

9290 007 12703

Electrical Specifications

Brand Name	XITANIUM
Description	Xitanium 300W 1.5A Prog+ GL-R sXt
Input Voltage	120 ~ 230 ~ 277VAC
Input Frequency	50/60Hz
RoHS	Yes
Status	Preliminary

Output Power (W)	Output Voltage (V)	Output Current range (ADC)	Efficiency@ Max Load at 1.5A 200V (70C Tcase)			Max Case Temp. (°C)	Input Current (Arms)			Max. Input Power (W)	Inrush Current (A _{pk} / μ s / %width) 120VAC & 277VAC: acc. NEMA			THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection DM/CM (kV)	Weight (Lbs/kg)	Envir. Protection Rating
			120V AC	230V AC	277V AC		120 VAC	230 VAC	277 VAC		120 VAC	230 VAC	277 VAC					
300	80 ~ 280	0.1 ~ 1.5	120V AC	230V AC	277V AC	80°C	120 VAC	230 VAC	277 VAC	330	120 VAC	230 VAC	277 VAC	<20% See graph	>0.95 See graph	4/4	1.6 kg / 3.6 lbs	UL damp and dry
			91.7 %	93.6 %	93.8 %		2.73	1.42	1.21		77/440/10	170/220/50	166/530/10					

Wiring Diagram



Input and output lead wires.

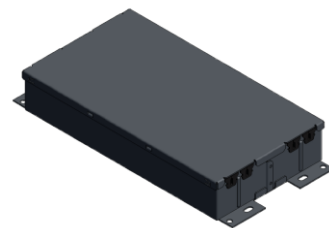
Leadwires are 18AWG/0.82mm² 105°C/600V, solid copper.

Lead length

Standard lead length: 275 mm (\pm 30mm) on all wires outside the enclosure

Dimming Method	Dimming Range		Other Comments
1-10V Isolated	10% ~ 100%		Dimming source current: 150 μ A (\pm 3%). Min. output current: 100mA
DALI	1 ~ 254	10% ~ 100%	Linear or logarithmic variation. Min. output current: 100mA
AmpDim	30% ~ 100%		Linear
Prog. AOC range	0.35A to 1.5A Factory default AOC value: 1000mA		

Enclosure



Dimensions	(mm)
Case Length	213.9
Case Width	118.3
Case Height	37.6 +/-0.65
Mounting Length	224.6/226.2
Mounting Width	55.8...63.8/102.7
Overall Length	240.5



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Product Data

Order code	9290 007 12703
Full product code	9290 007 12703
Full product name	XITANIUM 300W 1.5A Prog+ GL-R sXt
Net weight per piece	1.6 kg / 3.6 lbs
Interfaces	1-10V Dimming, DALI, AmpDim, Integrated Dynadimmer AOC(via DALI only), MTP (via RNTC), CLO
Ambient temperature range	-40 to +55°C
Emergency DC detection (DCemDim)	NO
1-10V dimming specifications	150µA ± 3% source current from driver. See dim curve for details.
Line voltage	120 ~ 277VAC, 186 ~ 275VDC
Line current	2.71A @ 120VAC, 1.42A @ 230VAC, 1.21A @ 277VAC
Line frequency	DC, 50/60Hz
Min. mains voltage operational	108VAC, 186VDC
Max. mains voltage operational	305VAC, 275VDC
Envir. Protection Rating	UL damp and dry, IP rating = none, for built-in use only
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 B/C type	3/6
Input overvoltage	Will survive input overvoltage stress of 320VAC for max.48 hours and 350VAC for max. 2 hours
Touch current	<0.7mA peak (IEC 61347 -1:2007 (2 nd edition)+A1:2010+A2:2012) <0.75mA rms (per UL 8750)
Output current ripple	Max. 15% @ 1.5A (ripple = pk/avg)
THD total	Refer to graph
PF @ Max Load	Refer to graph
Insulation between input and output	Basic
Insulation towards enclosure	Double
Protections	Short-circuit and open-circuit protection for LED + and LED-
Standby power	< 1.0W
Safety approbations	UL8750, IEC 61347 -1:2007 (2 nd edition)+A1:2010+A2:2012
Emissions	FCC 47 CFR Part 15 Class A, CISPR 15
Surge protection	4kV CM/DM (IEEE / ANSI C62.41.2)

Installation & Application Notes:

Section I – Physical Characteristics

- 1.1 LED Driver shall be installed inside an electrical enclosure (built-in use only)
- 1.2 Wiring inside electrical enclosure shall comply with 600V/105°C rating or higher.

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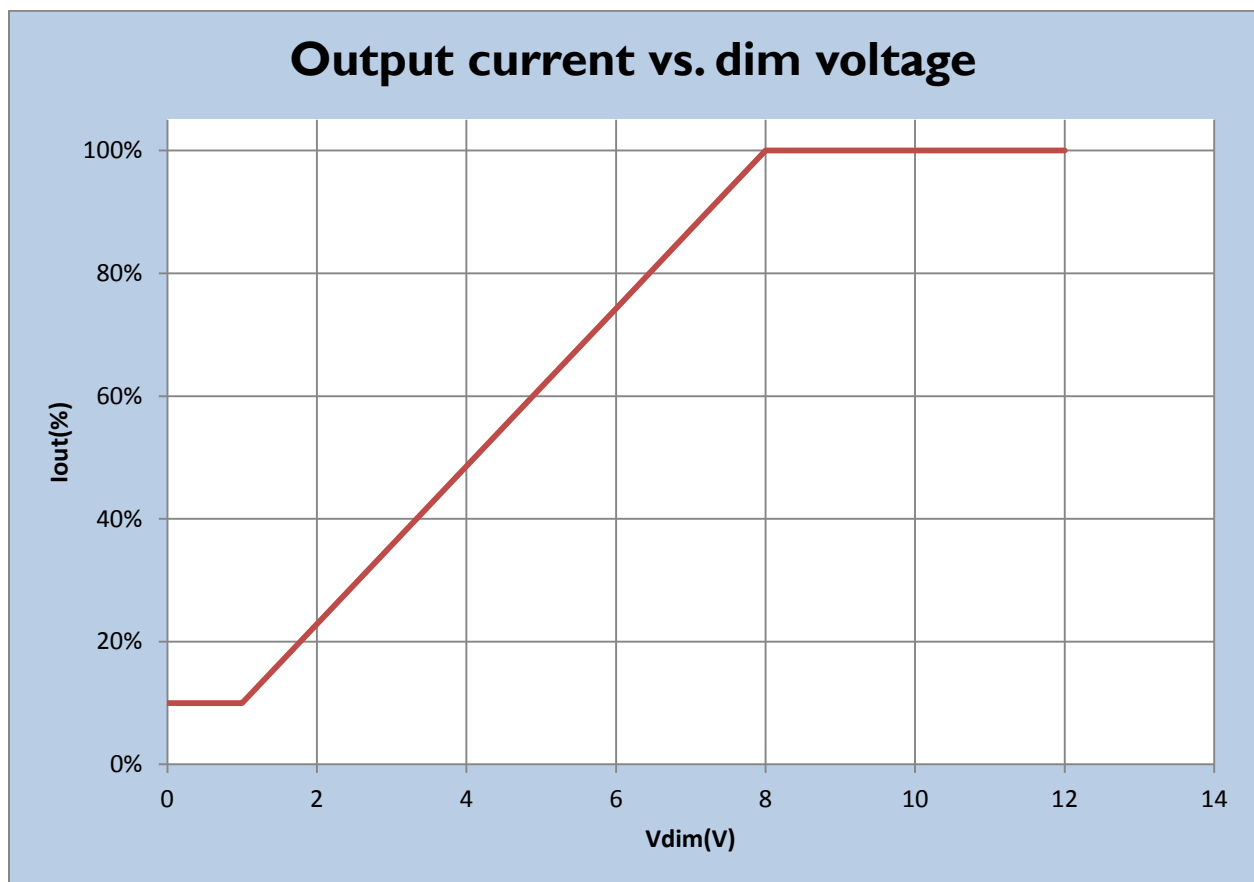
Electrical Specifications

I-10V dimming curve

Dimming source current from the driver: $150\mu\text{A}$ ($\pm 3\%$) (@ $0 < V_{\text{dim}} < 8\text{V}$)

LED current tolerance at any value of V_{dim} : $\pm 5\%$ of I_{max}

Minimum dim level: 10% or 100mA if AOC < 1000mA



I-10V interface is enabled by factory default

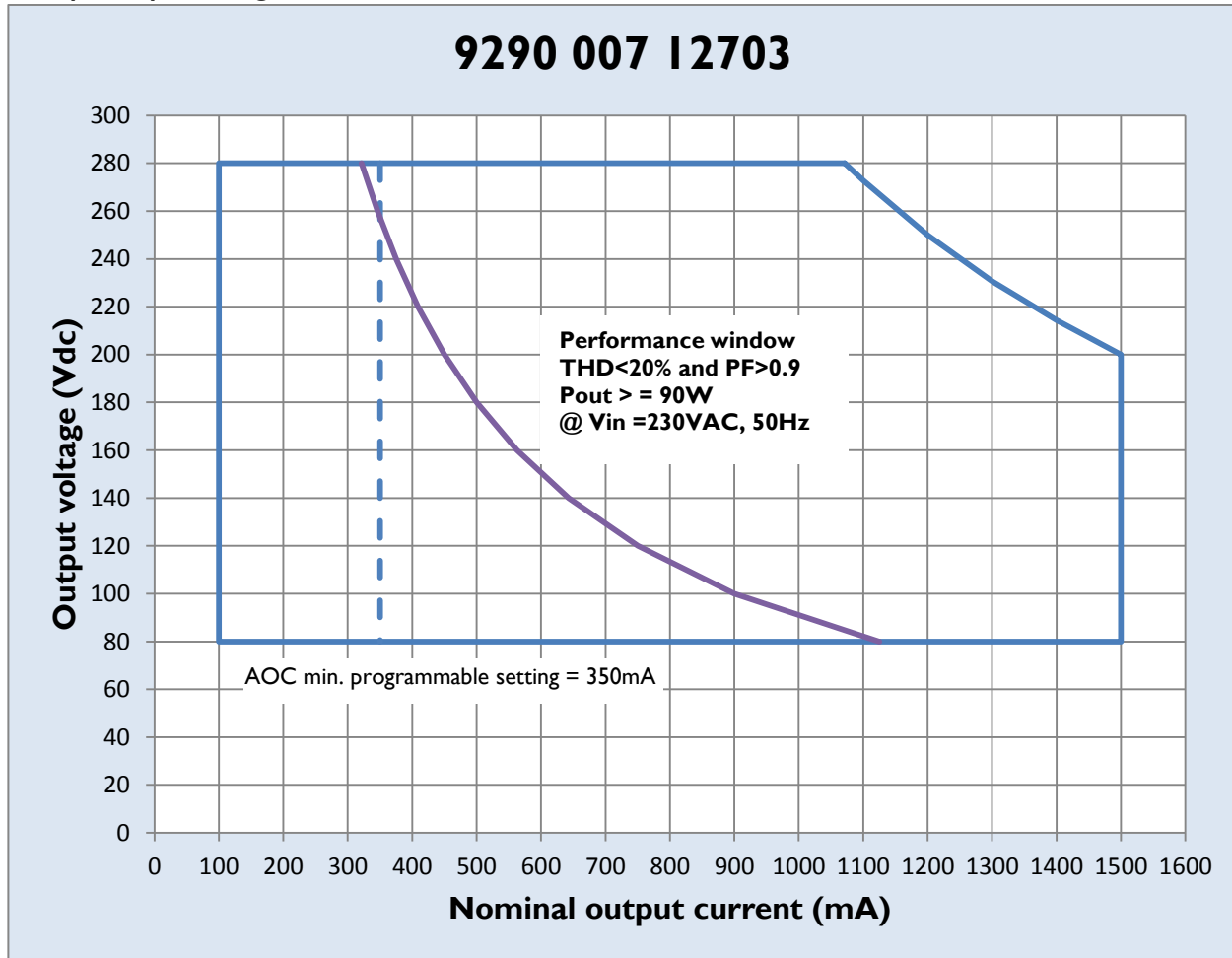


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Output operating window:





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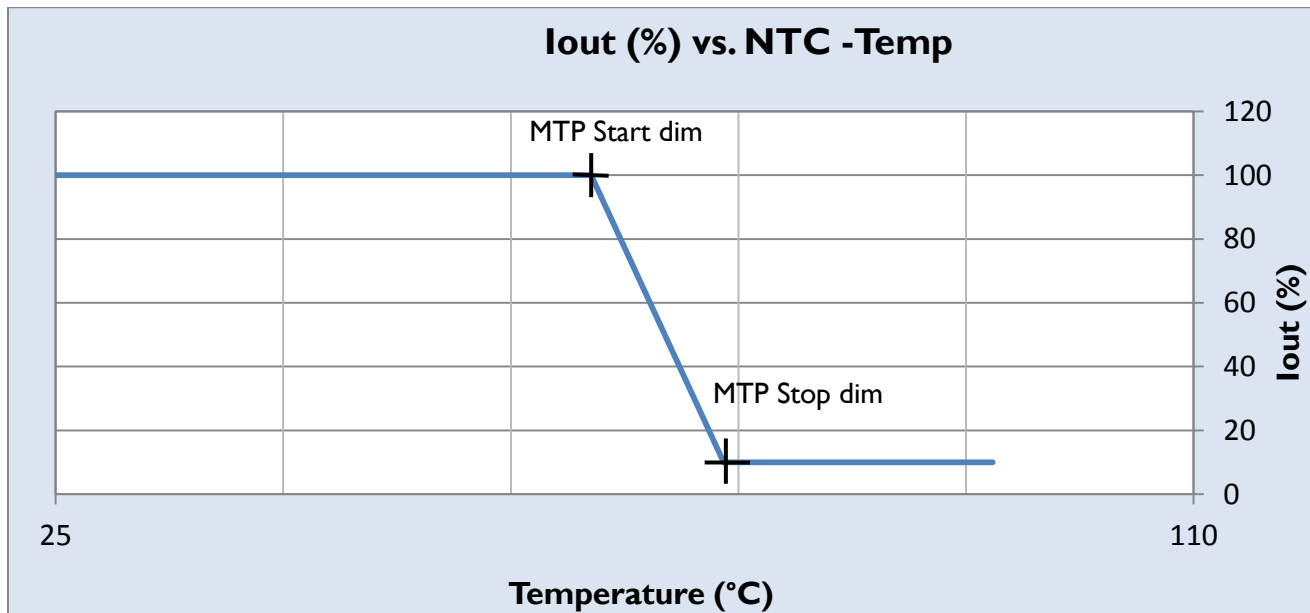
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Module Thermal Protection

Factory defaults: MTP enabled, Philips LED Light Engine option enabled

MTP option	Default programmed values	Dimming range
Philips LED Light Engine	MTP Start dim: 2263 ohms MTP Stop dim: 1757 ohms	100% to 10%
Custom: enter selected NTC value and B(25-85°C)		100% to 10%
NTC1 preset: 10k NTC Murata: NCPI8XH103J03RB		100% to 10%
NTC2 preset: 15k NTC+390ohms Murata: NCPI5XWI53E03RC		100% to 10%



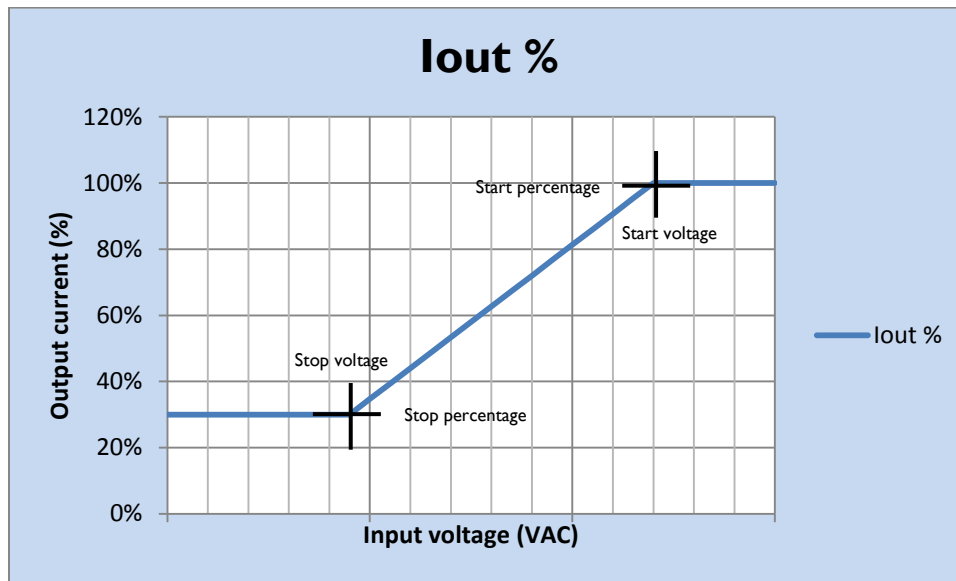
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AmpDim curve:

Parameter	Min	Max	Increments
Start voltage	170VAC	250VAC	1V (configurable by software)
Stop voltage	150VAC	230VAC	1V (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) \times 5/(Start voltage – Stop voltage)

Note: phase-cut dimming is *not* allowed.

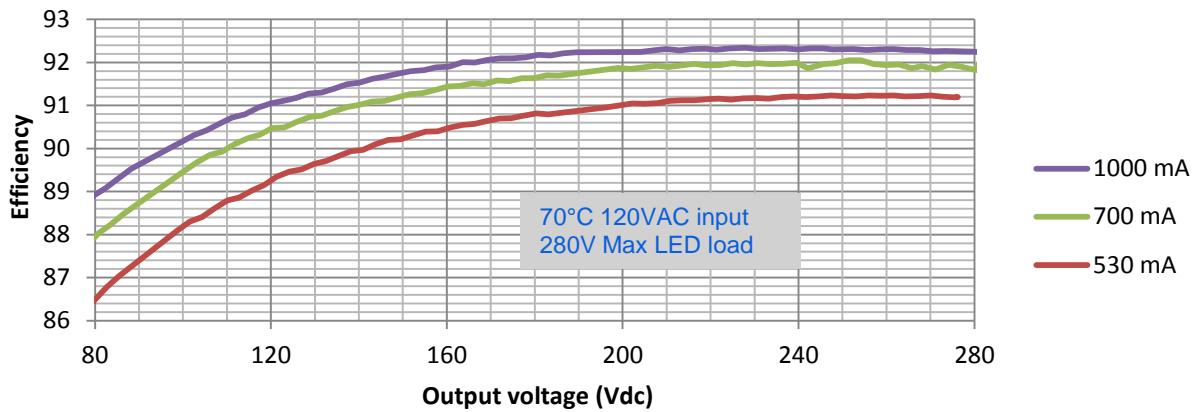


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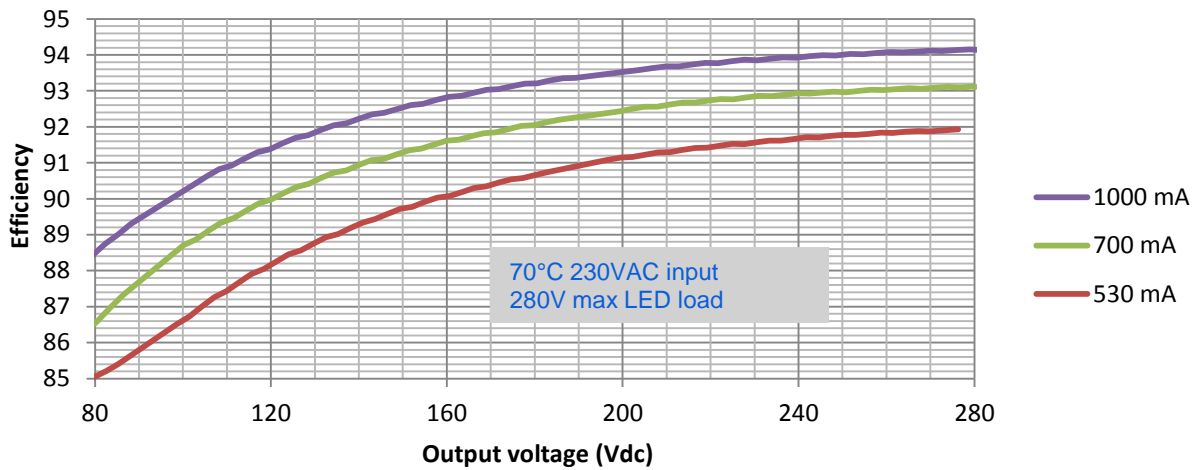
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Electrical Specifications

Efficiency vs. output voltage at 120VAC in



Efficiency vs. output voltage at 230VAC in



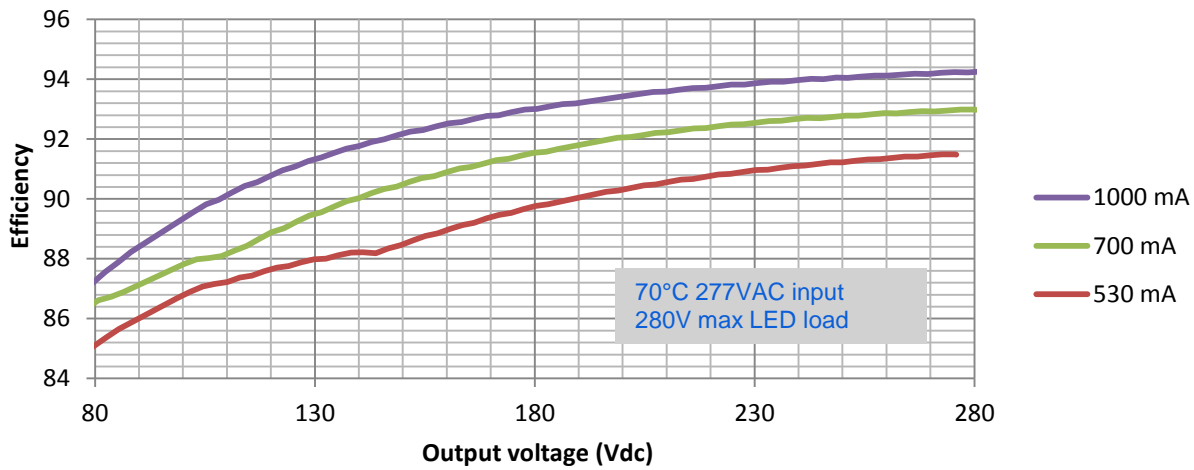


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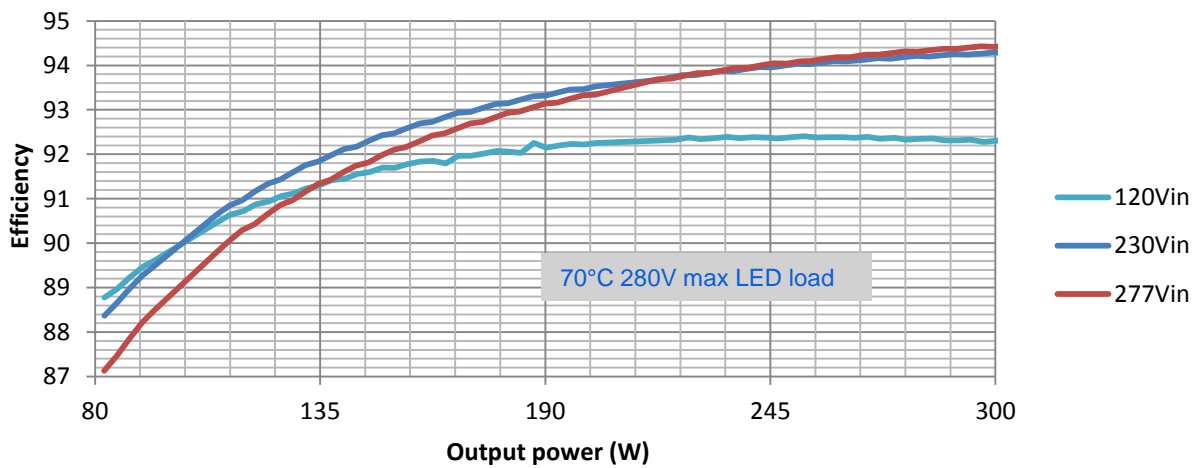
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Electrical Specifications

Efficiency vs. output voltage at 277VAC in



Efficiency vs. output power



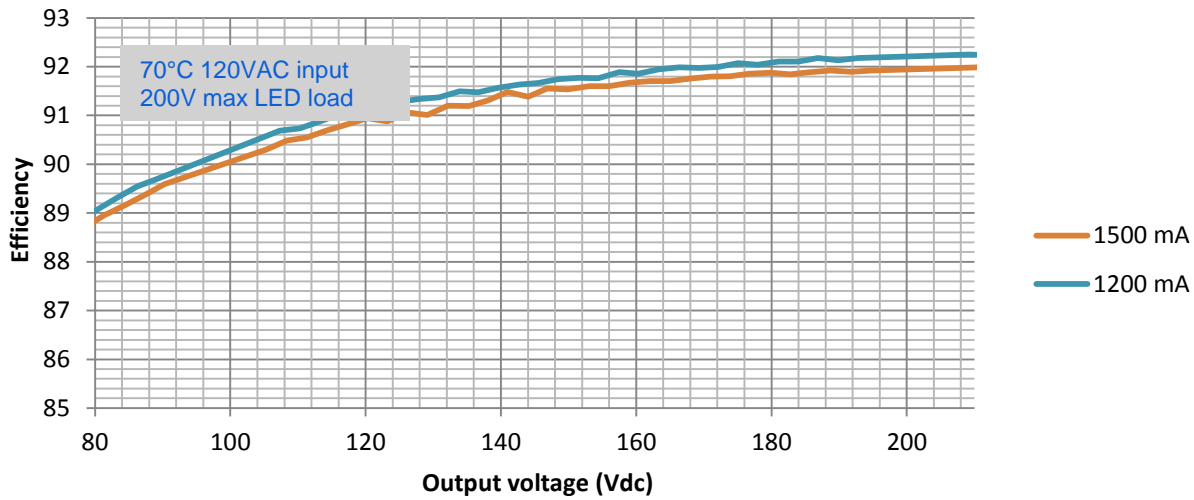


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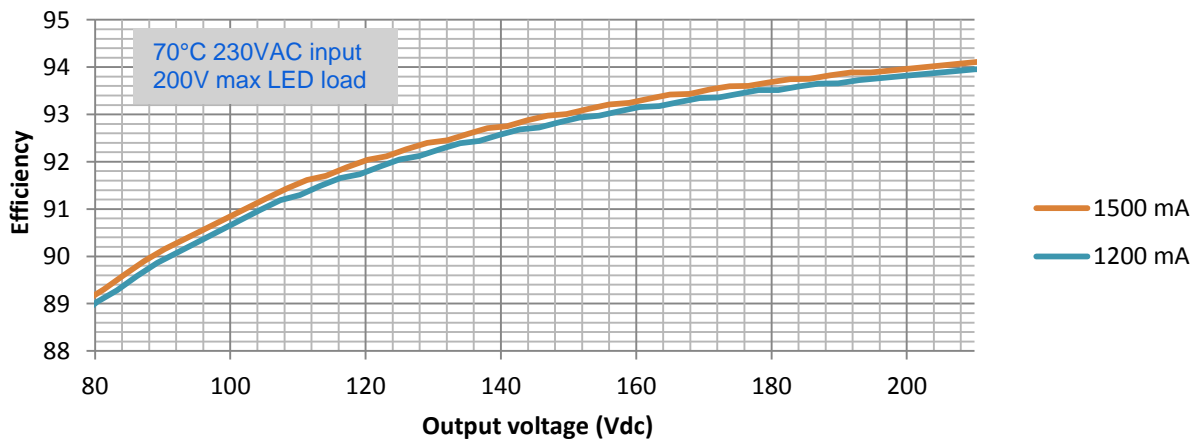
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Efficiency vs. output voltage at 120VAC in



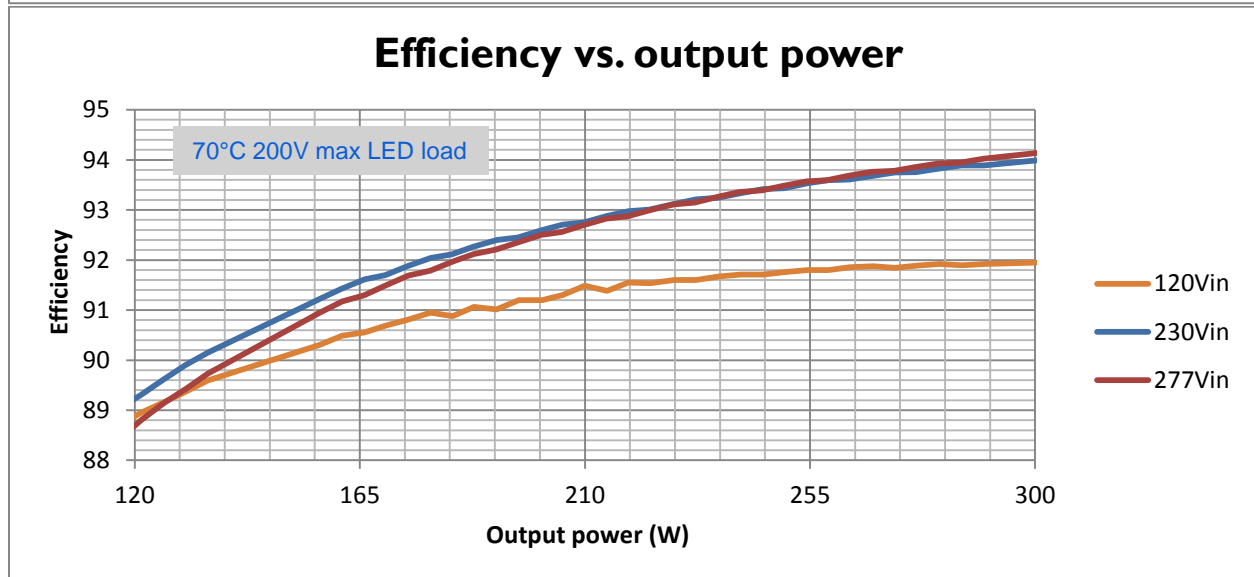
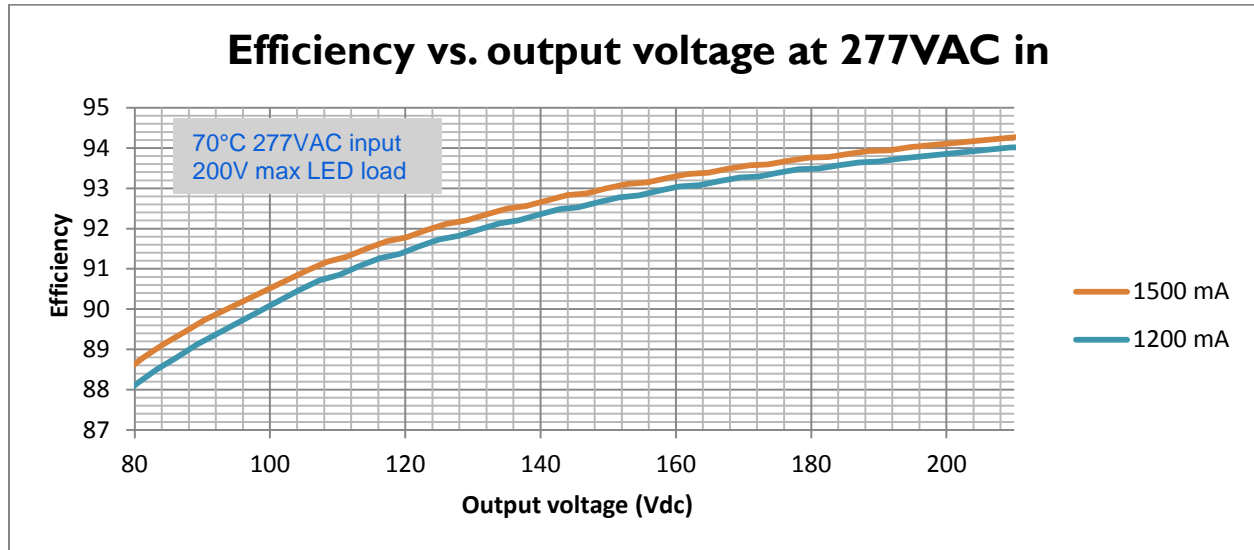
Efficiency vs. output voltage at 230VAC in



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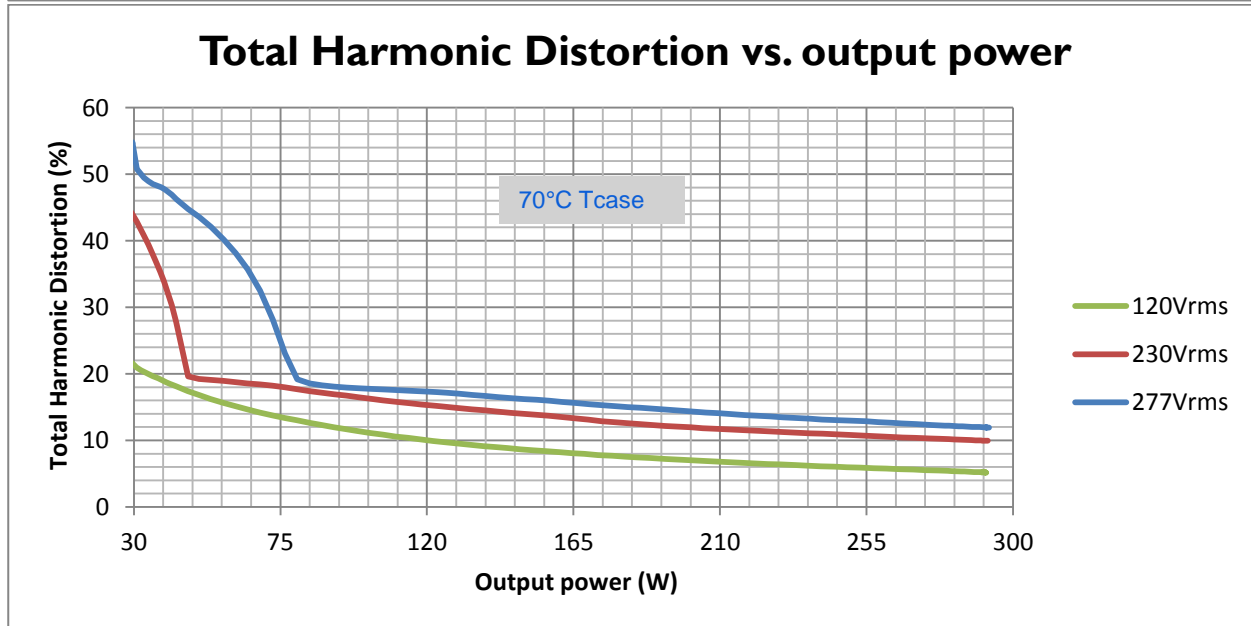
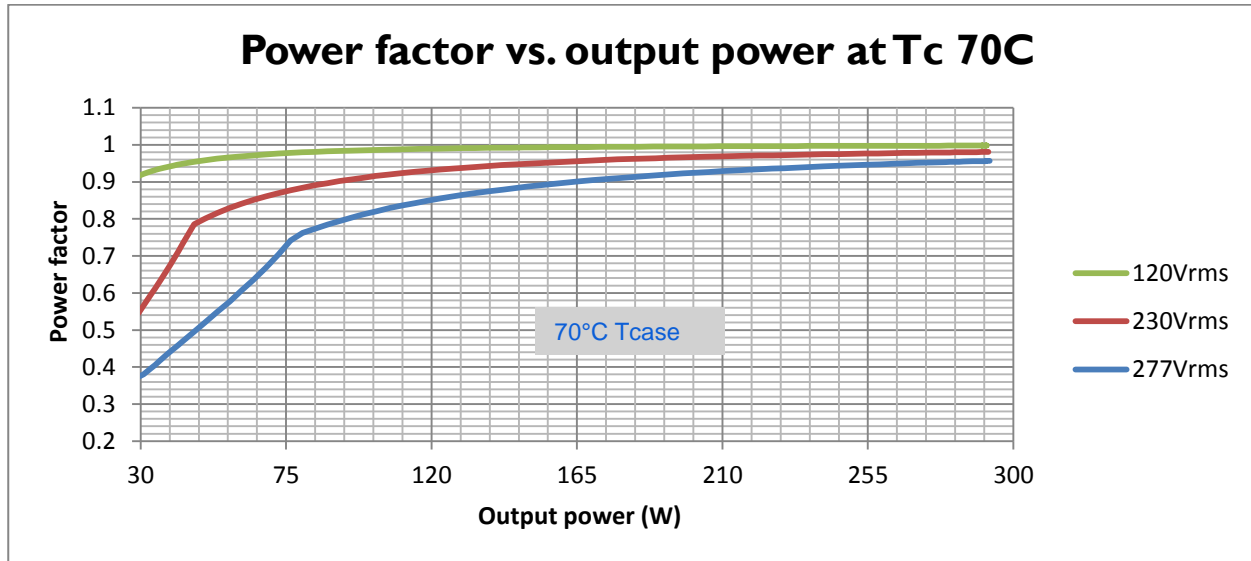




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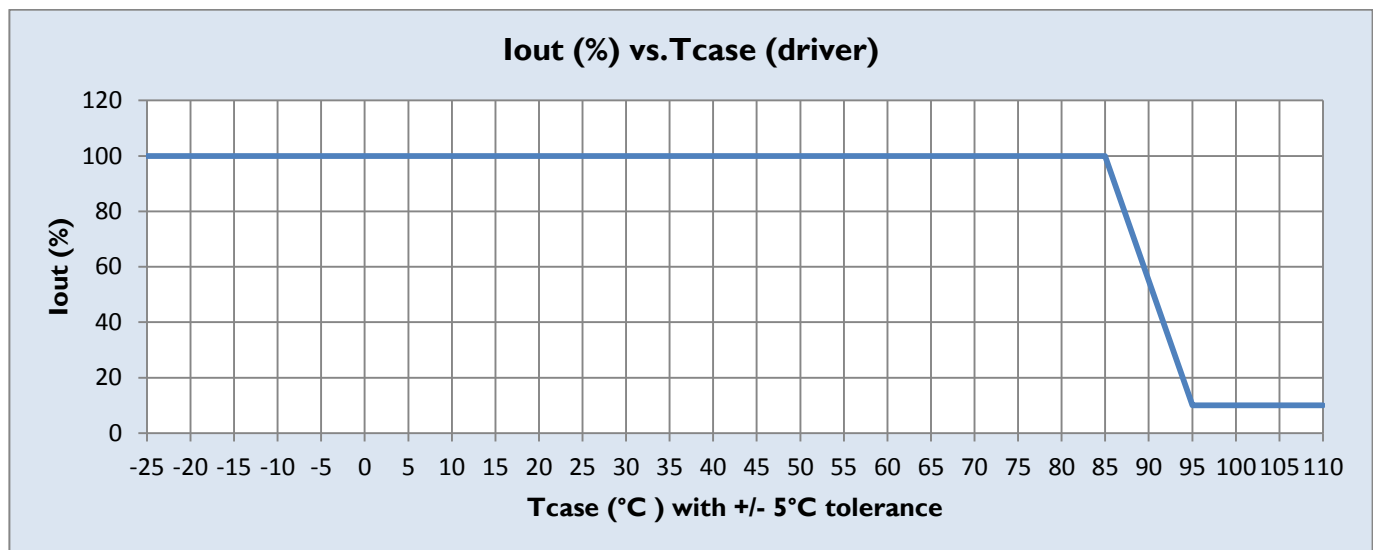
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Programming Tool: Philips MultiOne

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

Iout vs. driver Tcase:

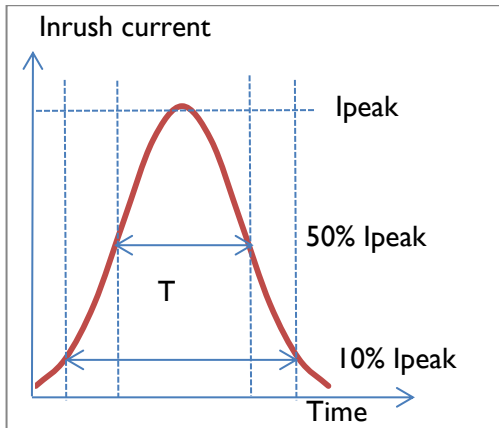


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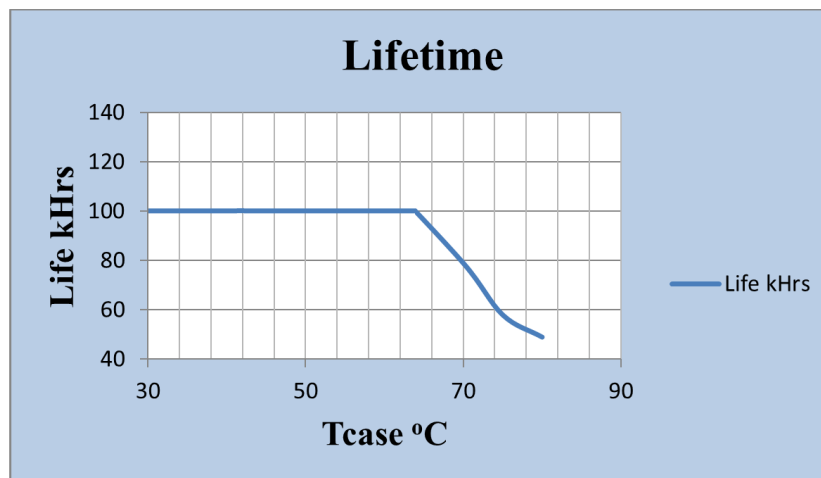
Inrush Current Info:



Vin	Ipeak	T (@ Ipeak)
120 VAC*	77A	440µs/10%
230 VAC	170A	220µs/50%
277 VAC*	166A	530µs/10%

*: According NEMA

Lifetime vs. Tcase of Driver:



Failure rate info based upon MTBF modeling:

- 90% survival at end of life @ $\leq T_{case} 65^{\circ}C$



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IEC Insulation

Basic Insulation: 2U+1000V

Double Insulation: 4U+2750V

Insulation	Mains input	LED +NTC output	DALI input	I-10V input	Enclosure
Mains input	NA	Basic	Basic	Basic	Double
LED +NTC output	Basic	NA	Basic	Basic	Basic
DALI input	Basic	Basic	NA	NA	Double
I-10V input	Basic	Basic	NA	NA	Double
Enclosure	Double	Basic	Double	Double	NA

UL Insulation

Insulation	Mains input	LED +NTC output	DALI input (Class I&2)	I-10V input (Class I&2)	Enclosure
Mains input	NA	2xU+1kV	2.5kVac	2.5kVac	2xU+1kV
LED +NTC output	2xU+1kV	NA	2.5kVac	2.5kVac	2xU+1kV
DALI input (Class I&2)	2.5kVac	2.5kVac	NA	NA	2.5kVac
I-10V input (Class I&2)	2.5kVac	2.5kVac	NA	NA	2.5kVac
Enclosure	2xU+1kV	2xU+1kV	2.5kVac	2.5kVac	NA