N009 BUCKTITAN

High Output LED Driver

PRODUCT OVERVIEW

The N009 LUXdrive BuckTitan is a high-performance line of LED drivers designed for applications requiring currents up to 3 amps. Featuring a compact, fully potted form factor, it offers flexible connectivity options with either wire connections or SIP pins. Additionally, the BuckTitan supports 5V PWM dimming, providing precise control over lighting intensity.

Product		N009		
General	Topology	Buck		
	Input Connection	Red (V+) / Black (V-)		
	Output Connection	White (LED +) / Blue (LED -)		
	Dimming Connection	Yellow (+)		
Electrical	Input Voltage	6 Vdc (min)		30 Vdc (max)
	Input Margin	(Vin - Vout) ≥ 2 Vdc		
	Output Current (mA)	1500, 2000, 2500, 2900		
	Output Tolerance	±10%		
	Efficiency	up to 95%		
	Quiescent Current	< 1mA		
Dimming	PWM Voltage	3.3 Vdc (min)		12Vdc (max)
	Frequency	100 Hz (min)		500 Hz (max)
Environment	Operating Temp (Tcase)	-40 to 80° C		
	Storage Temp	-40 to 125° C		
Mechanical	Connection	6” 18 gauge wire, or Pins		
	Dimension	1.8” x 1.1” x 0.63”		
	Weight	Pinned 1.1 oz (31 g), Wired 1.5 oz (42 g)		
Regulatory	Compliance	RoHS 3 (EU 2015/863)		
	Warranty	LEDdynamics Warranty		

* All specificatons subject to change without prior notification.

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Ordering Information

PRODUCT FAMILY	PART NUMBER	DESCRIPTION
BuckTitan	N009-1500-P-D	BuckTitan, 1500mA, Pinned Connection, PWM Dimming
	N009-1500-W-D	BuckTitan, 1500mA, Wire Connection, PWM Dimming
	N009-2000-P-D	BuckTitan, 2000mA, Pinned Connection, PWM Dimming
	N009-2000-W-D	BuckTitan, 2000mA, Wire Connection, PWM Dimming
	N009-2500-P-D	BuckTitan, 2500mA, Pinned Connection, PWM Dimming
	N009-2500-W-D	BuckTitan, 2500mA, Wire Connection, PWM Dimming
	N009-2900-P-D	BuckTitan, 2900mA, Pinned Connection, PWM Dimming
	N009-2900-W-D	BuckTitan, 2900mA, Wire Connection, PWM Dimming
	N009-2900-W-N	BuckTitan, 2900mA, Wire Connection, No Dimming

Operation

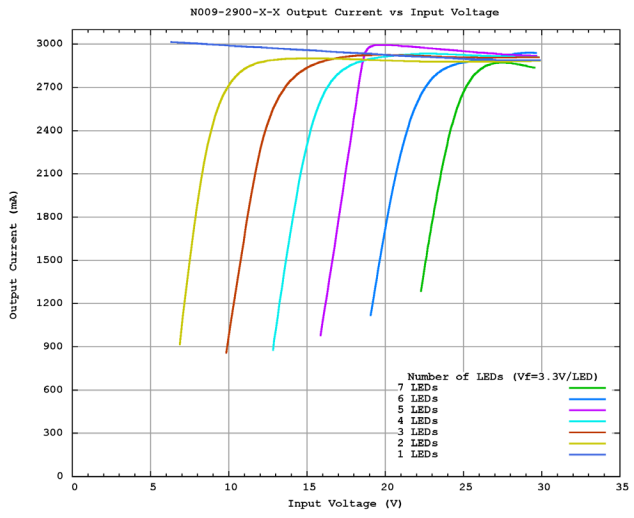

Figure 1. N009-2900-x-x BuckTitan Input Voltage vs Output Current

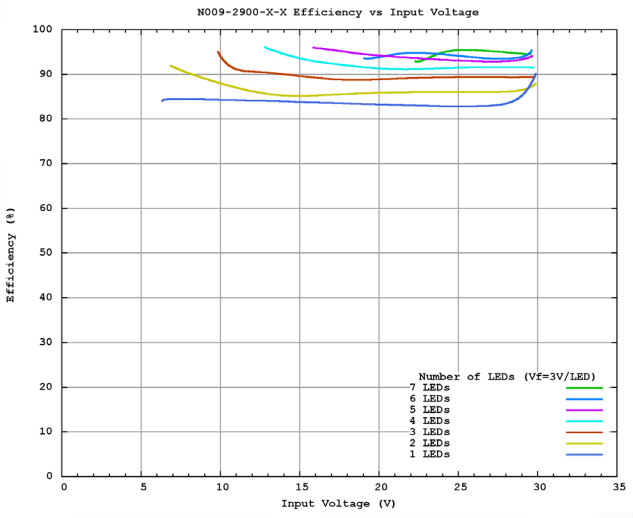

Figure 2. N009-2900-x-x BuckTitan Input Voltage vs Efficiency

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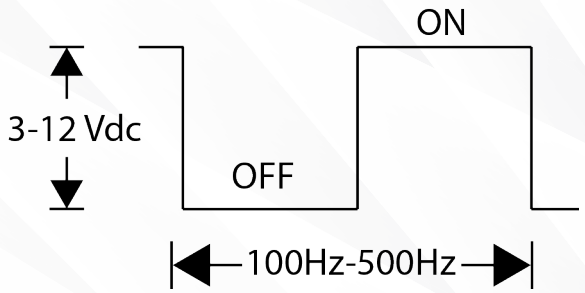
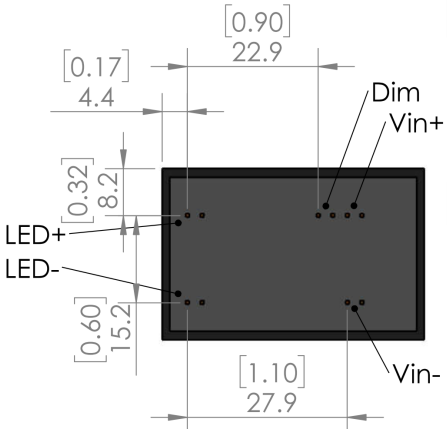
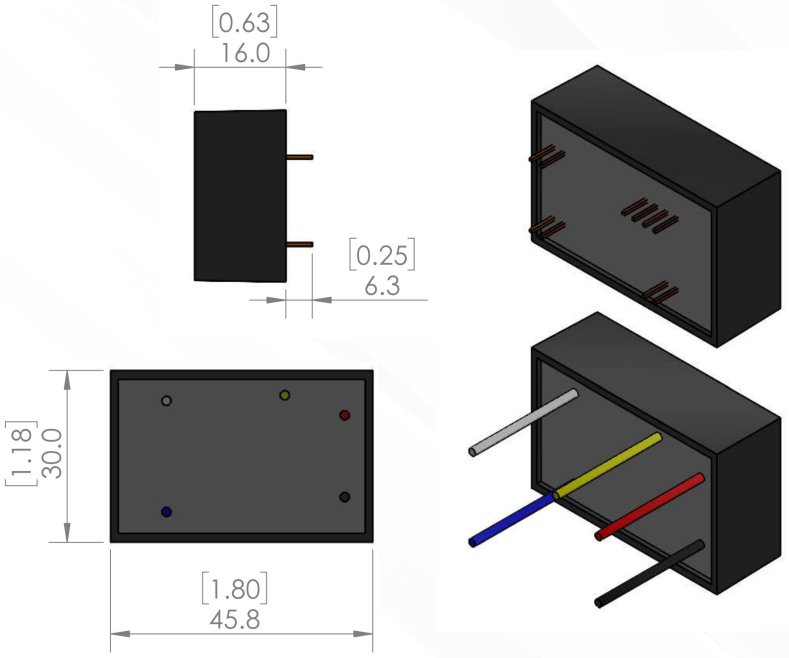
Dimming

LED current can be adjusted by applying a pulse-width-modulated (PWM) logic signal to the DIM pin. This will produce an average output current proportional to the duty cycle of the PWM signal. It is recommended that the PWM signal is lower than 500Hz. Higher dimming frequencies can be used, at the expense of dimming dynamic range and accuracy. Typically, for a PWM frequency of 500Hz the accuracy is better than 1% for PWM ranging from 1% to 100%.



Mechanical





1. Dimensions in inches
2. Tolerance: 0.xx" = +-0.015"

Wiring Examples