52W Constant Current LED Drivers with Triac/ELV Dimming

Autec's L4WTC052 series family of products offers constant current drivers with wide-range dimmable output current and 90~305Vac universal input.

The output current of this series is up to 1.0/1.1/1.2/1.3A with DIP switch current setting (-HP version), and designed for Triac/ELV dimming applications.

Applications

- Indoor LED lights
- LED lights with flexible current settings
- Downlights, spotlights, LED panels

Specifications

Input Voltage	Output Power	Output Voltage	Output Current	Efficiency	Max. Case Temperature	Max. Input Current	Max. Input Power	THD	Power Factor
90~305Vac	52W	28V … 52V	1.0A … 1.3A	85%	90°C	0.72A	65W	<20%	>0.95

* Based on 25°C ambient temperature, rated input voltage, and full load.

** Refer to Page 2 for detailed specifications for this series of LED drivers.

Features

- 100,000 hours lifetime at 65°C Tcase
- 5 years warranty at 50°C Tcase
- Constant current output
- Compatible with Triac/ELV dimming
- Output current settable with DIP switches (TS version)
- Universal input voltage: 90~305Vac
- Safety according to UL1310 & EN61347-2-13
- UL Class 2 Output
- EMC according to FCC Part 15 Class B
- Lightning, OVP, SCP, OTP & Open Circuit Protection

Enclosure

	mm (inch)
Case Length	95 (3.74)
Case Width	70 (2.76)
Case Height	32 (1.26)
Mounting Length	85 (3.35)
Overall Length	95 (3.74)

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Electrical Specifications

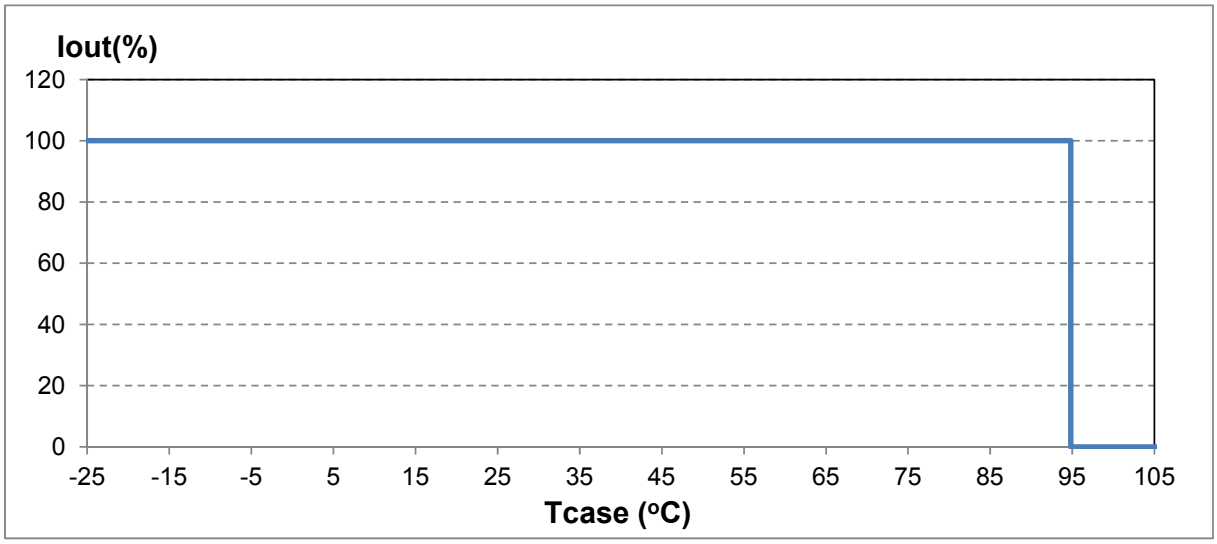
L4WCT052S130PS-P is selectable output version

Model	L4WCT052S100PS	L4WCT052S110PS	L4WCP052S120PS	L4WCP052S1300PS	L4WCP052S130PS-P
Output Voltage	28~52V	28~48V	28~42V	28~40V	28~52/28~48/28~42/28~40V
Output Current	1000mA	1100mA	1200mA	1300mA	1000/1100/1200/1300mA
Dimming	Triac/ELV	Triac/ELV	Triac/ELV	Triac/ELV	Triac/ELV
Current Setting DIP Switches	No	No	No	No	Yes
Output Power	52W	52W	52W	52W	52W
Max. Current Ripple	±30%	±30%	±30%	±30%	±30%
Voltage Range	90~305Vac	90~305Vac	90~305Vac	90~305Vac	90~305Vac
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Max. Input Current	0.72A	0.72A	0.72A	0.72A	0.72A
Max. Input Power	65W	65W	65W	65W	65W
Power Factor	>0.95 @ 115Vac & 80~100% load, >0.90 @ 277Vac & 80~100% load				
Efficiency	84%	84%	84%	84%	84%
Max. Open Circuit Voltage	60V	60V	60V	60V	60V
THD	<20% @ 120Vac & 80~100% load				
Protections	OVP, OTP, OCP, SCP				
Environmental Protection	UL Dry & Damp				
Working Temperature	-20~+60°C				
Max. Case Temperature	90°C				
Surge Protection	1kV				
Agency Approbations	UL1310 Class 2				
Electromagnetic Compliance	Per Title 47 CFR Part 15 Class B				
Ansi Surge Type	1.2/50μs Combination Wave (w/t 2Ω)				
Isolation	Primary to Secondary: 3750Vac / 10mAMax / 60seconds				
Dimension	95x70x32 mm (3.74x2.76x1.26 inch)				
Mounting Length	85 mm (3.35 inch)				
Overall Length	95 mm (3.74 inch)				
Weight	0.34 kg (0.75 lb)				
Life Time	100,000 hours @ full load, 65°C Tcase				

* Unless otherwise noted, the data are based on 25°C ambient temperature, 230Vac input voltage, and full load.

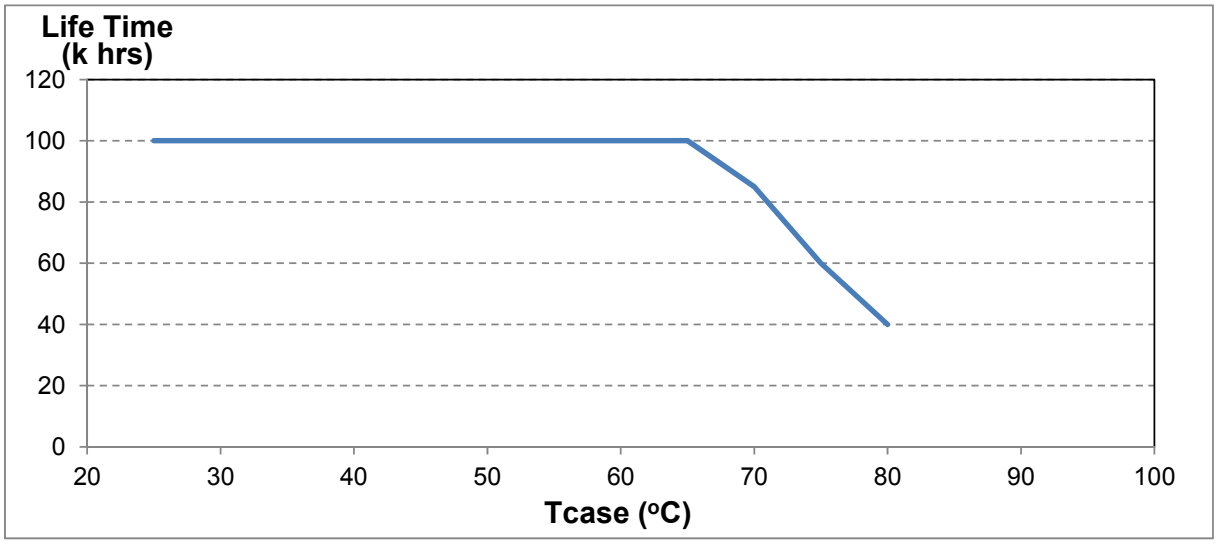
Electrical Specifications

Output Current vs. Case Temperature (with ±5°C Tolerance)



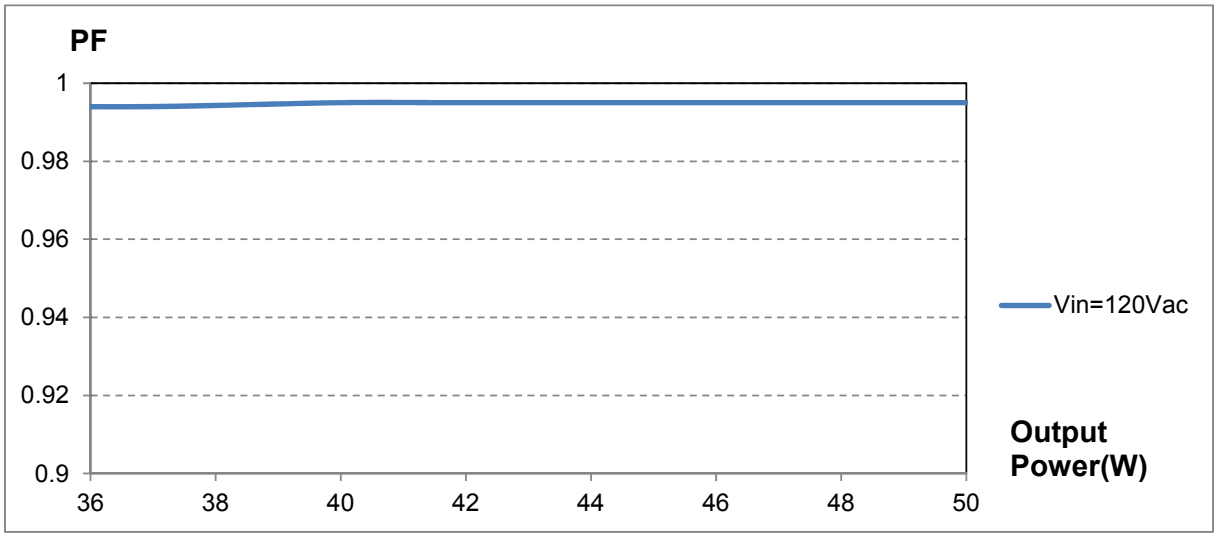
Performance Characteristics (Tested with L4WCT052S130PS)

Life Time vs. Case Temperature

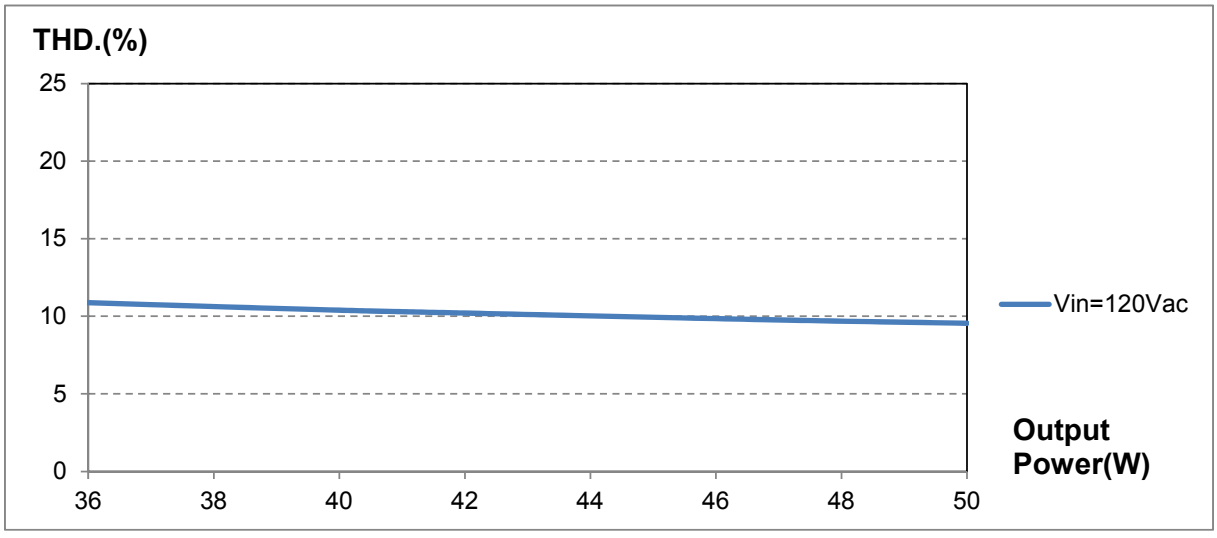


Performance Characteristics (Tested with L4WCT052S130PS)

Power Factor vs. Output Power (@ 25ºC)

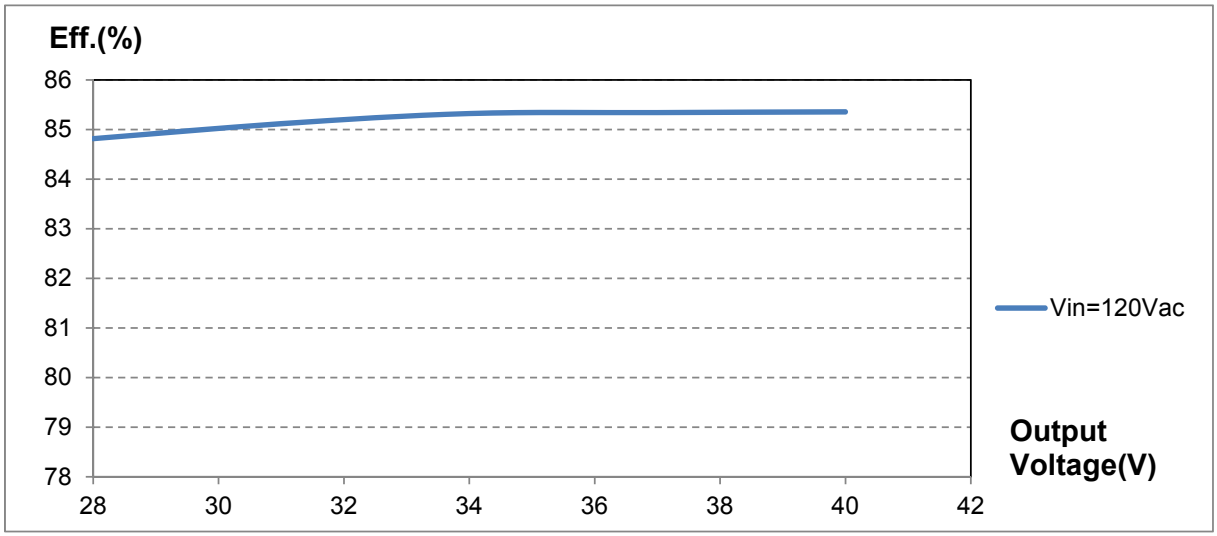


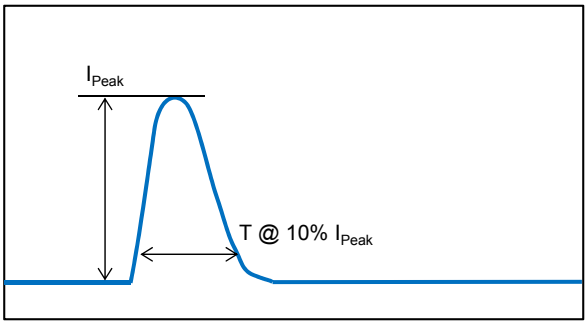
THD vs. Output Power (@ 25ºC)



Performance Characteristics (Tested with L4WCT052S130PS)

Inrush Current
Efficiency vs. Output Voltage (@ 25°C)





V_{in}	I_{peak}	T
90 Vac	0.72 A	293 us
115 Vac	0.98 A	293 us
230 Vac	2.56 A	221 us
305 Vac	3.08 A	195 us

UL Certification

Meet UL