ADVANCE
by signify

LED Driver

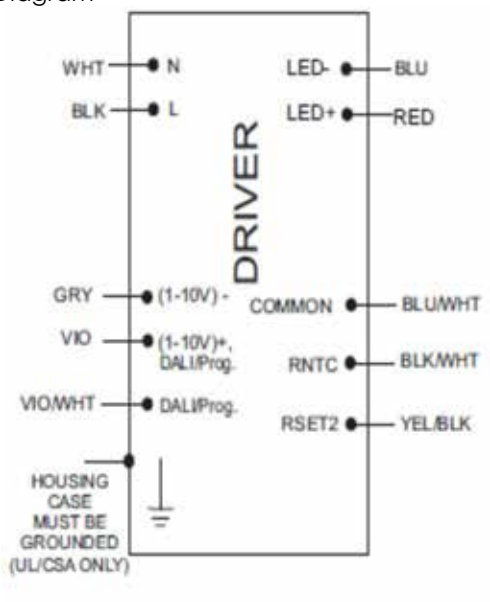
Xitanium

929000710403

Electrical Specifications

Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load			Max Case Temp. (°C)	Input Current (Arms)			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)
100	94 ~ 189	0.10 – 0.53	120V	230V	277V	80 °C	120 V	230 V	277 V	115	120 Vin	230 Vin	277 Vin	<20 See graph	>0.90 See graph	4/4	1.63/0.74
			89.5	92	92		0.94	0.48	0.41		40/ 150	80 /150	100 / 150				

Wire Diagram



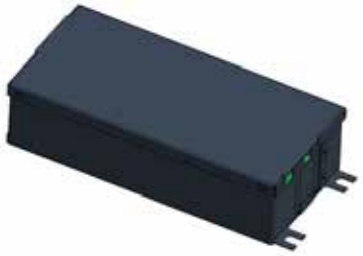
Input and output use lead- wires.
Lead-wires are 18AWG 105C/600V solid copper.

Lead Length

Standard Lead Length is 275 mm (±30mm) on all wires outside the can

Dimming Method	Dimming Range		Minimum Output Current (A)	Other Comments
1-10V Isolated	10% ~ 100%		0.035	Dimming source current: 150 µA (±3%)
DALI	1 ~ 254	10% ~ 100%	0.035	Linear or Logarithmic Variation
Amp Dimming	30 % ~ 100%		0.035	Linear

Enclosure



	(mm)
Case Length	(147.38)
Case Width	(70.00)
Case Height	(38.00)
Mounting Length	(155)
Mounting Width	(50.00)
Overall Length	(165.00)

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100W 0.53A Prog+ GL-Z sXt

9290 007 10403	
Brand Name	XITANIUM
Description	Xitanium 100W 0.53A Prog+ GL-Z sXt
Input Voltage	120 ~ 230 ~ 277V
Input Frequency	50/60Hz
RoHS	Yes
Status	Preliminary

Electrical Specifications

Product Data	
Order code	*929000710403*
Full product code	*929000710403*
Full product name	*XITANIUM 100W 0.53A Prog+ GL-Z sXt*
Net weight per piece	*0.74 KG / 1.63 lbs*
Interfaces	*1-10V Dimming, DALI, AmpDim, Integrated Dynadimmer, AOC(via Rset), MTP (via RNTC)*
Ambient Temp Range ***Corresponding Tcase***	*-40C to +55C* *-15C to +80C*
0-10V Dimming Specifications	*150µA ± 3% source current from driver, Vdim > 14.5V to shutdown driver. See dim curve for detail.*
Line Voltage	*120-277V*
Line Current	*0.94A @ 120V, 0.48A @230V, 0.41A @ 277V*
Line Frequency	*50/60Hz*
Min. Mains voltage operational	*108 V [min]*
Max. Mains voltage operational	*305V [max]*
Life @ TC 70C	*Refer to graph below*
Life @ TC 80C	*Refer to graph below*
Suitable for Outdoor use?	*Yes*
Max TC	*80C*
Maximum ballast number on MCB 16A	*9 [max]*
Input Over-voltage	*Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours*
Earth leakage current	*<=0.35mA*
Output Current ripple	*30% @ 530 mA (ripple = pk-pk/avg)*
THD total	*Refer to graph*
PF @ Max Load	*Refer to graph*
Wire Isolation	*All wires are Double isolated*
Isolation between input and output	*Basic*
Isolation towards housing	*Double*
Protections	*Short Circuit and Open Circuit Protection for LED + and LED-*
Standby power	*< 1.0W*

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.

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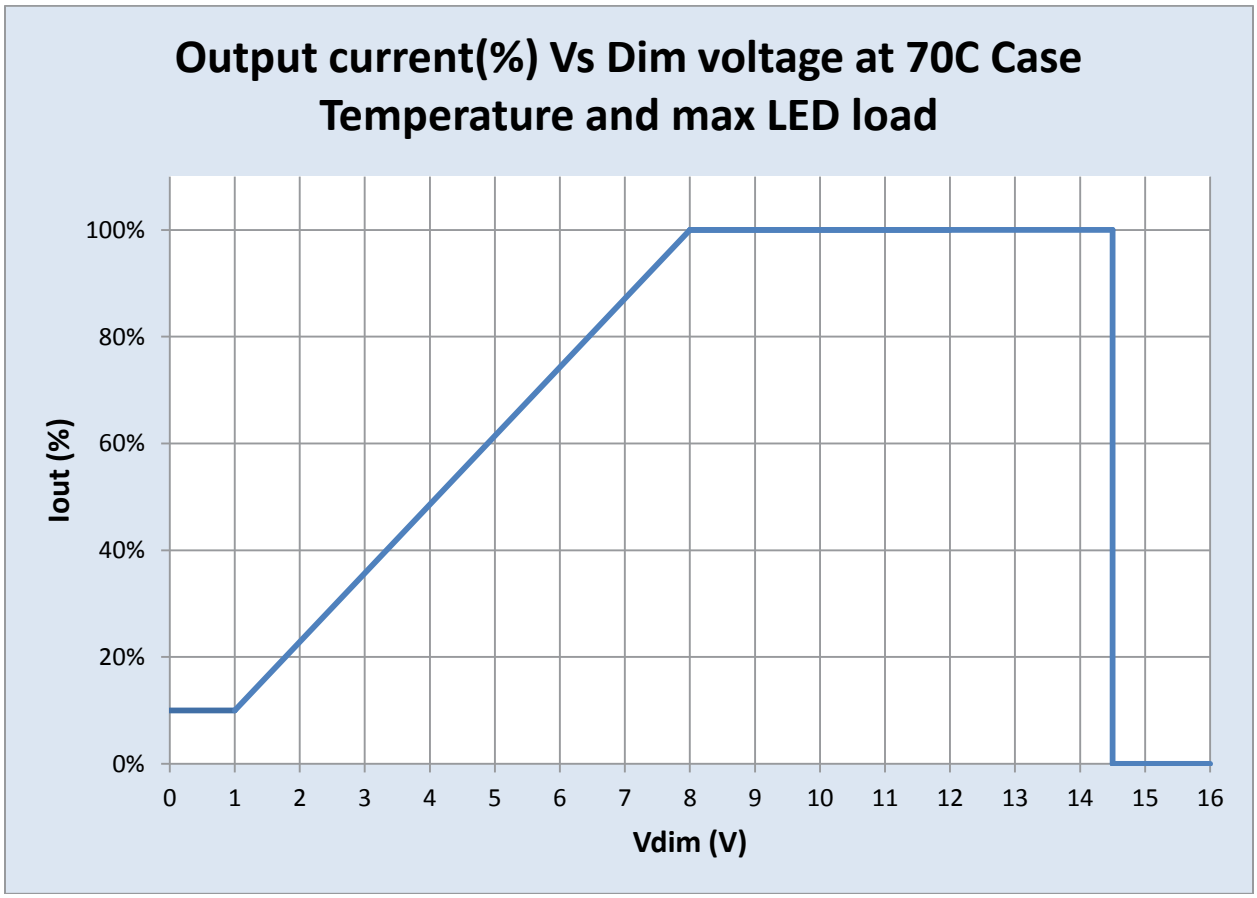
1-10V Dimming Curve

Dimming source current from the driver: 150µA (±3%) (@ 0<Vdim<8V)
LED Current Tolerance at any value of Vdim: ± 5% of Imax
Minimum Dim Level: 10% - 100%
Guaranteed Shutdown driver with Vdim>14.5V. Current limit at 3mA typ (4mA Max) at 16V dim.
Guaranteed no shutdown driver with Vdim<12V



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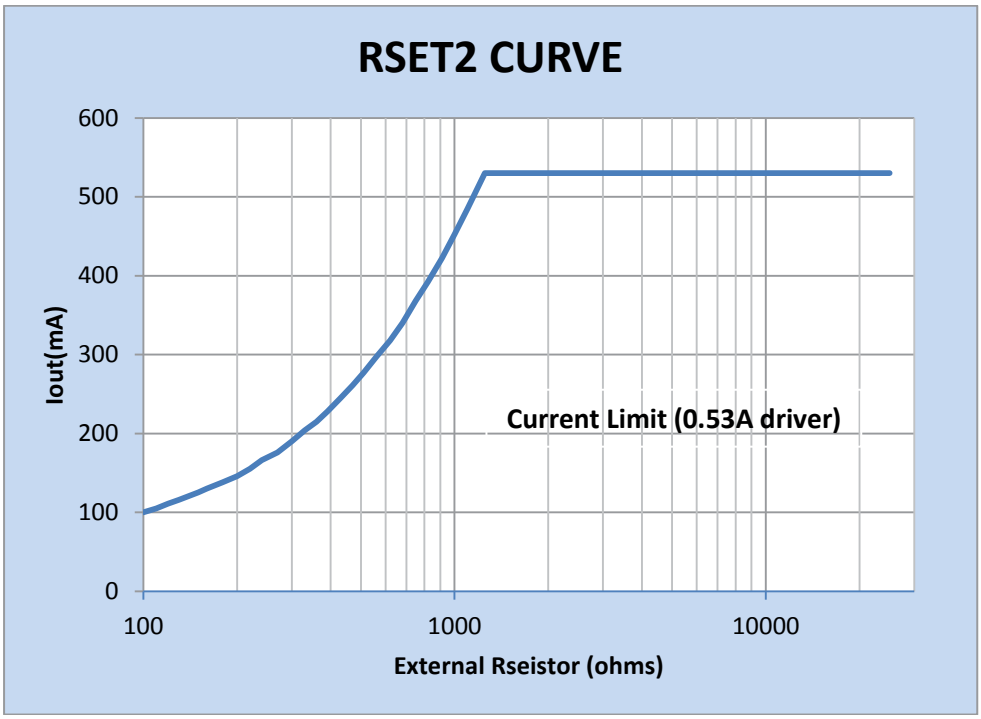
AOC (Adjustable Output Current) Settings:
LED current tolerance with variation of Rset2 is within ± 5% of Imax

Rset(Ohms)	Current (mA)
0	100
100	100
110	105
120	111
130	116
150	125
160	130
180	138
200	146
220	155
240	166
270	176
300	190
330	204
360	215
390	228
430	245
470	261
510	277
560	297
620	318
680	340
750	368
820	392
910	422
1000	452
1100	485
1200	515
1300	530
1500	530
1600	530
1800	530
1870	530



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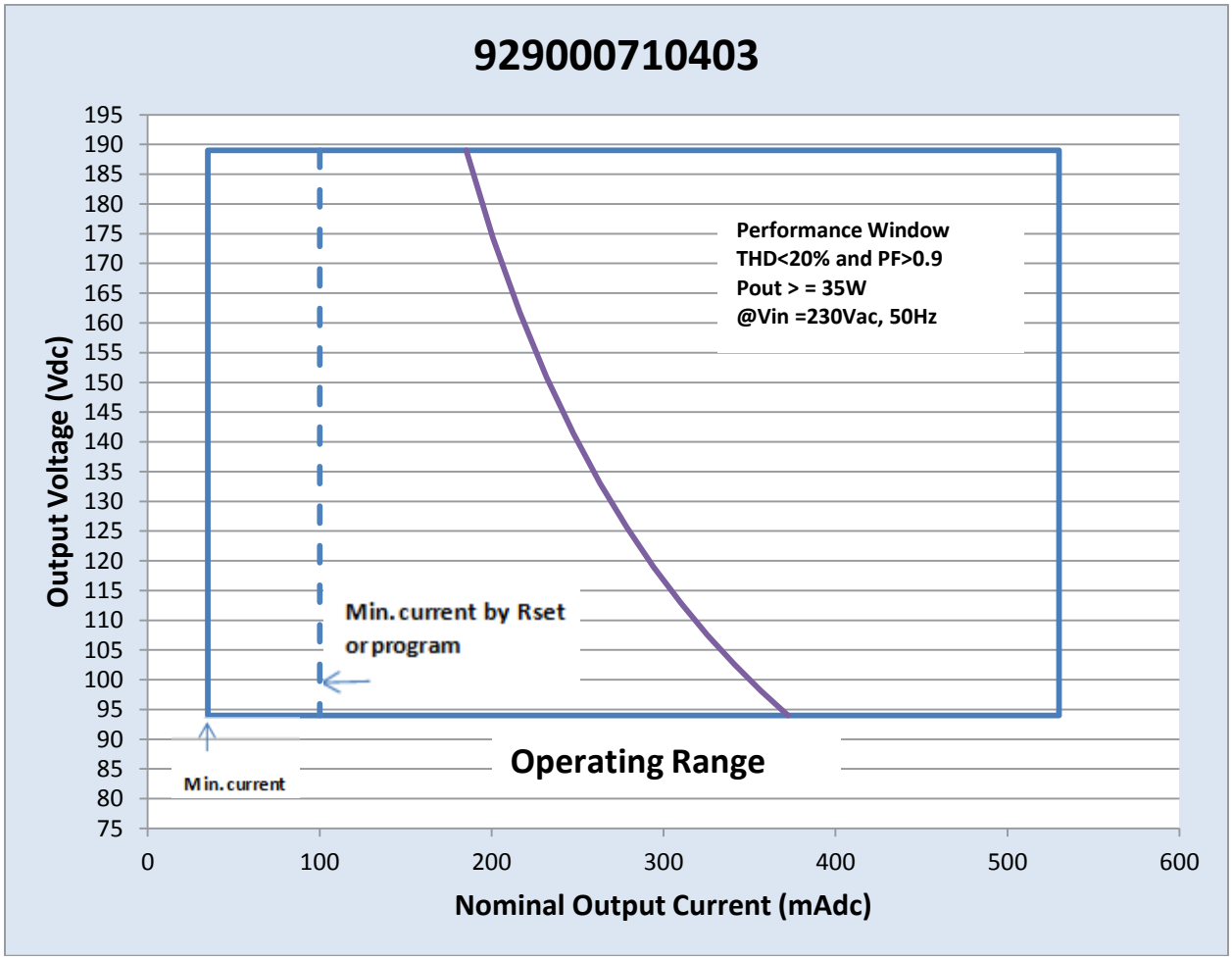
Operating Window:



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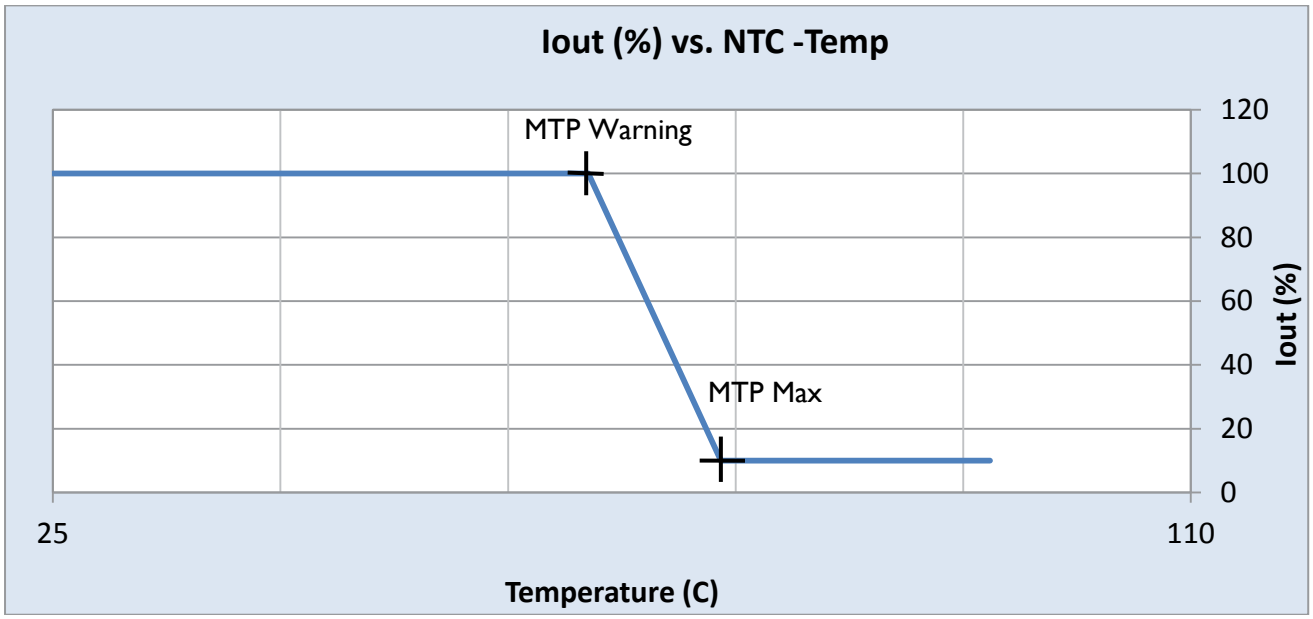
Module Thermal Protection

MTP options	Temperature range:	Default programmed values	Min delta (MTP max-MTP warn)	Dimming range	Missing NTC Signal*
NTC: 15k+390ohms Murata: NCP15XW153E03RC	MTP warn: 50C MTP max: 110C	MTP warn: **80C** MTP max: **90C**	10C	100% to 10%	NO
NTC:10k Murata: NCP18XH103J03RB	MTP warn: 50C MTP max: 85C	**N/A**	5C	100% to 10%	YES
Philips LED light Engine	Depending on the module connected to the driver See module datasheet			100% to 10%	NO

* MTP feature has to be enabled to get the missing NTC signal



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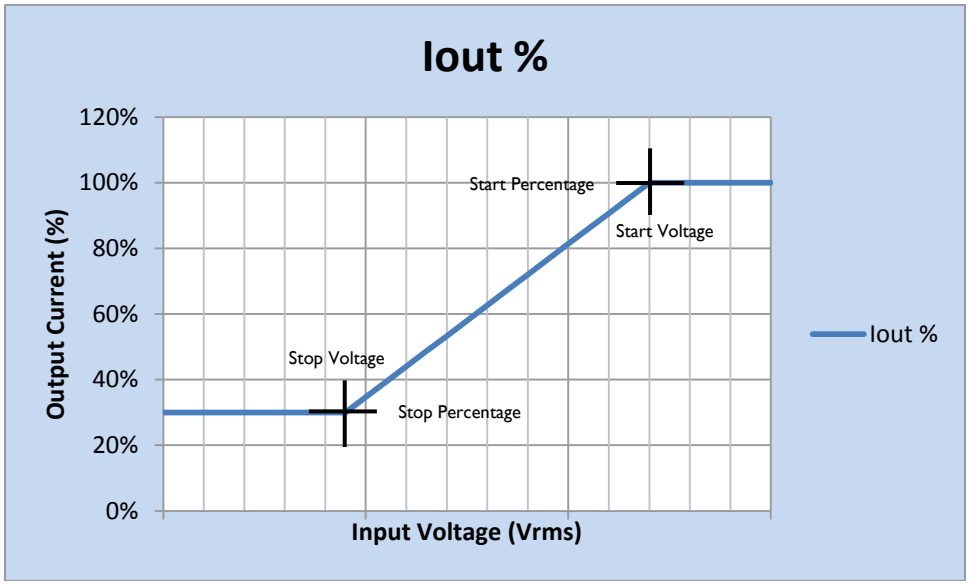
AmpDim Curve:

Parameter	Min	Max	Increments
Start Voltage	170Vrms	250Vrms	1Vrms(configurable by software)
Stop Voltage	150Vrms	230Vrms	1Vrms(configurable by software)
Start Percentage	30%	100%	1%(configurable by software)
Stop Percentage	30%	100%	1%(configurable by software)



Current Tolerance ΔI (%) = (Start Percentage – Stop Percentage) x 5/(Start Voltage – Stop Voltage)

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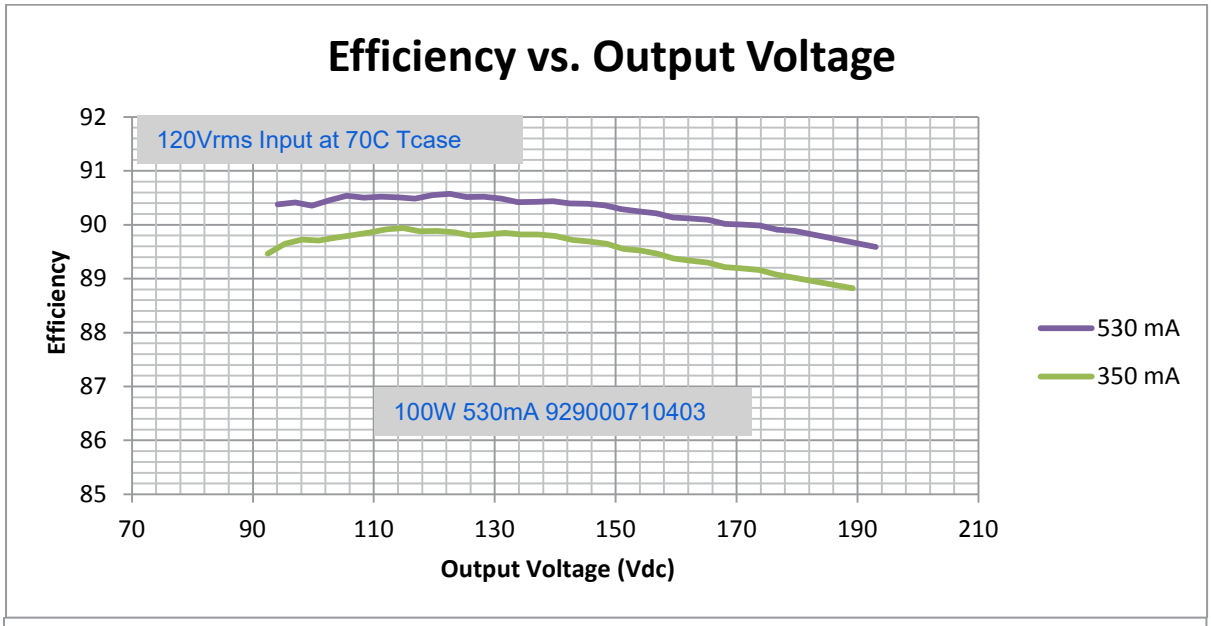

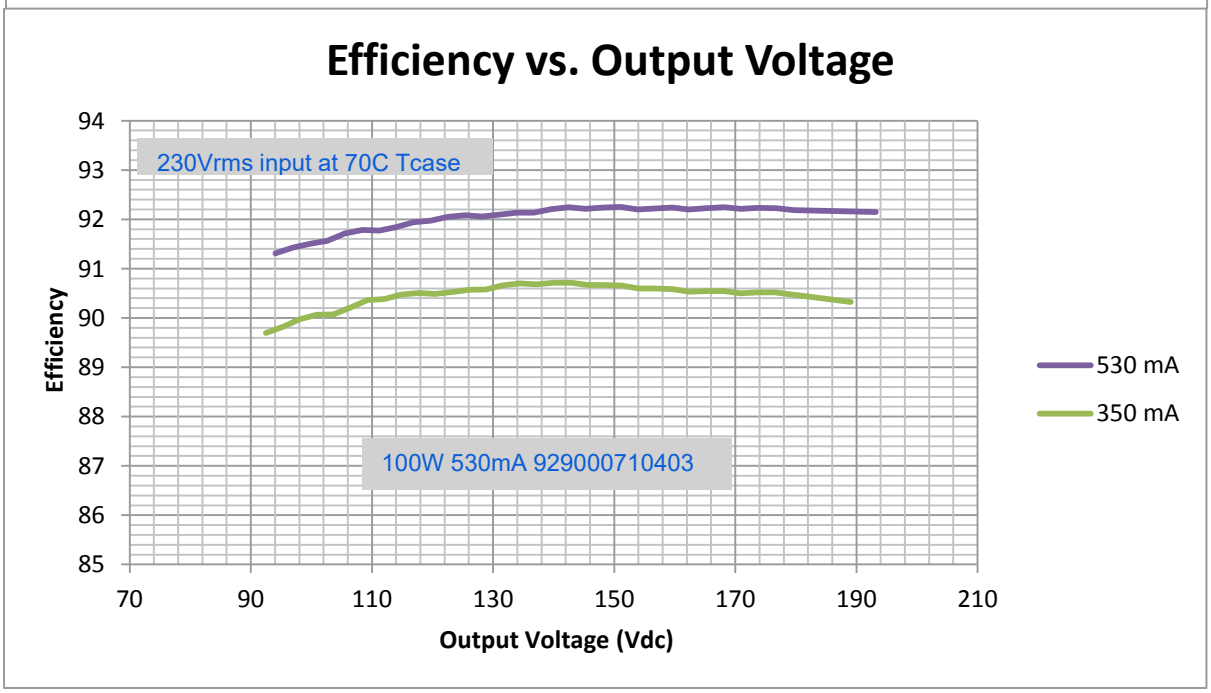

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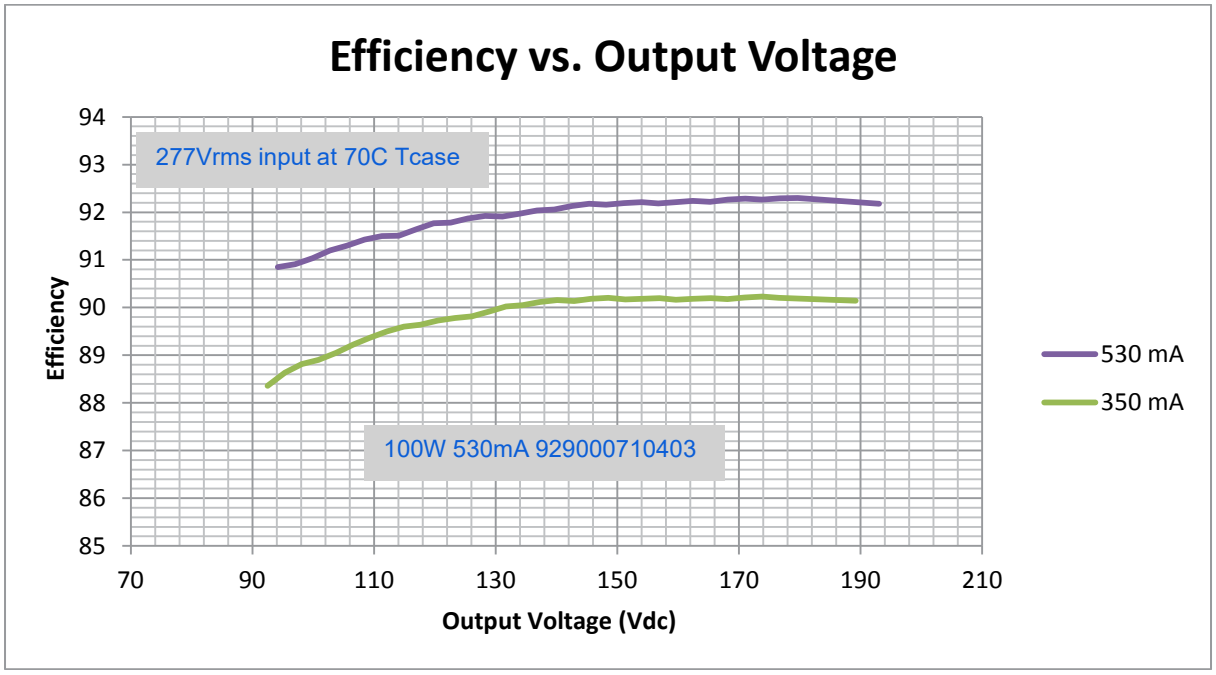

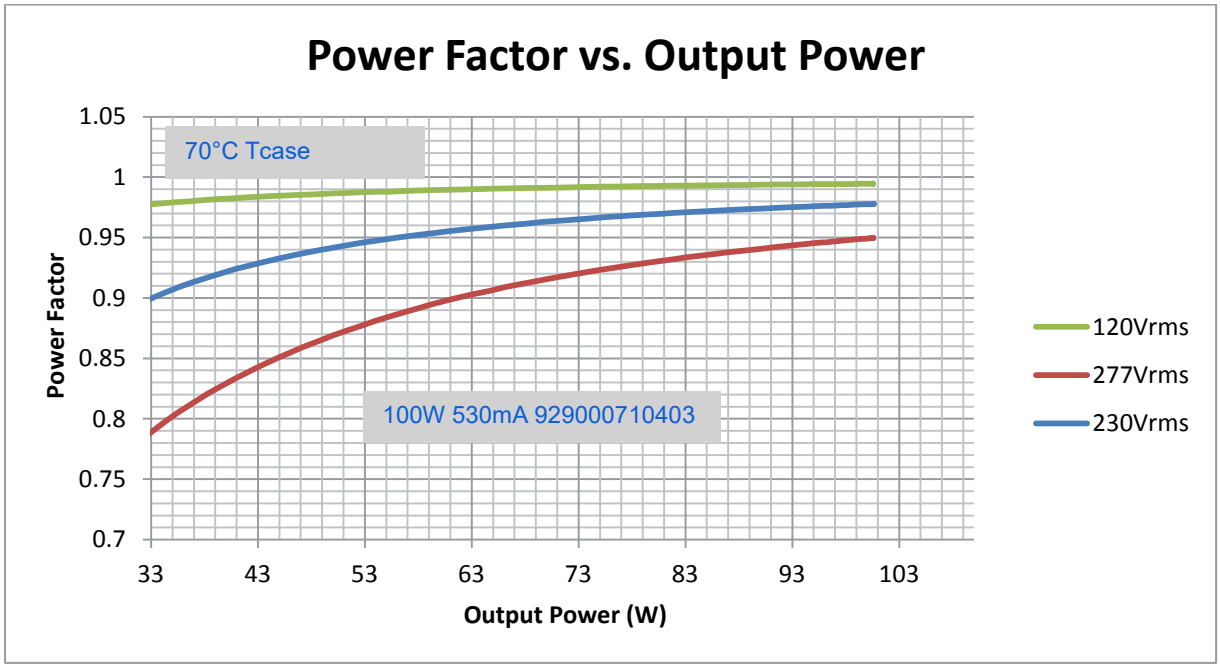

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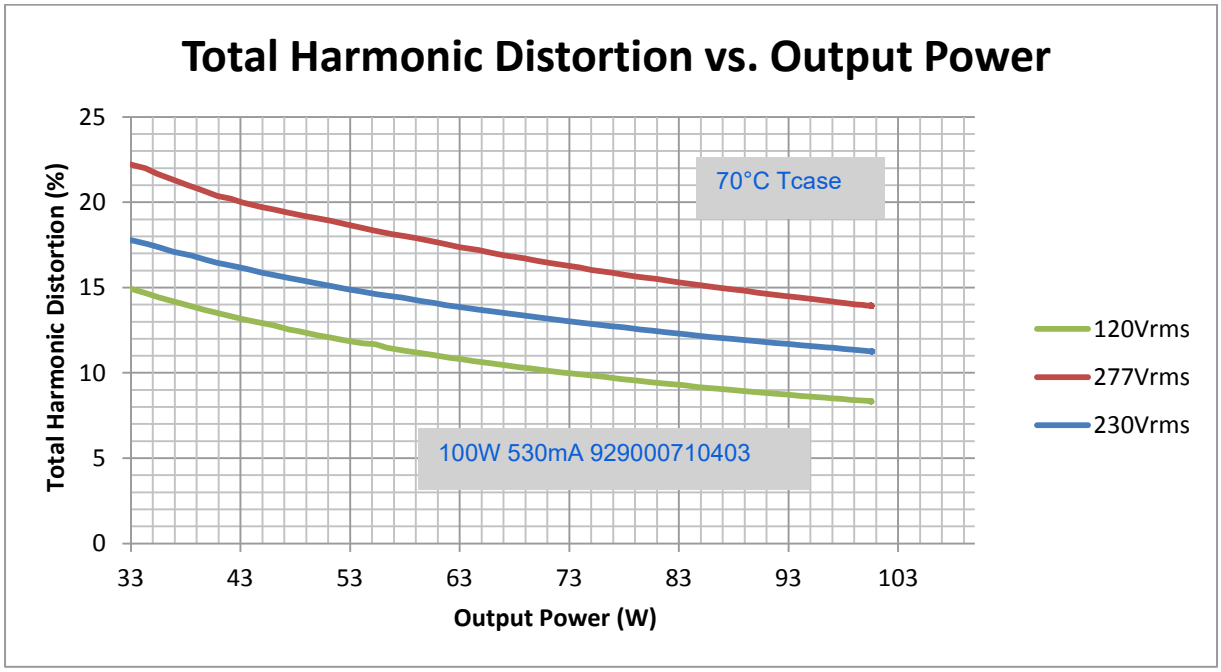

Programming Tool:

For latest version please check www.philips.com/xitanium

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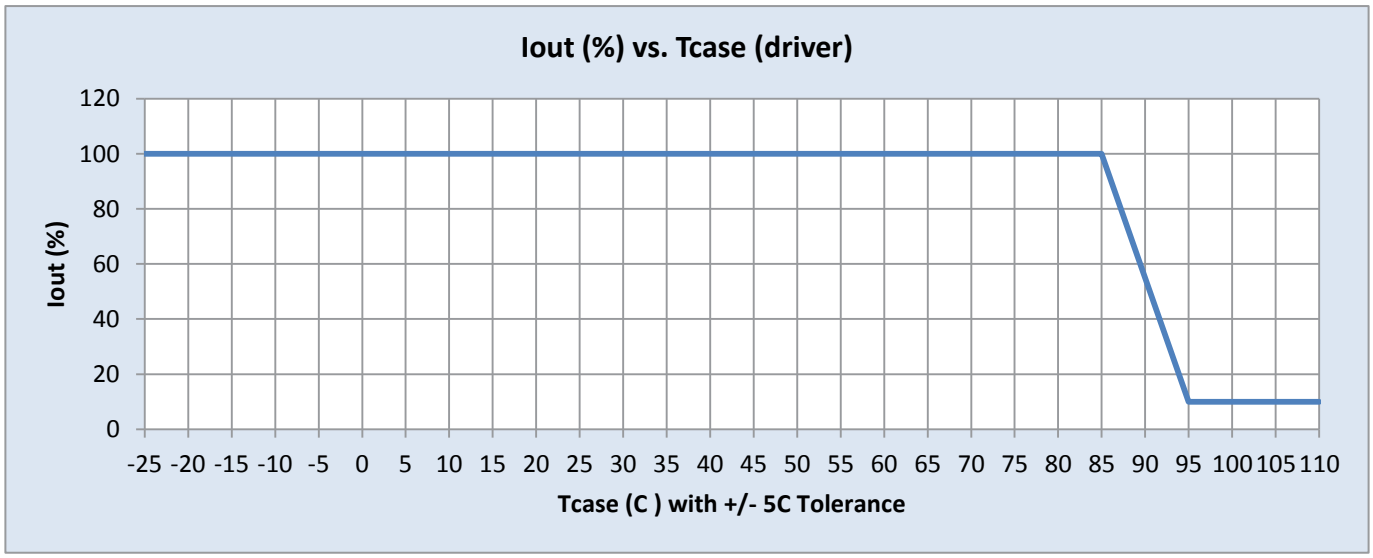
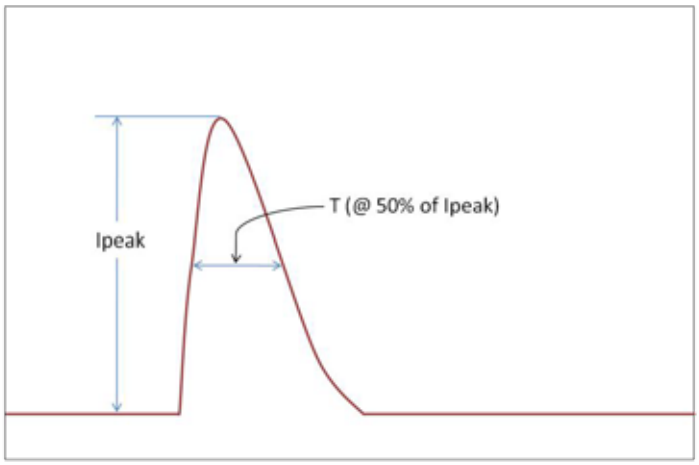
Iout vs. Tcase of Driver:



Inrush Current Info:



Vin	Ipeak	T (@ 50% of Ipeak)
120 Vrms	40 A	150 µs
230 Vrms	80 A	150 µs
277 Vrms	100 A	150 µs

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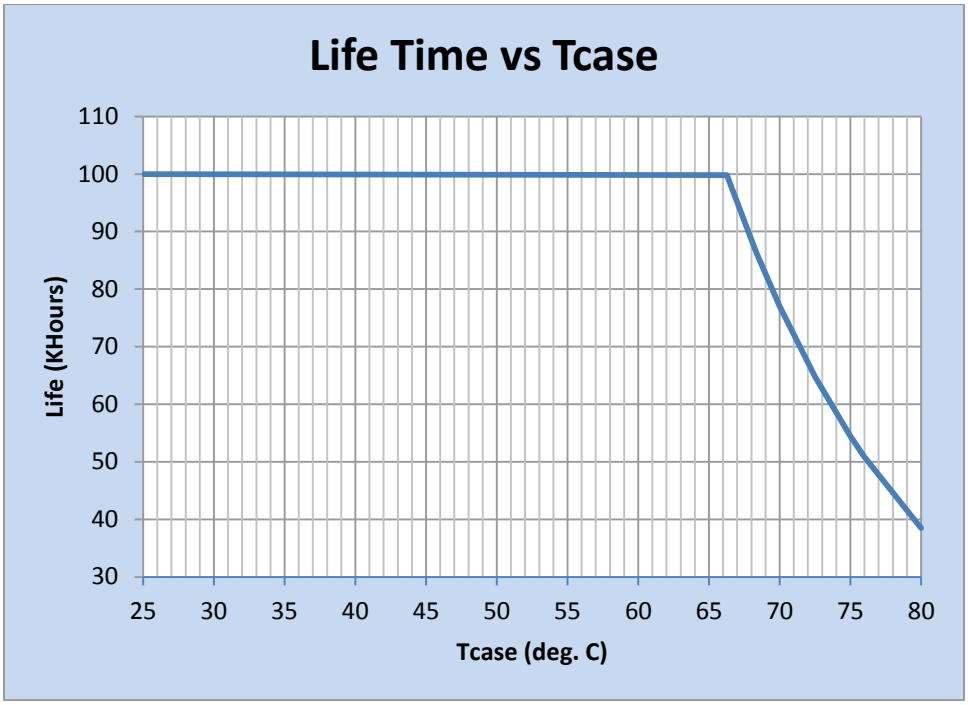
Lifetime vs. Tcase of Driver:



Failure Rate Info based upon MTBF modeling:

- **90% survivals at end of life @<=Tcase 70°C**

Failure Rate Info based upon field call rate data:
<0.01% per 1 kHr @<= Tcase 70 C

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CE isolation

Basic isolation: 2U+1000V
Double Isolation: 4U+2750V

Isolation	Input Wires	Output Wires	DALI Wires	0-10V Wires	Chassis
Input Wires	NA	Basic	Basic	Basic	Double
Output Wires	Basic	NA	Basic	Basic	Double
DALI Wires	Basic	Basic	NA	NA	Double
0-10V Wires	Basic	Basic	NA	NA	Double
Chassis	Double	Double	Double	Double	NA

UL isolation

Isolation	Input Wires	Output Wires	DALI Wires (Class 1&2)	0-10V Wires (Class 1&2)	Chassis
Input Wires	NA	2xU+1KV	2.5KVac	2.5KVac	2xU+1KV
Output Wires	2xU+1KV	NA	2.5KVac	2.5KVac	2xU+1KV
DALI Wires(Class 1&2)	2.5KVac	2.5KVac	NA	NA	2.5KVac
0-10V Wires(Class 1&2)	2.5KVac	2.5KVac	NA	NA	2.5KVac
Chassis	2xU+1KV	2xU+1KV	2.5KVac	2.5KVac	NA

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