



# QTM-eLED+DMX

## 24V DC Power Supply - 100W-300W



- DC power supply designed for DMX lighting control applications
- Utilizes a 100W constant voltage LED Driver from Thomas Research
- Uses the LINEARdrive DMX decoder from eldoLED
- Available in 100-300 watt capacity
- Provides plenty of flexibility and comes with all modules prewired together with terminal blocks for landing your LED and control wires.
- Housing can be recessed or surface mounted

1 PRODUCT	2 WATTAGE	3 PRIMARY VOLTAGE	4 SECONDARY VOLTAGE	5 CONTROL	6 COLOR
QTM-eLED		UNV	24VDC	DMX	

Sample Part Number: QTM-eLED-100W-UNV-24VDC-DMX-WH

1 PRODUCT QTM-eLED	2 WATTAGE 100W 200W 300W	3 PRIMARY VOLTAGE UNV Universal (120-277V)	4 SECONDARY VOLTAGE 24VDC
5 CONTROL DMX	6 COLOR WH White (Standard) BK Black Powder Coat Finish		

## COMPATIBLE LEDS

### STATIC WHITE

SW24/1.5-4.0	
SW24/5.0, SW-HE, SW-HE+	
SD-SW24/1.0-4.0	
SD-SW24/6.0	
SW-1A	
SW-XT	

### OTHER

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

If using DW LED, wattage must be doubled

### SHEETS

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

If using DW LED, wattage must be doubled

### MICRO 5

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

If using DW LED, wattage must be doubled

## PRODUCT INFORMATION

- Limited output voltage and current, plus isolation for safe operation
- Controllable with DMX decoder module
- DMX dimming down to 0.1%
- Fully potted driver(s) for moisture resistance
- Suitable for dry and damp locations
- Suitable for surface or recessed mounting use
- Primary voltage - universal (120-277V)
- Wide operating temperature range: -4°F to 122°F
- Fits up to (3): 100W 24 VDC driver(s) and DMX decoder module(s)
- 5 year warranty
- Driver has Class A sound rating
- Class 2 output
- CSA #239924
- Low Voltage Lighting Systems
  - CSA class 3425-15 and class 3425-95
  - CSA standard C22.2 No. 250.0-08 - Luminaires
  - ANSI/ UL standard 2108 - Low voltage lighting systems
  - CSA standard C22.2 No 250.13-14 - Light emitting diode (LED) equipment for lighting applications
  - ANSI/ UL standard 8750 - Light emitting diode (LED) equipment for use in lighting products



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### VOLTAGE DROP CHART

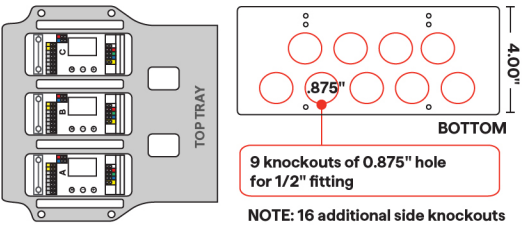
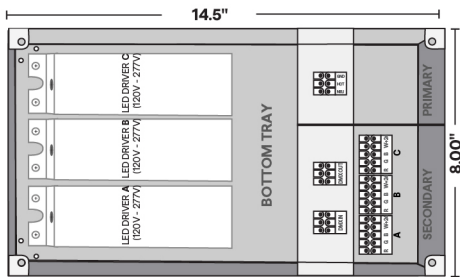
This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved

VDC	Load (W)	Distance from PS for 5% Voltage Drop								
		10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	17	848	533	336	211	133	84	53	33	21
	25	577	363	228	143	90	57	36	22	14
	40	360	227	143	90	56	36	22	14	9
	80	180	113	71	45	28	18	11	7	4
	100	144	91	57	36	23	14	9	6	4

VDC	Load (W)	Distance from PS for 3% Voltage Drop								
		10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	17	509	320	201	127	80	50	32	20	13
	25	346	218	137	86	54	34	21	14	9
	40	216	136	86	54	34	21	13	8	5
	80	108	68	43	27	17	11	7	4	3
	100	87	54	34	22	14	9	5	3	2

VDC	Load (W)	Distance from PS for 1% Voltage Drop								
		10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	17	170	107	67	42	27	17	11	7	4
	25	115	73	46	29	18	11	7	5	3
	40	72	45	29	18	11	7	5	3	2
	80	36	23	14	9	6	4	2	1	1
	100	29	18	11	7	5	3	2	1	1

### 1 PRODUCT - DIMENSIONS



### HOUSING

- 18 gauge welded steel enclosure: 14.5"W x 8.00"H x 4.00"D

### 2 TECHNICAL INFORMATION

Wattage	Max Load (Watts)	Secondary Voltage	Max Prim Amps @ 120V	Max Prim Amps @ 277V
100W	1x100W	24VDC	0.95A	0.40A
200W	2x100W	24VDC	1.90A	0.80A
300W	3x100W	24VDC	2.85A	1.20A

### PERFORMANCE

- Rated for surface mount or recessed use



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- Door: 15.5"W x 9.00"H
- Knockouts: 25
- Built-in support bracket incorporated to secure housing for surface mounting

- Fully rated to operate low voltage load at listed wattage (No derating required)
- Voltage regulation to 2% or less of rated output voltage
- The ability to be dimmed using DMX dimming
- Universal input range of 120-277 Vrms
- Low Voltage Lighting Systems
  - CSA Class 3425-15 and Class 3425-95
  - Short circuit protection (SCP)
  - Over voltage protection (OVP)
  - Over current protection (OCP)
  - Live tested by the manufacturer to ensure proper operation
- Terminal blocks are made of tin plated copper with a voltage rating of 300V and a current rating of 40A

## SPECIFICATIONS

Input	24VDC		
Input Voltage (Vrms)	120	230	277
Input Current, max (Arms)	0.98	0.51	0.43
Inrush Current, max* (Apk)	-	20	-
Input Frequency (Hz)	50/60		
Input Power (Wmax)	117		

Output	RGB	RGBW
Output Voltage, nom (V)	24	24
Output Current (A) per channel	14	1.0
Output Power (Wmax)	100	100
Output Power (Wmax) per channel	60	60

Environmental	Min	Nom	Max
THD (%)	-	-	20
PF (%)	0.90	-	-
Case Temp (°F)	-	-	90

\*-200us event

## PROTECTIONS

- Short Circuit Protection (SCP)
- Over Voltage Protection (OVP)
- Over Current Protection (OCP)
- Class 2 Output

## 6 COLOR



Black Powder  
Coat Finish

White  
(Standard)

## COMPLIANCE

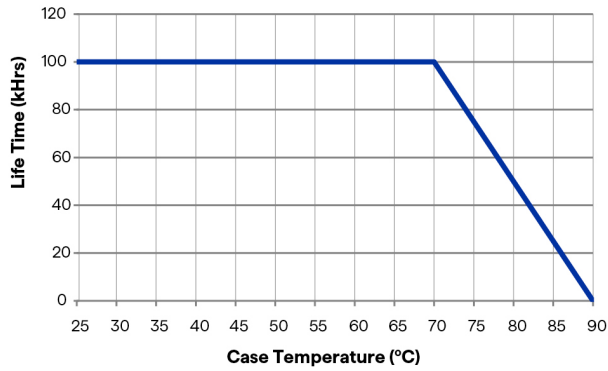
- EMI Spec
  - FCC 47 Part 15
  - EN61000-3-2
- CSA Certified
  - UL-2108
  - UL-8750
  - CSA C22.2 No 250.0-08
  - CSA C22.2 No 250.13-14



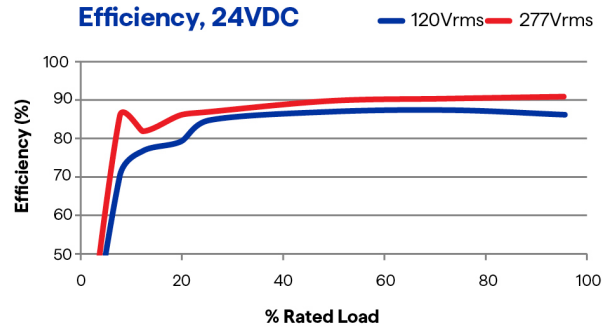
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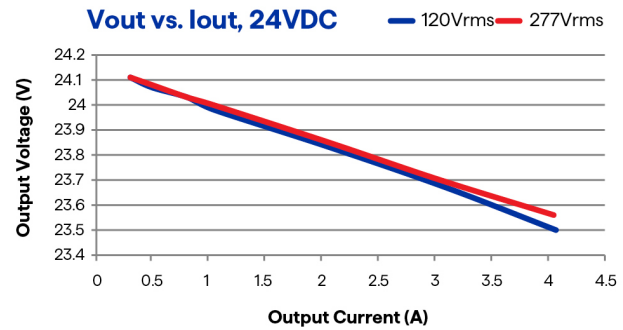
Life Time vs. Case Temperature



Efficiency, 24VDC



Vout vs. Iout, 24VDC

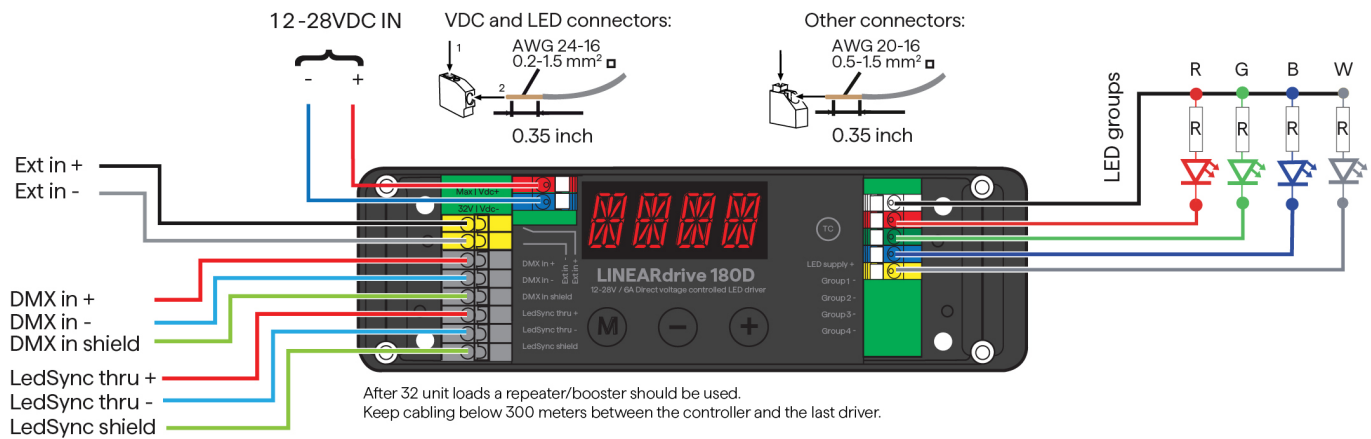




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### WIRING DIAGRAM



#### 12V - 28V DC IN

- To connect the driver to a DC power supply unit (PSU), connect the PSU's positive voltage supply wire to the VDC+ connector and the PSU's negative voltage supply wire to the VDC- connector.

#### EXT IN

- You have the possibility to connect an external control device (0-10V control device, 10kΩ potentiometer or show selection switch) to the driver's Ext in+ and Ext in - connector. Configure the driver for use with an external control device over the 3 - button user interface.

#### DMX IN/LEDsync OUT

- Use these connectors when the driver is used in a DMX network. For DMX in, connect the network cable's DMX+, DMX- and DMX shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the DMX in+, DMX in- and DMX in shield connector respectively. For LedSync out, connect the network cable's DMX+, DMX- and DMX shielding wire to the LedSync out+, LedSync out- and LedSync shield connector respectively. DMX Shield must be grounded to Earth ground at a single point external to power supply

#### LED GROUPS

- Indicates the location of the connectors for your LED groups. R(ed) represents channel 1, G(reen) represents channel 2, B(lue) represents channel 3 and W(hite) represents channel 4. The default group color allocation can be changed over the 3-button user interface.

### COMPATIBLE CONTROL ACCESSORIES

#### DMX-US1



DMX-based controller

#### DMX-US3



DMX-based controller

#### UX8



Easy-to-use DMX-based controller

#### IQ-DMX-STICK-CW4



DMX controller for changing color & dimming

#### IQ-DMX-STICK-DE3



DMX controller for changing color & dimming

#### IQ-DMX-STICK-GA2



DMX controller for changing color & dimming