



## Electrical Specifications

<b>XI075C200V054XPT1</b>	
Brand Name	XITANIUM
Description	Xitanium 75W 0.7-2A AOCM 0-10V INT-T
Input Voltage	120~277V
Input Frequency	50/60Hz
RoHS	Yes
Status	Active

<b>Product Data</b>	
Order code	XI075C200V054XPT1
Full product code	XI075C200V054XPT1
Full product name	Xitanium 75W 0.7- 2A 54V 0-10V/TE Dimming
Net weight per piece	0.4 KG
Interfaces ( see foot note )	1-10V Dimming, AOC,CLO, OTL ( <b>TE Dimming disabled</b> )
Ambient Temp Range	-20C to +50C
Corresponding Tcase	-15C to +75C
Line Voltage	120-277V
Line Current	0.7A @ 120V, 0.3@ 277V
Line Frequency	50/60Hz
Envir. Protection Rating	UL Dry & Damp
Life @ TC 75 C	50000 hr [nom.]
Suitable for Outdoor use?	No
Max TC	75C
Inrush current Width	Refer to table
Maximum ballast number on MCB 16A	20@120V / 16@277V
Input Over-voltage	Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours
Earth leakage current	0.7 mA [max]
Mains voltage safety (AC)	+/-10%
Mains voltage performance (AC)	+/-10%
Min. Mains voltage operational	108V [min]
Output peak voltage	305V [max]
Output Current ripple	20% @ 2000 mA (ripple = pk-pk/avg)
Output voltage range ( applicable at nominal Iout 0.7 – 2A )	27 – 54 V
Output power range	21 – 75 W
LED current Tolerance	+/-5%
Max nominal output current setting ( see table 1.1 )	Possible by external resistor between Rset 2 and Sgnd connector
THD total	< 20%
PF @ Max Load	>0.9
Connector ( input/output)	Wago 250
Protections	Short Circuit and Open Circuit Protection for LED + and LED-

Note:

Driver is programmable via the 0-10V interface. For this function is special PC Tool "light tuner" software required, and a Dali programmer.

Functions:

- AOC (adjustable output current), setting by software of the max output current of the driver.
- Programmable temperature de-rating LED module, setting by software of the output current decrease depending on the measured NTC value to avoid decreased lifetime of the LED module.
- CLO (Constant Lumen over Lifetime), correction of output current over lifetime to compensate the degradation of the LED's.

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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 300V/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 can reduce output power to LEDs if NTC to monitor LED temperature is in place.
  - 2.5 LED Driver complies with the requirements of UL, CSA, FCC.
- 3 Conditions of Acceptability (File E321253)
- 3.1 The maximum available output electrical parameters of the driver met the Class 2 - Inherently Limited specified in UL 1310.
  - 3.2 The maximum available output current and power parameters of the driver met the limitation for Class 2 Inherently limited in accordance with the Canadian Standard CSA C22.2 No. 223.
  - 3.3 The primary and the secondary terminal blocks are R/C (XCFR2/XCFR8) suitable for field wiring.
  - 3.4 The Driver has been evaluated for use in “Dry” and “Damp” locations.
  - 3.5 When the driver is installed in the end-use application, the manufacturer has specified the measured case temperature at the (Tc) location specified on the marking label must not exceed 75 °C.
  - 3.6 The equipment shall be installed in compliance with the enclosure, mounting, spacing, casualty and segregation requirements of the end-product application.
  - 3.7 The maximum measured leakage current using leakage current tester by Simpson Model 228 was 0.73 mA at 277 V input and 0.28 mA at 120 V input.
  - 3.8 The 0-10V dimming circuit is part of the primary circuit.
  - 3.9 The enclosure case of the driver must be connected to earth ground when installed in the end-use application.

Model No.	Input Voltage, Hz	Max. Case @ Tc, °C
XI075C200V054XPT1	120-277V, 50/60 Hz	75

	<b>PHILIPS ADVANCE</b> Technical Information 1.800.372.3331 Rosemont, IL	<b>LED Electronic Driver</b> <b>XI075C200V054XPT1</b>		<b>XITANIUM</b> <b>75W 0.7-2.0A</b> <b>0-10V/TE Dimming</b> ASSEMBLED IN MEXICO	UL Class 2 For Dry and Damp Location		<b>GROUNDING:</b> Driver case must be grounded.  <b>WARNING:</b> Handle in accordance with National and Local Electrical Codes. Use 18 AWG 50°C Copper Wire Rated 300V, Strip Wire 3/8".
		Vin: 120-277VAC Pmax: 75W/2A If: 0.7-2.0A PF: >0.9min Eff: 0.7-2.0AOC Vout: 27-54VDC					

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#### 1.1 Rset2 Table (Valid Range of Current 0.7-2.0A)

Rset [Ω]	Iset [mA]	Rset [Ω]	Iset [mA]
0	100	<=2000	733.3333
100	100	2200	779.7414
110	105.4598	2400	823.4195
120	110.9195	2700	883.477
130	116.3793	3000	940.8046
150	124.569	3300	992.6724
160	130.0287	3600	1041.81
180	138.2184	3900	1085.489
200	146.408	4300	1142.816
220	154.5977	4700	1191.954
240	165.5172	5100	1238.362
270	176.4368	5600	1292.96
300	190.0862	6200	1350.287
330	203.7356	6800	1402.155
360	214.6552	7500	1454.023
390	228.3046	8200	1503.161
430	244.6839	9100	1557.759
470	261.0632	10000	1604.167
510	277.4425	11000	1653.305
560	296.5517	12000	1694.253
620	318.3908	13000	1729.741
680	340.2299	15000	1792.529
750	367.5287	16000	1817.098
820	392.0977	18000	1863.506
910	422.1264	20000	1901.724
1000	452.1552	22000	1934.483
1100	484.9138	24000	1964.511
1200	514.9425	27000	2000
1300	544.9713	>100000	700
1500	602.2989		
1600	632.3276		
1800	684.1954		

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### Electrical Specifications

#### I. Typical OEM programming setup



The programming of the driver can be done via the control interface 0-10V or Dali. To start programming nominal input voltage must be applied. Load connection is not required for programming. Special PC Tool "light tuner" software required to enable the driver programming,



## XI075C200V054XPT1

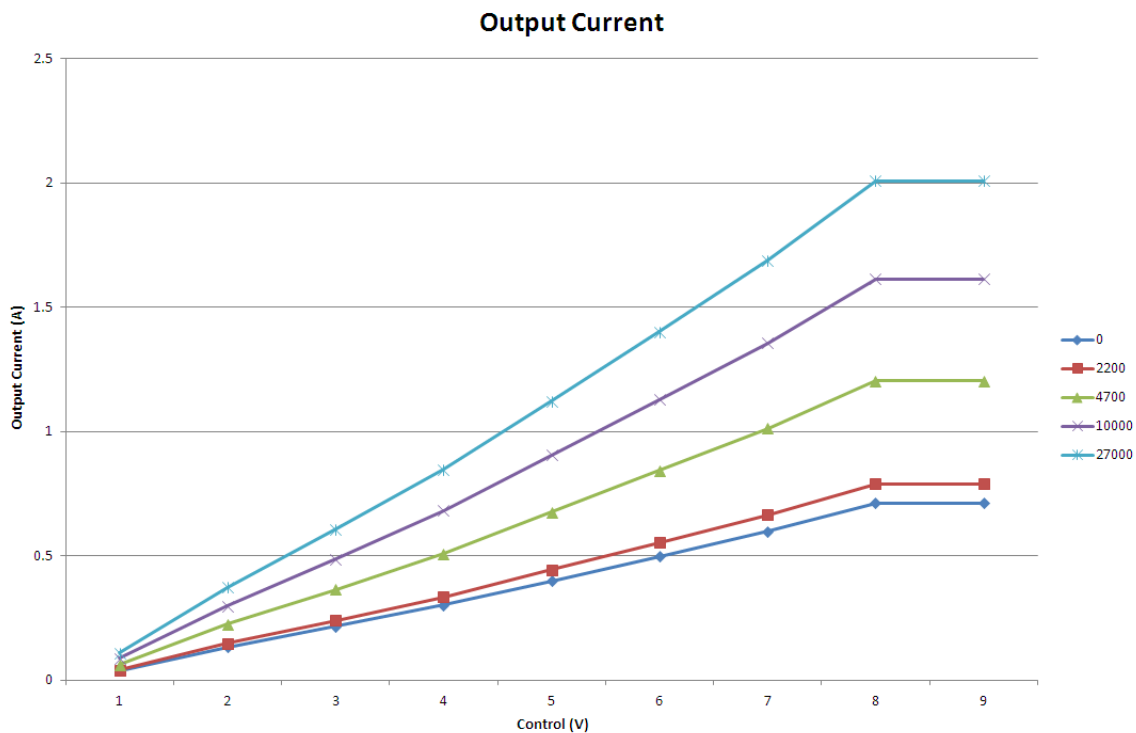
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#### 1-10V Dimming Curve vs Rset ( Iout ):

Dimming source current from the driver: 150  $\mu$ A max.

Dim Level: 5% - 100%



Rset2 not connected = default output current of 700mA

Rset2 = 27000 $\Omega$  = max. output current of 2000mA

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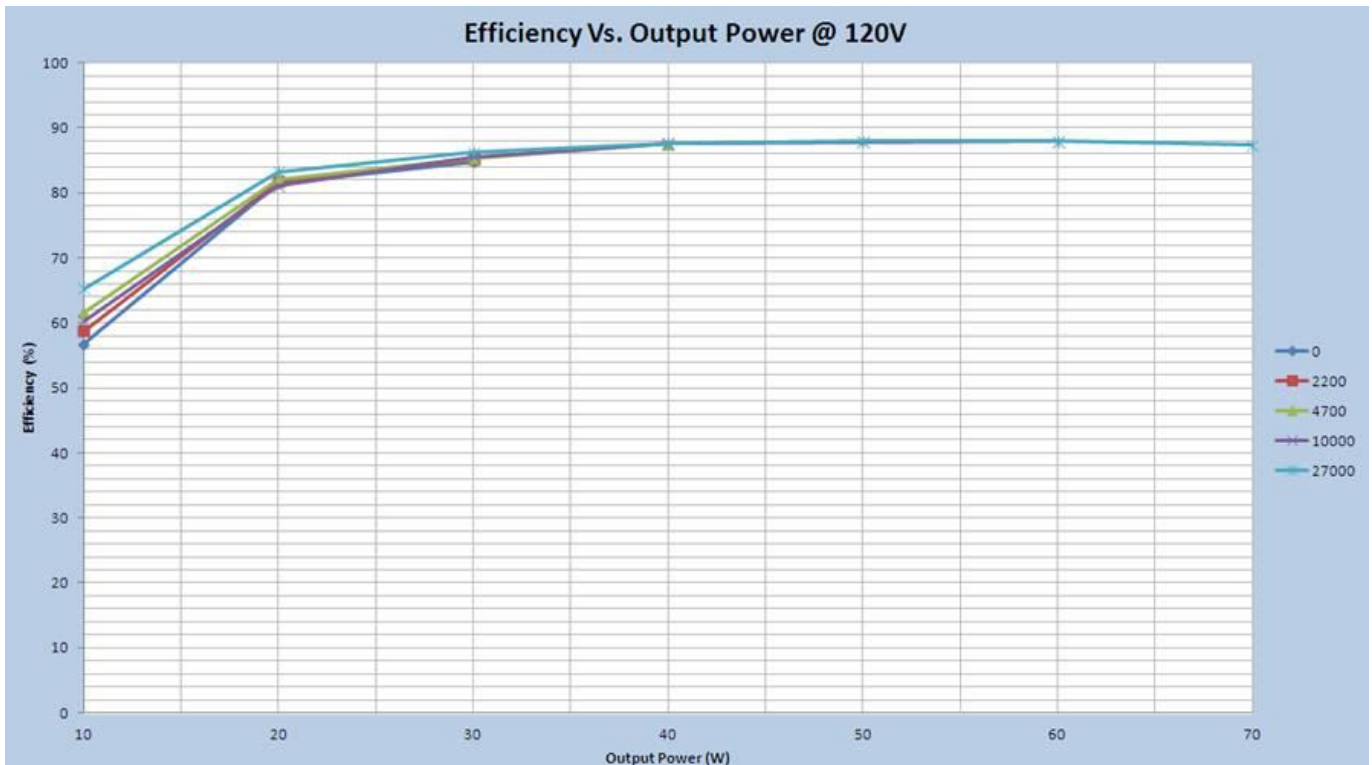


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### Electrical Specifications

#### Efficiency vs. output power @ 120V



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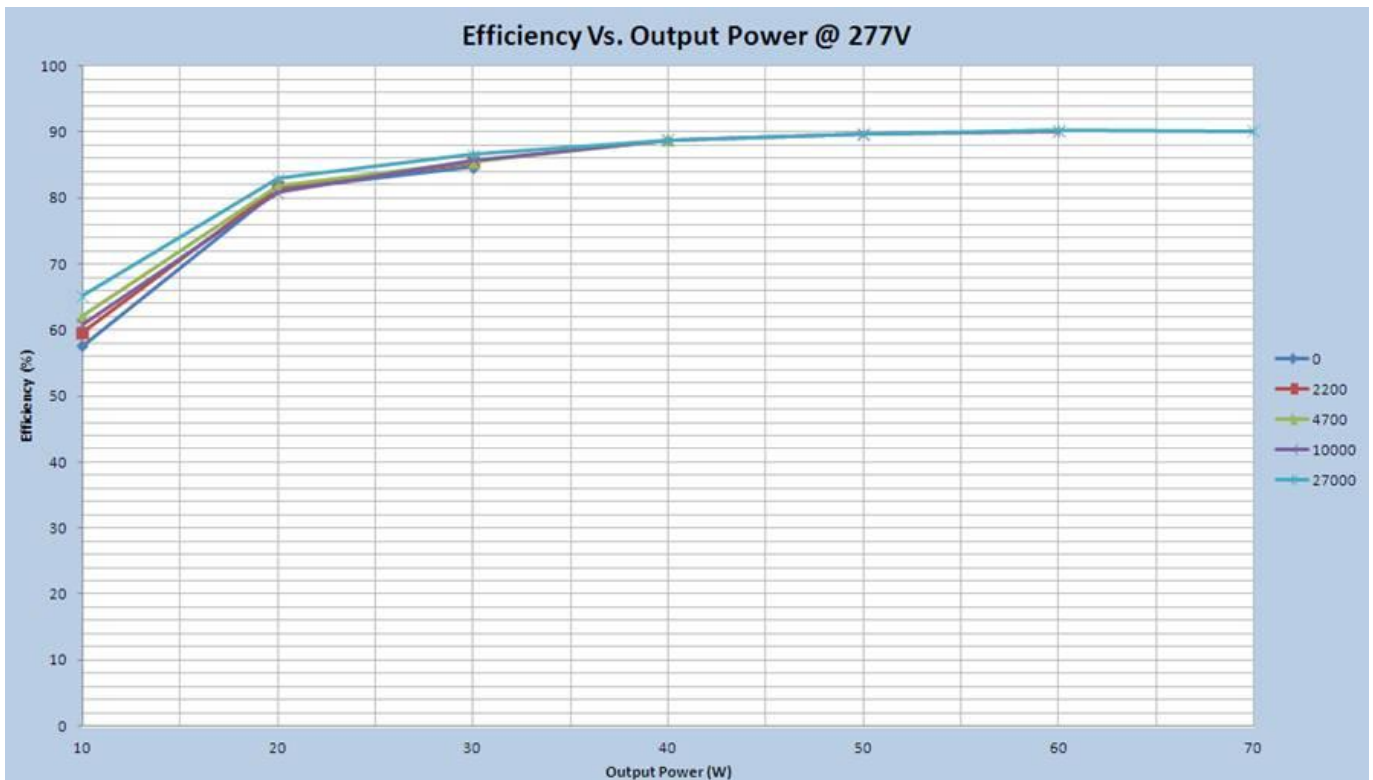


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### Electrical Specifications

#### Efficiency vs. output power @ 277V



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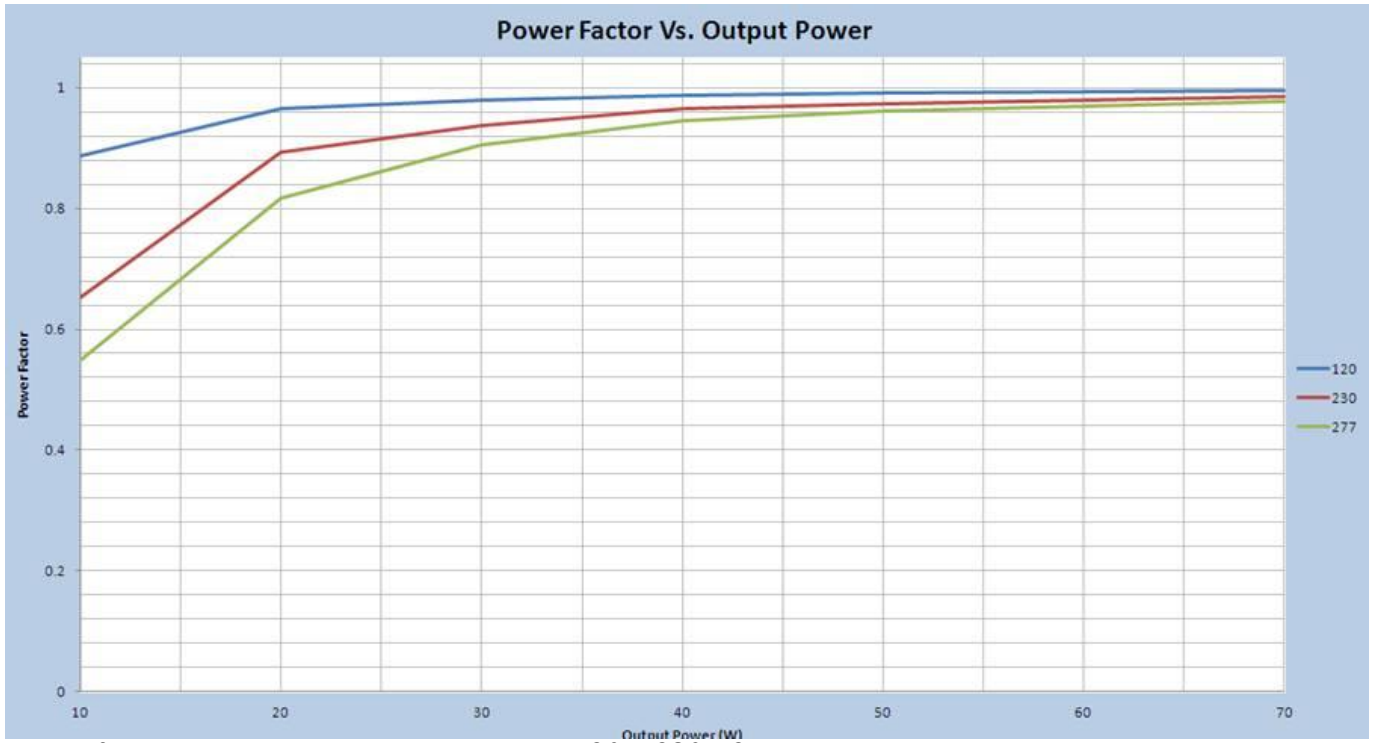
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### Electrical Specifications



Power factor vs output power measured at 120 – 230 - 277V

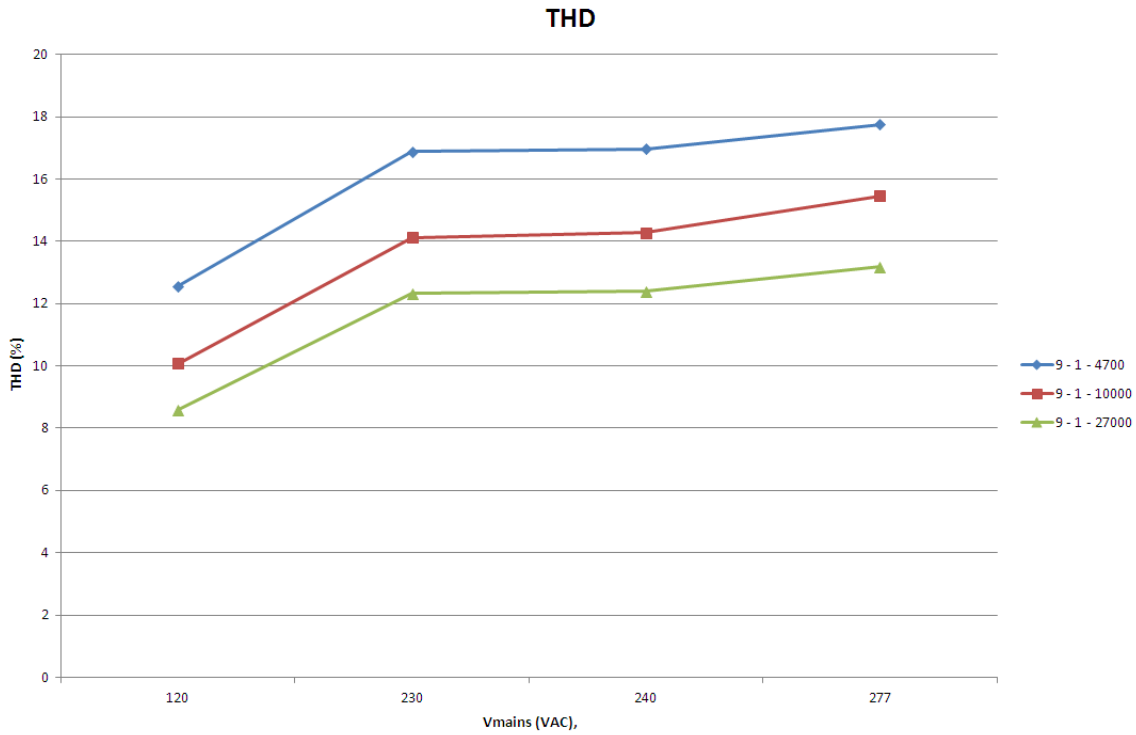
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THD vs input voltage measured with different output current settings from 0.7 -1A

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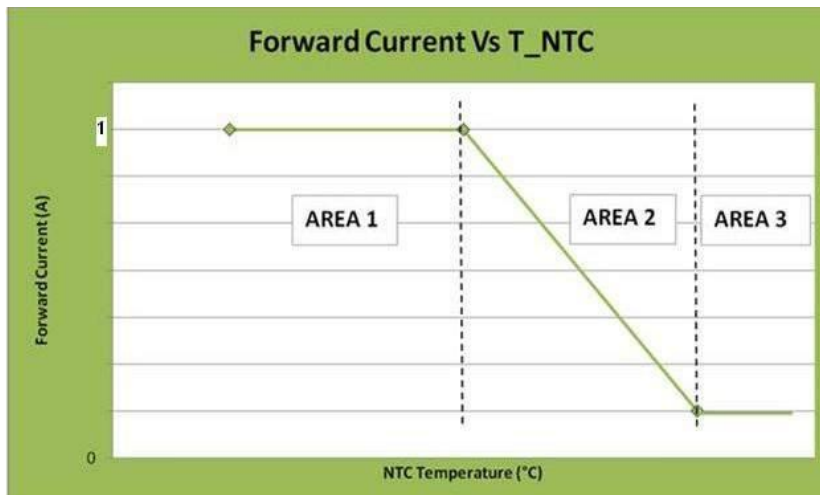
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#### NTC current control:

Symbol	Parameter	Condition	Values			Unit
			Min	Typ	Max	
	NTC in LED module	15kOhm @ 25°C				
	Advised type	2381 615 54153 (Vishay 15kOhm ± 2% NTC, B25/85=3700)				
	NTC threshold value	Dim to reduce output current		2966		Ohm



#### REMARKS:

For graphical illustrations only, the  $I_{MAX}$  output current is taken 1000mA but  $I_{MAX}$  can be set to different values as well

Dimming graph can be changed as shown in picture above. The NTC value on the dotted line can be changed.

- Area 1, driver starts dimming
- Area 2, driver dimming
- Area 3, driver max dimming.

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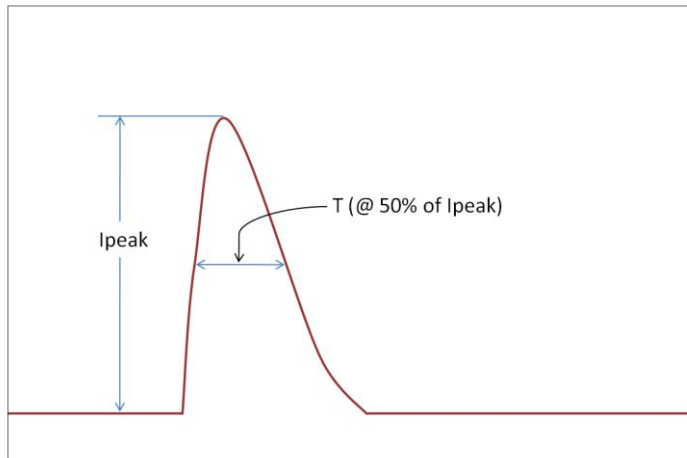
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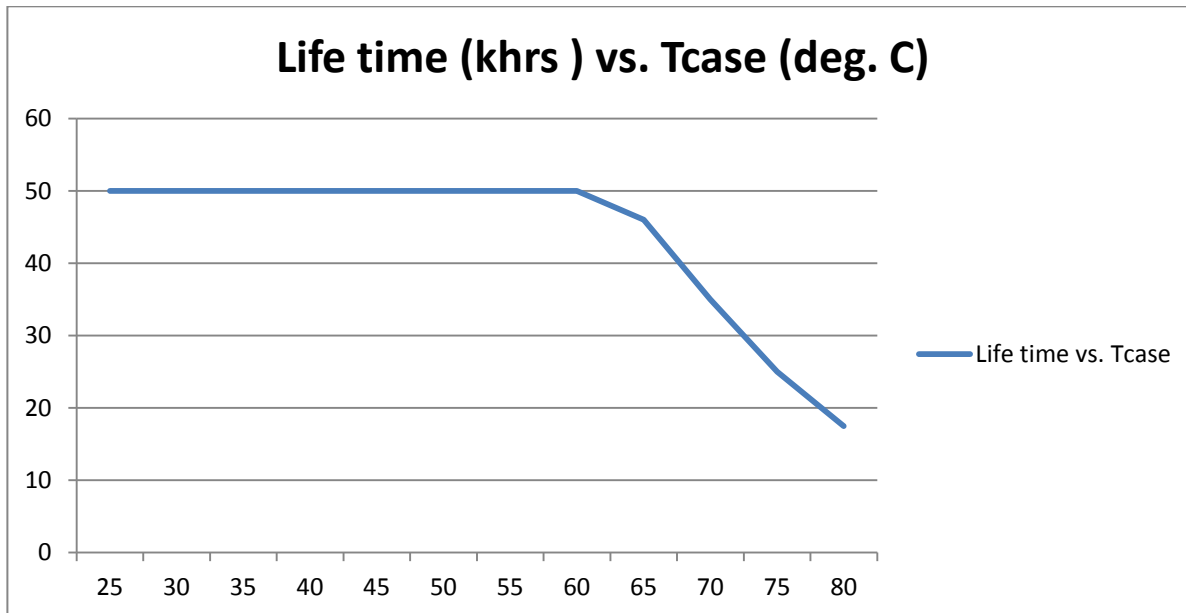
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#### Inrush Current Info:



Vin	Ipeak	T (@ 50% of Ipeak)
120 Vrms	3 A	700 $\mu$ s
277 Vrms	7 A	600 $\mu$ s

#### Lifetime vs. Tcase of Driver:



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#### Isolation:

Isolation	Input Wires	Output Wires	1-10V Wires	Chassis
Input Wires	NA	1600	1600	1600
Output Wires	1600	NA	1600	1600
1-10V Wires	1600	1600	NA	1600
Chassis	1600	1600	1600	NA

#### Revision History:

Rev No.	Date	Description	Approval	Remarks
1.1	01/26/2012	* Add Envir. Protection Rating	N.T.	
1.2	02/24/2012	*Update Rset2 Table	N.T.	
1.3	03/08/2012	*Remove '+TE' from Description	N.T.	

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