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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.

TEL# (886)2-2696-0007

FAX# (886)2-2696-8786

WEBSITE: www.bobbintron.com

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**

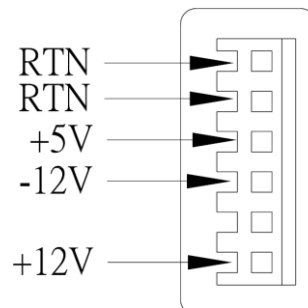
9.2 Weight (Ref.) : 500g

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

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

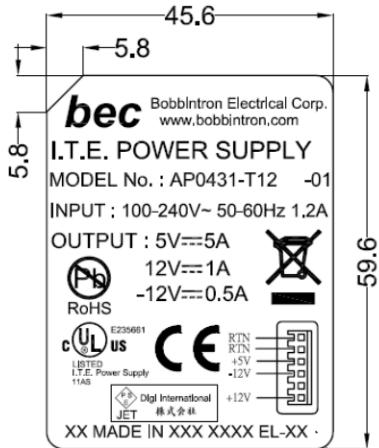
9.5 Pin Out configuration :

Location :



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

CODE	FACTORY
	Bobbintron
HZ	GAIN SOUTH (Hui Zhou)



bec Bobbintron Electrical Corp.
www.bobbintron.com

I.T.E. POWER SUPPLY

MODEL No. : AP0431-T12 -01

INPUT : 100-240V~ 50-60Hz 1.2A

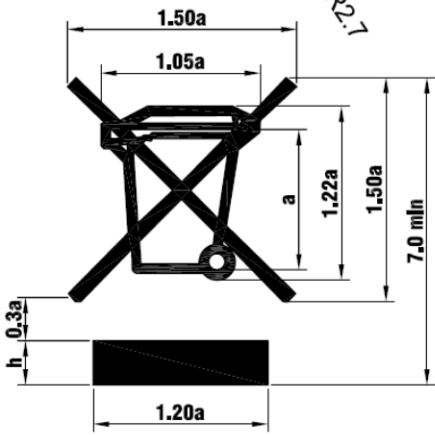
OUTPUT : 5V---5A

12V---1A

-12V---0.5A



RoHS



h=0.3a or 1mm min

NOTES:

- 1.TOLERANCE: ± 0.1 mm
- 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

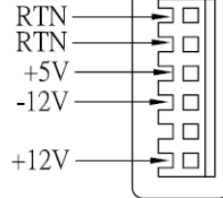
XX MADE IN XXX XXXX EL-XX

FACTORY CODE

DATE CODE
XX XX
Year Month

廠商UL
代碼

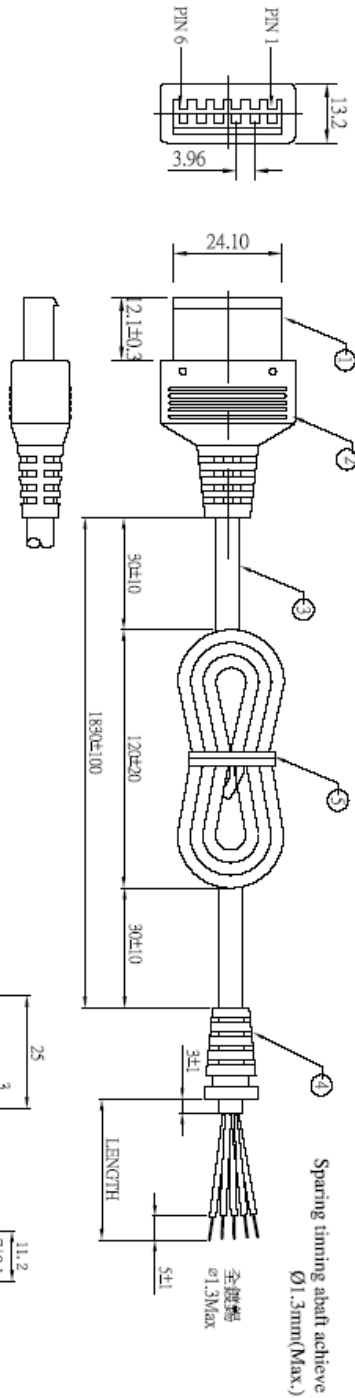
MADE IN TAIWAN OR
CHINA CTRL BY OA



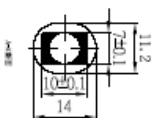
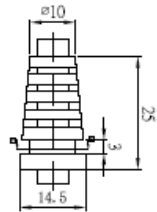
XX MADE IN XXX XXXX EL-XX

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	PART NO.	DESIGNED Lillian 8/1/12
25~80	0.15	SCALE		
80~250	0.2	UNIT mm		
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:

- 一、電性測試
1.耐壓測試:AC300V/秒,測試無異常;
2.絕緣阻抗:DC 300V 50MΩ以上;
3.導通測試:導通好、斷路、極性反。
- 二、DCR值:
1.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	UT-2464 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

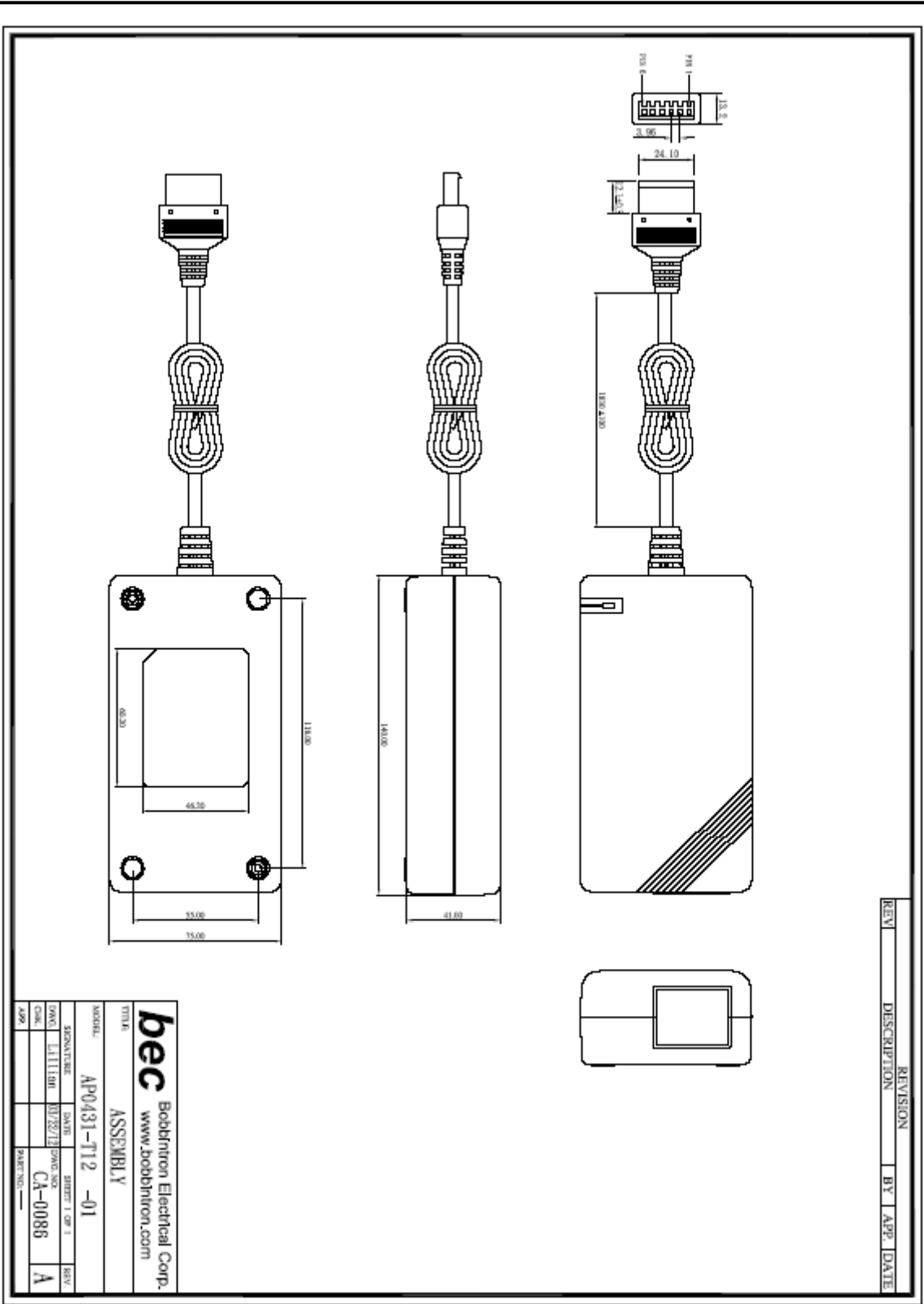
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MODEL: AP0431-T12 -01
TITLE: DC CORD

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

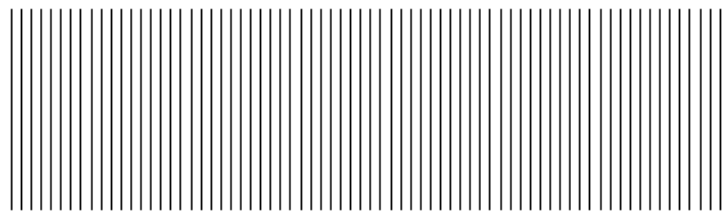
DWG.	DWG. NO.	REV.
	LI-0203	
APP		A

PART NO:G35-TL-0203-A



REV	DESCRIPTION	BY	APP.	DATE

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:

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

bec Bobbintron Electrical Corp. www.bobbinttron.com		DESCRIPTION BAR CODE		APPROVED
DIM.	TOL.	MATERIAL	MODEL NAME	E / E
~8	0.1		AP0431-T12 -01	
B~25	0.12	FINISH	DWG NO.	CHECKED
25~80	0.15		NP-0363	
80~250	0.2	FILE NAME	PART NO.	DESIGNED Lillian
250~	0.3		REV. A	G38-1NP-0363-A