



Thomas Research Products

SSL Solutions Faster Than The Speed Of Light®

LED-12W Series

Switch Mode LED Drivers

Constant Current & Constant Voltage with Isolation

Black Magic Thermal Advantage™ Plastic Housing

Total Power: 12 Watts

Input Voltage: 100-277 Vac

Outputs: Single from 6-48 Vdc

Indoor or Outdoor Applications, IP66

High Power Factor

UL1310, Class 2 and UL48 Compliant

Electrical Specifications

Input Voltage Range:	100-277 Vac Nom. (90-305 V Min/Max)
Frequency:	50/60 Hz Nom. (47-63 Hz Min/Max)
Power Factor:	>0.90 @ 120V, >0.75 @ 277V
Inrush Current:	<15.0 Amps max @ 230 Vac, cold start 25°C
Input Current:	0.15 Amps max at 120 Vac
Maximum Power:	12W
Current Accuracy:	± 1% (when applicable)
Load Regulation:	± 3%
THD:	≤ 20% @ 120 Vac, ≤ 35% @ 277 Vac
Leakage Current:	300 µA Typical
Hold Up Time:	Half Cycle
Protection:	Output Over-Voltage, Output Over-Current, and Output Short Circuit Protection with Auto Recovery

Environmental Specifications

Operating Temperature:	-30°C to +60°C
Storage Temperature:	-40°C to +85°C
Maximum Case Temp.	90°C
Humidity:	5% to 95%
Cooling:	Convection
Vibration Frequency:	5 to 55 Hz/2g, 30 minutes
Sound Rating:	Class A
MTBF:	>550,000 Hours at full load & 40°C ambient conditions per MIL-217F Notice 2
EMC:	Compliant to CISPR 22 Class B, CISPR 14-1 Class B, GB4343 1-2003, GB17625.1-2003
Weight:	4.5 oz. (128 g)



Constant Current - Product Specifications

Model Number	Output Current (mA ±5%)	Output Voltage Range (Vdc)	Max. Output Power (W)	Typical Efficiency
LED12W-48-C0250	250	24-48	12	82%
LED12W-36-C0350	350	18-36	12.6	81%
LED12W-24-C0350	350	12-24	8.2	80%
LED12W-24-C0500	500	12-24	12	80%
LED12W-16-C0700	700	8-16	11.2	79%
LED12W-16-C0800	800	8-16	12.8	79%
LED12W-12-C1000	1000	6-12	12	78%

Constant Voltage - Product Specifications

Model Number	Output Voltage (Vdc ±5%)	Output Current Range (mA)	Max. Output Power (W)	Typical Efficiency
LED12W-48	48	63-250	12	82%
LED12W-36	36	88-350	12.6	81%
LED12W-24	24	125-500	12	80%
LED12W-16	16	200-800	12.8	79%
LED12W-12	12	250-1000	12	78%

Class 2: US/Canada US Only



Note:

LED drivers are designed and intended to operate LED loads only. Non-LED loading may be outside the specified design limits of our LED driver, and therefore cannot be covered by any warranty. If you desire to use our LED drivers to operate non-LED loads please contact us to discuss compatibility.

Specifications subject to change without notice.

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