



<http://www.bobbintron.com>

BOBBINTRON ELECTRICAL CORPORATION

SPECIFICATION FOR PRELIMINARY

APPROVAL SIGNATURE
DATE :

CUSTOMER : Digi International **PART NO :** 24000112 **REV.** _____

DESCRIPTION : AC to DC 18Watt Desktop SMPS

PLEASE SIGN AND RETURN ONE COPY.

ALL PRODUCTION UNITS WILL BE BUILT ACCORDING TO THIS SPECIFICATIONS.

MODEL NO: AP0181-18E

AGENCY APPROVAL: _____

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

CHECKED BY: Ben Yang

APPROVED BY: Johnson Lin

DATE : 05/30/2012

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

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**BOBBINTRON ELECTRICAL CORPORATION
SWITCHING POWER SUPPLY
SPECIFICATION**

MODEL : AP0181-18E**ISSUED : 05/30/2012****DWG NO :****REV. A****1. Input****1.1 AC input voltage range : 90VAC ~ 254VAC (universal)****1.2 AC input voltage rating : 100VAC~240VAC****1.3 AC input Frequency : 47Hz to 63Hz****1.4 AC input current : 0.50 A (rms) max. for 115VAC
0.30 A (rms) max. for 230VAC****1.5 MAX. In-rush current : 25A MAX. @ 115VAC
50 A max. @ 230Vac
at 25°C ambient cold start.****1.6 Leakage current : 3.5 mA max.****2. Output characteristics:****2.1 Output voltage : 18V****2.2 Max. load current : 1A****2.3 Min load current : 0A****2.4 Tolerance : ±5 %****2.5 Output Ripple & Noise : Output Voltage 1%***** 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 : 18 watts continuous.

3.2 Efficiency : 78% (Minimum) at max load & 220VAC.

3.3 Turn no 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 Short circuit protection : protection against short circuit for output
Note : The output can be shorted permanently without damage.**

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

3.7 Temperature coefficient : 0.2% per °C maximum over entire operating temperature range for Va output .

4. Environmental :

4.1 Operating temperature : -40°C to 75 °C

4.2 Storage temperature : -40°C to 85°C

4.3 Operating relative humidity : 10% to 85%

4.4 Storage relative humidity : 5% to 95%

**5. Safety requirement :(Meet) (1) UL 1950
(2) CE**

6. EMI requirement : CISPR EN55022 class B rules.

7. Hi-pot test :

7.1 Primary to secondary : 4242VDC for 1 sec. 10mA

8. Insulation resistance

8.1 Input to output : > 7Mohm. 500VDC

9. Reliability

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

9.2 Burn in : 4hrs. 40 ±5°C, 115VAC or 230VAC
ON/OFF cycling 70% ~ full load nominal line .

9.3 Vibration : Frequency range : 5-200Hz.

Vibration amplitude 0.5g ±10% over entire frequency range.

A complete sweep of the frequencies from 5-200Hz at 0.4 decades per mins. duration, if insufficient resonant point are established to provide for 30 minutes input per axis, then a constant acceleration continuous sweep at one octave per minute (0.3 decade / min.) shall be applied for the duration.

9.4 Altitude : will operate properly at any altitude between 0 to 10000ft.

10. Mechanical :

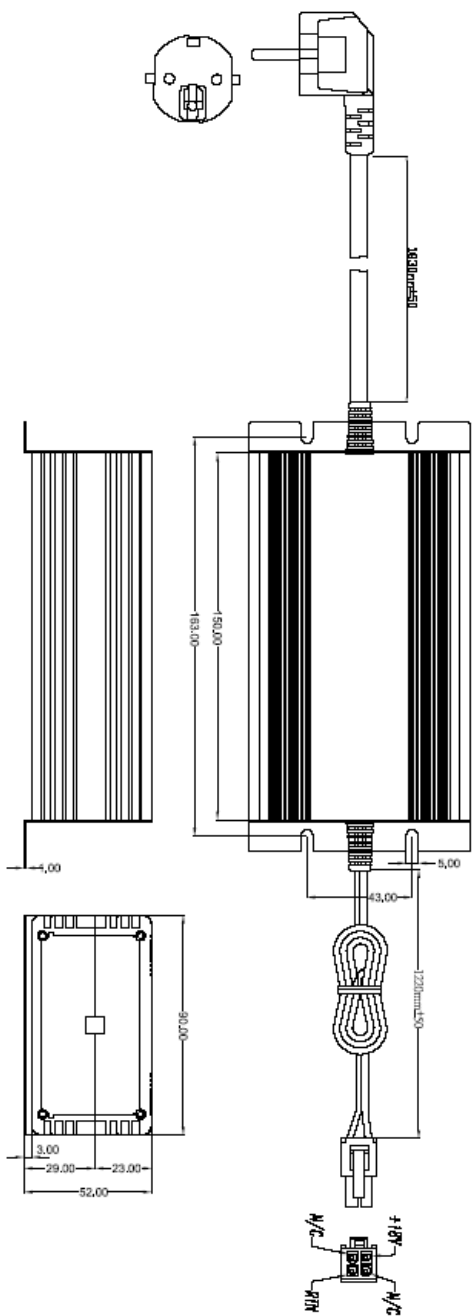
10.1 Dimensions : 150mmlong
90mmwidth




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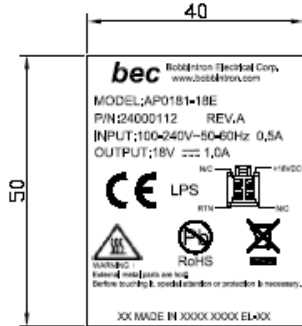


REV	DESCRIPTION	BY	APP.	DATE

 Bobbintron Electrical Corp. www.bobbintron.com		OUTLINE	
MODEL: AP0181-18E			
TITLE:			
SIGNATURE LILLIAN	DATE 5/22/12	SHEET 1 OF 1	REV. A
DWG. NO. 101053006	APP.	PART NO.	

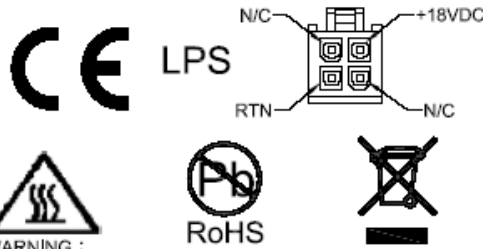
由 AUTODESK 教育產品製造

MARK	REV.	DESCRIPTION	DATE	ISSUED	APPROV.

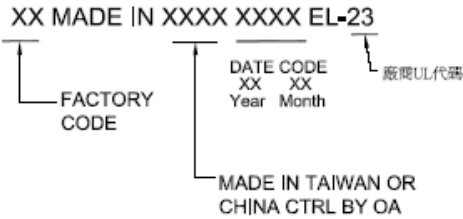
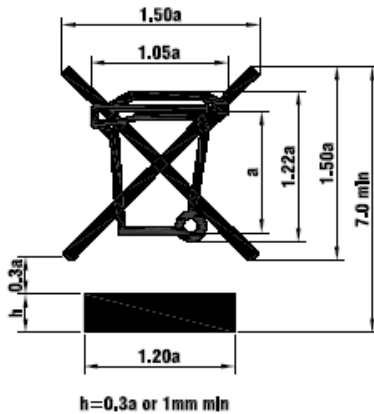


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MODEL:AP0181-18E
P/N:24000112 REV.A
INPUT:100-240V~50-60Hz 0.5A
OUTPUT:18V = 1.0A



WARNING :
External metal parts are hot!!
Before touching it, special attention or protection is necessary.



NOTES:

- 1.TOLERANCE: $\pm 0.1\text{mm}$
- 2.MATERIAL:8B35V T=0.254mm +Adhesive 3M467MP
- 3.COLOR:White TEXT ON BLACK BASE
- 4.PRINTING SHOULD BE FREE OF UNCLEAR PRINTING, PEELING AND SCRACHES
- 5.GLUE:TO MEET WITH UL APPROVAL

CODE	FACTORY
	Bobbintron
HZ	GAN SOUTH (HJ Zhou)

bec Bobbintron Electrical Corp. www.bobbintron.com		DESCRIPTION	APPROVED
		NAME PLATE	
DIM.	TOL.	MATERIAL	MODEL NAME
~8	0.1		AP0181-18E
8~25	0.12	QTY PCS/SET	DWG NO.
25~80	0.15	SCALE	101053007
80~250	0.2	UNIT	REV.
250~	0.3	SHEET OF	A
		FILE NAME	PART NO.
			DESIGNED Lillian
			5/30/12