

**Product Highlights:**

- Ideal for LED Downlights and Recessed Lighting application
- Universal AC input (108~305Vac)
- Built-in active PFC provide PF>0.90 over entire input range
- Turn on/off time < 500ms, < 300ms at full load
- Built-in Transient Suppression up to 2.5kV
- Class II power supply
- Plastic case (94-V0) cooled by air convection
- Protections: Short circuit / Over voltage / Over Current / Over temperature
- Triac and transistor dimmer support
  - Dimming at 120Vac
  - No visible flicker
  - Support majority of available dimming solutions
  - Wide dimming range from 5% up to 100%
  - Compatible with Forward and Reverse Phase dimmers
- 5 year warranty

**Compliance:**

- Safety: UL8750, Class 2 (UL1310)
- EMI: FCC Part 15 Class B
- IP66 - Suitable for indoor or outdoor applications in dry, damp and wet locations
- Materials: RoHS Compliant
- Class A Noise Rating

**Orderable Part Number****Constant Current Variants**

Part Number	Output Current (A)	Output Voltage Range (V)	Line/Load Reg.	Min. Effic.	Max. Output Power (W)	Dimmable
XEL-A020A-024-C1X25-T	1.25	9 ~ 14	±5%	80%	18W	✓
XEL-A020A-024-C1X00-T	1.00	14 ~ 20	±5%	82%	18W	✓
XEL-A020A-024-CX800-T	0.80	18 ~ 24	±5%	82%	18W	✓
XEL-A020A-042-CX700-T	0.70	22 ~ 28	±5%	82%	18W	✓
XEL-A020A-042-CX550-T	0.55	30 ~ 36	±5%	82%	18W	✓
XEL-A020A-042-CX500-T	0.50	32 ~ 42	±5%	83%	18W	✓
XEL-A020A-054-CX450-T	0.45	32 ~ 42	±5%	83%	18W	✓
XEL-A020A-054-CX400-T	0.40	40 ~ 50	±5%	84%	18W	✓
XEL-A020A-054-CX350-T	0.35	42 ~ 54	±5%	84%	18W	✓

-N instead of -T at the end of the part number would mean non dimmable variant. If the variant you need is not listed, please contact EHWZ ([Sales@EHWZ.com](mailto:Sales@EHWZ.com)) and we can arrange for a customized solution.

**General Specification**

SERIES		XEL-A020A
OUTPUT	DC VOLTAGE RANGE	9 ~ 54 Vdc (see orderable parts table for details)
	RATED CURRENT RANGE	0.35 ~ 1.25 A
	RATED POWER	up to 18 W
	LINE/LOAD REGULATION <sup>1</sup>	±5%
	TURN ON/OFF TIME	Turn on < 500ms at full load, Turn of < 300ms under any dimming conditions
INPUT	VOLTAGE RANGE	108 ~ 305Vac
	FREQUENCY RANGE	50 ~ 60Hz
	POWER FACTOR (Typ.)	PFC > 0.90 at 80% load with input range from 120 ~ 277Vac
	EFFICIENCY (Typ.)	≥ 80 % when the load is greater than 80%
	AC CURRENT	0.30A @ 120Vac and 0.15 max @ 277Vac
	INRUSH CURRENT (Typ.)	< 8A @ 25°C, 120Vac cold start with full load
	LEAKAGE CURRENT	< 250µA @ 120Vac 60Hz
	THD (TOTAL HARMONIC DIST.)	< 20%
DIMMING	MODES	Triac and transistor dimmer support Wide dimming range from 5% up to 100% Dimming at 120Vac / No dimming at 277Vac Compatible with Forward and Reverse Phase dimmers
PROTECTION	SHORT CIRCUIT	Hiccup mode protection. Recovers automatically after fault condition is removed
	OVER VOLTAGE	< 30% above the maximum output voltage listed
	OVER CURRENT	< 10% above the maximum output current listed for the specific part number
	OVER TEMPERATURE	Unit dims to 30% of maximum output current when Tc > 90°C (±5)
ENVIRONMENT	WORKING TEMP.	-40°C ~ + 70°C ambient (Tc case rated for 90C)
	WORKING HUMIDITY	20% ~ 90% RH non-condensing
	STORAGE TEMP.	-40°C ~ + 85°C ambient
	STORAGE HUMIDITY	10% ~ 90% RH non-condensing
	IMPACT RESISTANCE	1 g/s
	VIBRATION	5~500Hz 5g 12 min/1 cycle period for 30 min each along x, y, z axis

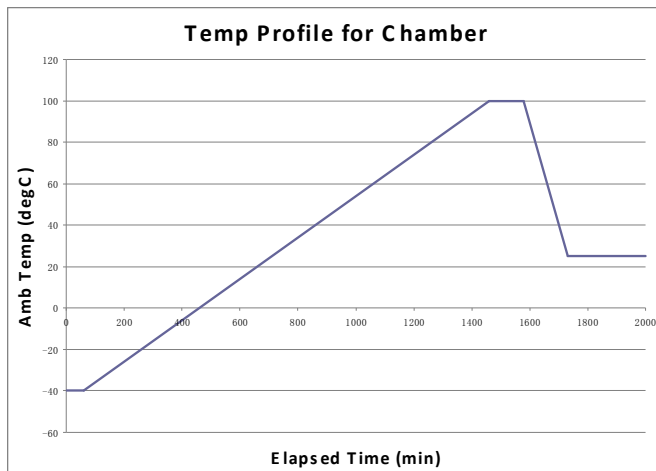
SAFETY & EMC	SAFETY STANDARDS	UL8750, Class 2 (UL1310) CE, FCC, IP66 Compliant
	EMI CONDUCTION & RADIATION	Compliance to CISPR 22 CLASS B, CISPR 14-1 CLASS B, GB4343.1-2003, GB17625.1-2003, GB4343-2003+A1, CISPR 14-1:1997, EN55014-1:1997-5, EN55012-1:1997-6
	HARMONIC CURRENT	Compliance to GB4343-2003+A1, CISPR 14-1:EN61000-3-2:1995
	EMS IMMUNITY	Compliance to GB/T13926.3, IEC61000-4-3 & 4-4, PrEN55014-2 Section 6.2 & 6.5, IEC61000-4-11.
	TRANSIENT SUPPRESSION	2.5kV (100kHz ring wave at 2.5kV common mode and differential)
OTHERS	LIFETIME	50,000 hours at 70°C ambient temperature

Note 1: Load Regulation includes line regulation, load regulation and set-up tolerance  
 Note 2: All specifications not specifically mentioned are measured at 230Vac and 25°C ambient temperature

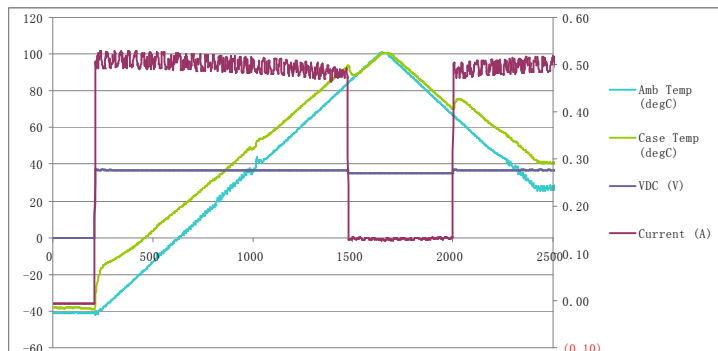
**热性能测试图表**

图表说明：图一为实验环境温度随时间变化曲线表；

图二为实际测试数据(测试样品为 XEL-A020A-042-CX500-TA01)，实验 LED 为 38V/500mA 实验过程如下：将产品置于图一所示环境中工作。随着环境温度的升高，当 Case Temp 上升到 90°C (±5) 后产品进入保护模式，即 I<sub>out</sub> Unit dims to 30% of maximum output current；当 Case Temp 下降至 70°C (±5) 时产品恢复正常工作。如下图所示测试数据包括 I<sub>out</sub>, V<sub>out</sub>, Abm, Case Temp:

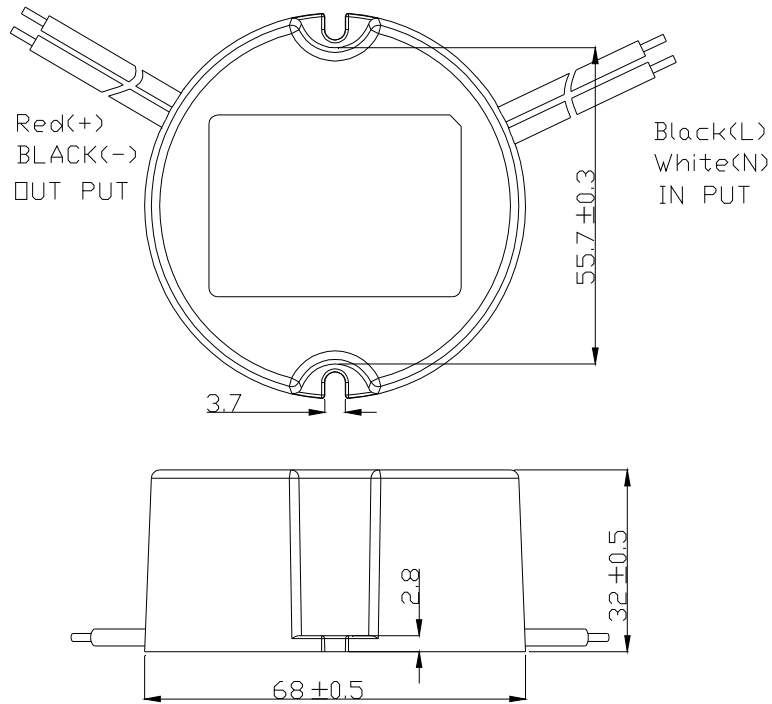


图一



图二

**Mechanical Details**



Drawing not to scale

Wires	Colors	Type
Input	White (Neutral)	UL1015
	Black (Line)	AWG18
Output	Red (Positive)	UL1430
	Black (Ground)	AWG18

Case	
Material	Black/White PC Plastic (94-V0)
Unit Weight	200g
Dimensions	68mm (D) x 32.0mm (H)

**For more detailed information about this product  
please contact EHWZ (Sales@EHWZ.com)**

**EHWZ Limited**

Email: [Sales@EHWZ.com](mailto:Sales@EHWZ.com)

Website: [www.EHWZ.com](http://www.EHWZ.com)

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