Q38-Uxx Series

Product Specifications

Intelligent Programmable Output Power Solutions	
Total Power	40 Watts max.
Input Voltages	120 ~ 277VAC
Number of Outputs	One

ANZ#: Z234a, June 29, 2016

SPECIAL FEATURES

- Universal Input range from 110VAC~304VAC, 50/60Hz
- Compact size maximizes design flexibility
- Fully potted, suitable for dry and damp location applications
- Versatile 4 in 1 dimming controls
- Intelligent wireless programming with Windows® GUI interface
- Output current & voltage programmable maximizing flexibility
- UL8750 and CE compliant

Input Specification	Test Condition / Notes	Minimum	Nominal	Maximum	Units
Input Voltage		95	120 ~ 277	304	Vac
Input Current			0.6 ~ 0.3		A
Input Frequency		47	50/60	63	Hz
Power Factor	over full range, >50% load	0.92			
THD	over full range, >50% load			20	%
Dimming	0-10V note 1	5		100	%
Input Power			47		W
Efficiency	over full range, >65% load		87 tpy.		%
Inrush Current				3	A

Protection & Safety Approvals	Test Condition / Notes	Minimum	Nominal	Maximum	Units
Input Under Voltage	Auto Recovery, Hiccup				Vac
Input Over Voltage	Auto Recovery, Hiccup				Vac
Input Fuse	Line only		2		A
Output Over Voltage Protection	Open circuit output voltage				Vdc
Output Short Circuit Protection	Auto Recovery, Hiccup				A
Over Temperature Protection	Shutdown Autorecovery		TBD		°C
Isolation Input/Output			2200		Vdc
Isolation Output/Ground			2200		Vdc
Safety Approvals			Approved		
Safety Standards	8750, 1310 or 60950				

Electro-Magnetic Compatability	Test Condition / Notes	Standard	Performance Criteria
Conducted EMI		EN55015	
Radiated EMI		EN55015	
Line Voltage Fluctuation & Flicker		IEC61000-3-3	
ESD		IEC61000	
Harmonic Current Emission		IEC61000-3-2	
Radiated Field			
EFT		IEC61000	
Surge		IEC6100-4-5	2.5KV
Dips and Interruptions			

Note 1. Standard is dim to off; dimming performance vary based on LED and LED types.

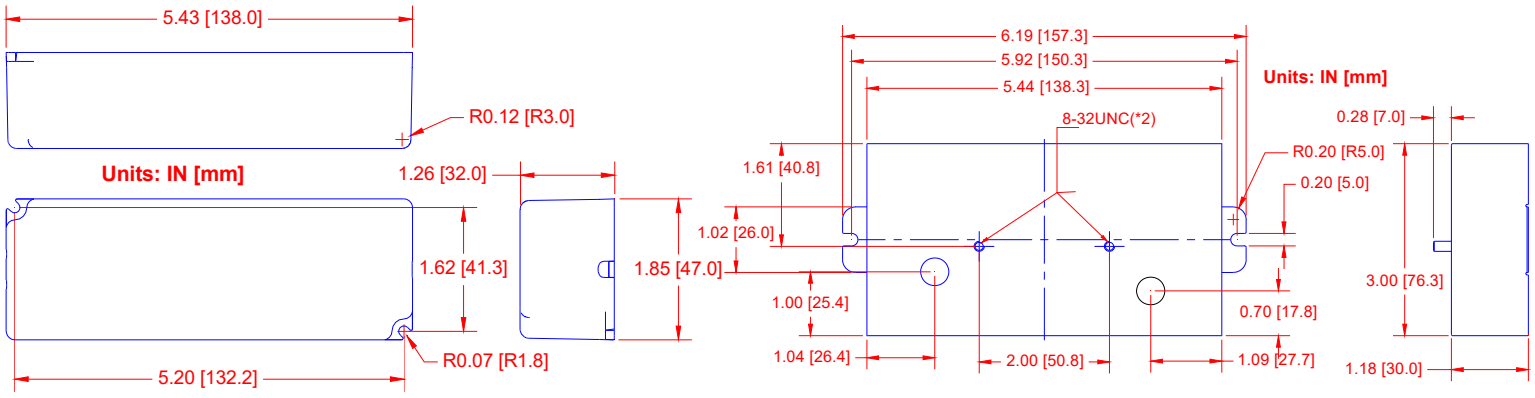
2. The above specifications are tested with 65-100% of the maximum load.

Environmental Specifications	Test Condition/ Notes	Minimum	Nominal	Maximum	Units
Operating Temperature Range	case temperature	-25		+50	°C
De-rating		1% per deg. C from 50°C - 70°C			°C
Storage Temperature Range		-40		+85	°C
Humidity		5% - 95% non-condensing			%
Vibration					G
MTBF	25°C ambient	50,000			hrs
Ingress Protection		Dry, Damp, location			
Power Derating Curves					
Plot Driver Efficiency versus Case Temperature		See chart			
Plot Driver Efficiency versus Load		See chart			
Mechanical Specifications					
Mechanical Drawings		Refer to mechanical drawings			
Connectors		Discrete wires			
Wiring Diagram		See Chart Below			
Location of Case Temperature					

Output Specification	Q38-U54		Q38-U42		Q38-U24	
	CC	CV (opt.)	CC	CV (opt.)	CC	CV (opt.)
Output Voltage Range, Vdc	**34-54**	**3.3**	**27-42**	**3.3**	**15-24**	**3.3**
Vf Programmable Range, Vdc	27 ~ 54	N/A	20 ~ 42	N/A	15 ~ 26	N/A
Output Current (Max.), mA		200		200		200
If Adjustable Range, mA	1050 ~ 400	N/A	1400 ~ 540	N/A	2100 ~ 900	N/A
Current Adjust Resolution	5mA		5mA		5mA	
Maximum Output Power, W	40		40		40	
Line Regulation	±2.5%		±2.5%		±2.5%	
Load Regulation	±2.5%		±2.5%		±2.5%	
Ripple & Noise	125%		125%		125%	
Rise Time	< 1 sec.		< 1 sec.		< 1 sec.	
Start-up Delay	< 1 second	Not specified	< 1 second	Not Specified	< 1 second	Not Specified
Turn-on Overshoot						
Hold-up Time, mS	8	Not Specified	8	Not Specified	8	Not Specified
Load Range	50% - 100%	0% - 100%	50% - 100%	0% - 100%	50% - 100%	0% - 100%

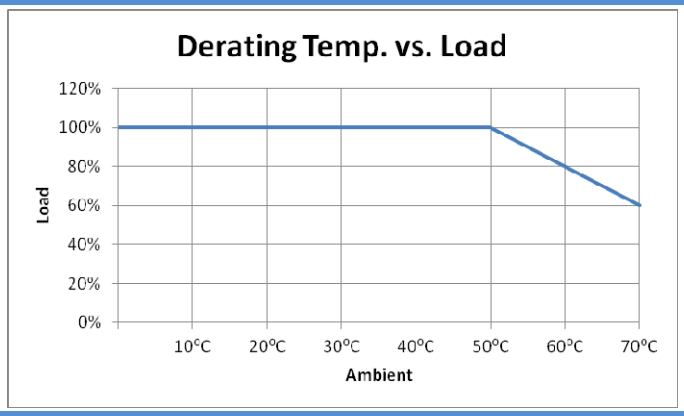
Notes : 1. Factory set at 48VDC/833mA 2. Factory set at 36VDC/1050mA 3. Factory set at 24VDC/1650mA

MECHANICAL SPECIFICATION : Q38-Uxx-XP Q38-Uxx-XM

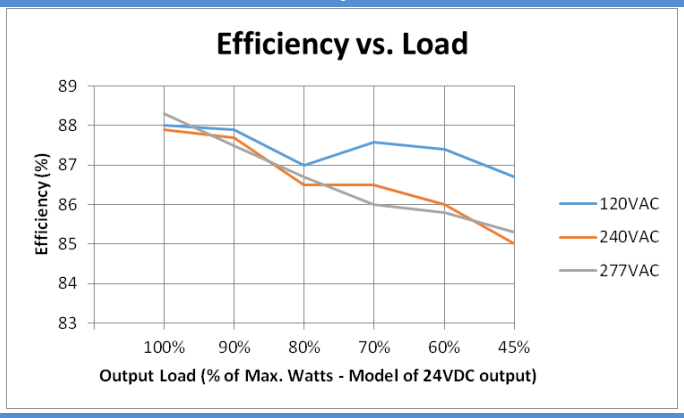


Note:
1. The combination of output current and voltage cannot exceed maximum rated power.
2. It is recommended to keep a minimum of 65% of rated load to maintain highest performance.

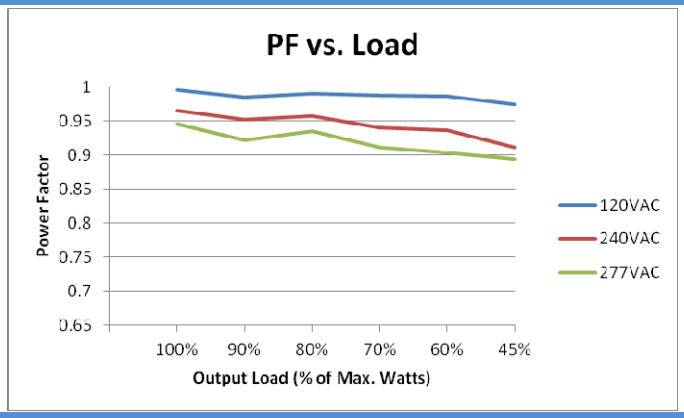
De-rating Temp. vs. Load



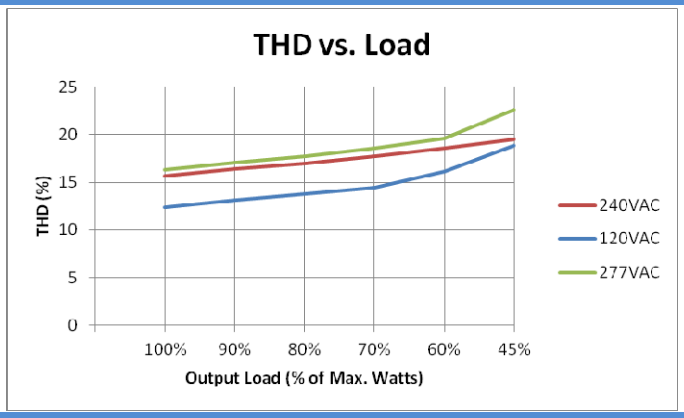
Efficiency vs. Load



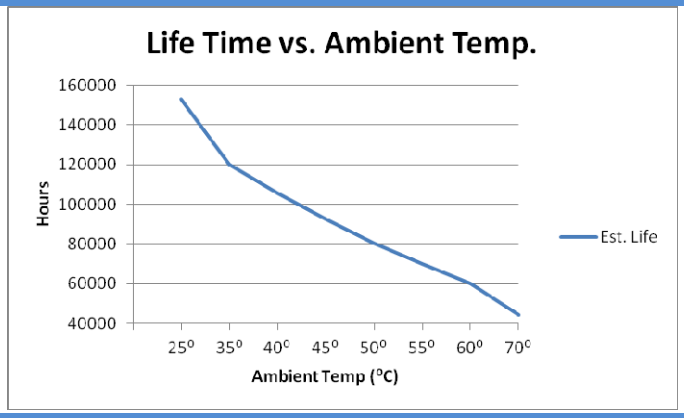
Power Factor vs. Load



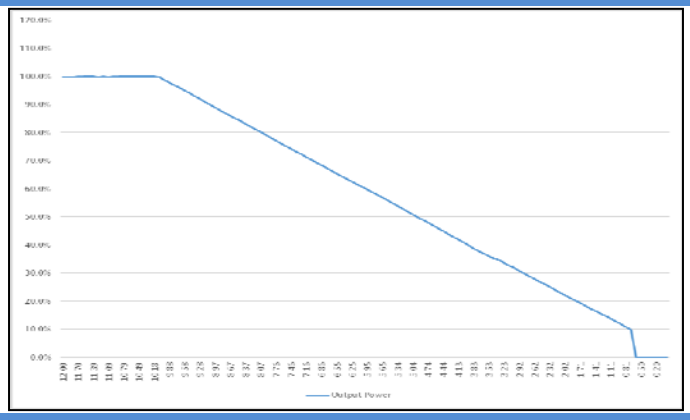
THD vs. Load



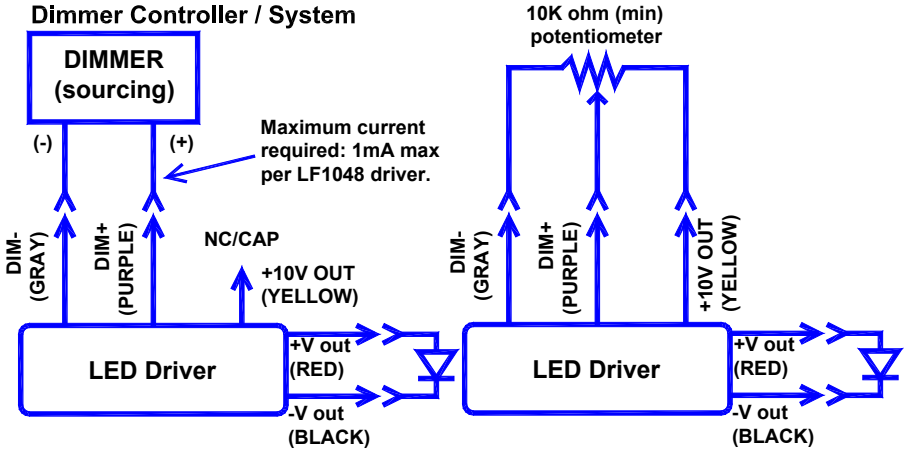
Life Time vs. Ambient Temp.



0-10V dimming Curve



Dimming Wiring Diagram



For general operation and networking purposes where an OFF mode condition is required, our LED Driver dimming models (ESS & ESL) operate with 1-10V control input, where 1V input is minimum dim and less than 1V is OFF.