PHILIPS
ADVANCE

LED Driver

Xitanium

80W 120-277V 0.7A 0-10V
XI080C070V054CNH1

RoHS COMPLIANT

Class 2
Power Unit
Dry & Damp
Location

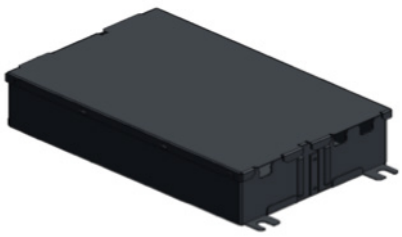
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. The Philips Advance Xitanium LED Outdoor Driver portfolio offers a range of products specially designed to operate LED solutions in outdoor applications. These drivers are designed for hard-wired integration into outdoor luminaires even in rugged applications. They operate to specification under wide temperature and electrical ranges to help ensure reliability.

Specifications

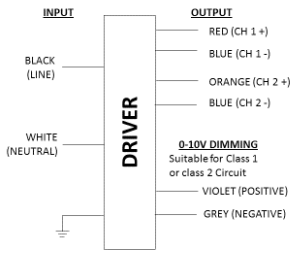
Input Voltage (Vac)	Output Power (W)	Output Voltage Range (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating
120	40W per channel	27 - 54	0.7	87.5	80°C	0.77	91	<10%	>0.95	4	UL damp & dry and Type HL
277				89.5		0.33		<15%			

Enclosure

	In. (mm)
Case Length	5.7 (144.7)
Case Width	3.6 (91.4)
Case Height	1.5 (38.2)
Mounting Length	6 (151.5)
Overall Length	6.32 (160.5)



Wiring Diagram



Input and output use lead- wires.

Lead-wires are 18AWG 105C/600V solid copper per UL1452.

Input Lead Length outside enclosure: 10.5" (+2"/-1").

Dimming and Output lead length outside enclosure: 12" (+2"/-1").

Driver case must be grounded.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	10% ~ 100%	0.07	Dimming source current: 150µA (±3%)

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Features

- Dual channel UL Class 2 output
- 50,000+ hour lifetime[1]
- Isolated 0-10V dimming

Benefits

- Allows for Class 2 luminaire designs
- Enables long life luminaire designs
- Helps maximize energy savings and allows application-specific light levels

Application

- Roadway
- Parking garages
- Wallpacks

Electrical Specifications

All the specifications are typical and at 25°C Tcase unless specified otherwise.

Product Data

Order Information	
Full Product Code	XI080C070V054CNH1M (Mid-Pack, 10pcs/Box)
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108Vac
Max. Mains Voltage Operational	305Vac
Output Information	
Maximum Open Circuit Voltage	<60Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max Iout Low frequency (≤120 Hz) content <5%
Output Current Tolerance (at maximum output current)	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback
Features	
0-10V Dimming	150µA source current from driver. See dim curve for detail.
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	80°C
Agency Approbations	UL8750, UL1310, UL935, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	2.1 Lbs / 0.95 kgs

1. Philips Advance Xitanium LED Drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.

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0-10V Dimming Curve

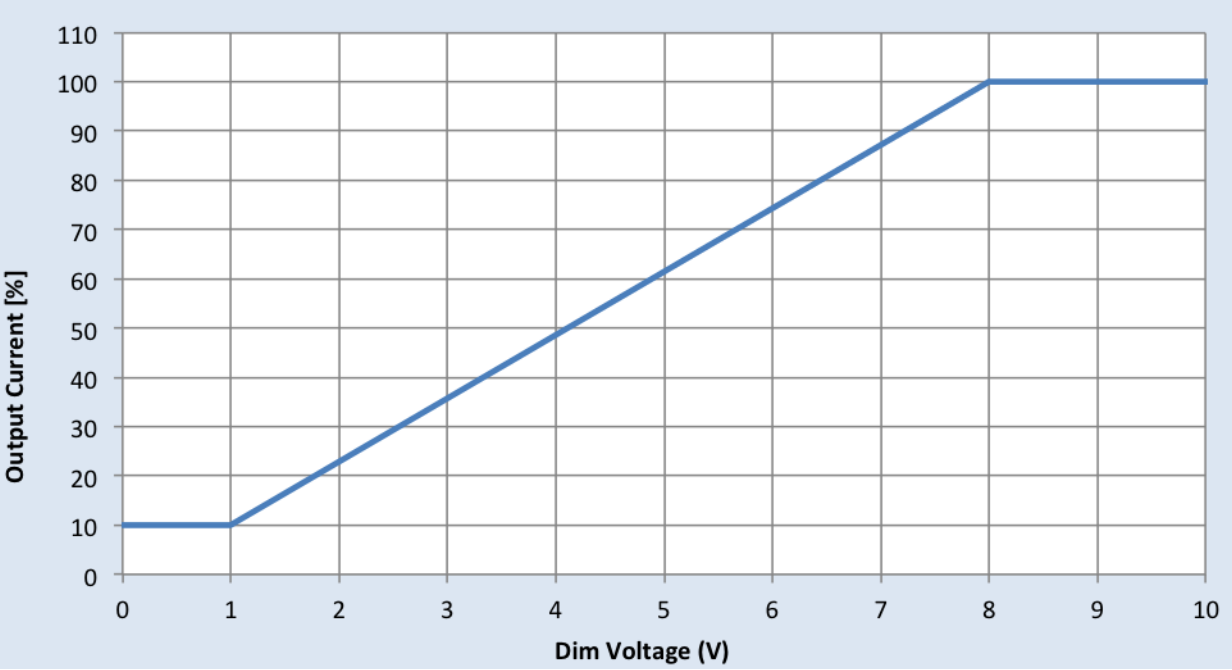
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum Dim Level: 10% of Iout (minimum 7mA)

Maximum output voltage on the dimming wires: 12V

Approved Dimmer List

Manufacturer	Manufacturer Part Number
Lutron	Visit www.lutron.com/advance for a list of dimmers (Mark VII) that will work with this driver.
Leviton	IllumaTech IP7 series
Philips	Sunrise - SR1200ZTUNV



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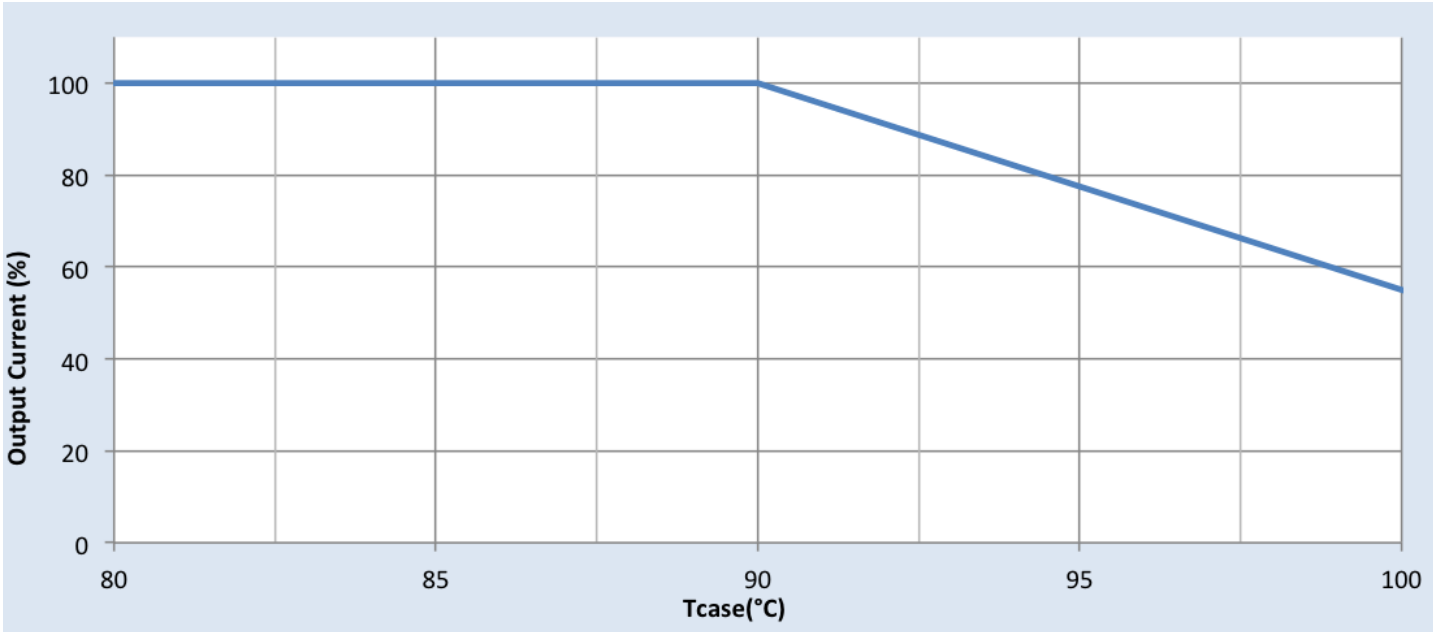
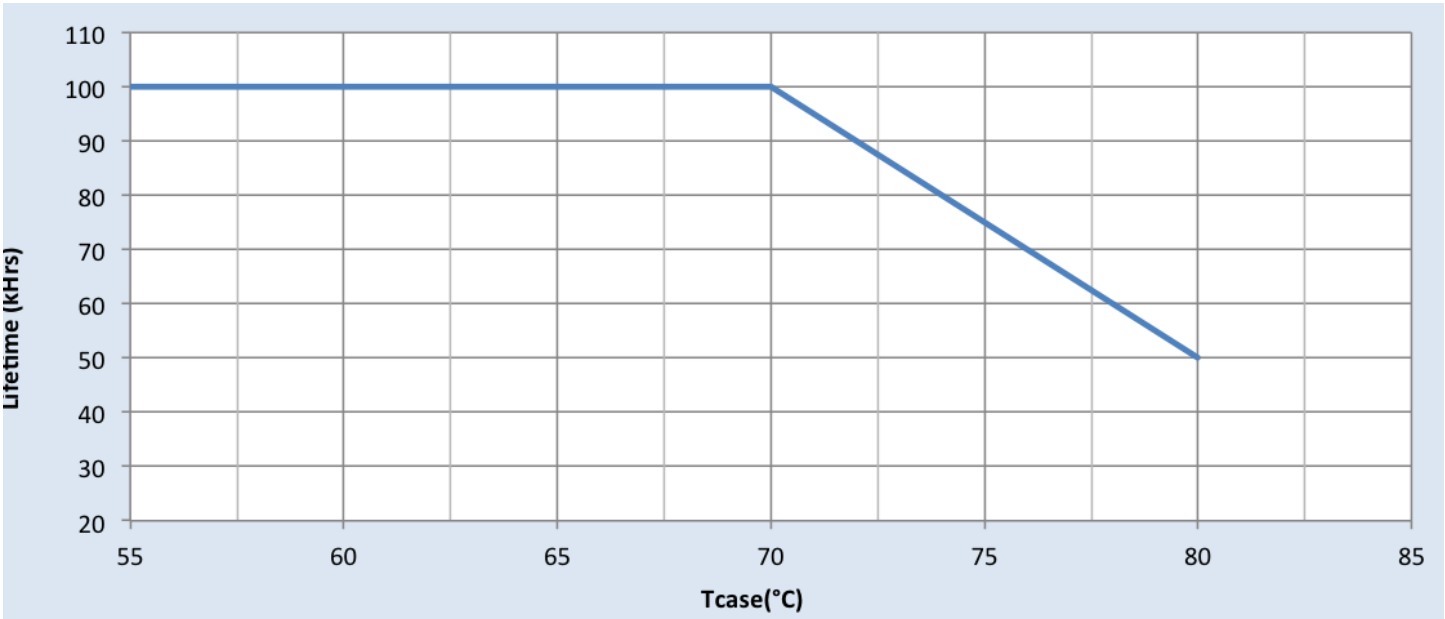
Output Current Vs. Driver Case Temperature



Note: There is ±5°C tolerance on the driver case temperature.

Driver Lifetime Vs. Driver Case Temperature



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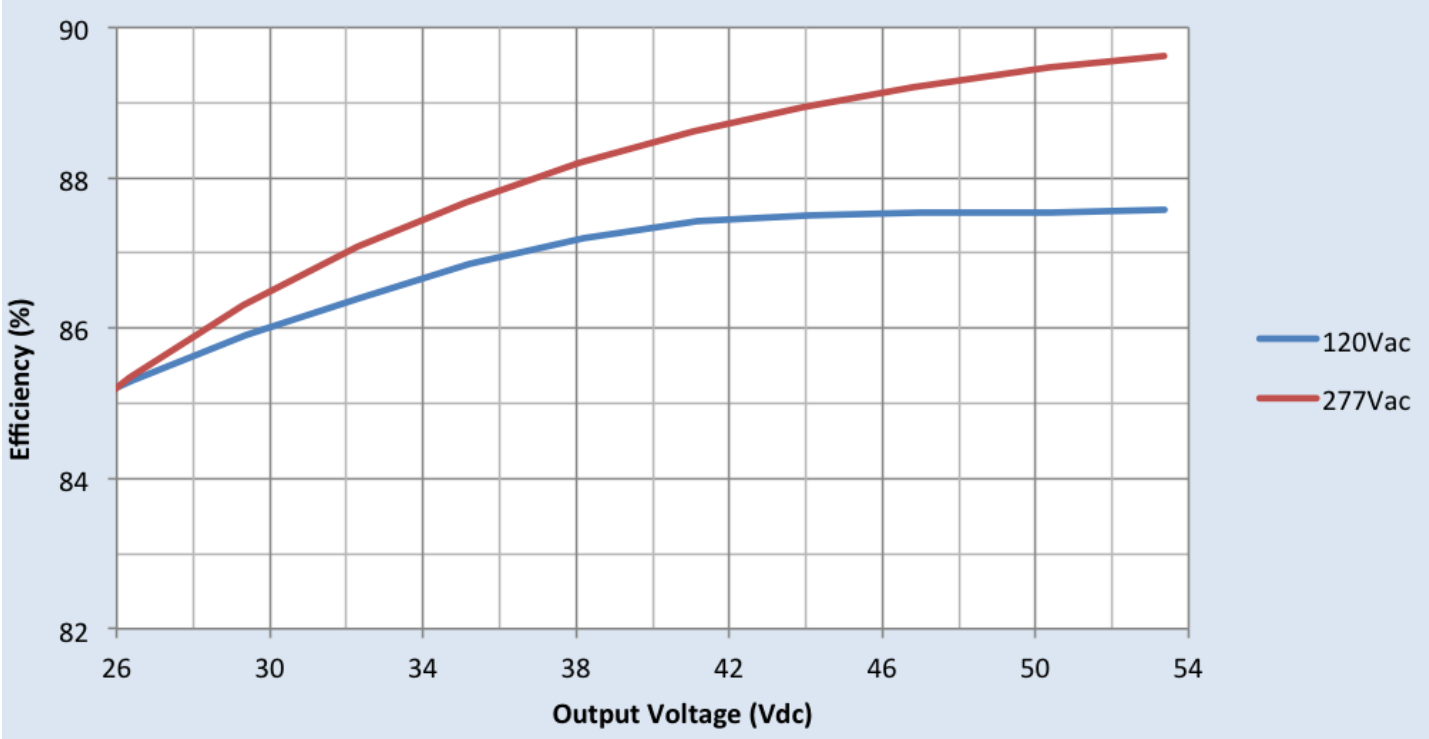
Performance Characteristics

Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Efficiency Vs. Output Voltage



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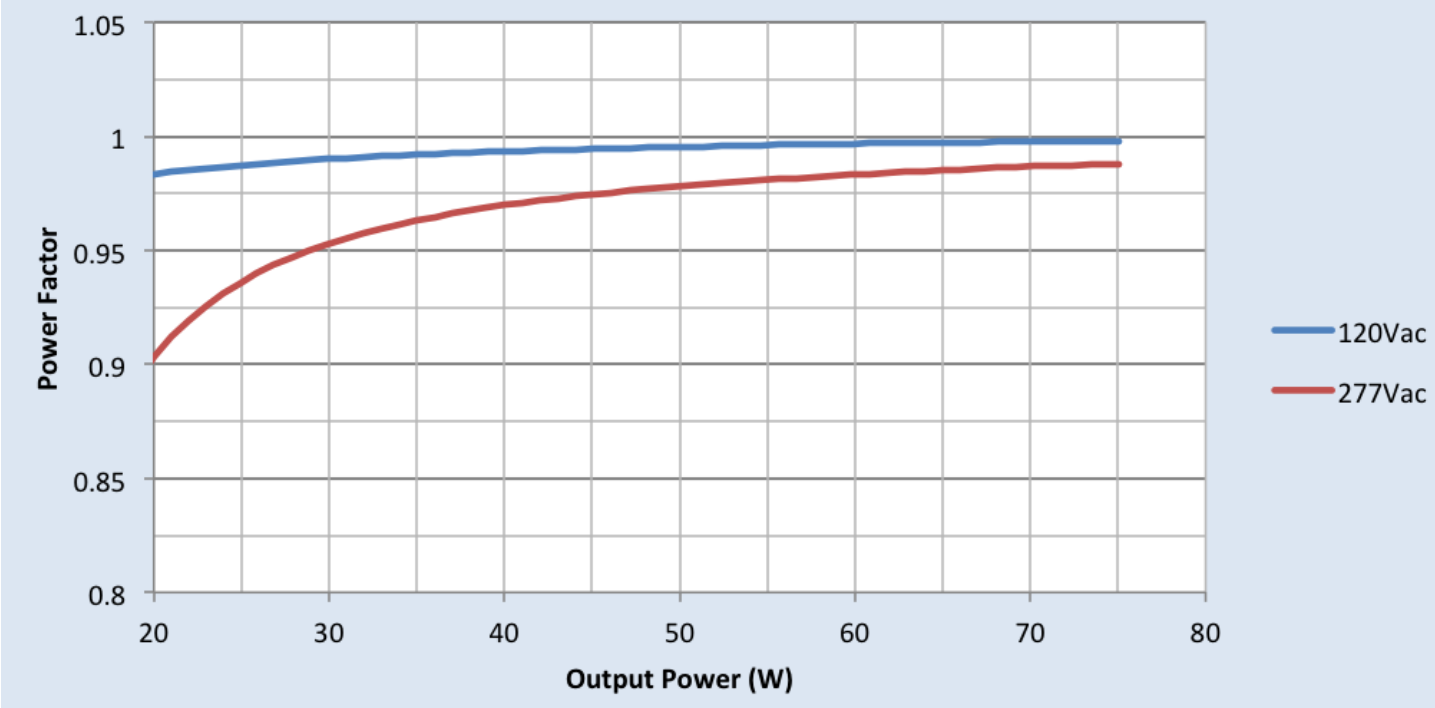
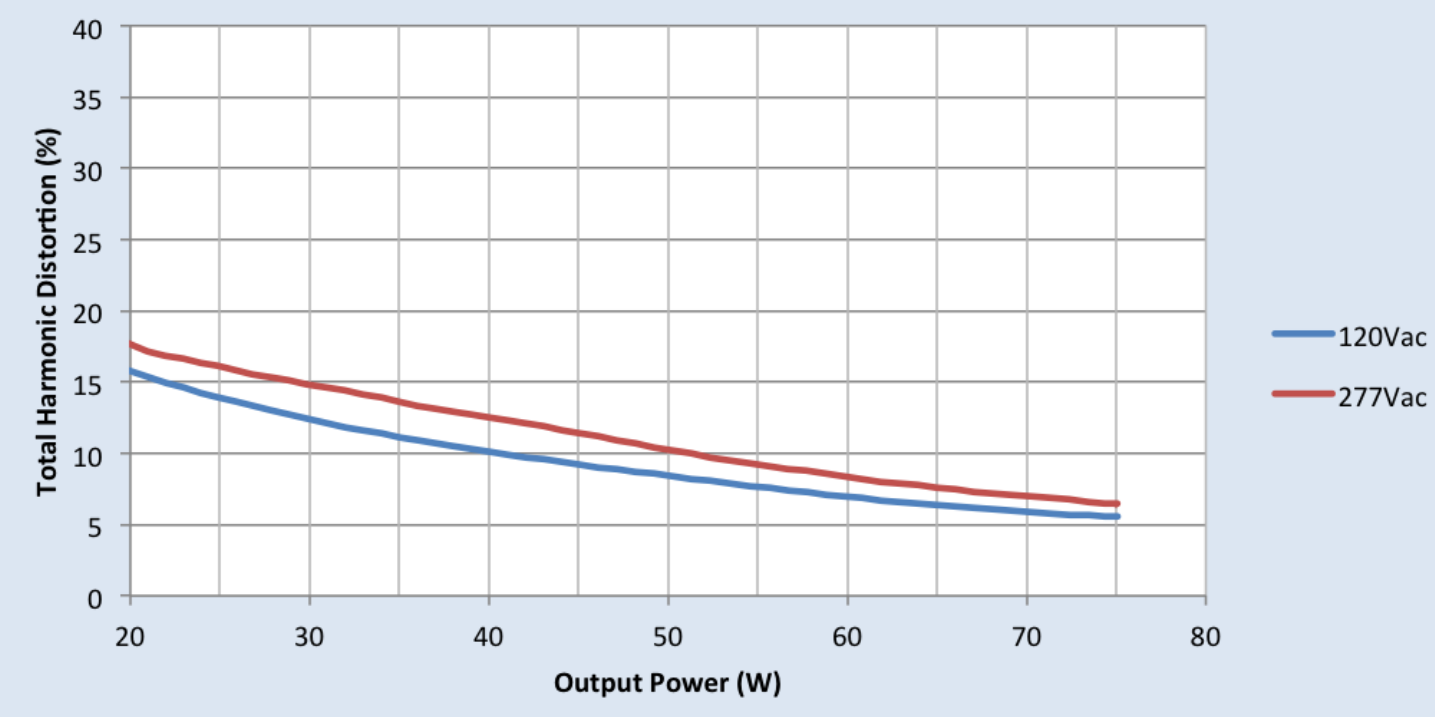
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



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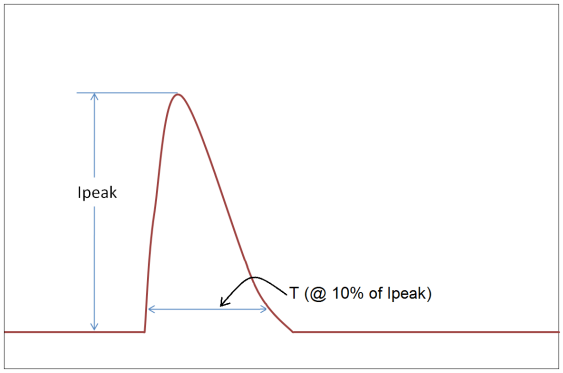
Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	26A	290µS
277 Vrms	69A	255µS

Inrush current is measured at peak of the corresponding line voltage. Source impedance per NEMA 410.

Lightning Surge Info

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)
1.2/50µs Combination Wave (w/t 2Ω)	4kV	4kV

Isolation

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2xU+1kV	2xU+1kV
Output	2xU+1kV	NA	2xU+1kV	500V
0-10V (Class 2)	2xU+1kV	2xU+1kV	NA	2xU+1kV
Enclosure	2xU+1kV	500V	2xU+1kV	NA

U = Max input voltage

UL Conditions of Acceptability

Please contact your Philips representative for a copy of the latest UL Conditions of Acceptability (COA).

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