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Powerful Solutions for Solid State Lighting

Digital Light

Intelligent LED Driver

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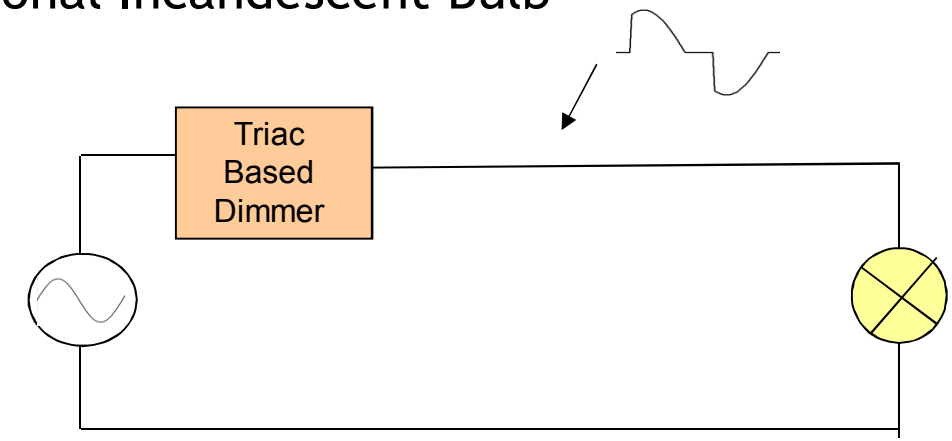
TROPO Market Requirements

- Energy Saving, High Efficiency
- High Reliability: the driver should last as long as the LEDs they power
- Retrofit (Replacement) Approach: compatible with std traditional dimmers
- Easy to adopt/integrate also in stylish fixtures
- Low fixture complexity and cost
- Easy Safety Approval Cycles

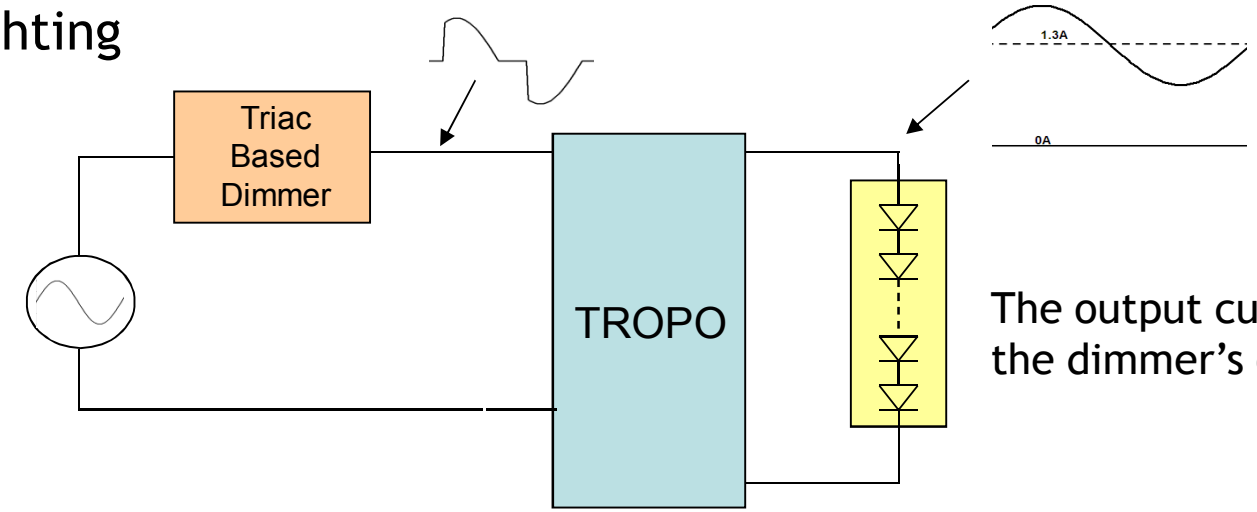


] TROPO Retrofit Approach

Traditional Incandescent Bulb



LED Lighting



The output current grows with the dimmer's conduction angle

- TROPO is compatible with most of traditional (Triac Based/ELV)DIMMER
- TROPO allows the SSL Technology adoption maintaining the existing DIMMER

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] Tropo 15W LED Driver

]Input / Output Parameters

- Input Voltage: 115Vac or 230Vac
- Output Voltage: 5Vdc to 48 VDC
- Output Current: 350mA to 1500mA
- Efficiency: ~80% @ >120Vac, Full load
- Active Power Factor Correction
- Protections: Output Over Voltage, Over Current, Short Circuit; Over Temperature Protection

]Dimming

- Output Dimming is possible via industry standard dimmers (triac based-leading edge/trailing edge)

]Environmental

- Convection Cooled
- Operating Temperature -30˚C to 90˚C case temp. without derating

]Reliability

]Life Expectancy: >50000 hrs @ 90˚C case temp.

]Isolation

]UL60950LPS NEC (Class 2)

]EN60598-1 Cass II

]Safety

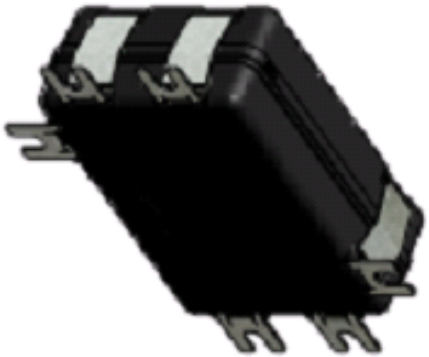
- WW Safety Agency Approvals: UL Approved, ENEC Approved, CE Mark

Tropo Packaging & Dimensions

- Molded Plastic Chassis (white)
- Encapsulation for (IP20) and thermal management;

Water-proofing enclosure (IP65) under development *(Subject to MOQ and special Pricing)*

- 18AWG flying leads, color coded
- 2 Clip on mounting feet w/optional locations (user decides)



Dimensions (LxWxH)
82mm x 56mm x 29mm
3.21” x 2.21” x 1.13”

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Tropo Models

ROAL Model Number	ROAL PN	Pout Max (Watts)	Vin Range (Vac)	Vout Min (Vdc)	Vout Max (Vdc)	Iout Set (mA)
RLDD015L-350	RHPS311AL-1	16.8	90-135	24	48	350
RLDD015L-350H	RHPS311HL-1	7.4	90-135	12	21	350
RLDD015L-350J	RHPS311JL-1	11.2	90-135	18	32	350
RLDD015L-480	RHPS311PL-2	6.5	90-135	10	13.5	480
RLDD015L-600	RHPS311NL-1	7.2	90-135	8	12	600
RLDD015L-700	RHPS311BL-1	16.8	90-135	16	24	700
RLDD015L-800	RHPS311ML-1	9.6	90-135	8	12	800
RLDD015L-900	RHPS311GL-1	14.4	90-135	10	16	900
RLDD015L-900L	RHPS311LL-1	10.8	90-135	8	12	900
RLDD015L-1000	RHPS311CL-1	16	90-135	10	16	1000
RLDD015L-1200	RHPS311KL-1	16.92	90-135	10	14.1	1200
RLDD015L-1250	RHPS311EL-1	15	90-135	8	12	1250
RLDD015L-1400	RHPS311FL-1	16.1	90-135	8	11.5	1400
RLDD015L-1500	RHPS311DL-2	15	90-135	5	10	1500
RLDD015H-350	RHPS311AH-1	16.8	176-265	24	48	350
RLDD015H-350H	RHPS311HH-1	7.4	176-265	12	21	350
RLDD015H-350J	RHPS311JH-1	11.2	176-265	18	32	350
RLDD015H-480	RHPS311PH-2	6.5	176-265	10	13.5	480
RLDD015H-600	RHPS311NH-1	7.2	176-265	8	12	600
RLDD015H-700	RHPS311BH-1	16.8	176-265	16	24	700
RLDD015H-800	RHPS311MH-1	9.6	176-265	8	12	800
RLDD015H-900	RHPS311GH-1	14.4	176-265	10	16	900
RLDD015H-900L	RHPS311LH-1	10.8	176-265	8	12	900
RLDD015H-1000	RHPS311CH-1	16	176-265	10	16	1000
RLDD015H-1200	RHPS311KH-1	16.92	176-265	10	14.1	1200
RLDD015H-1250	RHPS311EH-1	15	176-265	8	12	1250
RLDD015H-1400	RHPS311FH-1	16.1	176-265	8	11.5	1400
RLDD015H-1500	RHPS311DH-2	15	176-265	5	10	1500

NOTE (*): The Vout Min and Vout Max must be met under all conditions of the Driver and LED Assembly, including when being dimmed and when the fixture is at maximum operating temperature; see Application NOTE 23 (Tropo Driver Output Voltage Range) for more information

- 28 Models (14 Low-Range 230Vac + 14 High-Range 115Vac) are available in the TROPO family

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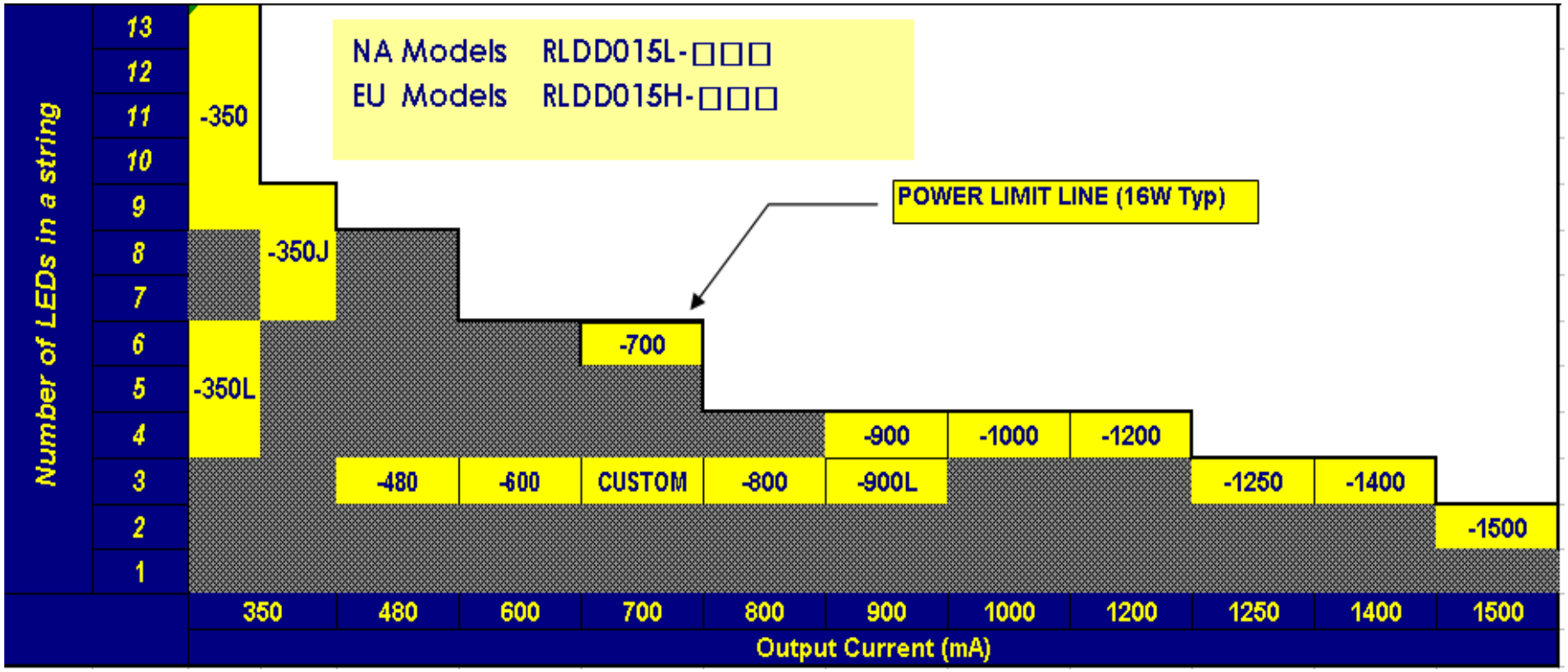
Tropo Product Selector Guide



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] TROPO EMC & Safety

EMC Compliance

• Harmonic Distortion	EN61000-3-2
• Line Voltage Fluctuations and flicker	EN61000-3-3
• Conducted and Radiated EMI	EN55015
• EMC Immunity Requirements	EN61547
• ESD	EN61000-4-2
• RF Fields	EN61000-4-3
• Fast Transient	EN61000-4-4
• Surge	EN61000-4-5
• Conducted RF	EN61000-4-6
• Voltage Variations	EN61000-4-11

Performance

- DC or AC Supplied electronic control gear for LED Modules – Performance Requirements IEC 62384

Safety

- Mark for European market
- Mark for North America market

- Particular Requirements for DC or AC Supplied electronic control gear for LED Modules EN61347-2-13
- UL60950-1 Recognized, Limited Power Source Output
- UL8750 Compliant

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Thank you for your attention