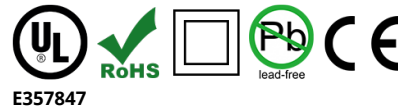


QM50-B Series

CASAMBI ready, Isolated, Class 2, single output LED driver, with Bluetooth communication

PRODUCT FEATURE

- Compact size maximizes design flexibility
- Maximum output power - 40W
- No-load power consumption less than 0.5W
- Low flickering – less than 10% up to 120Hz
- Turn-on time – less than 500ms
- Constant Current or Constant Voltage output
- Easy quick “DIP switch” output programming (CC version only)
- Transient Protection
- UL8750 supplement SF, Class 2, Class P and CE compliant



SPECIFICATIONS

Input Range	: 110 - 277VAC / 0.30 - 0.15A / 47 - 63Hz
DC output Range	: Refer to model selection table
Efficiency	: 87% typical
Power Factor	: > 0.98 at full load, 115VAC or 230VAC
Output Current Regulation	: ±5%
Protection	: OCP, SCP, OVP - Auto recovery
Surge Rating	: 2.5 KVA
Dimming	: Compatible with TRIAC / ELV / 0-10V / PWM
PWM dimming Signal	: 500Hz - 10KHz; Min. 10V amplitude
Operation Temp.	: -30°C - +50°C, Tc : 90°C
Storage Temp.	: -40°C - +85°C
Humidity (Non-Condensing)	: 5% to 95%
Vibration Frequency	: 5 to 50Hz
MTBF	: >100,000 hours, FULL load, 25°C Amb., MIL-217F
Regulation Compliance	: UL8750 Supplement SF, Class P EN61347, EN55015, EN61547
Cooling	: Convection
Dimension	: 4.23" x 1.71" x 1.26" (L x W x H)

WARRANTY

- See [Limited Warranty Policy](#) for more additional information

RELATED PRODUCTS

- ↪ [QM40 Series](#)
- ↪ [QM40-B Series - Casambi compatible](#)
- ↪ [QM32 Series](#)
- ↪ [QM50 Series](#)
- ↪ [QM70 Series](#)
- ↪ [QM100 Series](#)

MODEL SELECTION

MODEL NUMBER	LED ch#	DC OUTPUT RANGE (Vf)	MAX OUTPUT CURRENT (mA)	Max output power (W)	TOTAL POWER (1+2)
QM50-U48Z-yyyy-XP-B	1	20 – 48 VDC	1250	50	50
	2	20 – 48 VDC	1250	50	
QM50-U24Z-yyyy-XP-B	1	24 VDC	1900	46	50
	2	24 VDC	1900	46	

NOTE

1. “yyyy” = Output current (1250 or 0850); XP = 94V-0 plastic case
2. “z” = “S” single output; “D” dual outputs
3. “UM50-U48z-yyyy-XP (1)” is non-AC Dim option
4. With Zigbee or Casambi control option, 4 in 1 dimming feature is disabled.

CASAMBI CONTROL

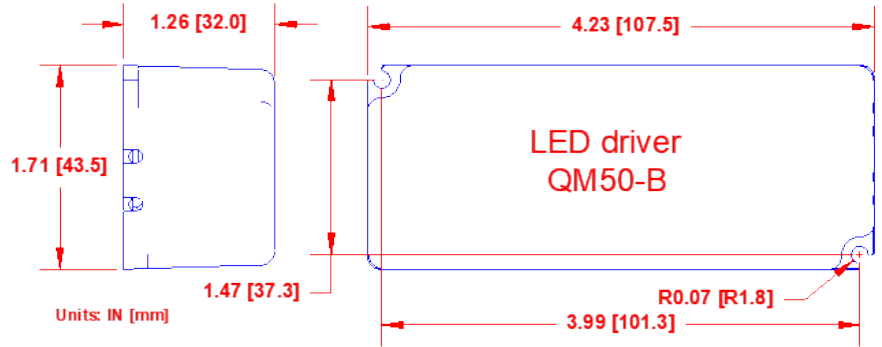


QM50-B Series

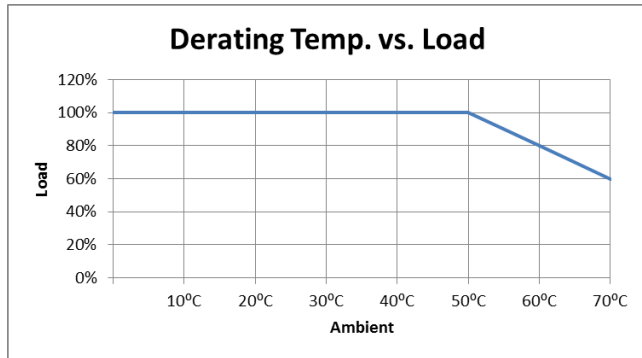
CASAMBI ready, Isolated, Class 2, single output LED driver, with Bluetooth communication

MECHANICAL SPECIFICATION

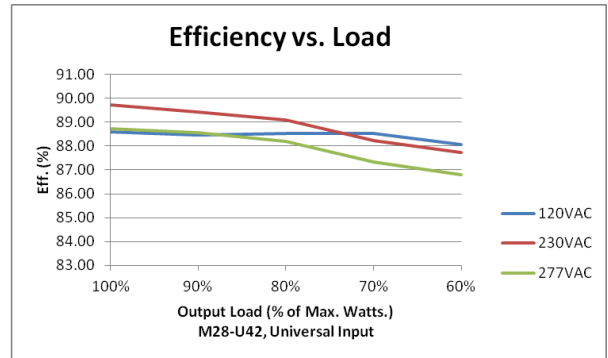
CON	PIN	COLOR	OUTPUT	AWG
AC IN	-	BLACK	LINE	18
	-	WHITE	NEUTRA	18
OUT	LED1	RED	+	20
		BLACK	-	20
	LED2	RED/WHITE	+	20
		BLACK/WHITE	-	20
AUX	12V	YELLOW	+	20
		YELLOW/ BLACK	-	20



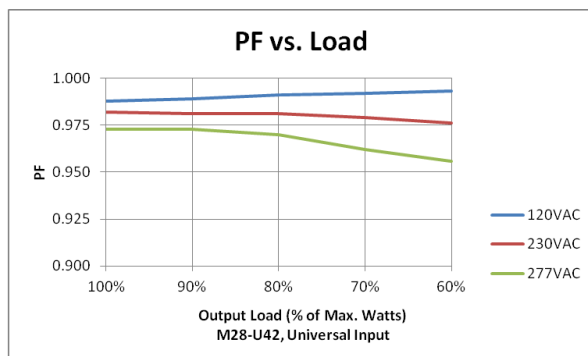
DE-RATING TEMP VS LOAD



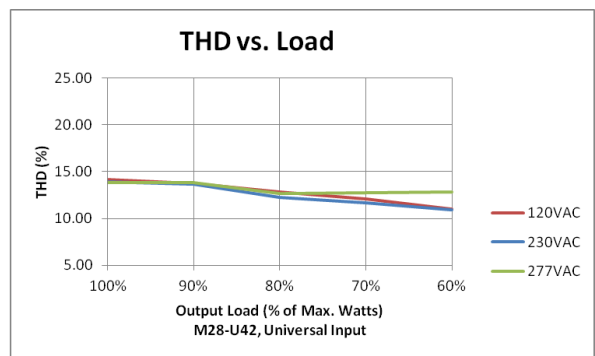
EFFICIENCY VS LOAD 52V MODEL



POWER FACTOR VS LOAD



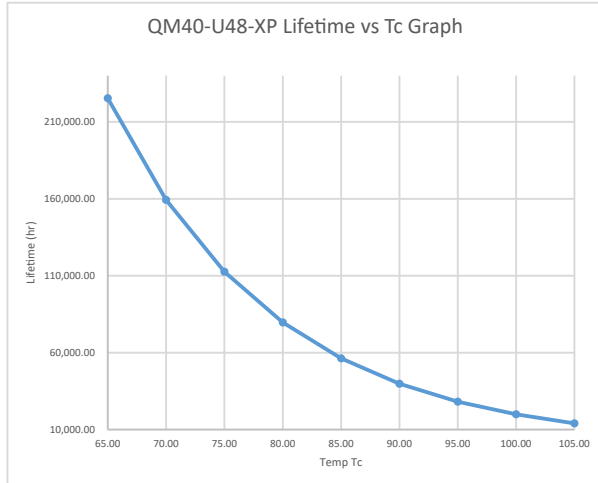
THD VS LOAD



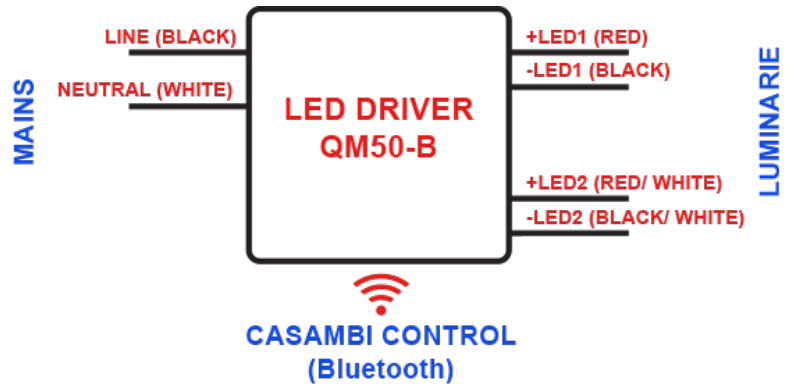
QM50-B Series

CASAMBI ready, Isolated, Class 2, single output LED driver, with Bluetooth communication

LIFE TIME VS AMBIENT TEMP



WIRING DIAGRAM



SWITCHES SETTING CHART

SW1	SW2	SW3	SW4	SW5	SW6	SW7
-----	-----	-----	-----	-----	-----	-----

SW1, SW2, SW3 are for output current settings (output setting accuracy: ±2.5%)
(For constant current model only)

-0850 OUTPUTS (mA) / CHANNEL	OUTPUT CURRENT SETTING		
	SW1	SW2	SW3
500	Off	Off	Off
550	On	Off	Off
600	Off	On	Off
650	On	On	Off
700	Off	Off	On
750	On	Off	On
800	Off	On	On
850	On	On	On

-1250 OUTPUTS (mA) / CHANNEL	OUTPUT CURRENT SETTING		
	SW1	SW2	SW3
900	Off	Off	Off
950	On	Off	Off
1000	Off	On	Off
1050	On	On	Off
1100	Off	Off	On
1150	On	Off	On
1200	Off	On	On
1250	On	On	On

SW4 is for DIN to on or DIM to off

DIMMING STATUS	DIMMING STATUS
	SW4
Dim to Off	Off
Dim to On	On

SW5, SW6 is to setup 0-10v dimming functions

MODE	0-10V DIMMING MODE	
	SW5	SW6
1	Off	On
2	On	On
3	Off	Off
4	On	Off

QM50-B Series

CASAMBI ready, Isolated, Class 2, single output LED driver,
with Bluetooth communication

QM50 - DUAL OUTPUT LED DRIVER MODES OF OPERATION

MODE 1 FOR USE WITH MONOCHROME LED

- Using a single control.
- The single control is dimming level of both output simultaneously.
- The output current value selected will be for output Channel 1 & the same value for Output Channel 2.

OUTPUT						
OPERATION MODE - SELECTOR SWITCH			CONSTANT CURRENT OUT		CASAMBI CONTROL	
SW5	SW6	SW4	LED 1	LED 2	CONTROL 1	CONTROL 2
OFF	ON	ON - Dim to Minimum OFF - Dim to OFF	Enable	Enable	Enable dimming	Disable

Added feature: The ability to select from "Dim to Minimum" or "Dim to OFF".

MODE 2 FOR USE WITH MONOCHROME LED

- Using a dual control.
- Control work independently.
- The output current value selected will be for CTL1 - LED 1 & CTL2 - LED 2.

Added feature: the ability to select from "Dim to Minimum" or Dim to OFF"

OUTPUT						
OPERATION MODE - SELECTOR SWITCH			CONSTANT CURRENT OUT		CASAMBI CONTROL	
SW5	SW6	SW4	LED 1	LED 2	CONTROL 1	CONTROL 2
ON	OFF	ON - Dim to Minimum OFF - Dim to OFF	Enable	Enable	Enable dimming LED 1	Enable dimming LED 2

MODE 3 FOR USE WITH MONOCHROME LED

- Using a single control
- The single control provide dim to warm effect

The output current value selected to total current

OUTPUT						
OPERATION MODE - SELECTOR SWITCH			CONSTANT CURRENT OUT		CASAMBI CONTROL	
SW5	SW6	SW4	LED 1	LED 2	CONTROL 1	CONTROL 2
OFF	ON	N/A	Enable White LED	Enable Warm LED	Enable dim to warm	Disable
Factory Default Setting						

MODE 4 FOR USE WITH COB TUNABLE LED

- Using a dual controls
- Controls CCT & controls intensity

The output current value selected to total current

OUTPUT						
OPERATION MODE - SELECTOR SWITCH			CONSTANT CURRENT OUT		CONTROL	
SW5	SW6	SW4	LED 1	LED 2	CONTROL 1	CONTROL 2
ON	OFF	ON - Dim to Minimum OFF - Dim to OFF	Enable White LED	Enable Warm LED	Enable INTENSITY	Enable Color tuning