

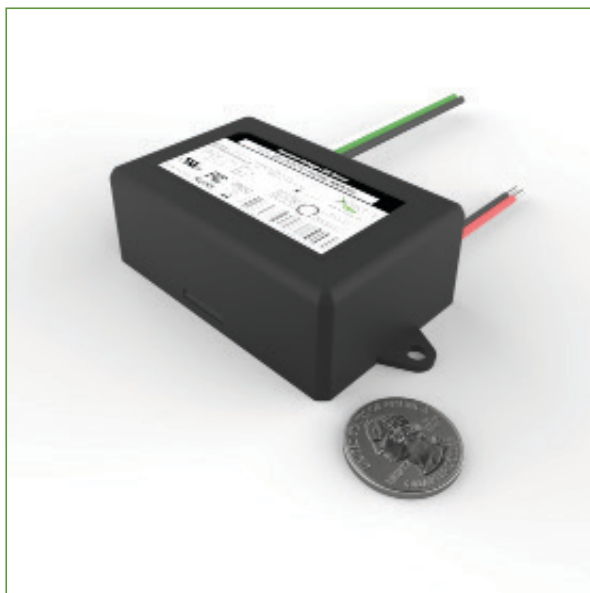
Compact™ CV Series

XEL-020C Constant Voltage Power Supply



20W Color Mixing / IoT / Industrial & Sensor / UV / Power

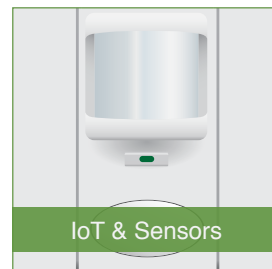
Nominal Input Voltage (Vin)	Family Output Power (W)	Output Voltage (Vout)	MAX Output Current (A)	Max Efficiency (%)	UL Max Case Temp. TC (°C)	THD (%)	Power Factor	Dimming Method	Dimming Range (% of Iout)
120~277Vac	20W MAX	24Vdc	0.80A	84.2%	90°C	< 20%	> 0.9	N/A	N/A



- ✔ Supports Fast Load Changes
- ✔ Ideal for Single Point UV Product
- ✔ Supports High Peak Loads with Instantaneous Power Delivery
- ✔ Improves System Level EMI with High Load Transient Rejection
- ✔ Power Factor & THD Correction
- ✔ Stand-alone IoT & Sensor Power Supply
- ✔ Universal AC input (108~305Vac)
- ✔ Compact Size for Controls & Lighting Systems
- ✔ Turn on/off in less than 500 milliseconds
- ✔ Built-in Commercial grade Surge Protection
- ✔ Integrated open load, short circuit & temperature protection
- ✔ Turn on & Full power operation between -20°C to +55°C ambient (T_{case} rated for 90°C)
- ✔ XenerQi Industry Leading 5 Year Warranty²
- ✔ Class A Noise Rating
- ✔ Complies to FCC CFR Title 47 Part 15

See product specific data pages for details.

Typical Applications



Dimensions & Installation

(not to scale)

CASE

Material	Plastic (UL94 V-0)
Unit Weight	TBCg (±10)
Dimensions	89.6mm x 46.5mm x 26mm / 3.5" x 1.8" x 1.02"

WIRING

Input Wires	18AWG (UL1015) (L:Black, N:White, G:Green)
Output Wires	22AWG (UL1430) (LED+:Red, LED-:Black)
Dim Wires	N/A
Wire Lengths	152.4mm (±3mm) / 6" (±0.12")
Strip Lengths	9.5mm (±0.5mm) / 0.375" (±0.02")

DIMENSIONS

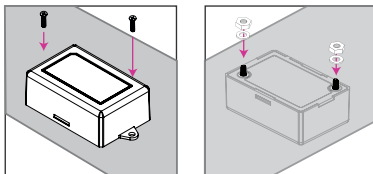
ORDER CODE: XEL-020CTU

Detailed 2D & 3D dimensional drawings available on request.

MOUNTING & INSTALLATION

Fixings 2x M3*10mm / 5-40*3/16" Fasteners

Installation



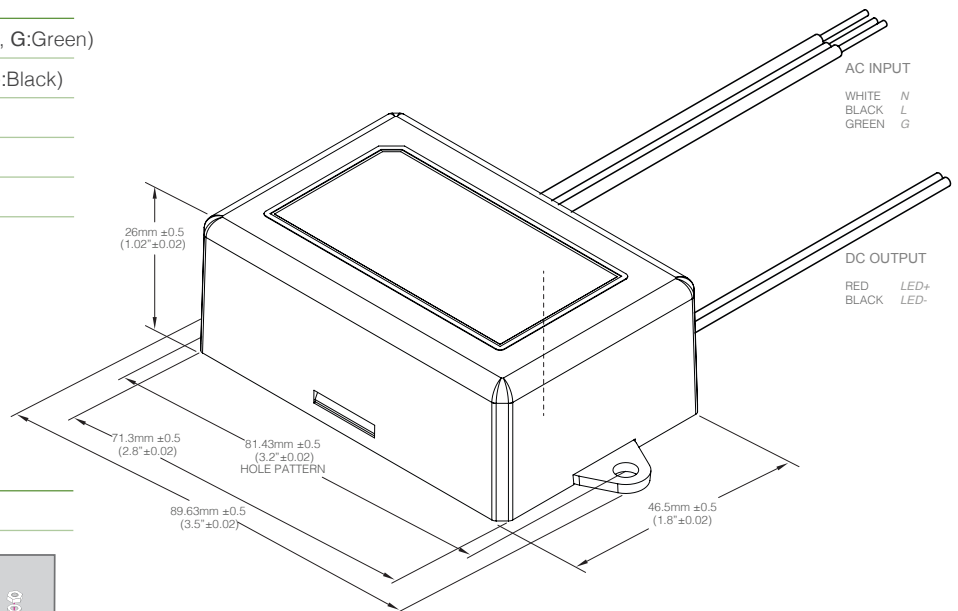
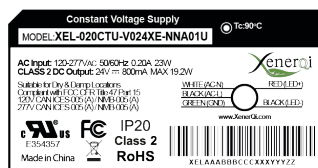
WARNING: TO REDUCE THE RISK OF FAILURE / INJURY
DRIVER CASE MUST BE ELECTRICALLY GROUNDING.
DRIVER MUST BE INSTALLED IN LUMINAIRE IN ACCORDANCE WITH THE LOCAL CODES.

FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

(DRIVER INSTALLATION WITHIN LUMINAIRE MUST FORM A FIRE RATED ENCLOSURE - ELECTRICAL CONNECTIONS MUST BE MADE WITHIN A FIRE RATED ENCLOSURE - COMPLIANCE IS THE RESPONSIBILITY OF THE LUMINAIRE MANUFACTURER)

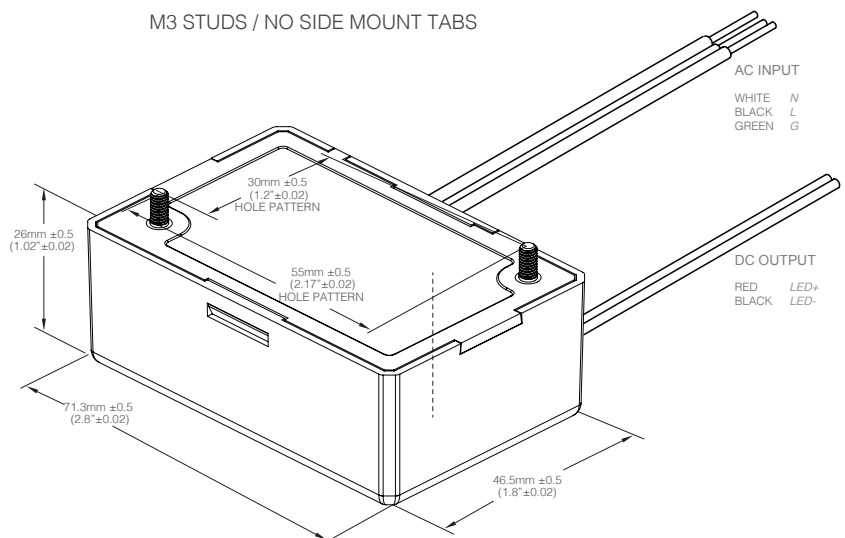
LABELS

Example Label



ALTERNATE CASE STYLE

M3 STUDS / NO SIDE MOUNT TABS



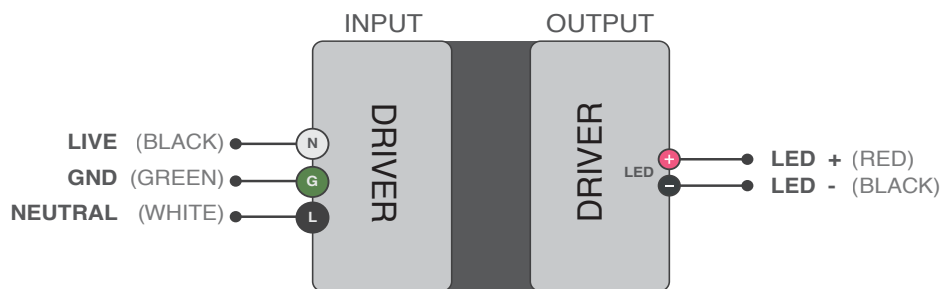
The information and specifications contained in this summary sheet are believed to be accurate and reliable at the time of publication, however Xenerqi Limited assumes no responsibility for damages caused due to potential errors. Also, Xenerqi Limited assumes no responsibility for the use of this product in such a way that it infringes on patents or other rights of third parties. No license is granted by implication or otherwise under any patent rights of Xenerqi Limited. Specifications are subject to change without notice.

Specification Data

Output³	Max Power	19.2W MAX (See Available Models for variant specific data)
	Max Output Current	0.80A
	Output Voltage Range	24Vdc
	Line Regulation ³	±5%
	Load Regulation ³	±5%
	Turn On/Off Time	500ms (at full load)
	Stand-by Power	0.4W
Input	Voltage Range ³	120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
	Max Input Power	23W
	Frequency Range	47 ~ 63 Hz
	Power Factor	PFC > 0.9 at ≥ at 500mA ³
	THD	THD < 20% at ≥ at 500mA ³
	Typical Inrush Current	<75A @ 25°C, 120VAC (cold start with full load)
Protection	Short Circuit	TBC. NEMA 410 compliant
	Over Load	2.2A
	Over Temperature	Unit shuts down & resets at hotspot greater than 90°C (shut down after reaching Tcritical)
Environment	Working Temperature	-20°C ~ 55°C ambient ¹ (Tc rated for 90°C)
	Working Humidity	20% ~ 90% RH non-condensing
	UL Rating	Dry / Damp location use
	Storage Temperature	-40°C ~ 85°C ambient
	Storage Humidity	10% ~ 90% RH non-condensing
	Vibration & Impact Resistance	3 ~ 50Hz 1g (for 30 minutes) / 1 g/s (Impact Resistance)
	Operating Life	50,000 Hours @ 800mA (Tc < 75C)
Safety & EMC	Safety Standards	UL8750, Class 2 (UL1310), Class P rated
	Noise Rating	Class A (Less than 24dB measured at 1 meter) ^{3,6}
	EMI Conduction & Radiation	Compliant with FCC CFR Title 47 Part 15 Class A CAN ICES (A) / NMB-005 (A) Compliant with European CE Requirements
	EMC Susceptibility	EN61000-4-3, EN61000-4-2, EN61000-4-4
	Transient Immunity	2kV/1kA Combination, 2.5kV Ringwave Modes: L-N
		<i>For applications with higher surge protection requirements, pair with XenerQi's lighting optimized surge protectors:</i>
		10K Surge Protection: XEL-PA10S-277 / XEL-SU10C-277 20K Surge Protection: XEL-PA20S-277 / XEL-SU20C-277

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Typical Application & Wiring Diagram



Ordering Codes & Available Models

ORDER CODE ('X' indicates type/feature selection)

XEL-020CTU-CAAAAB-NNA01U

Current Rating
(see model table below)

Part Number / Ordering Codes (Replace X with case choice)		Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency ^{6,7}	Max Output (W)
FIXED Output Current Variants	XEL-020CTU-V024XE-NNA01U	800	24	84.2%	19.2W
	Customized Variants available upon request.				

¹ Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is correctly mounted on flat surface.

² Warranty refers to operation for conditions listed under "Operating Life". For specific warranty details refer to XenerQi published warranty document.

³ Parameters guaranteed only over nominal input range.

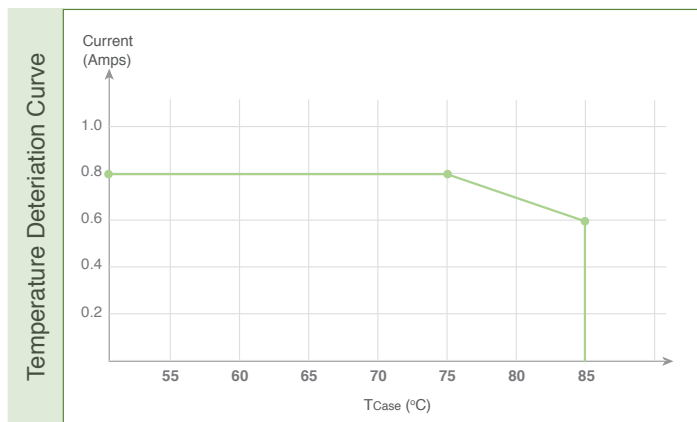
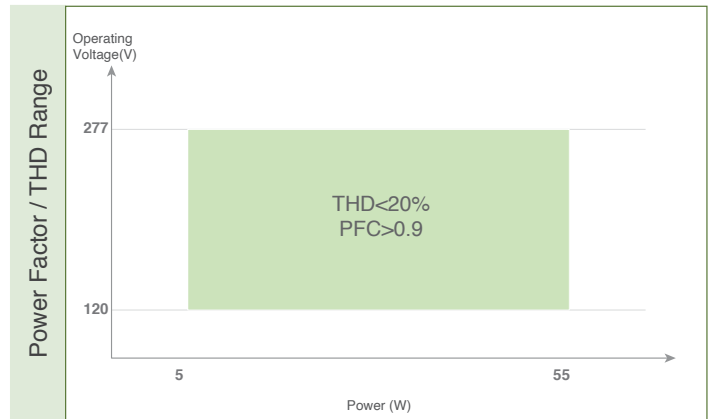
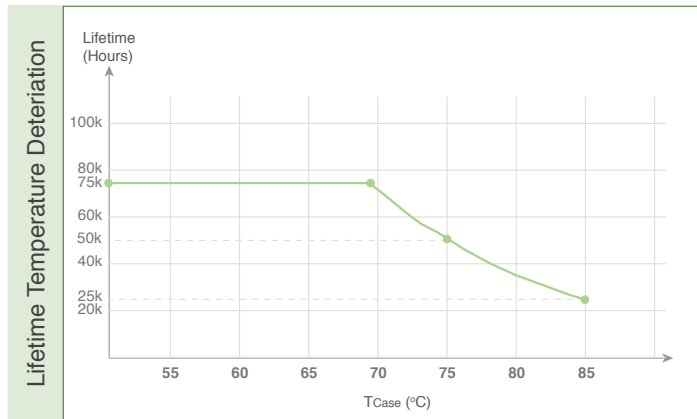
⁴ Shutdown requires power cycle to recover.

⁵ Tested under two conditions: with & without dimmer connected.

⁶ Value listed is family maximum or minimum best case value as appropriate & can vary depending on part number.

⁷ Driver is designed to meet the 2019 flicker recommendations from IEEE/NEMA with an emphasis on human factors engineering. When the driver is utilized with the appropriate LED load and conditions, the Luminaire should be able to meet IEEE-1789 recommendations for Green/Low-Risk.

Operation Performance-Family



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