QZ-DW

24V DC Dynamic White LED Driver for Warm Dim Applications - 96W



- Designed for dual circuit, three-wire LED strips in warm dim applications
- Allows selection of the appropriate light by transitioning from cooler white to warm dim lower level
- Can be controlled via forward or reverse phase or 0-10V dimming
- Pulse Width Modulation (PWM) output for smooth flicker-free dimming
- Dimmer with a neutral is recommended for best performance when using phase control
- Universal primary input and provides a 24VDC output
- Capacity of 96 watts
- Listed for interior or exterior use

1 PRODUCT	2 WATTAGE	3 PRIMARY VOLTAGE	4 SECONDARY VOLTAGE	5 CONTROL	6 COLOR
QZ-DW	96W	UNV	24V	PH/010	BK

Sample Part Number: **QZ-DW-96W-UNV-24V-PH/010-BK**

1 PRODUCT
QZ-DW

2 WATTAGE
96W

3 PRIMARY VOLTAGE
UNV Universal (120-277V)

4 SECONDARY VOLTAGE
24V

5 CONTROL
PH/010 Phase or 0-10V dimming

6 COLOR
BK Black Powder Coat Finish

COMPATIBLE LEDS

STATIC WHITE

SW24/1.5-4.0 SW-DR24/1.5-4.0 SHLD-SW24/1.5-4.0 SW-SCOB24/1.5-4.0	
SW24/5.0, SW-HE, SW-HE+ SW-DR24/5.0, SW-HE-DR SHLD-SW24/5.0, SHLD-SW-HE SW-SCOB24/5.0	
SW-SD24/1.0-4.0	
SW-SD24/6.0	
SW-IA	
SW-XT	

OTHER

DW-HE Tunable Applications	
DW-HE Warm Dim Applications	✓
WD	
SC	
RGB	
RGBW, RGBW-HE	

SHEETS

Q-SHEETS SW	
Q-SHEETS DW Tunable Applications	✓
Q-SHEETS DW Warm Dim Applications	✓
Q-SHEETS RGB	
Q-SHEETS RGBW	

MICRO 5

MICRO 5-SW	
MICRO 5-DW Tunable Applications	
MICRO 5-DW Warm Dim Applications	✓
MICRO 5-RGB	

PRODUCT INFORMATION

- Vertical or horizontal surface mount
- Constant voltage output
- Dimming range: 0.1% - 100%
- Dimming:
  - Phase dimming: works with forward phase / leading edge, MLV and Reverse phase / trailing edge, ELV, TRIAC dimmers
  - 0-10V dimming
  - 1-10V dimming
  - 10V PWM
  - Potentiometer
- PWM (high frequency) output reduces visible flicker
- WET listed
- Only compatible with DW and DW-HE light engines
- Follows recommended practices of IEEE standard P1789 to mitigate flicker-induced health risks
- Suitable for dry, damp and wet locations
- Suitable for indoor & outdoor use
- Primary voltage - universal (110-277V)
- Wide operating temperature range: -40˚F to +140˚F
- UL, cUL listed
- Type HL rated
- Compliant to FCC 47 CFR Part 15 Subpart B
- 5 year warranty

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QZ-DW

24V DC Dynamic White LED Driver for Warm Dim Applications - 96W

VOLTAGE DROP CHART

Wiring from power supply to light fixture must be two conductor cable. To calculate the wire lengths at specific loads, use QTL's online voltage drop calculator at https://www.qtl.lighting/voltage-drop-calculator/

VOLTAGE DROP

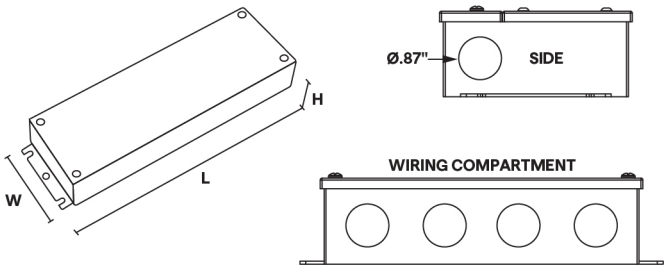
Distance from PS for 1% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	192	121	76	48	30	19	12	7	5
24	30	96	60	38	24	15	9	6	4	2
24	45	64	40	25	16	10	6	4	2	2
24	60	48	30	19	12	8	5	3	2	1
24	80	36	23	14	9	6	4	2	1	1
24	96	30	19	12	7	5	3	2	1	1

Distance from PS for 3% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	577	362	228	143	90	57	36	22	14
24	30	288	181	114	72	45	28	18	11	7
24	45	192	121	76	48	30	19	12	7	5
24	60	144	91	57	36	23	14	9	6	4
24	80	108	68	43	27	17	11	7	4	3
24	96	90	57	36	22	14	9	6	4	2

Distance from PS for 5% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	961	604	380	239	150	95	59	37	24
24	30	480	302	190	120	75	47	30	19	12
24	45	320	201	127	80	50	32	20	12	8
24	60	240	151	95	60	38	24	15	9	6
24	80	180	113	71	45	28	18	11	7	4
24	96	150	94	59	37	23	15	9	6	4

1 PRODUCT - DIMENSIONS

Size	Length (in)	Width (in)	Height (in)
96W	8.60	4.92	1.63



2 TECHNICAL INFORMATION

Wattage	Primary Voltage	Secondary Voltage	Secondary Current
96W	110-277V	24VDC	2x2 A

NOTE: Only compatible with DW and DW-HE light engines

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QZ-DW

24V DC Dynamic White LED Driver for Warm Dim Applications - 96W

SPECIFICATIONS

Input	
Input Voltage (Vrms)	110-277V
Input Current, max (Arms)	3.3A @ 110V
Inrush Current, max* (Apk)	54A@277V
Input Frequency (Hz)	50/60
Input Power (W)	108

Output	
Output Voltage, nom (V)	24
Output Current (A)	4A @ 24V
Output Power (Wmax)	96W

Environmental	Min	Nom	Max
THD (%)	-	-	20
PF (%)	0.95	-	-
Working Temp (°F)	-	-	140

*-200us event

PROTECTIONS

- Short Circuit Protection (SCP)
- Over Loading Protection (OLP)
- Over Temperature Protection (OTP)
- I/P-O/P: 1.88KVAC
- I/P-O/P: 100MΩ / 500VDC / 77°F / 70%RH

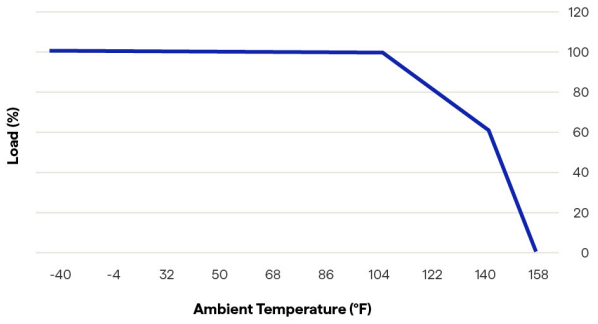
COMPLIANCE

- EMI/RFI
  - FCC 47 CFR Part 15 Subpart B
- Certified
  - UL8750

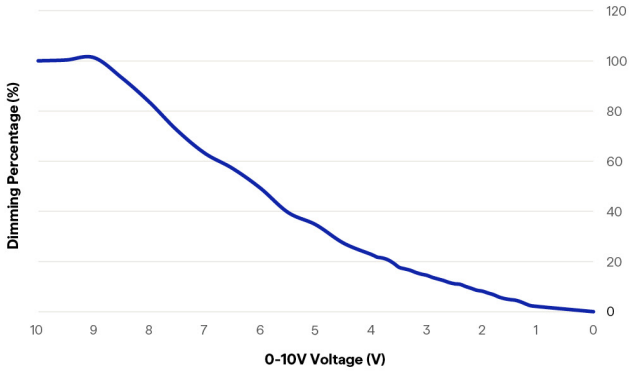
6 COLOR

Black Powder Coat Finish

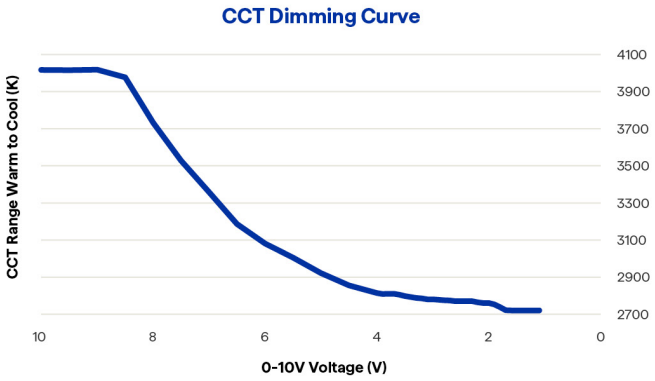
Derating Curve



PH-010 QZ Dimming Curve



CCT Dimming Curve

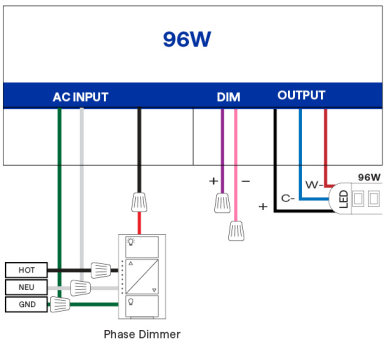


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QZ-DW

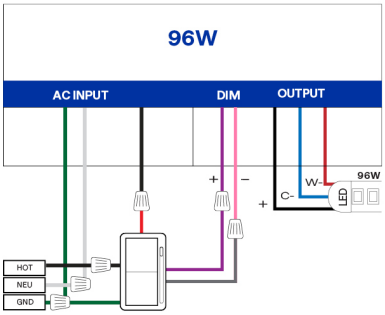
24V DC Dynamic White LED Driver for Warm Dim Applications - 96W

PHASE DIMMING



Phase Dimmer

0-10V DIMMING



Wiring from power supply to light fixture must be three conductor cable

COMPATIBLE WIRING ACCESSORIES

CON FOUR-FER



Splits lead from one to four LED Con connectors DRY/DMP/WET

CON120-EXT



10ft Con cable extender DRY/DMP/WET

COMPATIBLE CONTROL ACCESSORIES

SCENE APP DONGLE



Wi-Fi or Bluetooth Connectivity

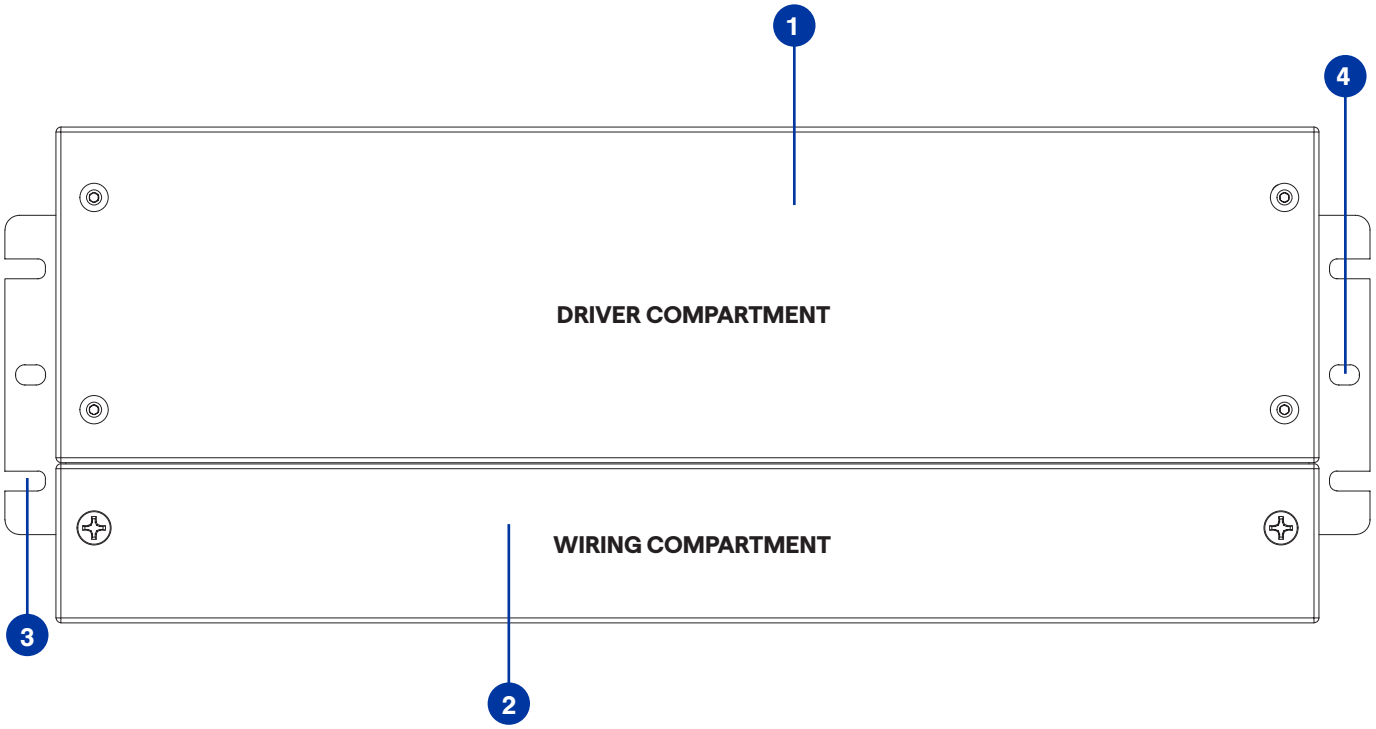
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Specification subject to change. Rev-08-24-26

INSTALLATION

LED POWER SUPPLY - QZ-DW

TOP VIEW



QZ-DW Components

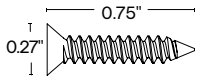
1. Driver Compartment
2. Wiring Compartment
3. Mounting Tab Slots
4. Mounting Tab Holes

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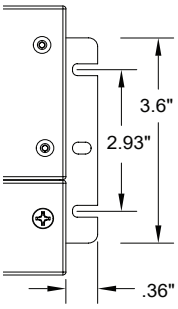
INSTALLATION

LED POWER SUPPLY - QZ-DW

Required Hardware

#6 Flat head screw	

Mounting Foot:

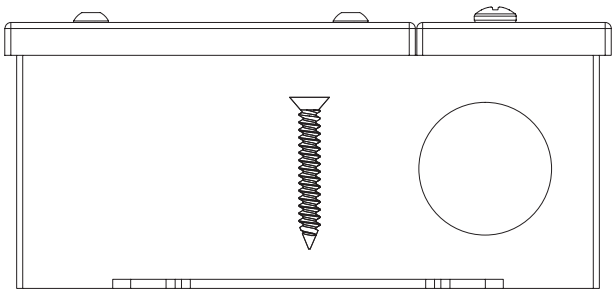


96W

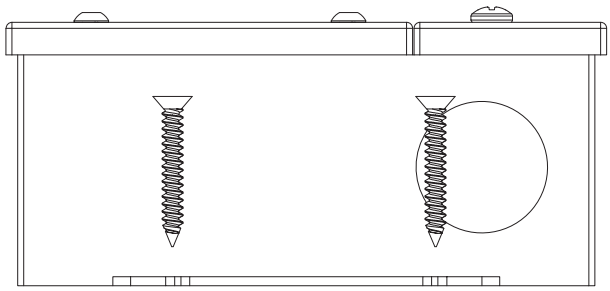
Mounting

1. The QZ-DW can be mounted either vertically or horizontally, utilizing the supplied screws and the mounting tabs on the bottom of the enclosure

CENTER HOLE

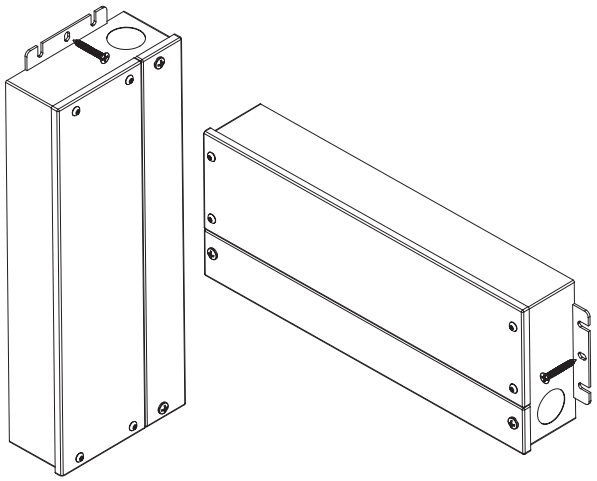


SIDE SLOTS

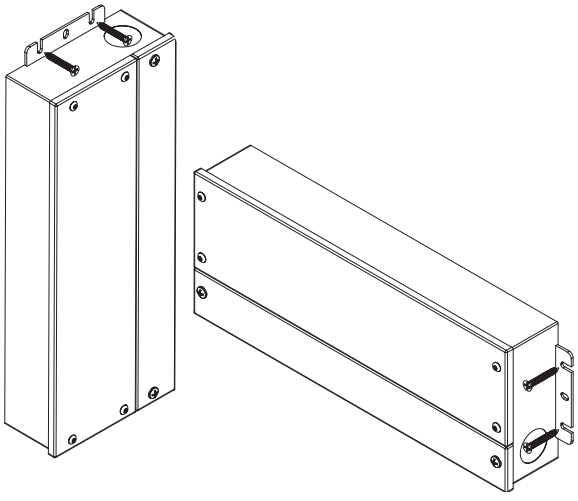


2. The QZ-DW must be mounted into a stud for sufficient support, using either the center holes or the slots of each mounting tab

CENTER HOLE



SIDE SLOTS

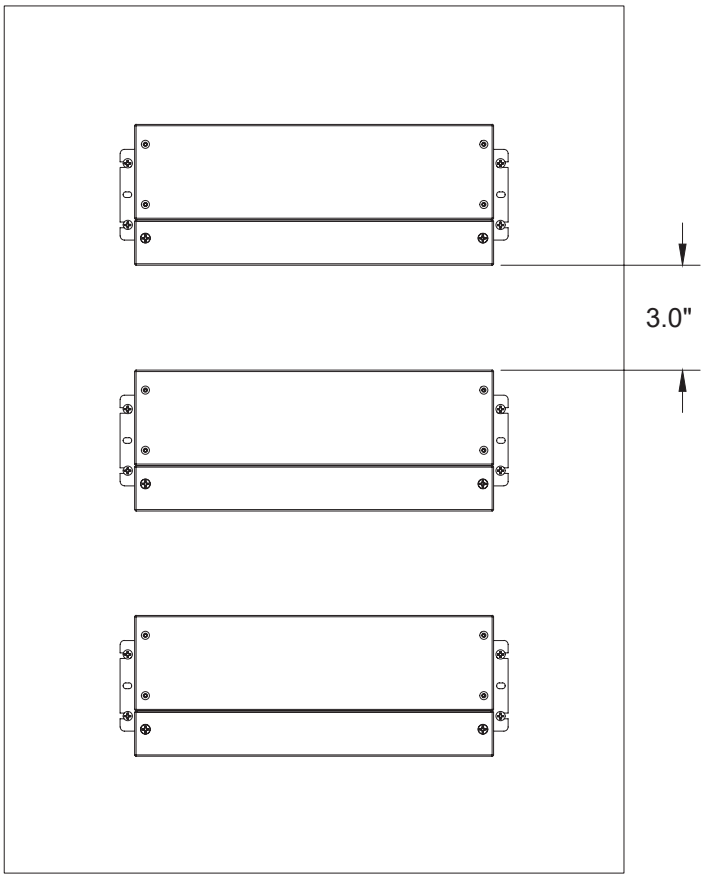


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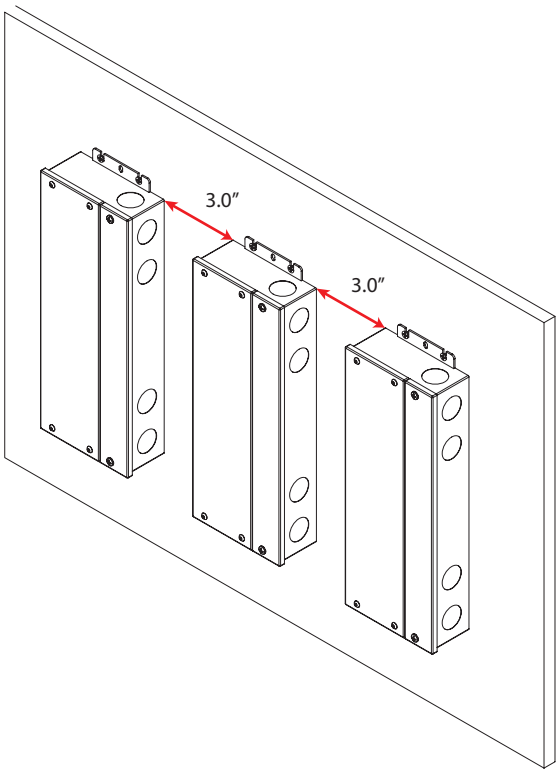
INSTALLATION

LED POWER SUPPLY - QZ-DW

3 When installing multiple QZ power supplies, seperate the enclosures by 3" of space from edge to edge. This prevents the rise of ambient temperature between the power supplies.



Horizontal mount illustrated above



Vertical mount illustrated above

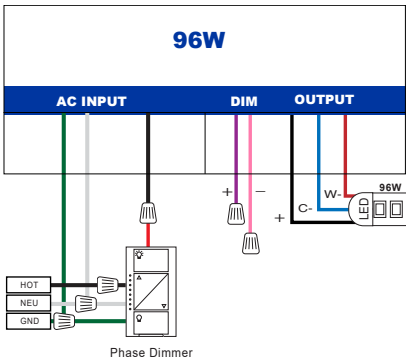
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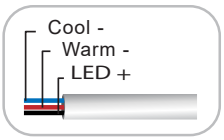
INSTALLATION

LED POWER SUPPLY - QZ-DW

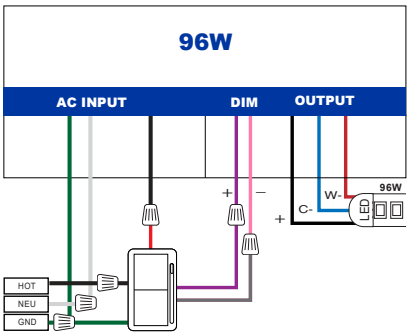
4 Wiring diagram

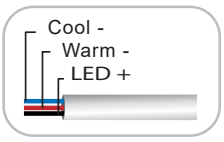
Phase Dimming





0-10V Dimming





Wiring from power supply to light fixture must be three conductor cable

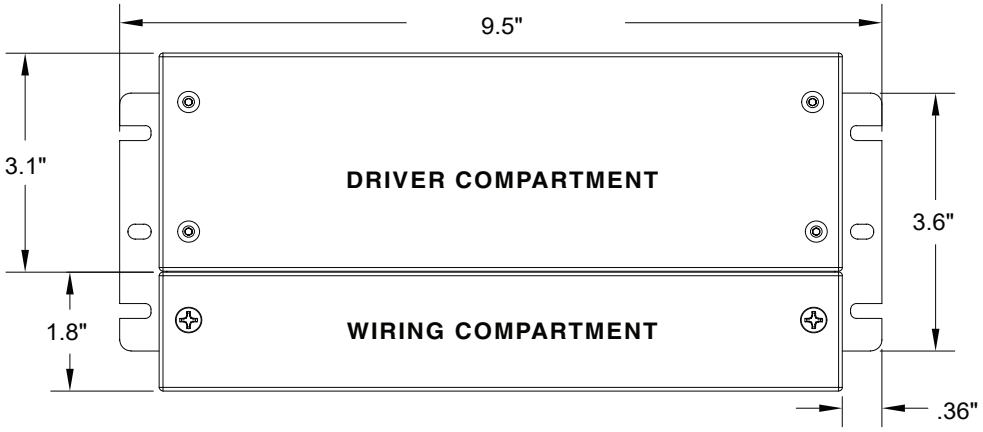
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INSTALLATION

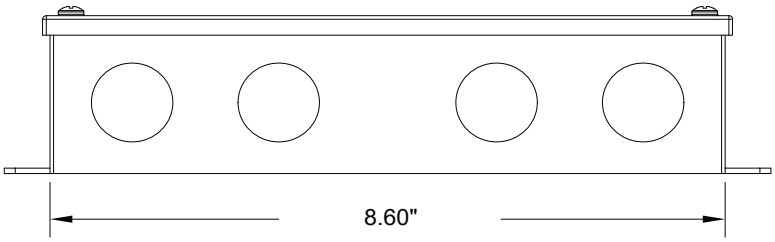
LED POWER SUPPLY - QZ-DW

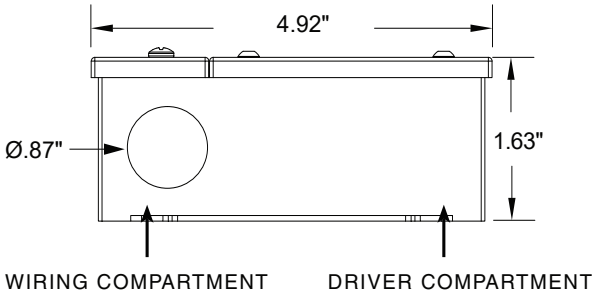
QZ-DW 96W

TOP VIEW



WIRING COMPARTMENT VIEW





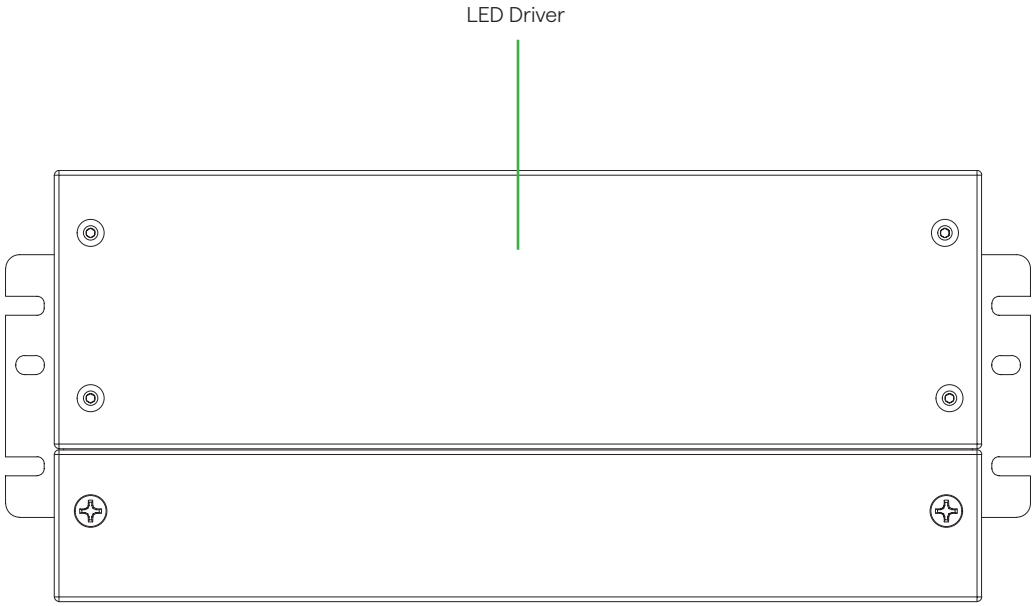
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MATERIAL RECYCLING

QZ FAMILY

You may be done with your products, but chances are they still have more to give. Follow these instructions to break down and sort recyclable components. Check with local recycling collection to ensure they accept the materials listed below.

Additionally, Q-Tran offers a Takeback Program. Contact factory for information.



QZ-96W shown

E

LED Drivers

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