38-1NP-0363-A	DESIGNED Lillian 9/3/12
25~80	0.15	SCALE			
80~250	0.2	UNIT	mm	REV. A	
250~	0.3	SHEET	OF		