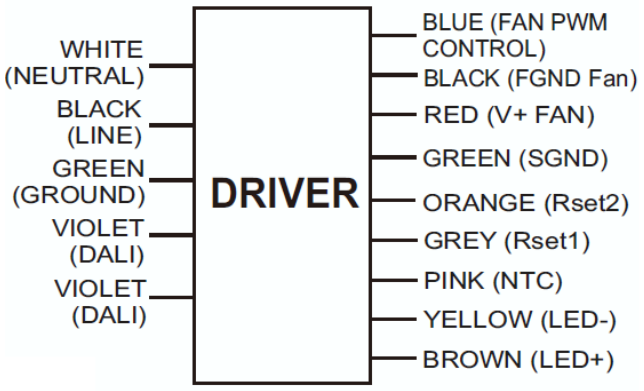
PHILIPS

XR025C100V036LPM1	
Brand Name	XITANIUM
Description	XITANIUM 25W 0.3-1.0A DALI
Input Voltage	120V
Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications

Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load	Max Case Temp. (°C)	Input Current	Max. Input Power (W)	Inrush Current (A_{pk}/50%-µs)		THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection Common/Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating
25	18 ~ 36	0.3-1.0	120V 82%	75 °C	120V 0.28A	34	120 Vin	9/ 160	12	>0.9	1.5/1.5	0.71/ 0.322	UL Dry & Damp

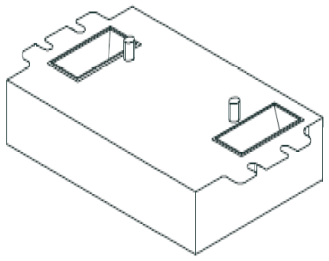
Wire Diagram



Input and output use lead- wires.
Lead-wires are 18AWG 105C/600V solid copper.

Dimming Method	Dimming Range	Minimum Output Current (A)	Min (typ). Output Power(W)	Other Comments
DALI	10% ~ 100%	0.03	0.5	

Enclosure



	in. (mm)
Case Length	4.21 (107)
Case Width	2.99 (76)
Case Height	1.29 (33)
Mounting Length	4.96 (126)
Mounting Width	2.99 (76)

Power Unit Dry & Damp location

RoHS COMPLIANT

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RoHS	Yes
Status	Released

Electrical Specifications

Product Data	
Order code	XR025C100V036LPM1
Full product code	XR025C100V036LPM1
Full product name	Xitanium 25W 0.3-1.0A DALI Dimming
Net weight per piece	0.322 KG / 0.71lbs
Interfaces	DALI Dimming
Ambient Temp Range **Corresponding Tcase**	-20C to +50C -15C to +75C
Line Voltage	120V
Line Current	0.28A @ 120V
Line Frequency	60Hz
Envir. Protection Rating	UL Dry & Damp
Life @ TC 75 C	50000 hr
Suitable for Outdoor use?	NO
Max TC	75C
Inrush current Width	Refer to table
Min ballast number on MCB 16A type B	20
Input Over-voltage	Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours
LED Current Tolerance	+/- 5% with full load
Earth leakage current	0.7 mA [max]
Mains voltage safety (AC)	+/-10%
Mains voltage performance (AC)	+/-10%
Min. Mains voltage operational	108 V [min]
Output peak voltage	40V [max]
Output Current ripple	20% @ 1000 mA (ripple = pk/avg)
THD total	< 20% @ max load
PF @ Max Load	>0.90
Wire Isolation	All wires are Double isolated to ground
Protections	Short Circuit and Open Circuit Protection for LED + and LED-
Standby power	0.7W during DALI standby

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Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications

Installation & Application Notes:

Section I – Physical Characteristics

1.1 LED Driver shall be installed inside an electrical enclosure

1.2 Wiring inside electrical enclosure shall comply with 600V/105°C rating or higher.

Section II – Performance

2.1 LED Driver has a rated lifetime of 50,000 hours @ TC <=75C.

2.2 LED Driver tolerates sustained open circuit and short circuit output conditions without damage.

2.3 LED Driver maximum allowable case temperature is 75°C – see product label for measurement location.

2.4 LED Driver complies with the requirements of UL, CSA, FCC47 subpart 15.

Section III – UL Conditions of Acceptability (File E321253)

When installed in the end product, consideration shall be given to the following:

3.1 The equipment shall be installed in compliance with the enclosure, enclosure, mounting, spacing, casualty and the segregation requirements of the ultimate application.

3.2 Consideration should be given to measuring the temperatures on electronic components of power circuits and transformer windings when the unit is installed in the end-use equipment based upon mounting orientation, operating ambient and ventilation. Magnetic components L200, L300, L500 employ Class 130(B) insulation.

3.3 These drivers should be used within the recognized ratings.

3.4 The driver is suitable for use in "DAMP" and "DRY" locations.

3.5 The maximum available output parameters from DALI dimming circuit provided on LED driver were tested in accordance with supplement (SB) of UL935 and was found permissible for connection via Class 2 wiring.

3.6 When the drivers are installed in the end-use application, the case temperature should not exceed the temperature limits specified in the following table:

Model No.	Input Voltage, Hz	Max. Case @ Tc, °C
XR025C100V036LPM1	120, 60 Hz	75

3.7 The maximum measured leakage current was 0.10 MIU while was connected to a 120 V branch Source.

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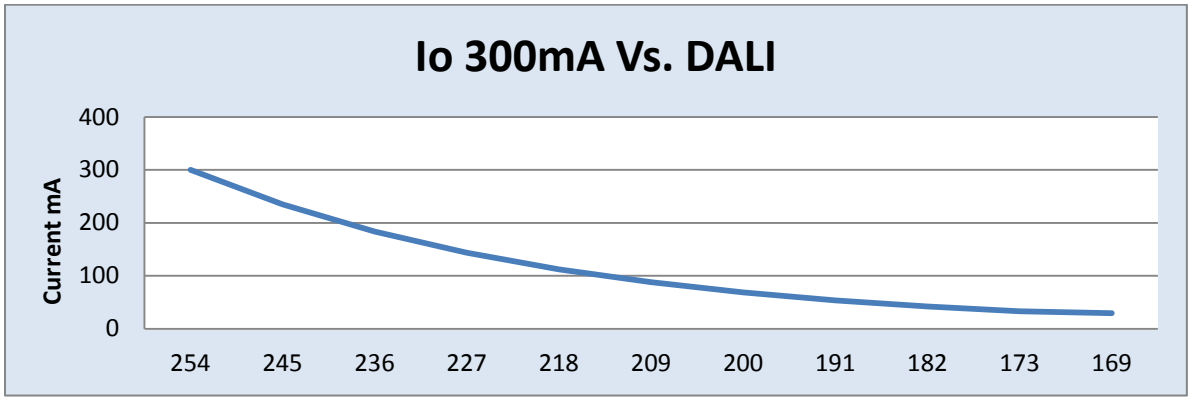
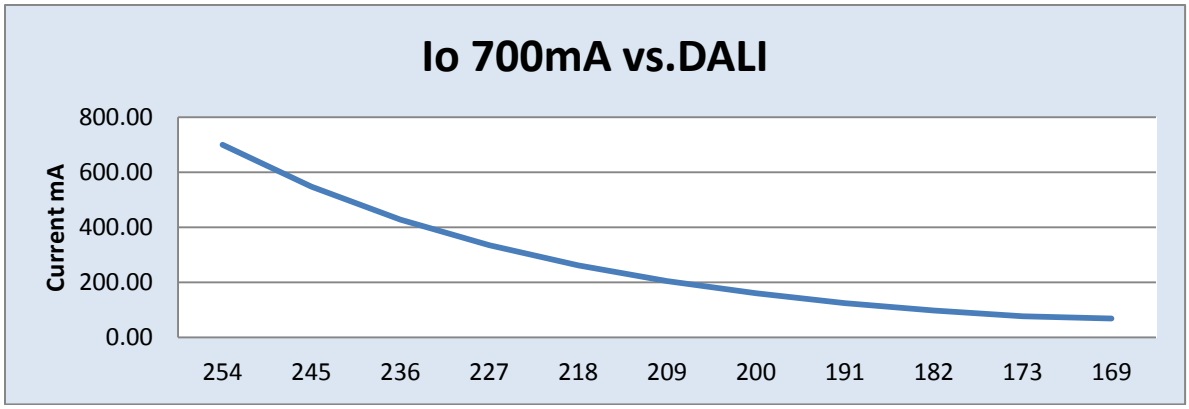
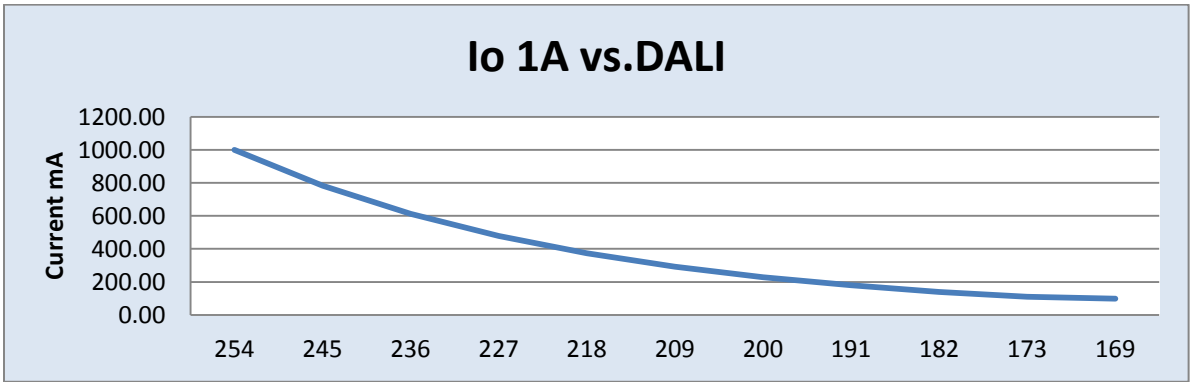
Description	XITANIUM 25W 0.3-1.0A DALI
Input Voltage	120V
Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications







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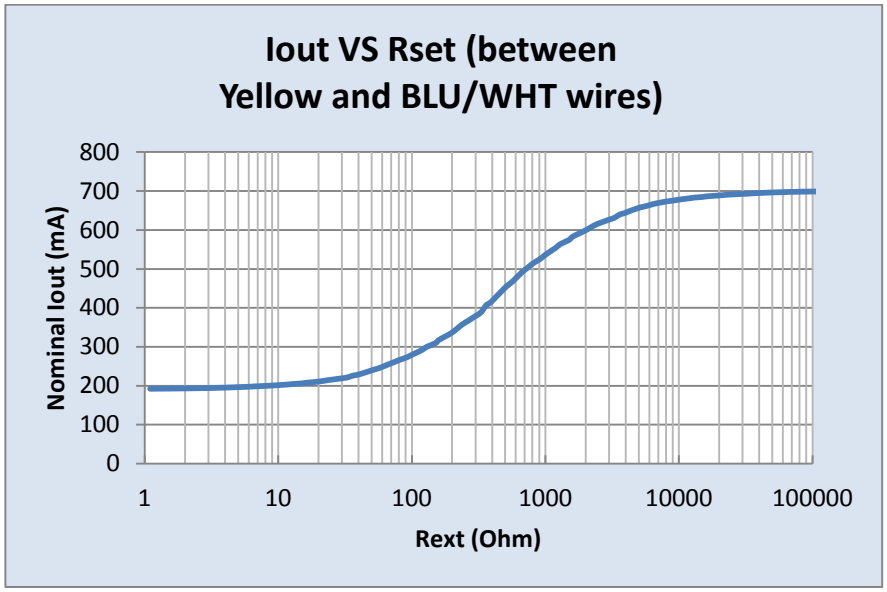
Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications

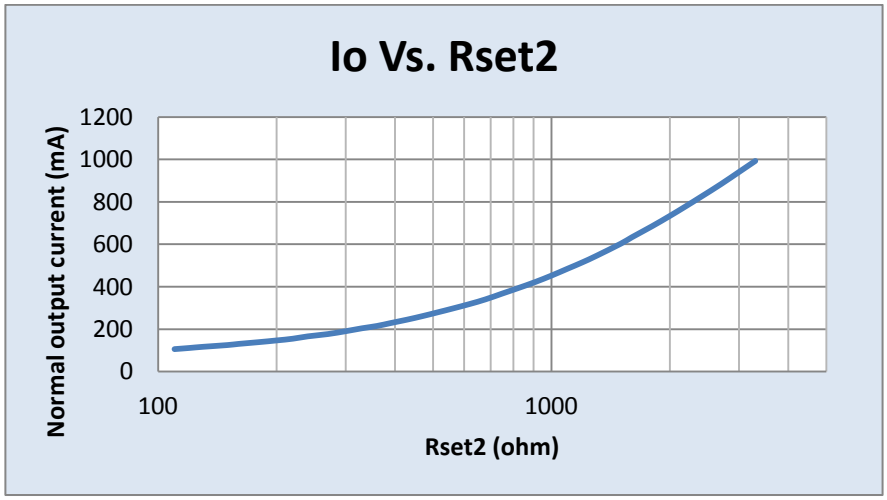
AOC (Adjustable Output Current) Settings:

LED current tolerance with variation of Rset 1 is within +/- 5% of Imax



1.1 Rset2 Table
(Valid Range of Current 0.3-1.0A)

Rset1 (Ohms)	Current(mA)
1	191
100	214
620	309
910	347
935	350
1500	406
2200	455
3000	494
4115	530
4300	536
8200	599
18000	649
100000	691
1000000	700



Rset2(Ohms)	Current(mA)
100	100
270	176.4368
360	214.6552
470	261.0632
560	296.5517
680	340.2299
750	367.5287
1000	452.1552
1300	544.9713
1500	602.2989
1800	684.1954
2700	883.477
3300	992.6724

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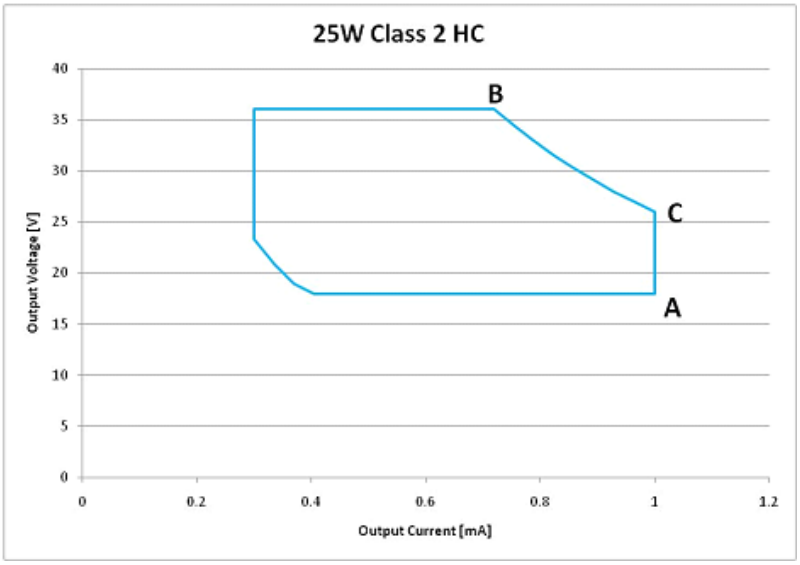
Input Voltage	120V
Input Frequency	60Hz
RoHS	Yes
Status	Released

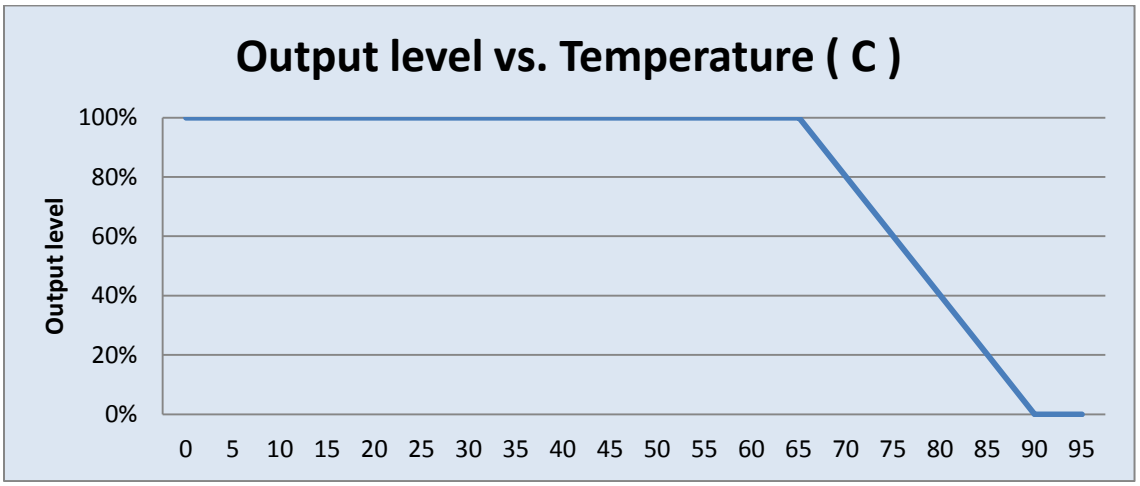
Electrical Specifications

25W high current, operating range 18-36V, 300-1000mA:



Module Thermal Protection can be implemented between 65C to 90C. Please refer to design guide for more details

NTC part can be used: NTC from Vishay, part number is 238161554153 (15kOhm ± 2% NTC, B25/85=3700)



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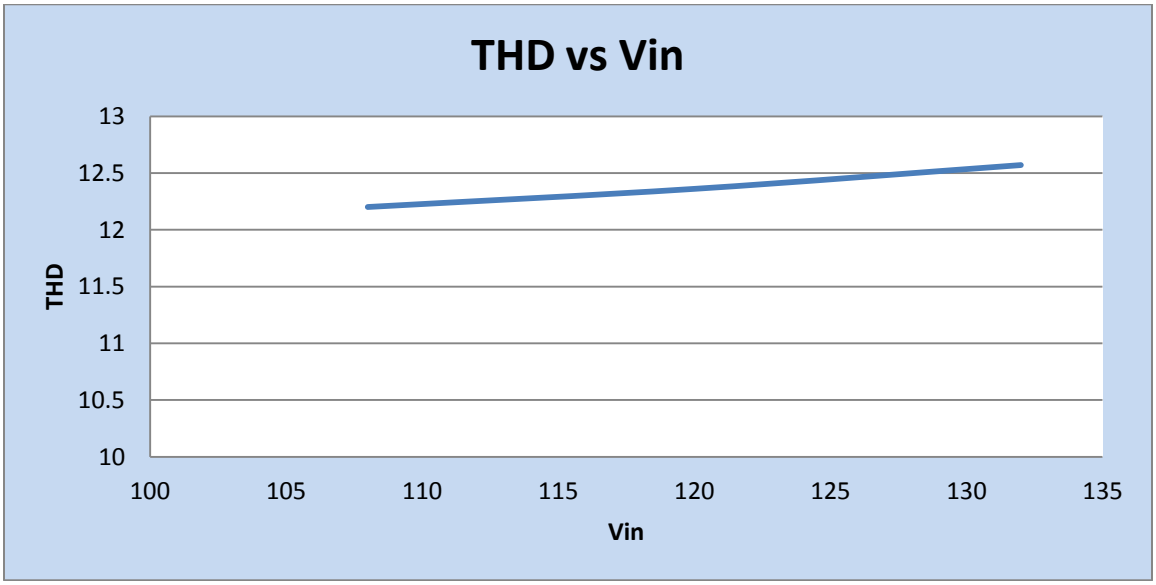
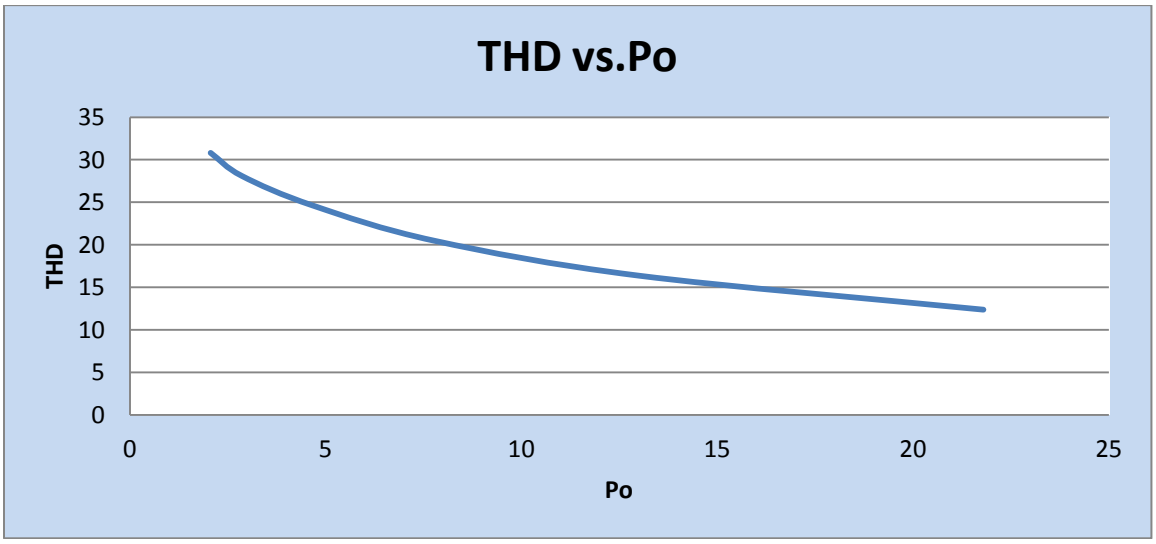
Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications

THD vs. Vin of Driver:



THD vs. Output Power



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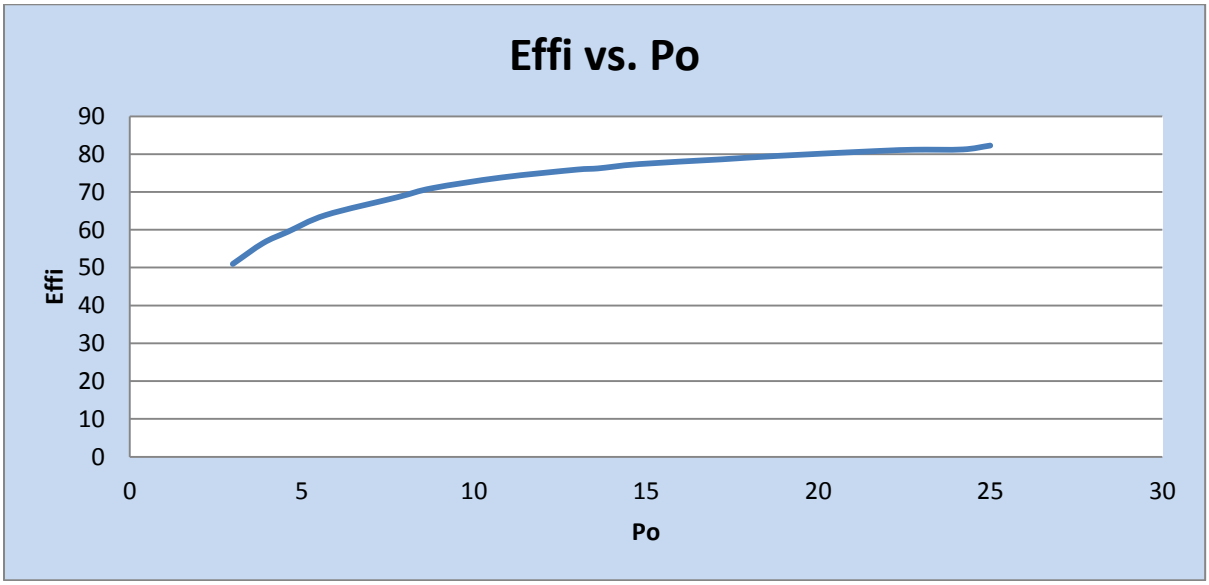
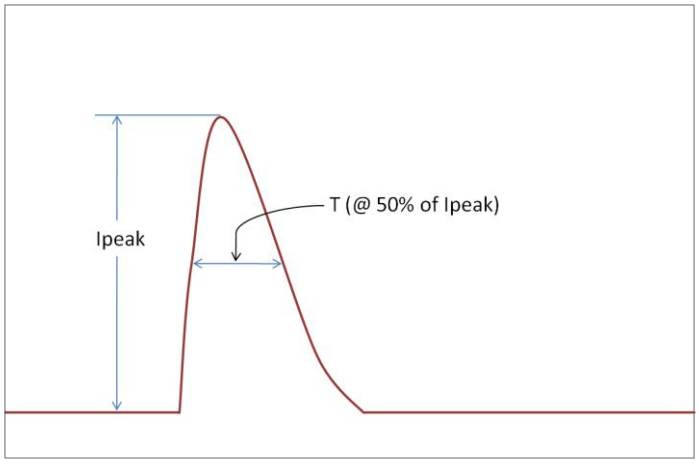
Input Frequency	60Hz
RoHS	Yes
Status	Released

Electrical Specifications

Efficiency vs. Output power



Inrush Current Info:



Vin	Ipeak	T (@ 50% of Ipeak)
120 Vrms	9 A	160 µs

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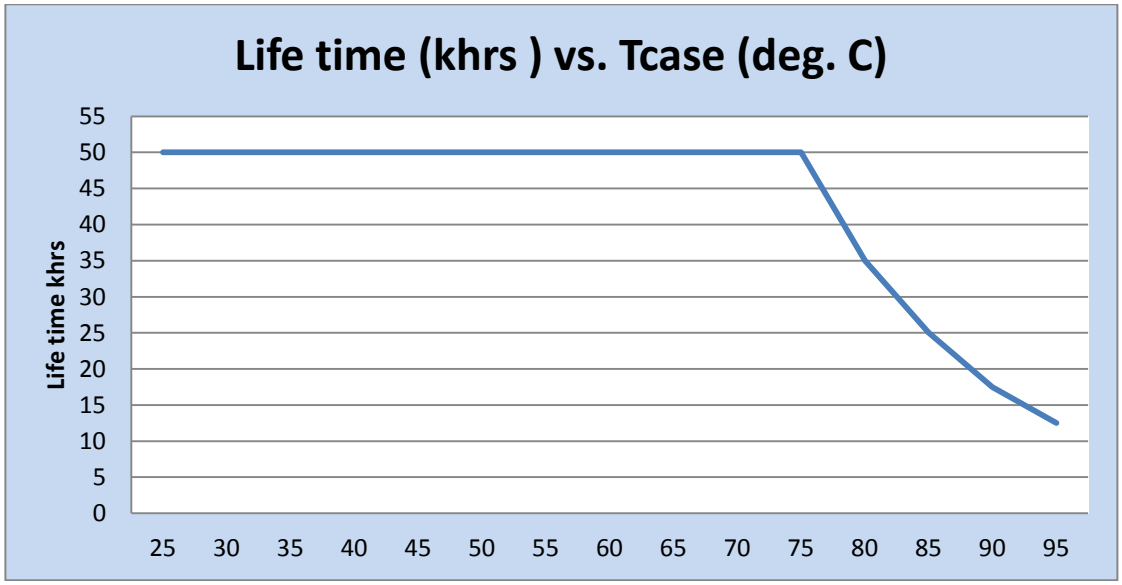
RoHS	Yes
Status	Released

Electrical Specifications

Lifetime vs. Tcase of Driver:



Failure Rate Info:

1. **<0.2% per 1 kHr @<= Tcase 75 C**

Isolation:

Isolation	Input Wires	Output Wires	DALI Wires	Chassis
Input Wires	NA	2150	1500	2150
DALI Wires	1500	500	NA	500
Chassis	2150	500	500	NA

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RoHS	Yes
Status	Released

Electrical Specifications

Revision History:

Rev No.	Date	Description	Approval	Remarks
1.1	1/20/2012	* Add Envir. Protection Rating	N.T.	
1.2	03/02/2012	*Remove the "M" at the end of part#	N.T.	
1.3	03/05/2012	*Update Rset2 Table	N.T.	

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