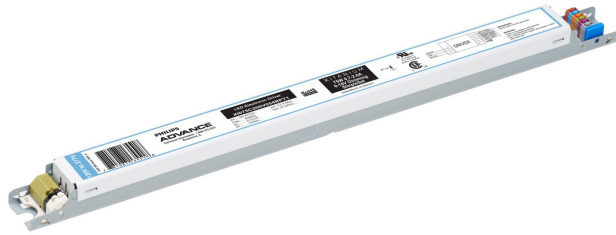


PHILIPS ADVANCE

LED Driver

Xitanium

75W 0.1-2A 54V 0-10V INT
(1% dim) with SimpleSet
XI075C200V054BST1



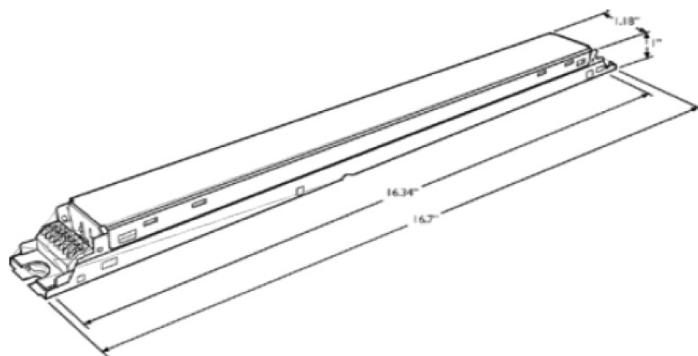
The Philips Advance Xitanium range of linear LED drivers is designed to provide OEMs with ultimate flexibility. These models are compatible with standard 0-10V dimming systems to deliver reliably smooth dimming performance down to a minimum of 1%. Enabled with SimpleSet technology, these drivers offer the needed flexibility and performance for the application with precise tuning of drive currents, selectable dimming curves and adjustable minimum dimming levels. With wide operating windows, slim profile and simple current adjustability, the drivers make it easy for luminaire manufacturers to design downlight fixtures with desired lumen levels to suit the application.

Specifications

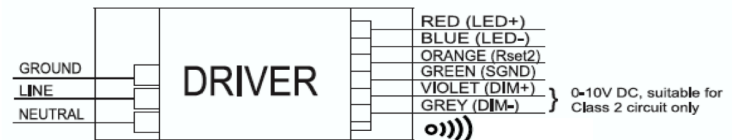
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 75°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating
120	75	27 - 54	0.1 - 2.0	87.5	Life-80°C UL-85°C	0.7	86	<10%	>0.95	2.5	UL damp & dry
277				89.5		0.3		<15%			

Enclosure

	In. (mm)
Case Length	16.6 (424)
Case Width	1.18 (30)
Case Height	1.00 (25.4)
Mounting Length	16.3 (415)
Overall Length	16.6 (424)



Wiring Diagram



WARNING:
Install in accordance with National and Local Electrical Codes. Use 18 AWG Solid Copper Wire. Rated $\geq 300V$. Strip Wire 3/8".

GROUNDING:
Driver case must be grounded.

Dimming	Dimming Range (with specified dimmers)	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	1% ~ 100%	0.005	Dimming source current: 150 μA

75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Features

- 50,000+ hour lifetime¹
- SimpleSet programmable
- Large operating window
- 1% minimum dim level

Benefits

- Slim profile housing enables easy design-in with excellent thermal performance
- Enables simple, fast, flexible application-specific configurations
- Enables fixture designs with comprehensive application coverage for various loads and lumen levels

Application

- Indoor linear applications such as troffers and pendants
- Office
- Education
- Healthcare
- Retail

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI075C200V054BST1M (Mid-Pack, 12pcs/Box), 12NC: 929000755113
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108 Vac
Max. Mains Voltage Operational	305 Vac
Output Information	
Maximum Open Circuit Voltage	< 60Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max Iout 4% max @ Visible for stroboscopic frequency range 60Hz-3KHz
Output Current Tolerance (in the performance window)	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED -, mis-wiring protection
Features	
0-10V Dimming	150µA source current from driver. See dim curve for detail.
AOC (Adjustable Output Current)	0.1A-2.0A via external resistor or SimpleSet programming (refer to graph and notes below)
Additional SimpleSet Configurable Features	Adjustable minimum dimming level, Dimming curve selection (linear or logarithmic), Adjustable output level, Adjustable output min, OEM write protection
Environment & Approbation	
Operating Ambient Temp. Range	-20°C to +50°C
Max Case Temperature (Tcase)	85°C
Agency Approbations	UL8750, UL1310, CSA-C22.2 No. 250.13-12, CSA Class P, ETL Class P, UL TL
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	0.79 Lbs / 0.36 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.

75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Electrical Specifications

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0-10V Dimming Curve

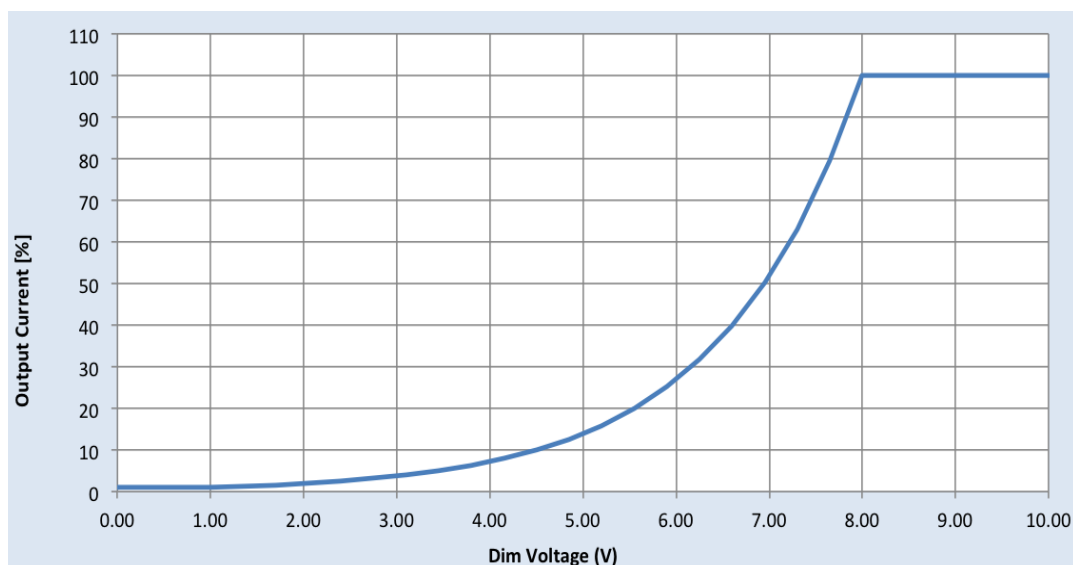
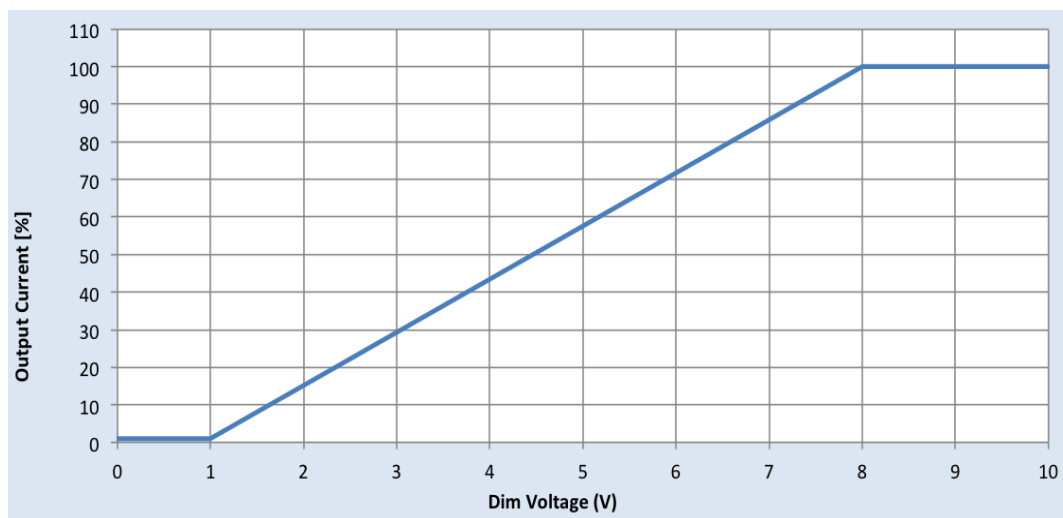
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum dim level: 1% of Iout (minimum 5mA)

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



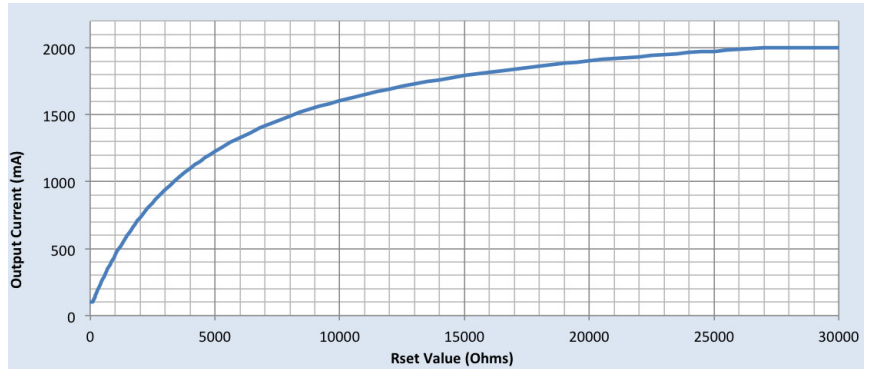
75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Electrical Specifications

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AOC (Adjustable Output Current) Settings (Rset)

Rset (Ohms)	Current (mA)	Rset (Ohms)	Current (mA)
0	100	3800	1072
10	100	4000	1099
50	100	4200	1129
80	100	4400	1154
90	100	4600	1181
100	100	4800	1206
110	105	5000	1227
120	111	5200	1249
130	116	5600	1293
140	119	6000	1331
150	125	6400	1367
160	130	6800	1402
170	133	7200	1432
180	138	7600	1462
190	141	8000	1490
200	146	8400	1517
250	168	8800	1541
300	190	9200	1563
350	212	9600	1585
400	231	10000	1604
450	253	10500	1629
500	272	11000	1653
550	291	11500	1672
600	310	12000	1694
650	329	12500	1713
700	348	13000	1730
750	368	13500	1746
800	384	14000	1763
850	400	14500	1776
900	419	15000	1793
950	436	15500	1806
1000	452	16000	1817
1100	485	16500	1831
1200	515	17000	1842
1300	545	17500	1853
1400	575	18000	1864
1500	602	18500	1874
1600	632	19000	1885
1700	657	19500	1894
1800	684	20000	1902
1900	709	20500	1913
2000	733	21000	1921
2100	755	21500	1929
2200	780	22000	1934
2300	802	22500	1943
2400	823	23000	1951
2500	843	23500	1956
2600	864	24000	1965
2700	883	24500	1970
2800	903	25000	1975
2900	922	25500	1984
3000	941	26000	1989
3200	976	26500	1995
3400	1009	27000	2000
3600	1042	30000	2000
		>100000	2000



Notes

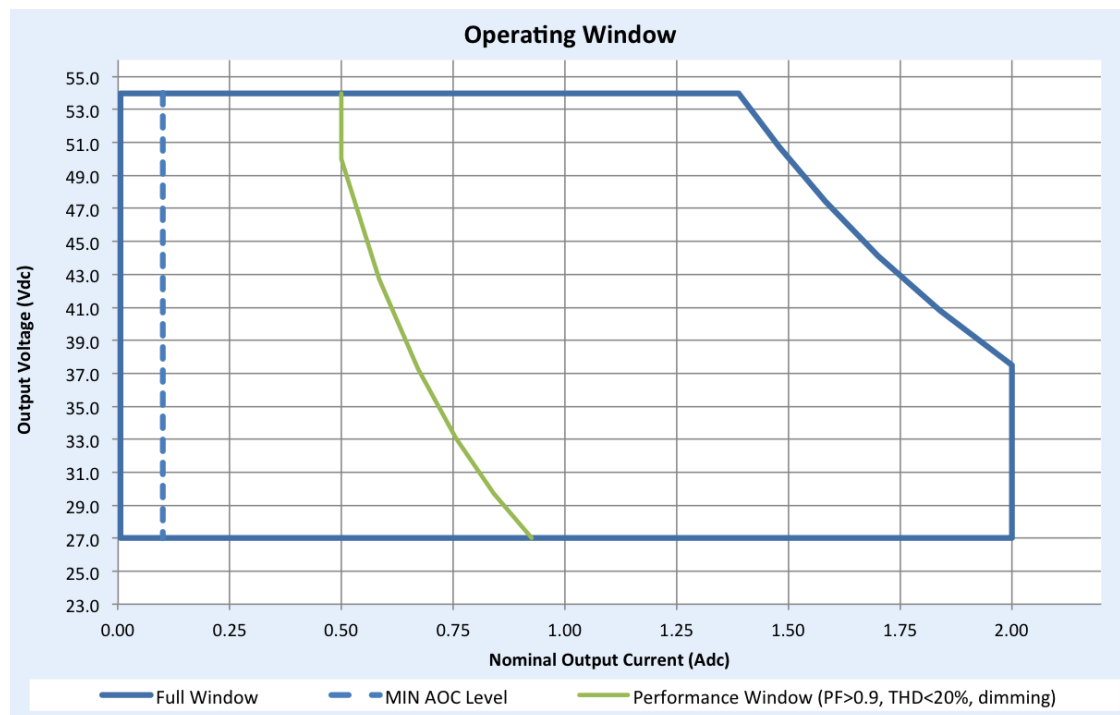
1. There are two ways to adjust the current.
 - a. Using a resistor between Rset2 & SGND leads.
 - i. Any through hole or SMD resistor with >0.25W and >20V can be used as RSET between Rset and SGND pins.
 - ii. Driver will default to 2000mA when Rset is left open.
 - b. Using SimpleSet programming
(Visit www.philips.com/simpleset for details.)
2. The driver is by default set to Rset2.

75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Electrical Specifications

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

Driver Output Window



Notes

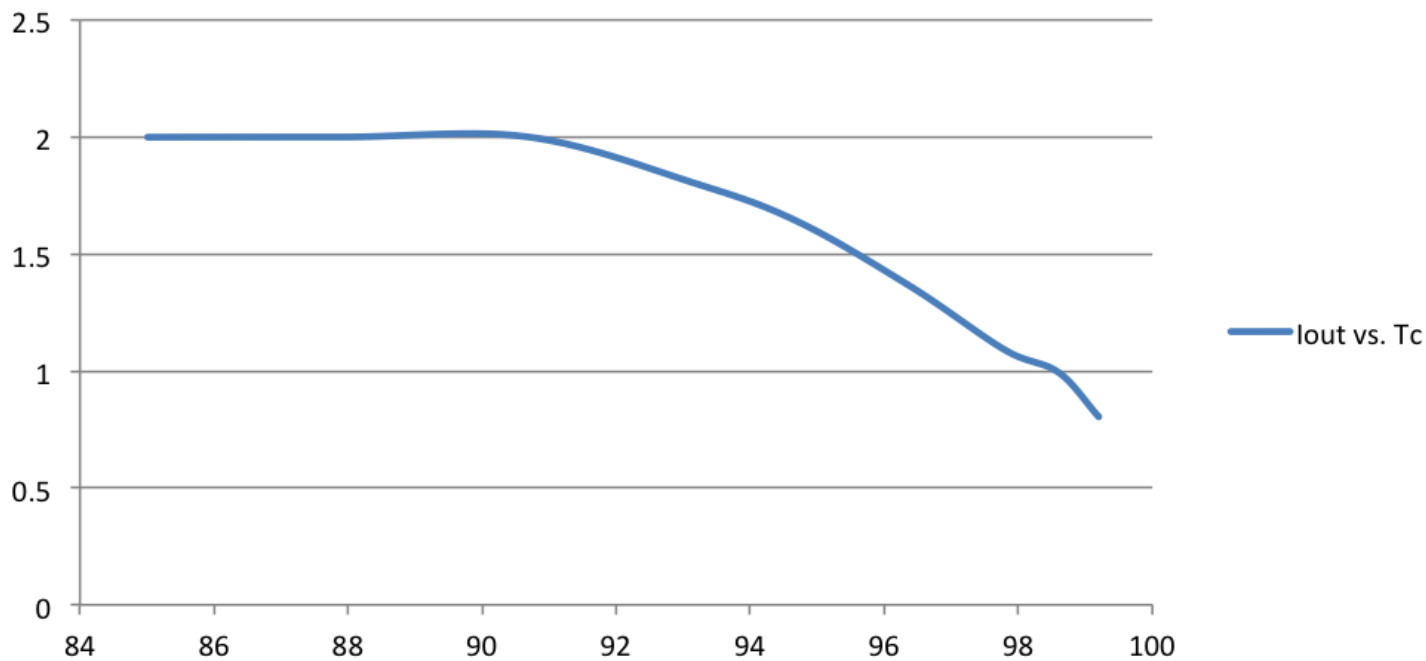
1. Factory default output current is 2.0A.
2. For dimming to a minimum level of 1% the output current setting through AOC should be $\geq 0.5A$.

75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Electrical Specifications

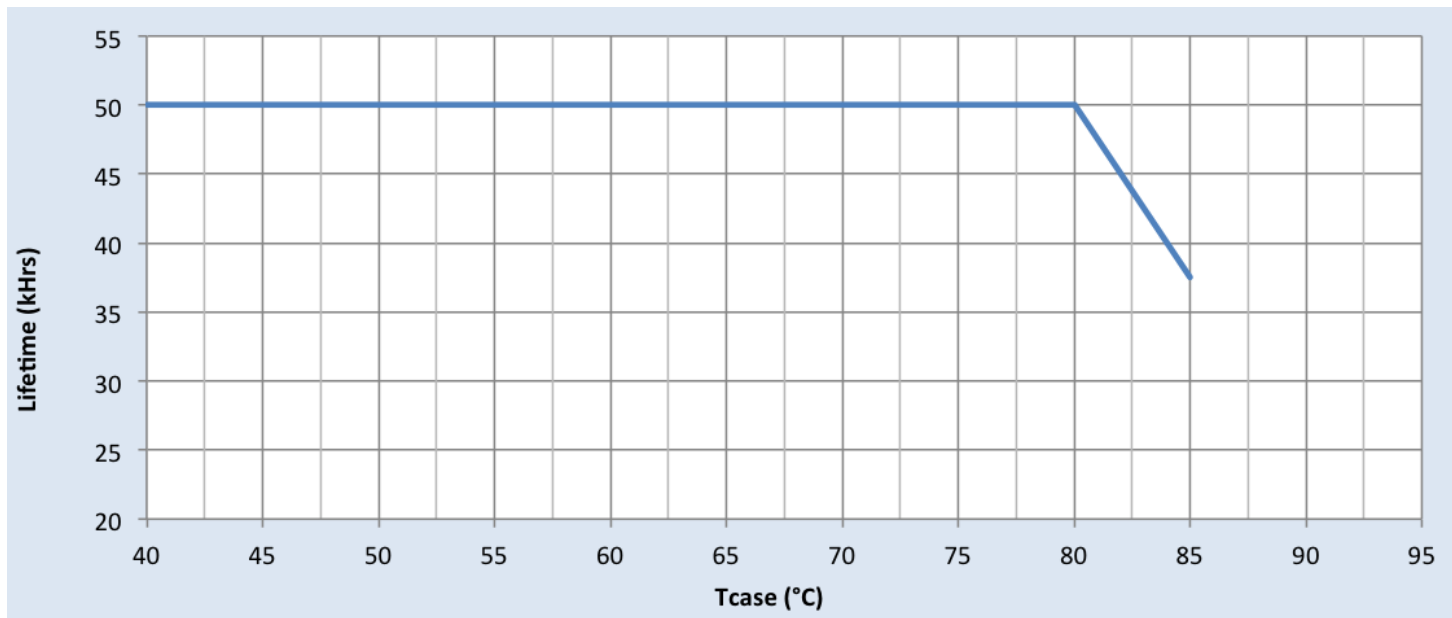
All the specifications are typical and at 25°C Tcase unless specified otherwise.

Output Current Vs. Driver Case Temperature



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

Driver Lifetime vs. Driver Case Temperature

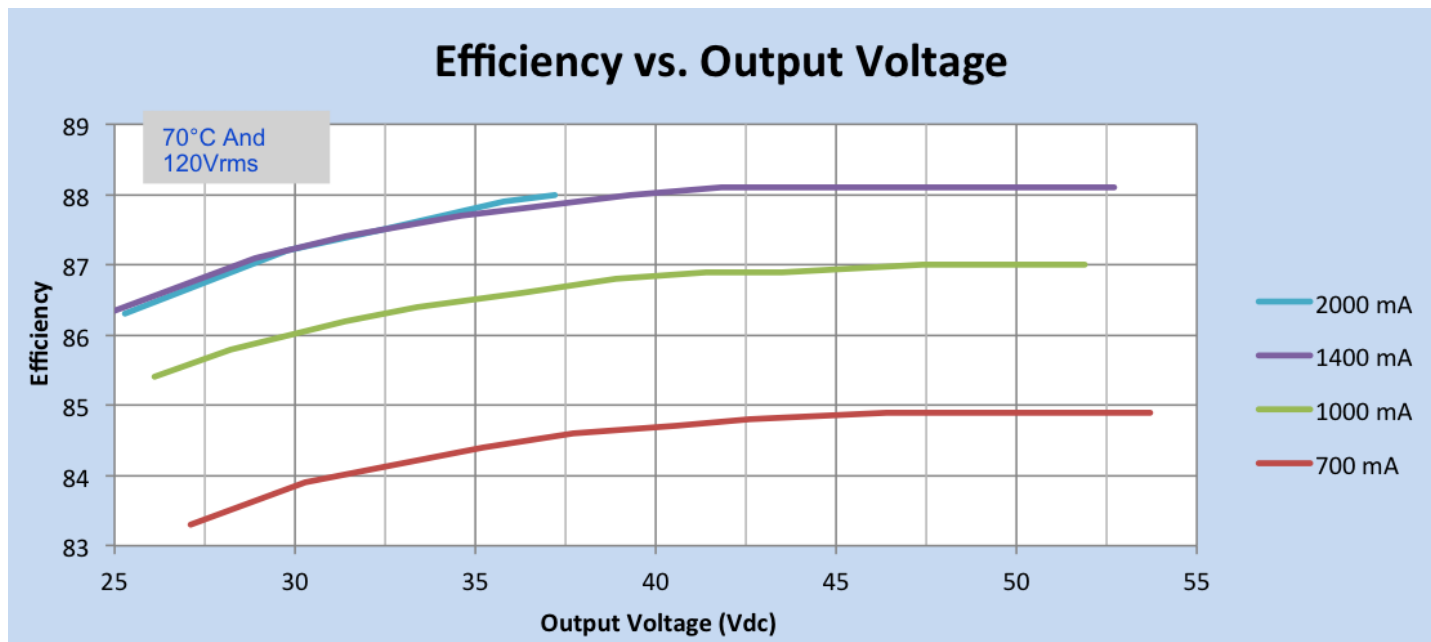


75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

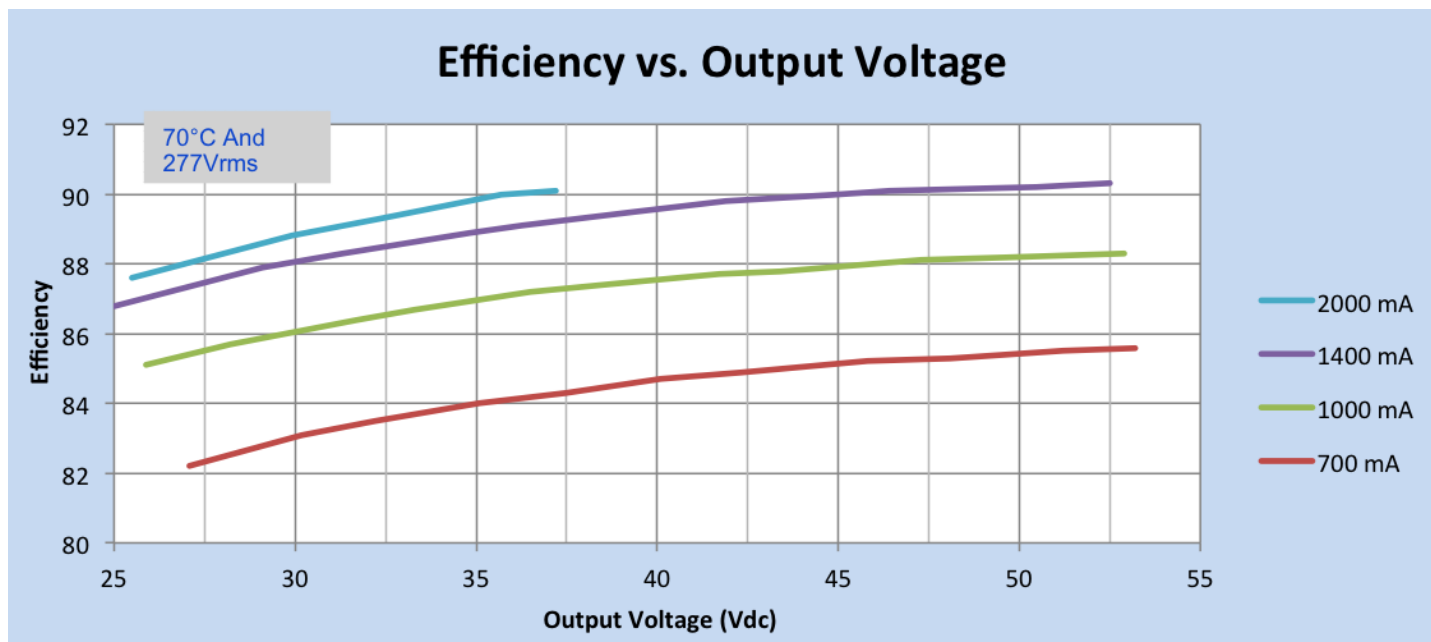
Performance Characteristics

Based on measurements on a typical sample at 70°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency Vs. Output Voltage at 120Vac



Efficiency Vs. Output Voltage at 277Vac

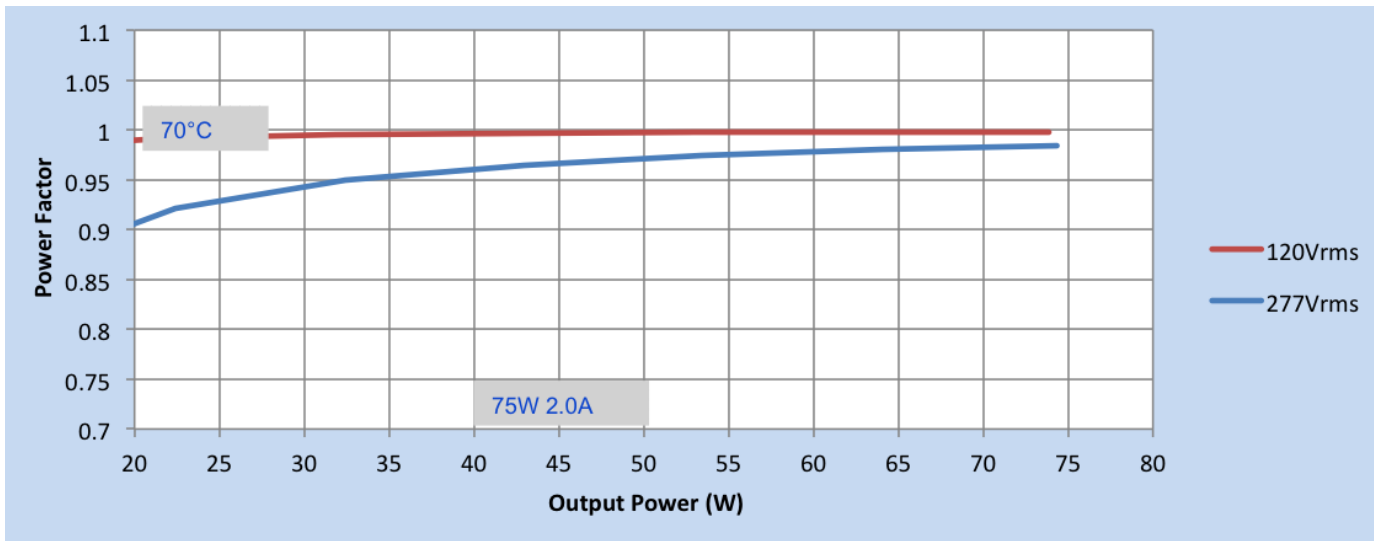


75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

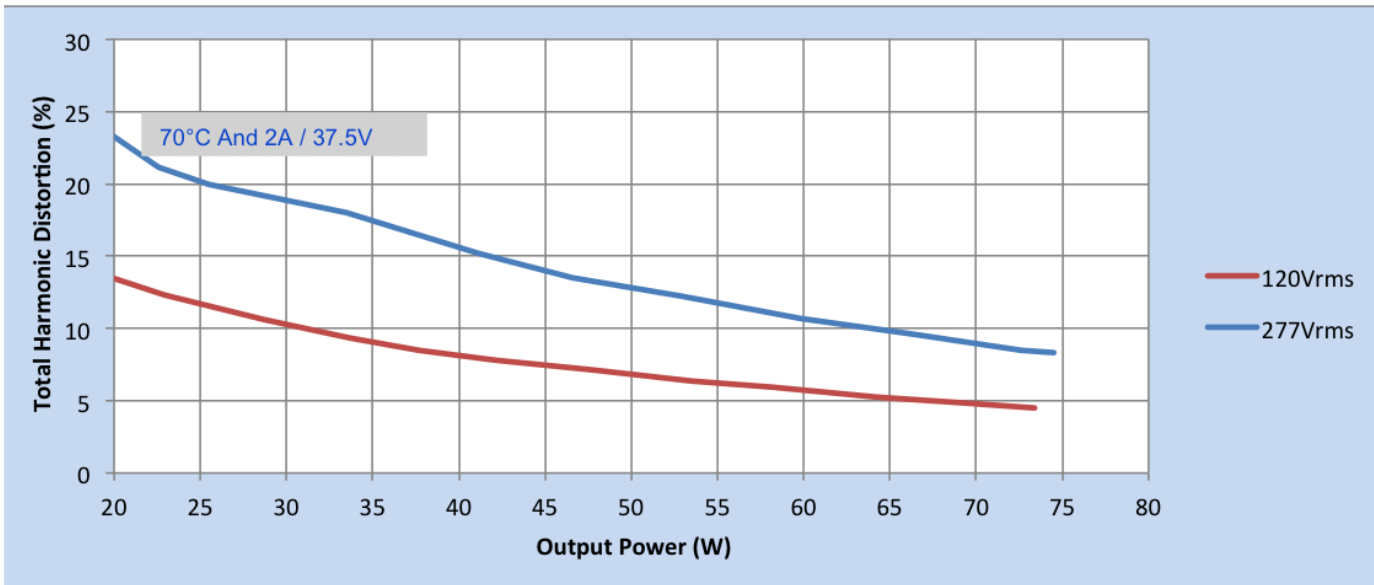
Performance Characteristics

Based on measurements on a typical sample at 70°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Power Factor Vs. Output Power

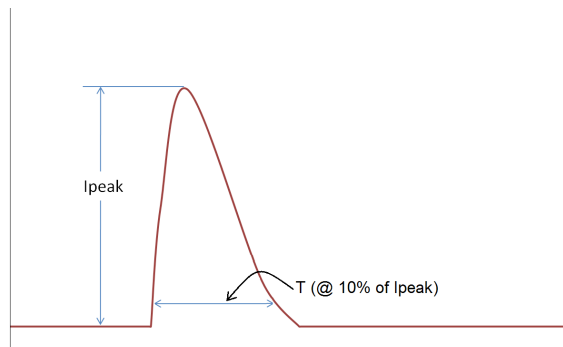


Total Harmonic Distortion (THD) Vs. Output Power



75W 0.1-2.0A 54V 0-10V INT (1% dim) with SimpleSet

Inrush Current Info



V_{in}	I_{peak}	$T (@ 10\% \text{ of } I_{peak})$
120 Vrms	34A	118 μ S
277 Vrms	64A	115 μ S

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)
100kHz Ring Wave (w/t 30 Ω)	>2.5KV	>2.5KV

Isolation

Isolation	Input	Output	0-10V	Enclosure
Input	NA	2xU+1kV	2.5KVac	2xU+1kV
Output	2xU+1kV	NA	Non-isolated	500V
0-10V (class 2)	2.5KVac	Non-isolated	NA	500V
Enclosure	2xU+1kV	500V	500V	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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