

**L.T.F.**

Dual Channel LED Driver for CCT Tunable LEDs



50W DS50W-LT-0060 Dual Channel 1200mA Constant Current Series



Typ. Efficiency	86%
Power Factor	> 0.90
Case Tc	90°C Max.
Protection	Input / Output
Storage	-34°C / +80°C
Humidity	95% RH Max.
Class	Class 2 Power Supply
Dimming	0-10V, PWM
IP Rating	IP20

**RoHS**

FEATURES

- Dual channel output for color mixing applications.
- Universal input voltage - 120-277V AC 50/60Hz.
- 0-10V or PWM dimmable.
- 0.1% - 100% dimming range.
- Title 24 / JA10 Standard.
- Auxiliary 12V DC / 0.1A output.
- Efficient, high power factor > 0.90.
- Class 2 power supply.
- UL recognized/ listed, meets UL 8750, 1310 requirements.
- Aluminum casing for optimal heat dissipation.
- Isolated output power per NEC and UL safety requirements.
- Auto-reset, short circuit, over current and over voltage protection.
- 5 Year Warranty (at Tc ≤ 85°C).



MODEL NUMBER KEY

DS		50W		1200C		2042		LT		LI5		-0060
DS Series (120-277V AC, 50/60Hz)		Wattage		Constant Current Output (1200mA)		Output Voltage Range (20V-42V DC)		2 Channel for Color Tuning LEDs		Form Factor		Internal Code

GENERAL SPECIFICATIONS

Model #	Input	Wattage	Output Channels	Constant Current Output	Load	Dimming
DS50W1200C2042LTI5-0060	120-277V AC, 0.5A 60Hz	50W	2 Channel for Color Mixing	1200 mA	20V - 42V DC LED	0-10V, PWM

L.T.F., L.L.C. PHONE: (847) 498-5832 FAX: (773) 337-5628 EMAIL: LTFsales@ltftechnology.com

Company's Address: 11966 Oak Creek Pkwy. Unit H Huntley IL 60142 U.S.A. www.ltftechnology.com

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ELECTRICAL SPECIFICATIONS

Output	DC Voltage Range	20-42V DC
	Constant Current	1200mA
	Rated Power	50W
	Ripple Current < 120Hz	<2%
	Current Tolerance	±5%
	Line Regulation	±1.0%
	Load Regulation	±5.0%
	Setup Time	1s / 277VAC at full load
Input	Voltage Range	108~305VAC
	Frequency Range	47~63Hz
	Power Factor (typ.)	PF>0.98/120VAC.PF>0.92/277VAC at full load
	Total Harmonic Distortion	THD<20% when output loading >=75% at 277VAC input
	Efficiency (typ.)	>80%
	AC Current (typ.)	0.3A/120VAC, 0.14A/277VAC
	Inrush Current (typ.)	Cold Start 60A
	Leakage Current	<0.75mA/277AC
Protection	Over Current	Current limiting,recovers automatically after fault condition is removed
	Over Load	Power limiting,recovers automatically after fault condition is removed
	Short Circuit	Hiccup mode,recovers automatically after fault condition is removed
	Over Temperature	Protection type:Shut down o/p voltage.re-power on to recover
Environment	Working Temp.	-40~+60°C
	Max. Case Temp. (Tc)	90°C
	Storage Temp.	-40~+80°C
	Humidity	10~95% RH
	Temp. Coefficient	±0.03%/°C(0~50°C)
	Location	Dry and Damp Location
Safety & EMC	Safety Standards	UL8750
	Withstand Voltage	2500V AC
	Isolation Resistance	10M
	EMC Emission	FCC PART 15A
	Surge	1KV DM, 2KV CM
Other	Rated Lifetime	50,000Hrs



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TESTING DATA

Figure 1

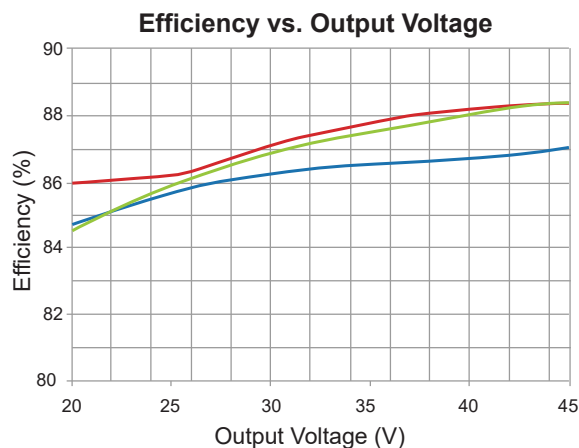


Figure 2

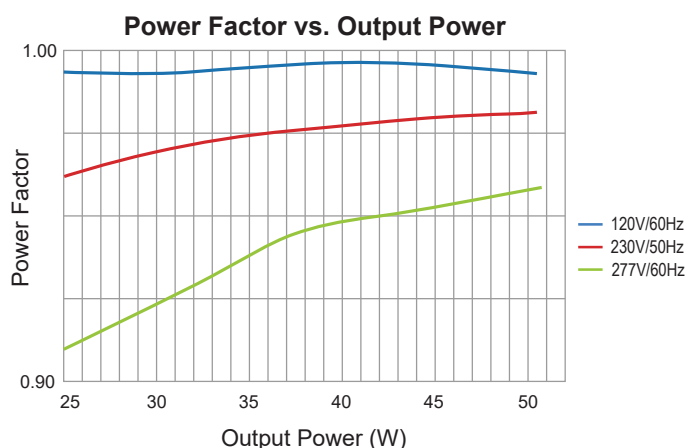


Figure 3

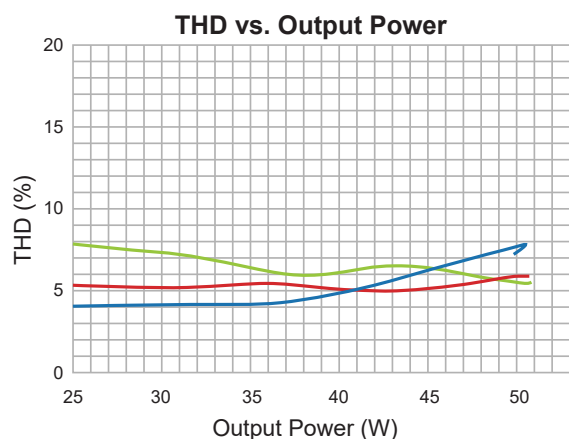


Figure 4

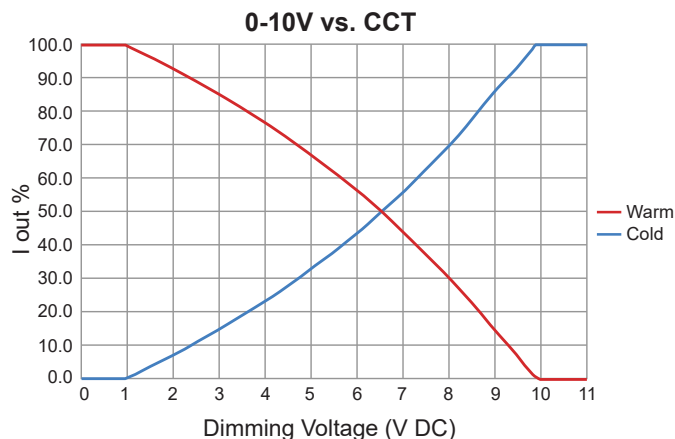


Figure 5

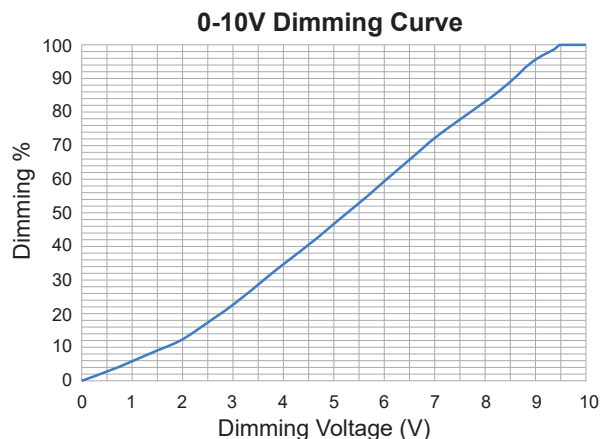
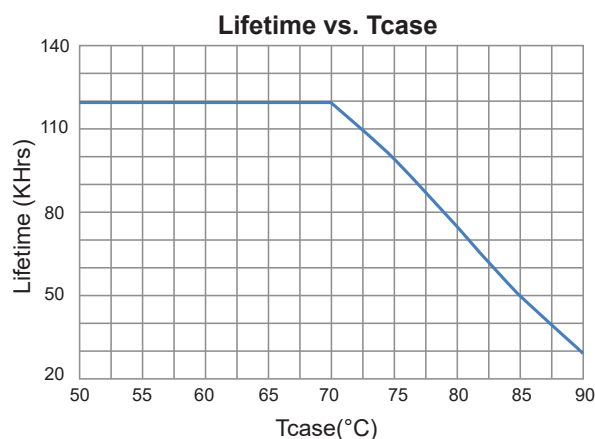


Figure 6





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Dual Channel LED Driver for CCT Tunable LEDs

**50W DS50W-LT-0060 Dual Channel
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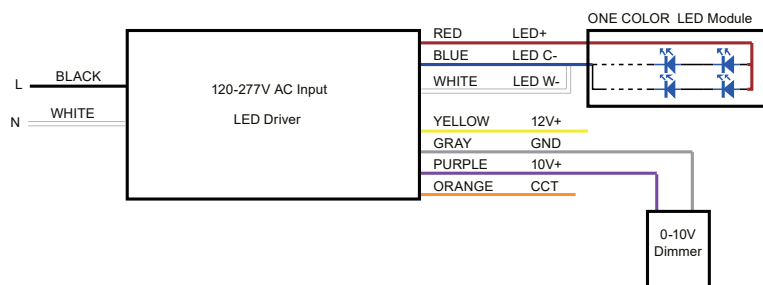
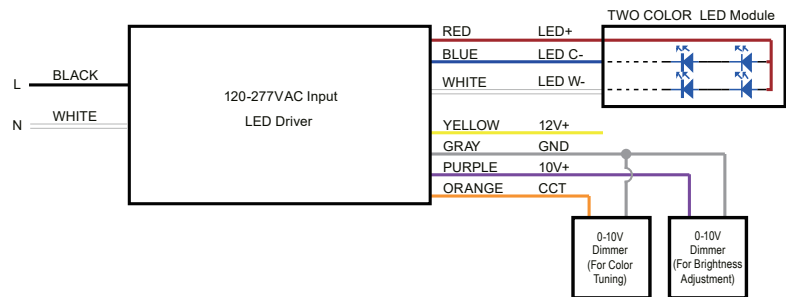
TITLE 24 / JA10 TEST DATA

Frequency Filter	Percent Amplitude Modulation (%)		
	100% Dim Level	20% Dim Level	10% Dim Level
Unfiltered	0.52%	19.46%	16.04%
1000Hz	0.03%	1.29%	4.39%
400Hz	0.02%	1.19%	1.48%
200Hz	0.01%	1.12%	0.60%
90Hz	0.01%	0.56%	0.29%
40Hz	0.00%	0.39%	0.20%

WIRING DIAGRAMS

INPUT SIDE	LENGTH
BK (L)	220mm (8.66")
WH (N)	220mm (8.66")

OUTPUT SIDE	LENGTH
RED (LED +)	220mm (8.66")
BLUE (LEDC -)	220mm (8.66")
WHITE (LEDW -)	220mm (8.66")
PURPLE (10V +)	220mm (8.66")
GRAY (10V -)	220mm (8.66")
ORANGE (CCT)	220mm (8.66")
YELLOW (12V +)	220mm (8.66")



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MECHANICAL SPECS

Form Factor	Dimensions
"LI5"	240 (210.5) x 27 x 25mm

LI5

