

QL48 - Series



Preliminary Product Specifications

ANZ#: Z2224, June 3, 2015

Intelligent Programmable Output Power Solutions	
Total Power	50 Watts max.
Input Voltages	120 ~ 277VAC
Number of Outputs	One

SPECIAL FEATURES

- Universal Input range from 110VAC~304VAC, 50/60Hz
- Linear design in compact size maximizes design flexibility
- Size: 424 (L) x 30 (W) x 25 (H) mm
- Suitable for dry location applications
- Versatile 4 in 1 dimming controls
- Intelligent wireless programming with Window® GUI interface – optional feature
- Output current and voltage programmable maximize flexibility
- Auxiliary 3.3VDC output for wireless device – optional feature

Picture not available



Input Specification	Test Condition / Notes	Minimum	Nominal	Maximum	Units
Input Voltage		110	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 and 1-10V	3		100	%
Input Power			56		W
Efficiency	over full range, >65% load	87			%
Inrush Current				3	A

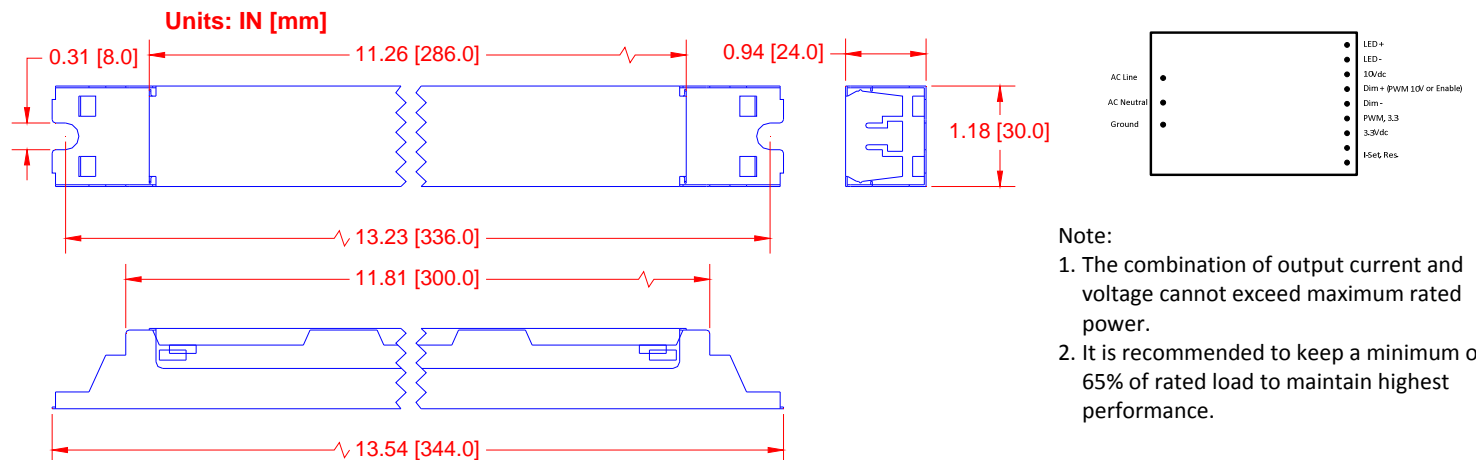
Protection & Safety Approvals	Test Condition / Notes	Minimum	Nominal	Maximum	Units
Input Under Voltage	Auto Recovery, Hiccup				Vac
Input Over Voltage	Auto Recovery, Hiccup				Vac
Input Fuse	Line only		2		A
Output Over Voltage Protection	Open circuit output voltage				Vdc
Output Short Circuit Protection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

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

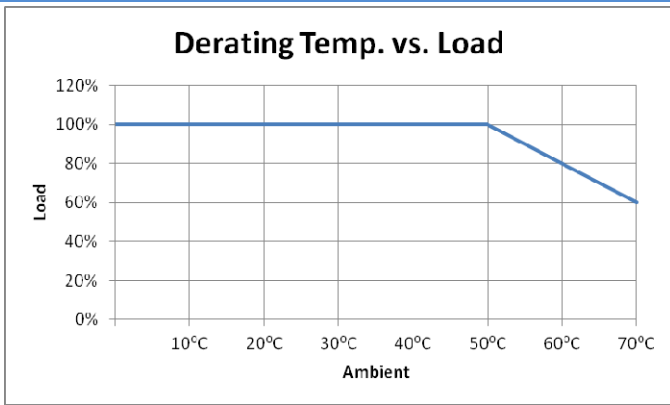
Environmental Specifications	Test Condition/ Notes	Minimum	Nominal	Maximum	Units
Operating Temperature Range	case temperature	-25		+50	°C
De-rating		1% per deg. C from 50°C - 70°C			°C
Storage Temperature Range		-40		+85	°C
Humidity		5% - 95% non-condensing			%
Vibration					G
MTBF	25°C ambient	50,000			hrs
Ingress Protection		Dry, Damp, Wet location			
Power Derating Curves					
Plot Driver Efficiency versus Case Temperature		Pending			
Plot Driver Efficiency versus Load		Pending			
Mechanical Specifications					
Mechanical Drawings		358 x 30 x 25 mm (LxWxH)			
Connectors		Spring Load Terminal Block			
Wiring Diagram		See Chart Below			
Location of Case Temperature					

Output Specification	QL48-U54		QL48-U40	
	CC	CV (optional)	CV	CV (optional)
Output Voltage Range, Vdc	27-54 ^{note1}	3.3	20-40 ^{note2}	3.3
Voltage Adjustable Range, Vdc	27 ~ 54	N/A	20 ~ 40	N/A
Output Current (Max.), mA	1250 ^{note1}	70	1600 ^{note2}	70
Current Adjustable Range, mA	400 ~ 1250	N/A	550 ~ 1600	N/A
Current Adjust Resolution	5mA		5mA	
Maximum Output Power, W	50		50	
Line Regulation	±5%		±5%	
Load Regulation	±5%		±5%	
Ripple & Noise	125%		125%	
Rise Time				
Start-up Delay	Less than 1 second	Not Specified	Less than 1 second	Not Specified
Turn-on Overshoot				
Hold-up Time, mS	8	Not Specified	8	Not Specified
Load Range	50% - 100%	0% - 100%	50% - 100%	0% - 100%
Temperature Drift				

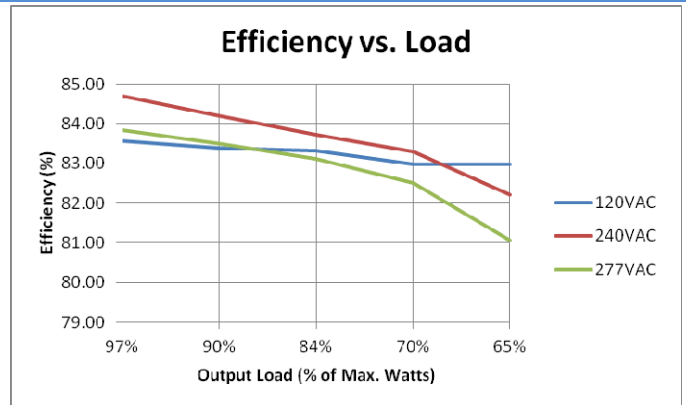
MECHANICAL SPECIFICATION : ESL1048



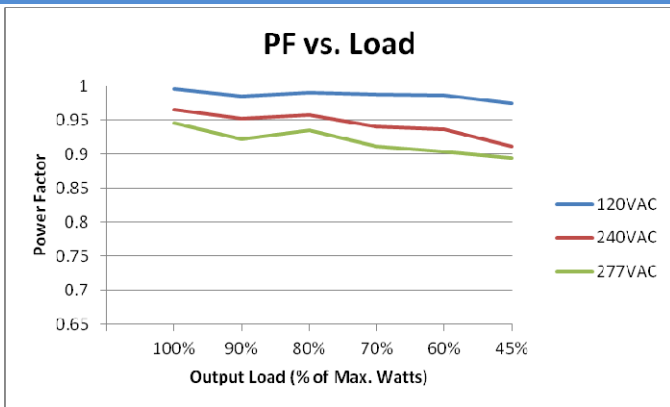
De-rating Temp. vs. Load



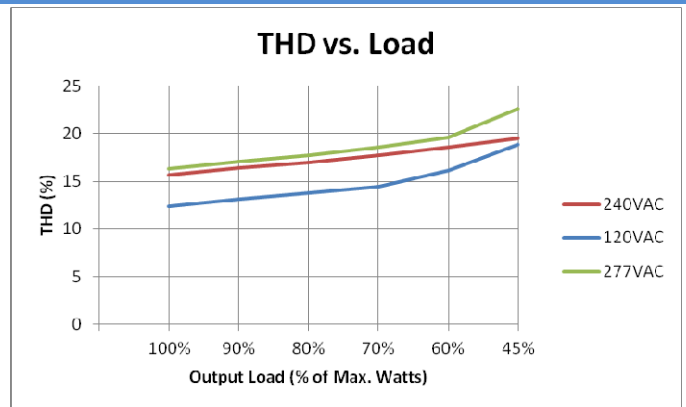
Efficiency vs. Load



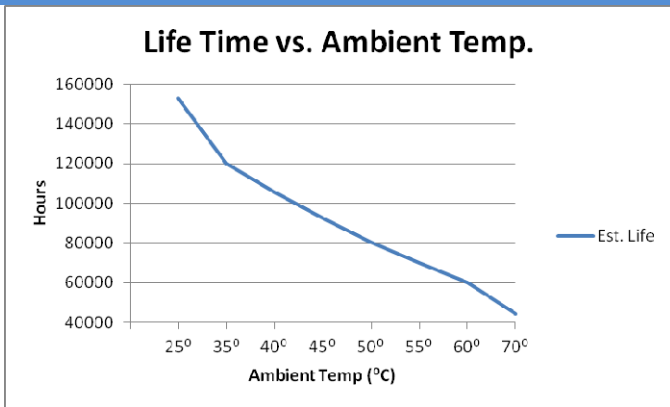
Power Factor vs. Load



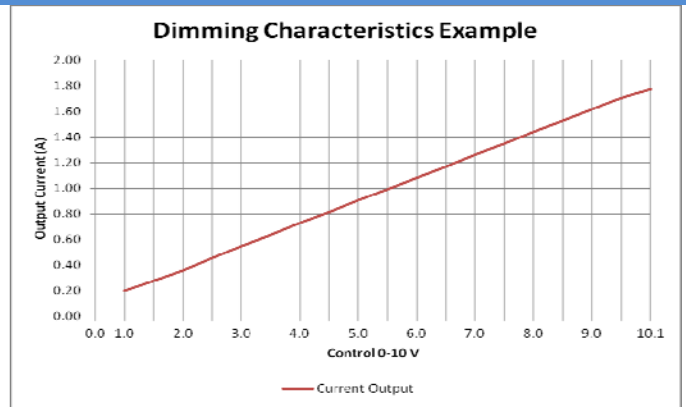
THD vs. Load



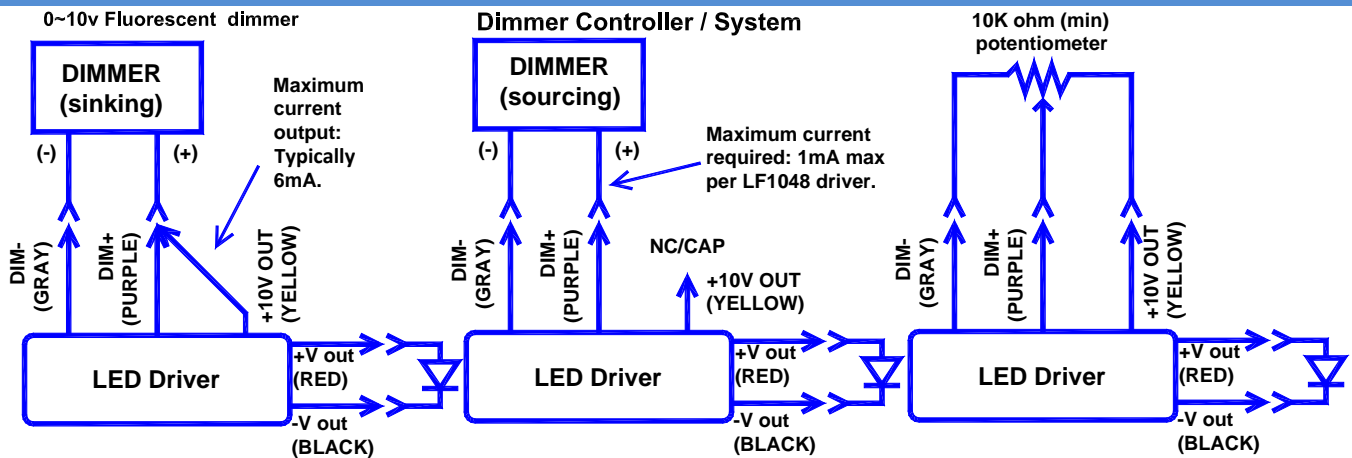
Life Time vs. Ambient Temp.



1-10V 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.