

Product Highlights:

- Designed for LED General Lighting Applications
- Externally adjustable maximum output current through RSET
- Universal AC input (277~365Vac)
- Built-in active PFC provide PF>0.90 over entire input range
- Instant Response (< 0.5s Turn on/off time with soft start)
- Protections: Short Circuit / Over Voltage / Over Current / Over Temperature
- Dimmable output with flexible architecture
 - DC Dimming (0-10V) (2 wire dimming input)
 - Dimming supports majority of available dimming solutions
 - Wide dimming range from 10% to 100%
- 5 year warranty

**Compliance:**

- Safety: UL8750(UL1012), CSA 22.2 No. 107.1
- EMI: FCC Part 15 / Class A
- Materials: RoHS Compliant
- Noise Rating: Class A

Orderable Part Numbers

The part numbers below represent the most common variants for this product but do NOT represent all variants available. If you have a specific Current or Voltage requirement for the target application, please confirm with the EHWZ sales team (sales@ehwz.com) the exact orderable part number to use. At EHWZ, we are able to accommodate most Current and Voltage combination requests. So don't hesitate to ask about a unit that best suits the application.

Constant Current Variants

Part Number	Output Current (mA)	Output Voltage Range (V)	Load Reg.	Max. Effic.	Max. Output Power (W)
XEL-A055H-024-C2X00	2000	16 ~ 24	±5%	85%	48
XEL-A055H-042-C1X50	1500	20 ~ 36	±5%	85%	55
XEL-A055H-042-C1X40	1400	20 ~ 39	±5%	85%	55
XEL-A055H-042-C1X25	1250	25 ~ 44	±5%	86%	55
XEL-A055H-042-C1X05	1050	30 ~ 42	±5%	87%	45
XEL-A055H-056-C0X90	900	33 ~ 52	±5%	88%	47
XEL-A055H-056-C0X85	850	33 ~ 56	±5%	88%	48
XEL-A055H-056-C0X70	700	33 ~ 56	±5%	88%	40
XEL-A055H-056-C0X60	600	33 ~ 56	±5%	88%	34

- For Constant Current Units, the -Z at the end of the part number means the unit has 0-10V Dimming. For Non-Dimmable units replace the -Z with a -N when ordering. variant.
- cUL is only applicable to units with output voltage below 42Vdc.

General Specification



SERIES		XEL-A055H
OUTPUT	DC VOLTAGE RANGE	16 ~ 56Vdc (see orderable parts table for details)
	RATED CURRENT RANGE	0.60A ~ 2.000A (see orderable parts table for details)
	RATED POWER	up to 55W
	LOAD REGULATION ¹	±5%
	TURN ON/OFF TIME	Turn on < 500ms over full input voltage range, Turn off < 200ms under any dimming condition
INPUT	VOLTAGE RANGE	277 ~ 365Vac
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF > 0.9 at 100% of load when input range is 277 ~ 347Vac
	EFFICIENCY (Typ.)	≥ 85 % at 100% of load when input range is 277 ~ 347Vac
	AC CURRENT (Typ.)	0.23A @ 277Vac and 0.18A @ 347Vac
	INRUSH CURRENT (Typ.)	< 50A @ 25°C, 347Vac cold start with full load
	LEAKAGE CURRENT	< 250µA @ 347Vac
	THD (TOTAL HARMONIC DIST.)	< 20% at 100% of load when input range is 277 ~ 347Vac
DIMMING	MODES (For Constant Current models)	DC Dimming Control 0-10Vdc Wide dimming range from 10% up to 100% Dimming over entire input voltage range. Unit capable of interfacing with either sourcing or sinking dimmers
	PROTECTION	SHORT CIRCUIT: Hiccup mode protection. Recovers automatically after fault condition is removed OVER VOLTAGE: < 30% above the maximum output voltage listed for the specific part number OVER CURRENT: < 50% above the maximum output current listed for the specific part number OVER TEMPERATURE: Unit turns off when Tc > 85°C
ENVIRONMENT	WORKING TEMPERATURE	-40°C ~ + 70°C at Full Load (Tcase rated for 85C)
	WORKING HUMIDITY	5% ~ 95% RH non-condensing
	STORAGE TEMPERATURE	-40°C ~ + 85°C
	STORAGE HUMIDITY	5% ~ 95% RH non-condensing
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 30min. each along X, Y, Z axes

SAFETY & EMC	SAFETY STANDARDS	UL8750(UL1012), CSA CSA 22.2 No. 107.1,
	EMI CONDUCTION & RADIATION	Compliance to FCC Part 15 / Class A
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A
	TRANSIENT SUPPRESSION	2kV (100kHz ring wave at 2kV common mode and differential)
OTHERS	LIFETIME	50,000 hours at case temperature ≤ 85C

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

Adjustable Output Current

This unit has a feature that allows the user to configure the maximum output current as needed. To use this feature a resistor must be placed between the two RSET wires. The table below has a summary of the expected maximum output current as a function of the value of the resistor across RSET and the figure below outlines the expected behavior. If no RSET is present the unit defaults to the maximum output current specified for the unit. The below table indicates what the maximum output current would be, as a percentage of total max power, for several RSET values. As an example and making the assumption that the user has selected a unit with a maximum output current of 3.26A, the table below outlines what the expected output current values would be for the respective resistor values for the 2A unit.

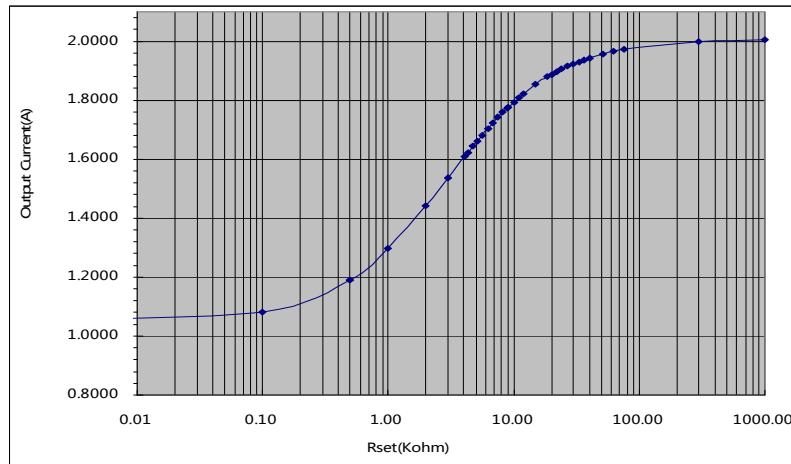
RSET (kΩ)	Output Current (A)	Output Current (%)
OPEN	2.000	100
0.00	1.049	52.47
1.00	1.296	64.8
2.00	1.442	72.1
3.00	1.538	76.91
4.02	1.607	80.38

RSET (KΩ)	Output Current (A)	Output Current (%)
11.00	1.809	90.45
12.00	1.822	91.12
15.00	1.853	92.67
18.70	1.880	94
20.00	1.887	94.36
22.00	1.897	94.85



4.30	1.623	81.16
4.70	1.643	82.18
5.10	1.661	83.09
5.60	1.682	84.11
6.20	1.703	85.19
6.80	1.722	86.13
7.50	1.741	87.09
8.20	1.758	87.93
8.87	1.773	88.64
9.09	1.777	88.86
10.00	1.793	89.67

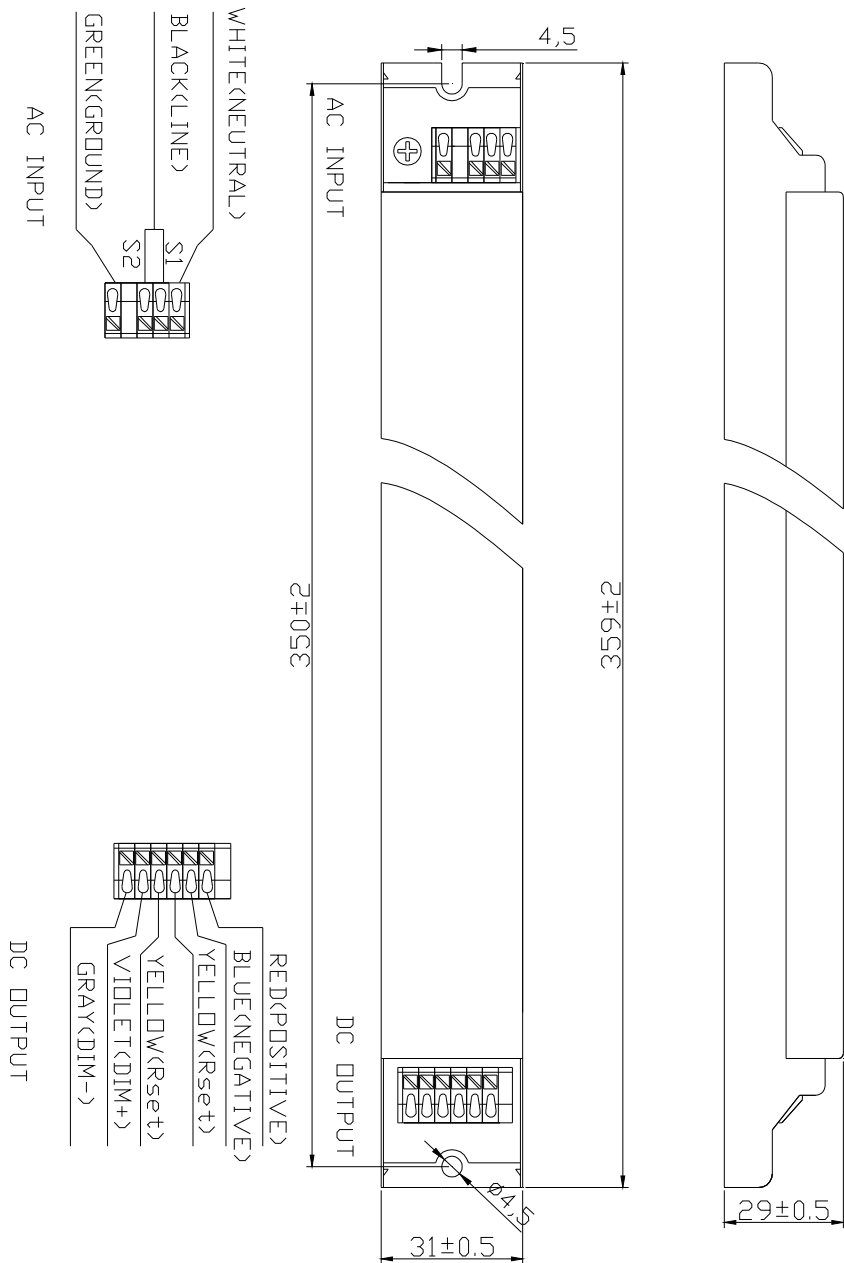
24.00	1.905	95.26
27.00	1.915	95.78
30.00	1.924	96.2
33.00	1.931	96.55
36.00	1.937	96.85
40.20	1.943	97.19
51.00	1.956	97.83
62.00	1.965	98.27
75.00	1.972	98.62
300.00	1.998	99.94
1000.00	2	100



Please note that when the maximum output current is set by the value of RSET, the dimming will be proportional to the maximum output value set (i.e. If the max output current is set for 2A and the dimmer input is 5V, the expected current output value would be $2A \cdot 0.5 = 1A$).



Mechanical Details



Drawing not to scale

Terminals	Colors
Input	White (Neutral)
	Black (Line)
Output	Red (Positive)
	Blue (Ground)
Dimming (CC only)	Purple (Dim +)
	Gray (Dim -)

Case	
Material	Metal
Unit Weight	TBD gms
Dimensions	*359*mm (L) x *31*mm (W) x *29*mm (H)



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

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