

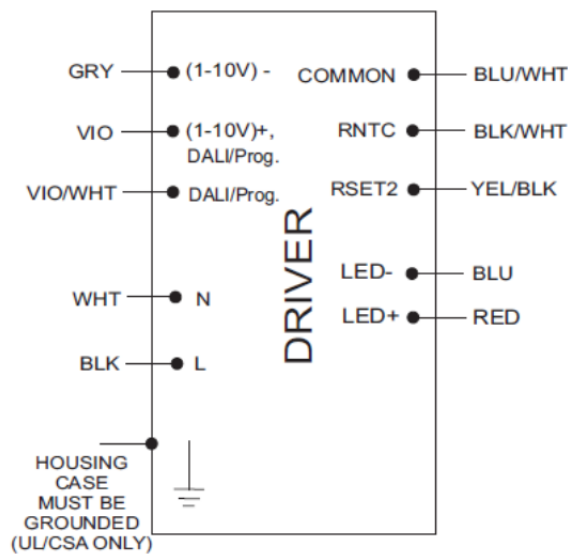
## 92900 070 8803

|                 |                                   |
|-----------------|-----------------------------------|
| Brand Name      | XITANIUM                          |
| Description     | Xitanium 40W 0.70A Prog+ GL-J sXt |
| Input Voltage   | 120 ~ 230 ~ 277V                  |
| Input Frequency | 50/60Hz                           |
| RoHS            | Yes                               |
| Status          | Released                          |

### Electrical Specifications

| Output Power (W) | Output Voltage (V) | Output Current (A) | Efficiency@ Max Load |      |      | Max Case Temp. (°C) | Input Current (Arms) |       |       | Max. Input Power (W) | Inrush Current (A <sub>peak</sub> /50%-μs) |                     |                     | THD @ Max Load (%) | Power Factor @ Max Load | Surge Protection Common/Diff (KV) | Weight (Lbs/kgs) |
|------------------|--------------------|--------------------|----------------------|------|------|---------------------|----------------------|-------|-------|----------------------|--|---------------------|---------------------|--------------------|-------------------------|-----------------------------------|------------------|
|                  |                    |                    | 120V                 | 230V | 277V |                     | 120 V                | 230 V | 277 V |                      | 120 V <sub>in</sub>                        | 230 V <sub>in</sub> | 277 V <sub>in</sub> |                    |                         |                                   |                  |
| 40               | 29 ~ 57            | 0.10 ~ 0.70        | 86                   | 88   | 88   | 80 °C               | 0.39                 | 0.21  | 0.17  | 48                   | 31/100                                     | 65/100              | 73/100              | <20 See graph      | >0.90 See graph         | 4/4                               | 0.84/0.38        |
|                  |                    |                    |                      |      |      |                     |                      |       |       |                      |  |                     |                     |                    |                         |                                   |                  |

### 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%    | 0.047                      | Dimming source current: 150 μA (±3%) |
| DALI           | 1 ~ 254       | 10% ~ 100%                 | Linear or Logarithmic Variation      |
| Amp Dimming    | 30% ~ 100%    | 0.047                      | Linear                               |

### Enclosure



|                 | (mm)     |
|-----------------|----------|
| Case Length     | (139.34) |
| Case Width      | (45.64)  |
| Case Height     | (28.32)  |
| Mounting Length | (144.2)  |
| Mounting Width  | (27.35)  |
| Overall Length  | (148.22) |



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## Electrical Specifications

### Product Data

|  |   |
|--|---|
| Order code                               | 929000708803  |
| Full product code                        | 929000708803  |
| Full product name                        | XITANIUM 40W 0.70A Prog+ GL-J sXt   |
| Net weight per piece                     | 0.38 KG / 0.84 lbs  |
| Interfaces                               | 1-10V, AmpDim, DALI, Integrated Dynadimmer, AOC (via Rset), MTP (via RNTC)                                  |
| Ambient Temp Range                       | -40C to +55C  |
| Corresponding Tcase                      | -15C to +80C  |
| 1-10V Dimming Specifications             | 150 $\mu$ A $\pm$ 3% source current from driver, Vdim > 14.5V to shutdown driver. See dim curve for detail. |
| Line Voltage                             | 120-277V  |
| Line Current                             | 0.39A @ 120V, 0.21 A @230V, 0.17A @ 277V  |
| Line Frequency                           | 50/60Hz   |
| Min. Mains voltage operational           | 108 V [min]   |
| Max. Mains voltage operational           | 305V [max]  |
| Life @ TC 70C                            | Refer to graph  |
| Life @ TC 80C                            | Refer to graph  |
| Suitable for Outdoor use?                | Yes   |
| Max TC                                   | 80C   |
| Maximum ballast number on MCB 16A B type | 21 [max]  |
| Input Over-voltage                       | Can survive input over-voltage stress of 320VAC for 48 hours and 350VAC for 2 hours                         |
| Earth leakage current                    | $\leq$ 0.35mA   |
| Output Current ripple                    | 30% @ 700 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       | SELV  |
| Isolation towards housing                | Double  |
| Protections                              | Short Circuit and Open Circuit Protection for LED + and LED-  |
| Standby power                            | <0.5W at 230V, 50Hz input   |

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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## Electrical Specifications

### **I-I0V Dimming Curve**

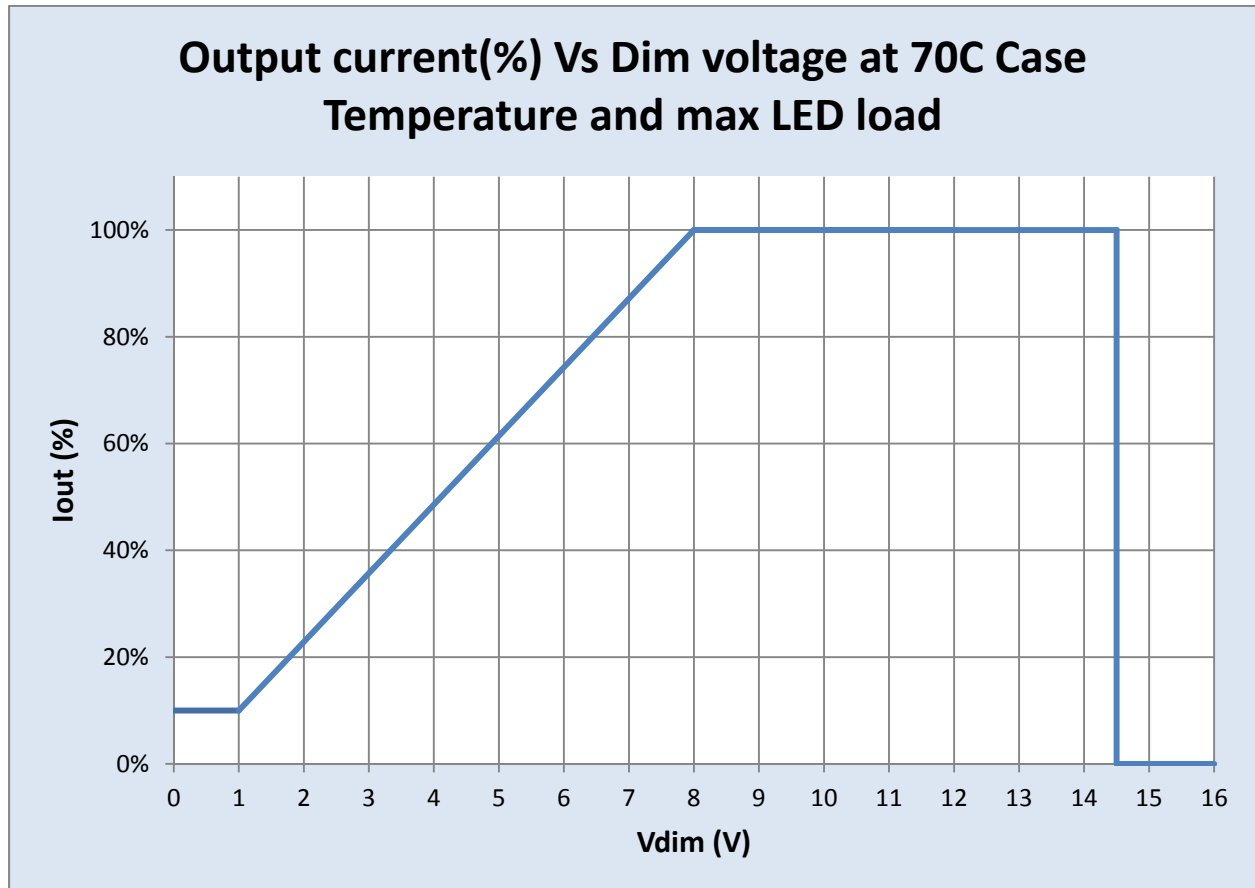
Dimming source current from the driver:  $150\mu\text{A} (\pm 3\%)$  (@  $0 < V_{\text{dim}} < 8\text{V}$ )

LED Current Tolerance at any value of  $V_{\text{dim}}$ :  $\pm 5\%$  of  $I_{\text{max}}$

Minimum Dim Level: 10% - 100%

Guaranteed Shutdown driver with  $V_{\text{dim}} > 14.5\text{V}$ . Current limit at 3mA typ (4mA Max) at 16V dim.

Guaranteed no shutdown driver with  $V_{\text{dim}} < 12\text{V}$



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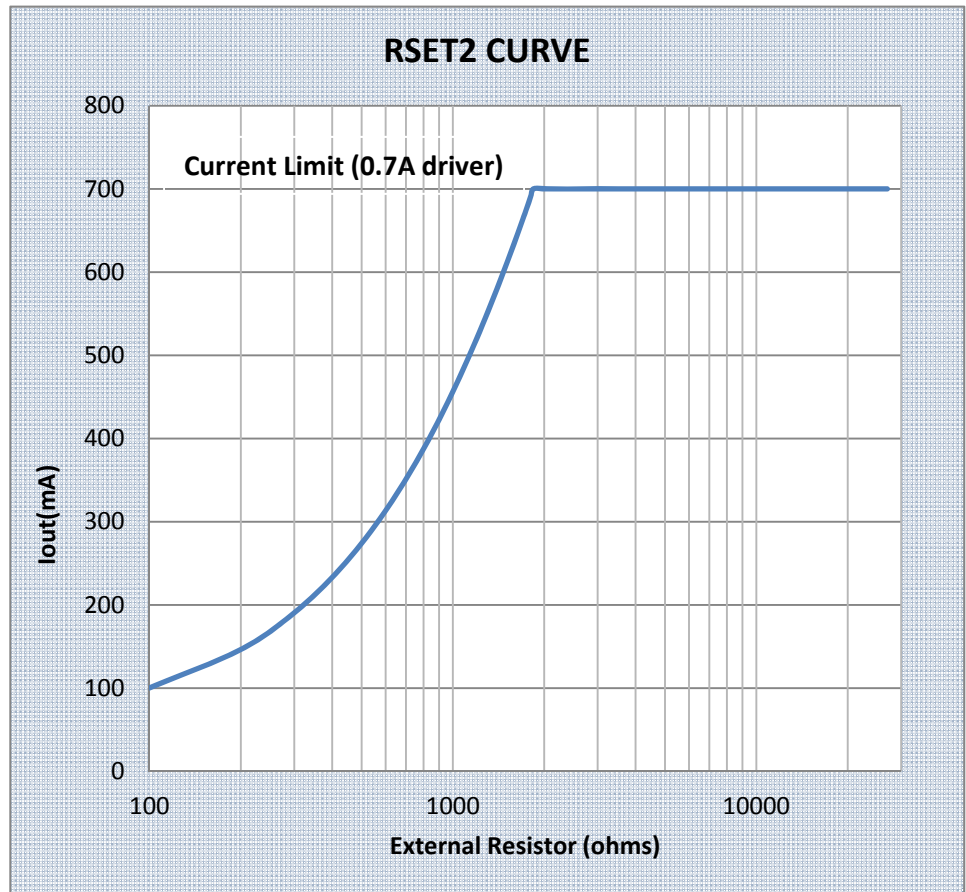
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| RoHS            | Yes                              |
| Status          | Released                         |

## Electrical Specifications

AOC (Adjustable Output Current) Settings:

LED current tolerance with variation of Rset2 is within  $\pm 5\%$  of I<sub>max</sub>

| 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       | 545          |
| 1500       | 602          |
| 1600       | 632          |
| 1800       | 684          |
| 1870       | 700          |

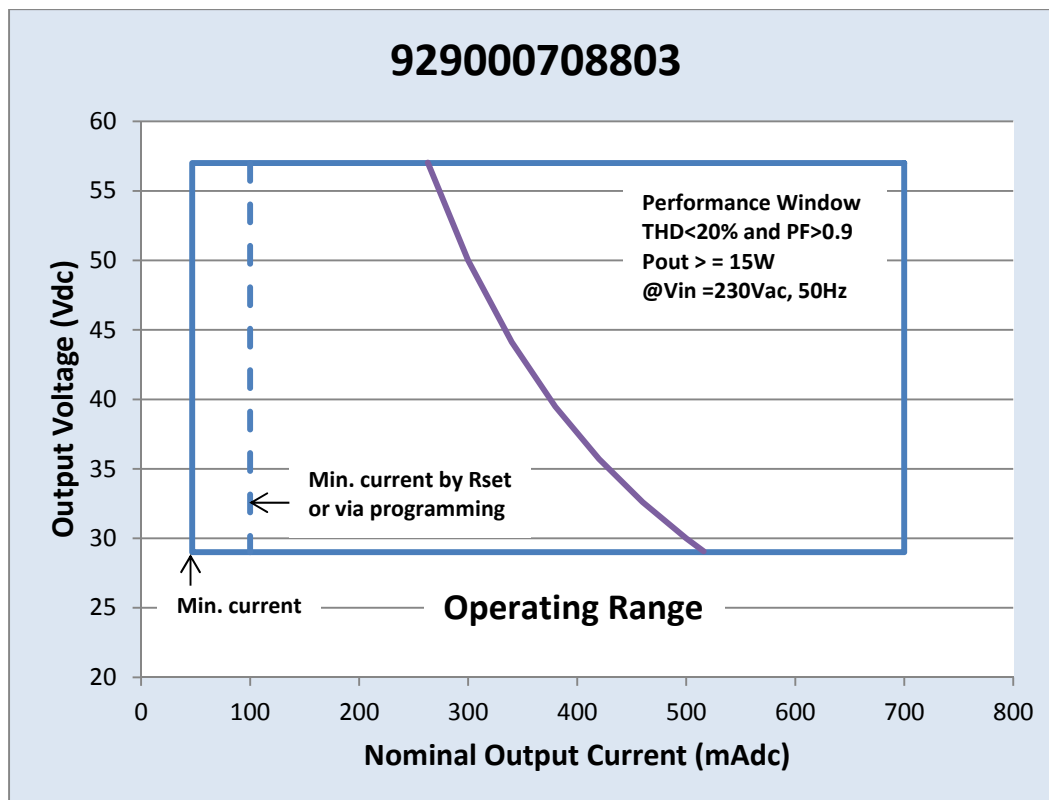


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## Electrical Specifications

### Operating Window:



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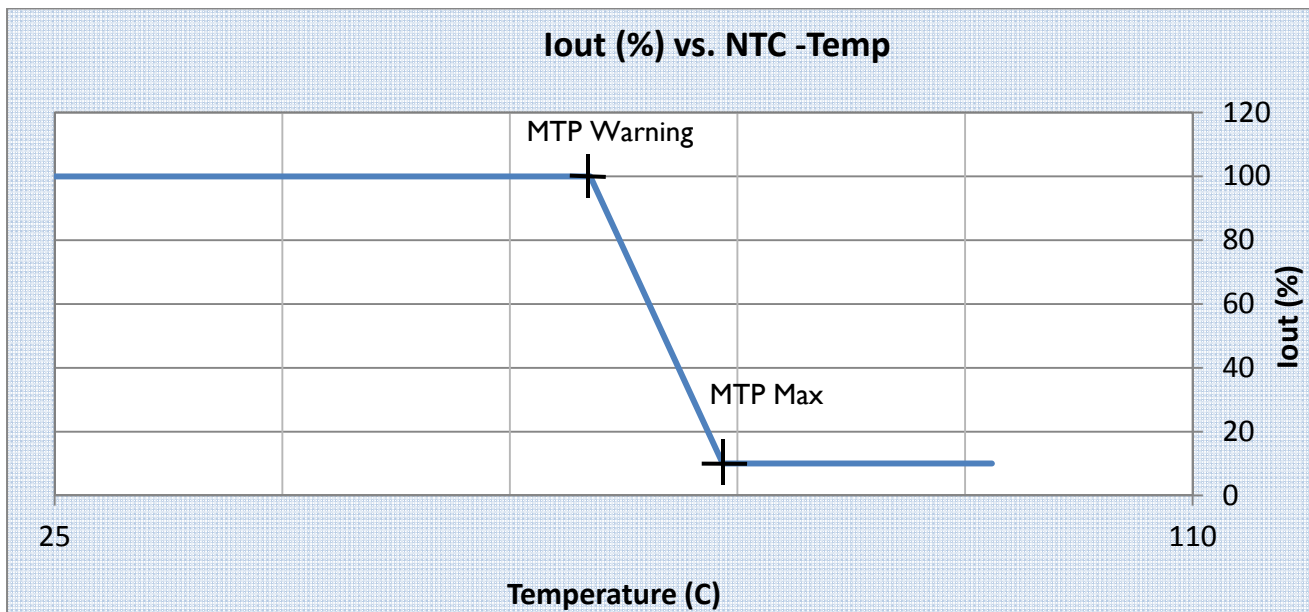
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| RoHS            | Yes                               |
| Status          | Released                          |

## Electrical Specifications

### Module Thermal Protection

| MTP options   | Temperature range:  | Default programmed values                   | Min delta (MTP max-MTP warn) | Dimming range | Missing NTC Signal* |
|---|---|---|------------------------------|---------------|---------------------|
| <b>NTC: 15k+390ohms</b><br>Murata:<br>NCPI5XWI53E03RC | MTP warn: 50C<br>MTP max: 110C  | MTP warn: <b>80C</b><br>MTP max: <b>90C</b> | 10C                          | 100% to 10%   | NO                  |
| <b>NTC: 10k</b><br>Murata:<br>NCPI8XH103J03RB         | MTP warn: 50C<br>MTP max: 85C   | <b>N/A</b>                                  | 5C                           | 100% to 10%   | YES                 |
| <b>Philips LED light Engine</b>                       | Depending on the module connected to the driver<br>See module datasheet |   |                              | 100% to 10%   | NO                  |

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



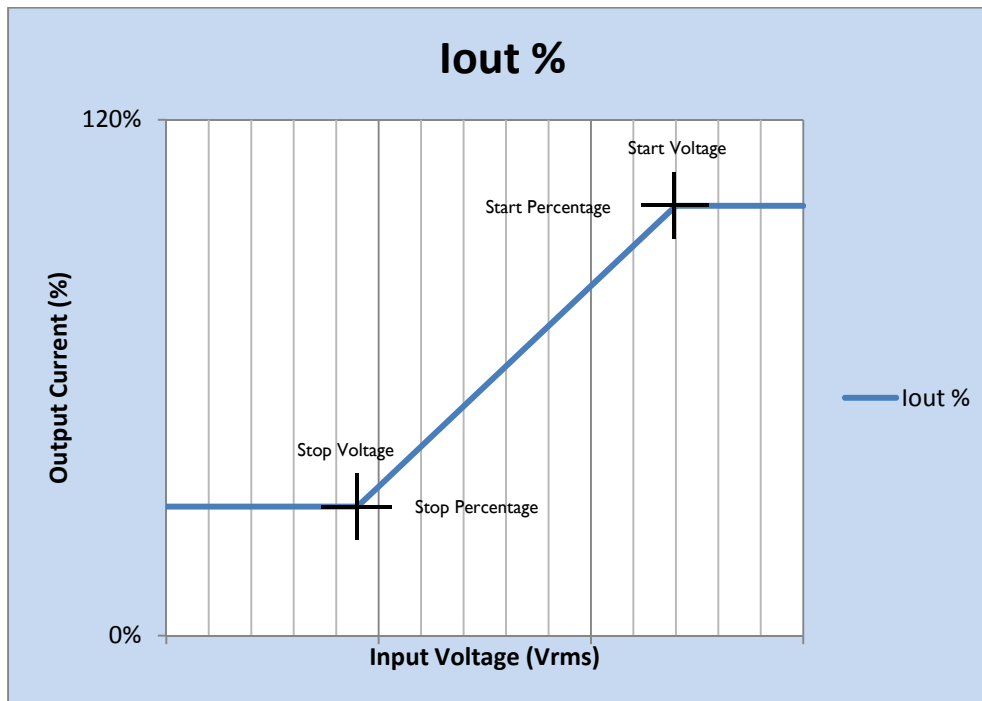
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| Input Frequency | 50/60Hz                           |
| RoHS            | Yes                               |
| Status          | Released                          |

## Electrical Specifications

### 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)    |



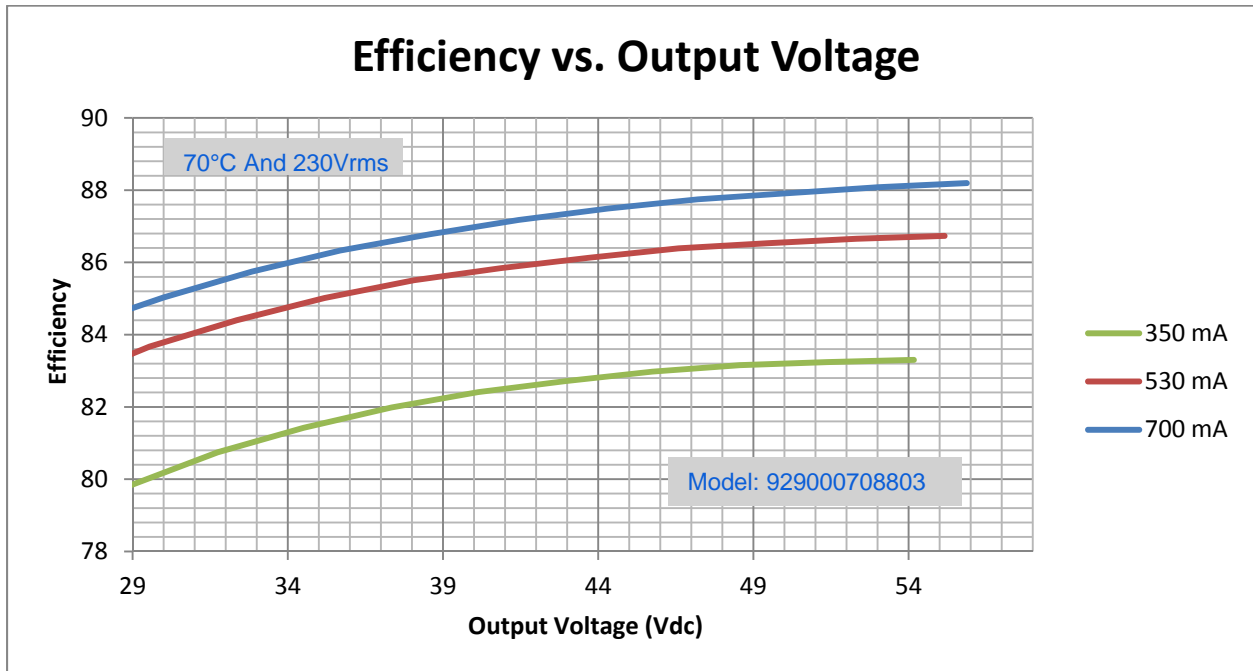
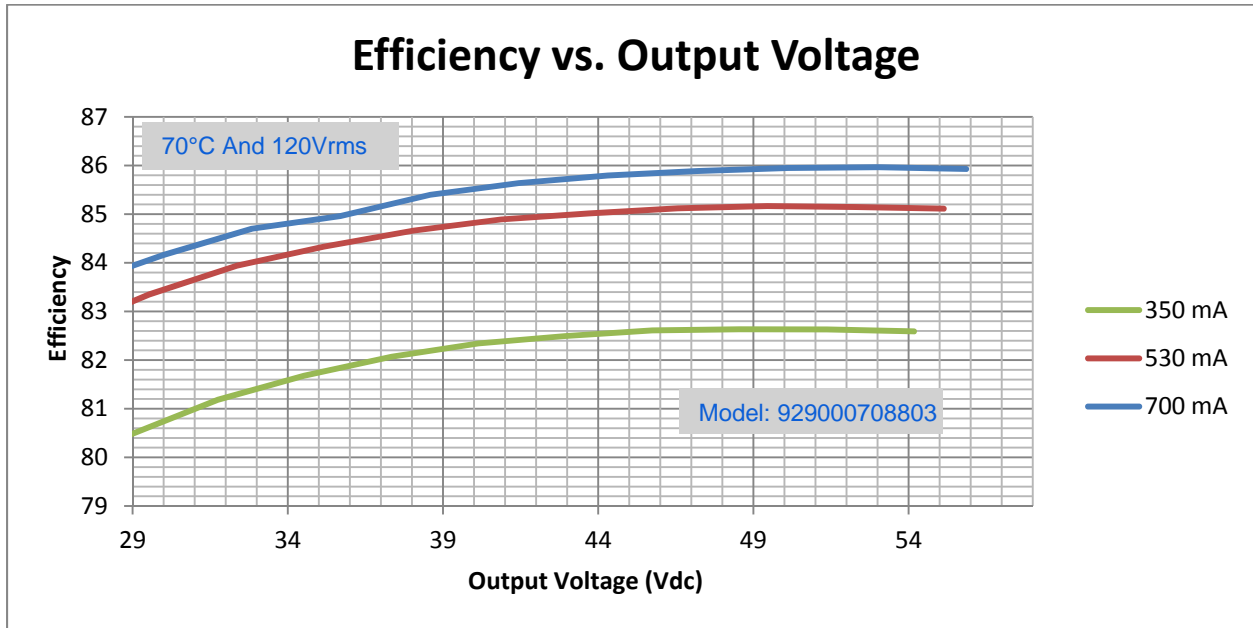
$$\text{Current Tolerance } \Delta I (\%) = (\text{Start Percentage} - \text{Stop Percentage}) \times 5 / (\text{Start Voltage} - \text{Stop Voltage})$$



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Electrical Specifications



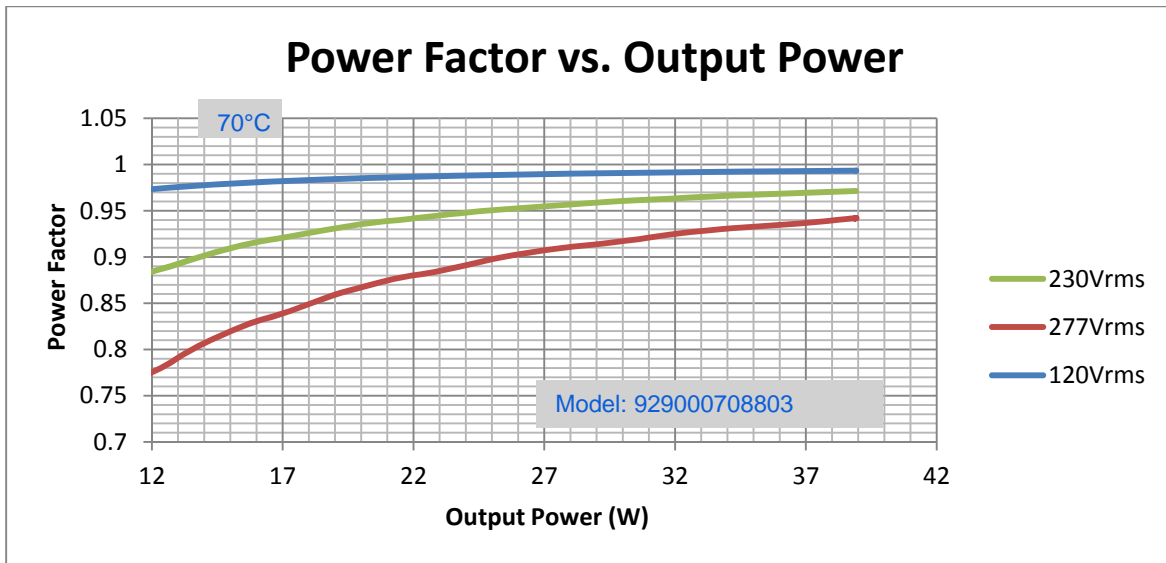
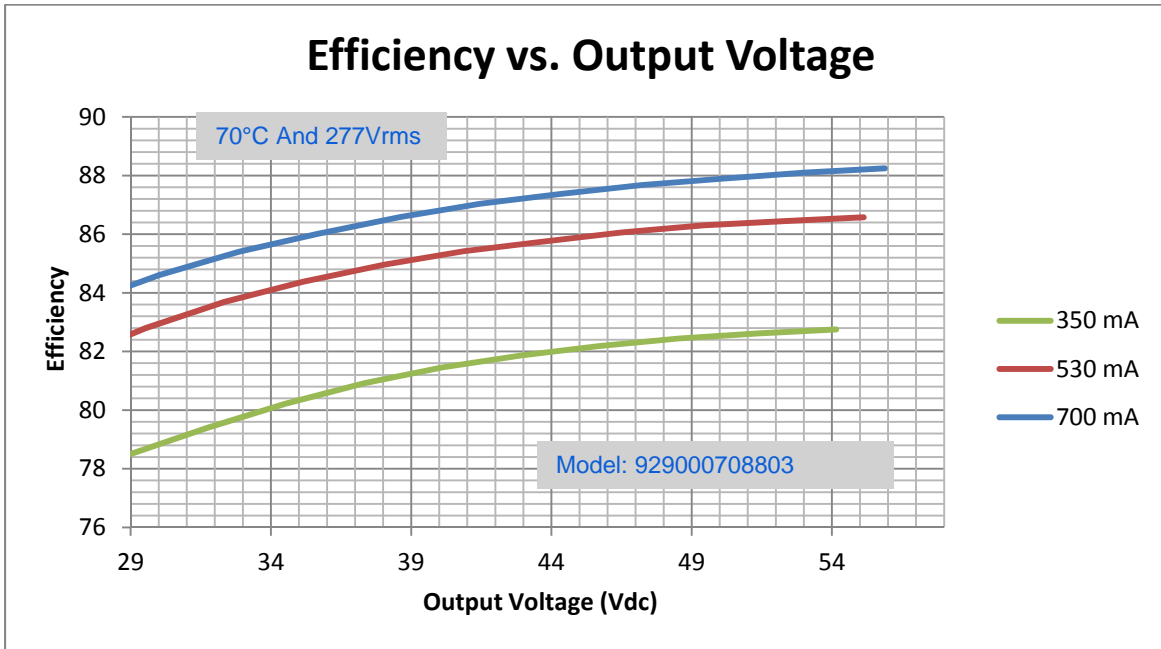




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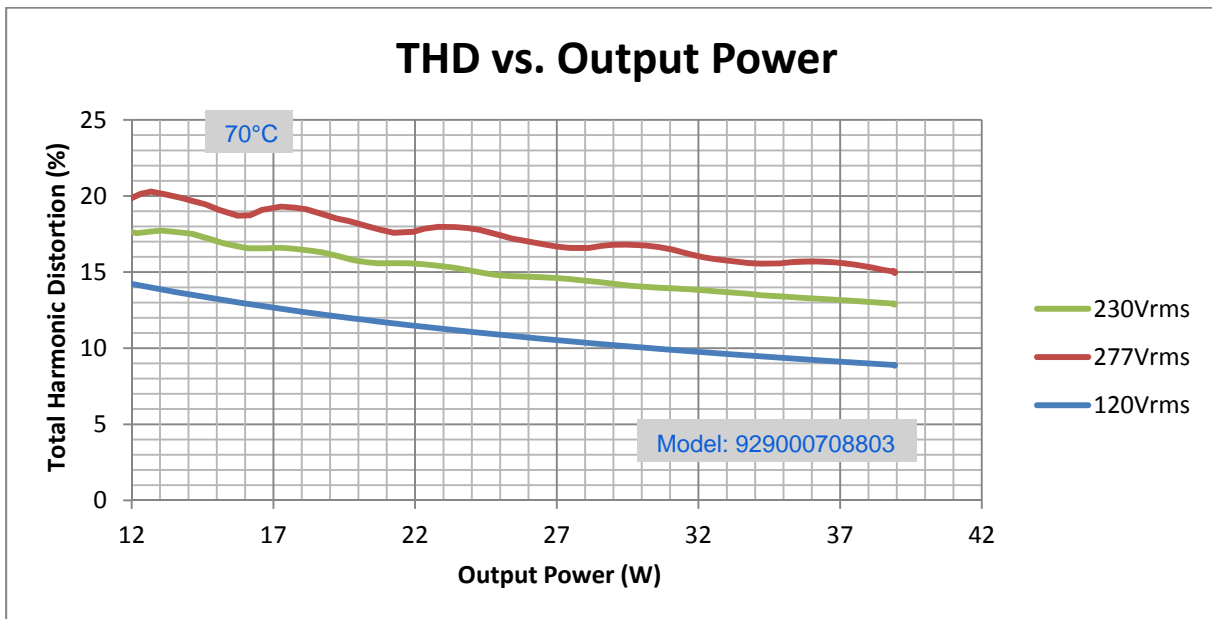
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## Electrical Specifications



Programming Tool:

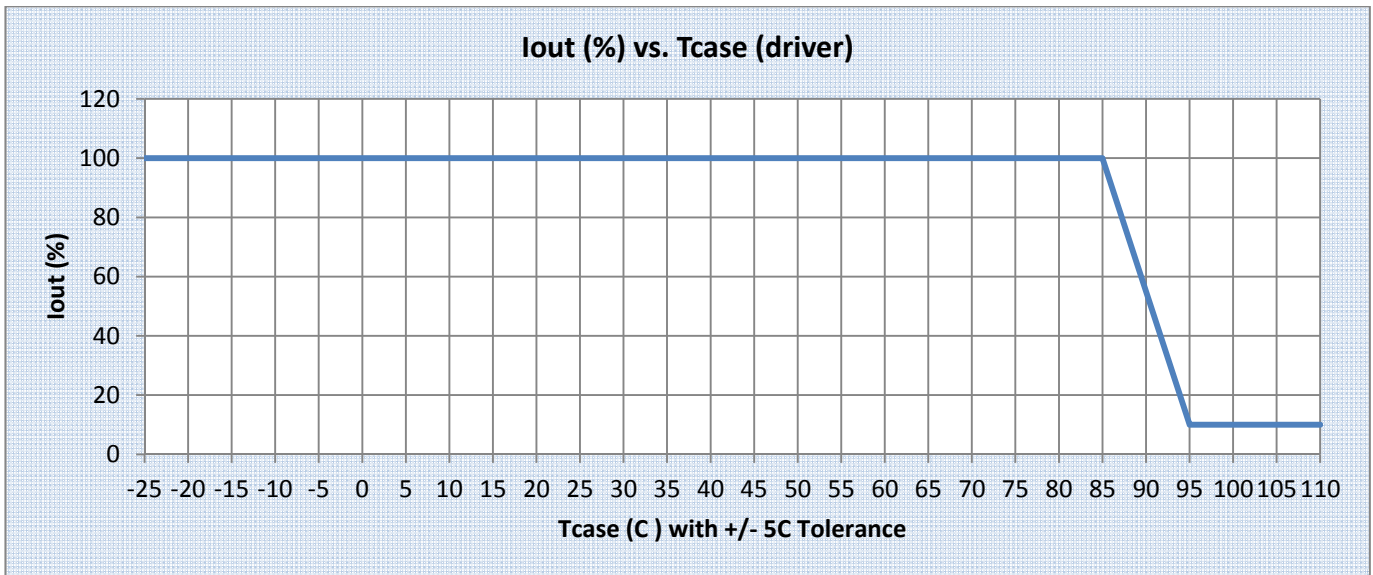
For latest version please check [www.philips.com/xitanium](http://www.philips.com/xitanium)

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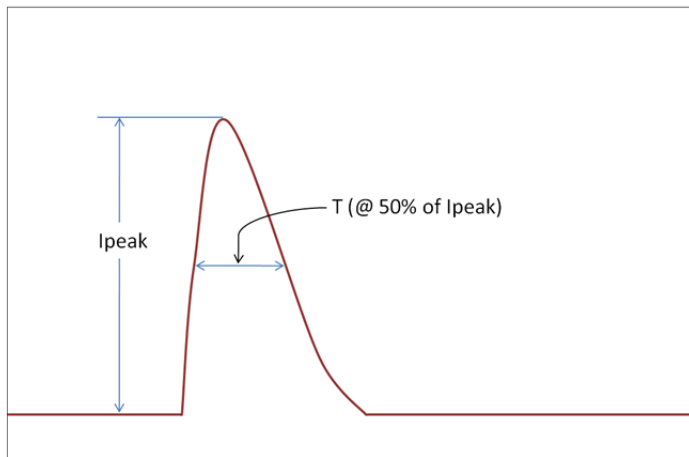
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| Input Frequency | 50/60Hz                          |
| RoHS            | Yes                              |
| Status          | Released                         |

### Electrical Specifications

#### Iout vs. Tcase of Driver:



#### Inrush Current Info:



| Vin      | Ipeak | T (@ 50% of Ipeak) |
|----------|-------|--------------------|
| 120 Vrms | 31 A  | 100 $\mu$ s        |
| 230 Vrms | 65 A  | 100 $\mu$ s        |
| 277 Vrms | 73 A  | 100 $\mu$ s        |

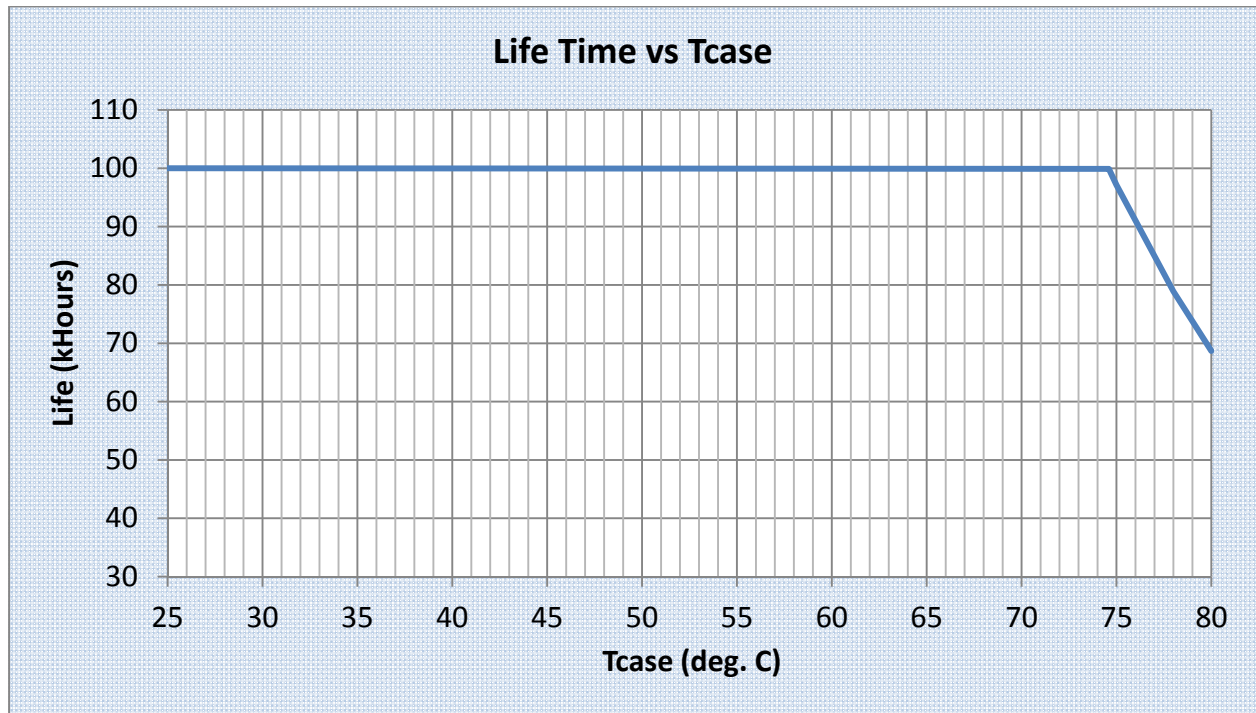


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| Status          | Released                          |

Electrical Specifications

**Lifetime vs. Tcase of Driver:**



**Failure Rate Info based upon MTBF modeling:**

- 90% survivals at end of life @ $\leq$ Tcase 75°C

**Failure Rate Info based upon field call rate data:**

- <0.01% per 1 kHr @ $\leq$  Tcase 75 C



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| RoHS            | Yes                               |
| Status          | Released                          |

## Electrical Specifications

### CE isolation

Basic isolation: 2U+1000V

Double Isolation: 4U+2750V

| Isolation           | Input Wires | Output Wires(SELV) | DALI Wires | 1-10V Wires | Chassis |
|---------------------|-------------|--------------------|------------|-------------|---------|
| Input Wires         | NA          | Double             | Basic      | Basic       | Double  |
| Output Wires (SELV) | Double      | NA                 | Double     | Double      | Double  |
| DALI Wires          | Basic       | double             | NA         | NA          | Double  |
| 1-10V Wires         | Basic       | double             | NA         | NA          | Double  |
| Chassis             | Double      | Double             | Double     | Double      | NA      |

### UL isolation

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