

OPTOTRONIC® Power Supply

OT20W UNV Phase Cut Series – Technical Specifications



ELECTRICAL SPECIFICATIONS

Input

Input Voltage (VAC)	120V- 277V (±10%)	
Frequency Range (Hz)	50-60Hz (±10%)	
	120V	277V
Input Current (A)	0.25	0.10
THD @ Full load	<20%	<35%
Power Factor	>0.9	
Efficiency @ Full load	≥83%	
Inrush Current (A _{pk})	0.23	0.37
Stand-by Power (W)	<1W	

Output

Current (mA)	Voltage (VDC)	Power (W)
250	28-55	13
350	28-55	20
400	28-50	20
400	18-30	12
500	28-40	20
500	18-30	15
600	20-30	18
700	16-29	20
Line regulation	<5%	
Load regulation	<5%	
Output ripple current	<20%	
LED Power-up time	<1sec	
Over load protection	Yes, power cycle	
Output over voltage protection	Yes	
Output short circuit protection	Yes, non-latching	
Over temperature protection	Yes, power cycle	

GENERAL INFORMATION

Item number(s)	Current	F-Type	J-type
	250mA	79412	79413
	350mA	79423	79428
	400mA LV*	79375	79374
	400mA HV*	79422	79427
	500mA LV*	79419	79418
	500mA HV*	79421	79426
	600mA	79429	79424
	700mA	79420	79425

Type Constant Current, Class 2

Output Power 12-20W (model dependent)

*LV- Low voltage HV- High voltage

ELECTRICAL SPECIFICATIONS

Dimming

Dimming control	Phase-cut (120V only)
Dimming range	10-100%
Dimming mode	Analog

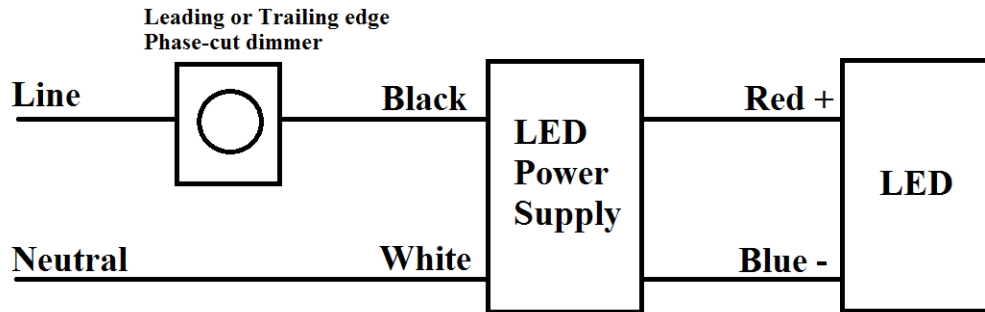
ELECTRICAL SPECIFICATIONS

Ambient Operating temperature	-40°C to 50°C
Case Temperature (T _c)	75°C† 90°C (Max)
Max storage temperature	75°C
Max. Relative Humidity (%)	85% non condensing
Transient protection	ANSI C62.41 Category A 2.5KV
EMI Compliance	FCC 47 Part 15 Class B
UL File number	E320395
UL Environmental rating	Dry & Damp
IP rating	IP20
Sound rating	Class A

† Warranty applicable only at T_c of 75°C



WIRING DIAGRAM



Note: Mounting distance for 18 AWG wire is 16 feet. For additional information on further distances and EMI compliance reference application note LED126

MECHANICAL SPECIFICATIONS

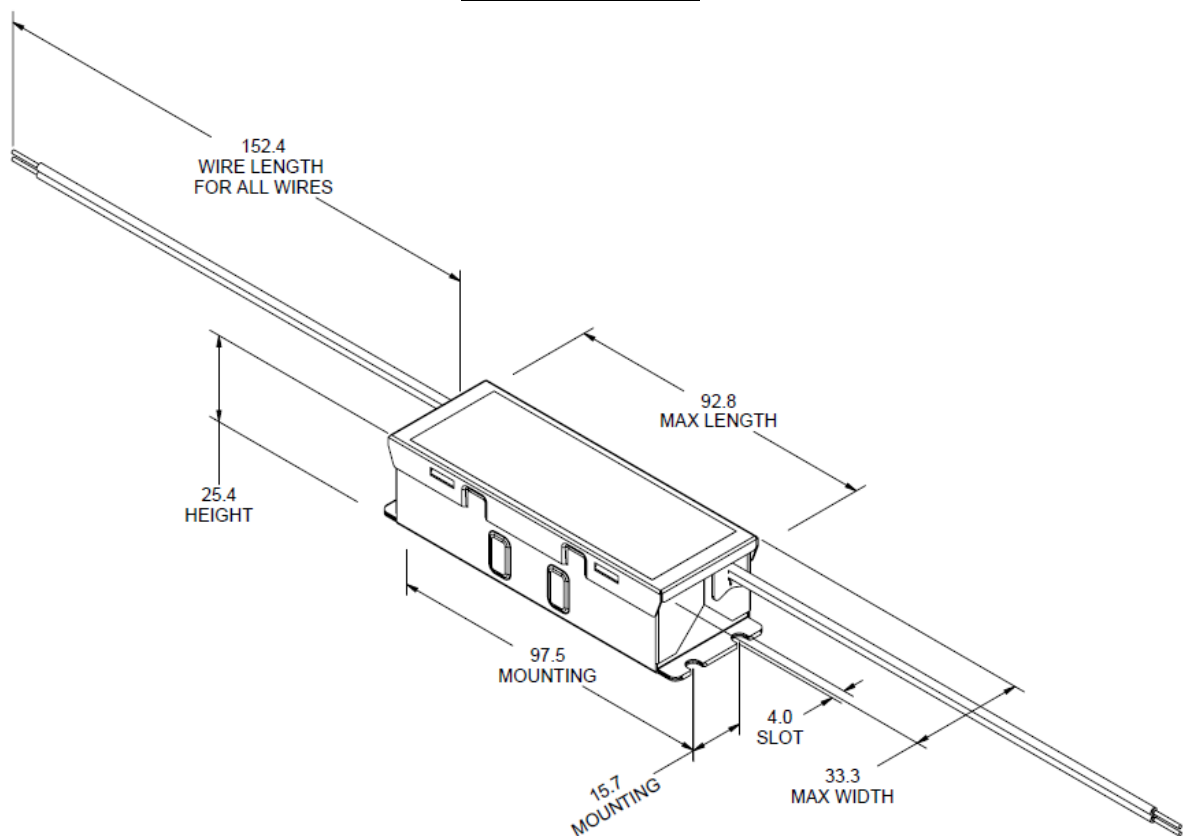
Housing	F-Style
Length	3.99" (101.4mm)
Width	1.31" (33.3mm)
Height	1.00" (25.4mm)
Mounting Length	3.84" (97.5mm)
Mounting Width	0.62" (15.7mm)

MECHANICAL SPECIFICATIONS

Housing	J-style
Length	3.56" (90.4mm)
Width	1.31" (33.3mm)
Height	1.00" (25.4mm)
Mounting Length	2.00" (50.8mm)
Mounting Width	1.31" (33.3mm)

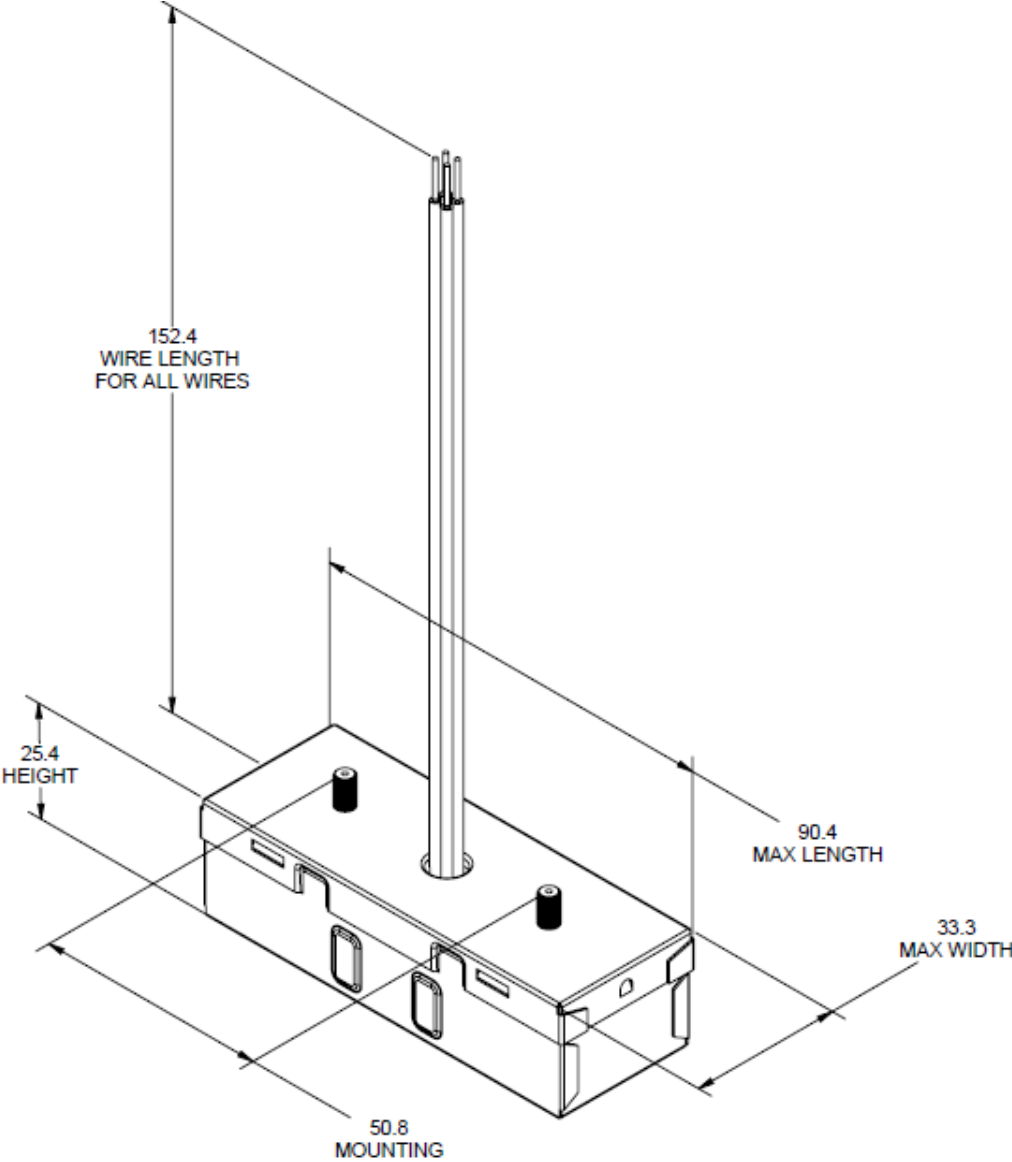
MECHANICAL DIAGRAM

F-Style Housing

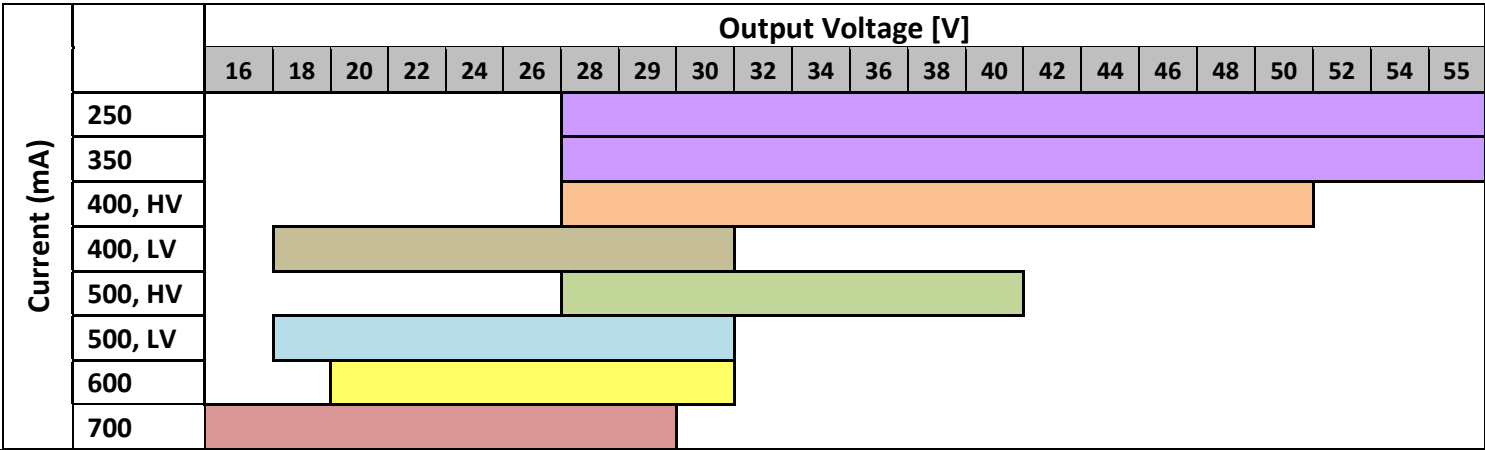


MECHANICAL DIAGRAM

J-Style Housing

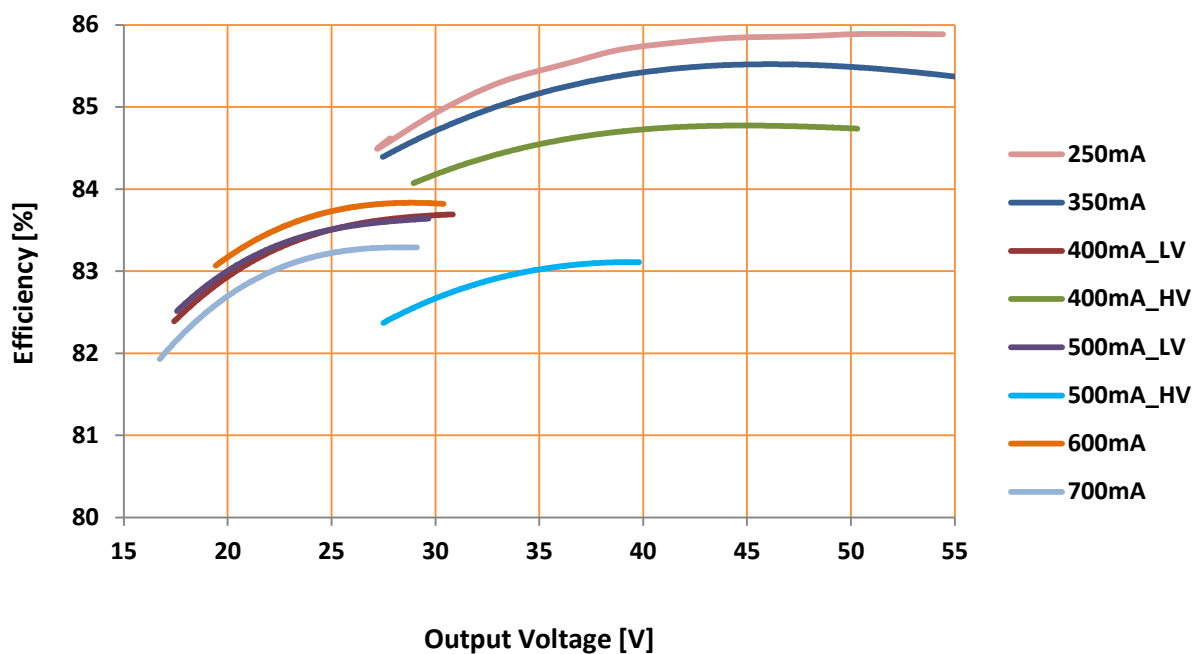


OPERATING RANGE

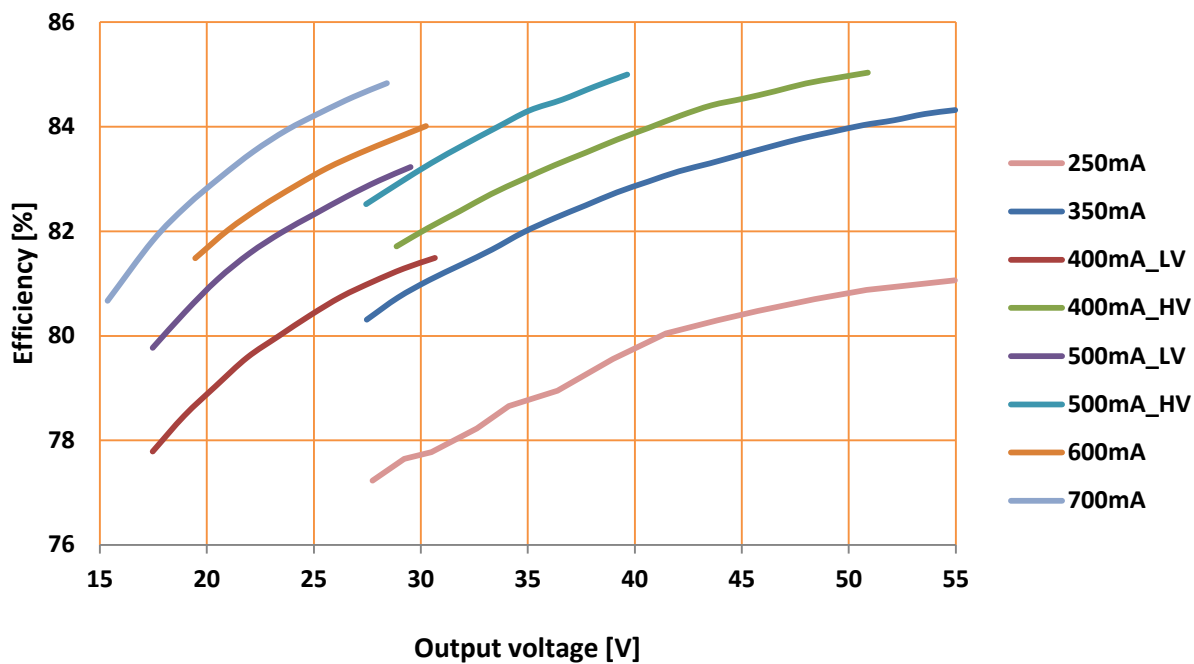


EFFICIENCY VS OUTPUT VOLTAGE

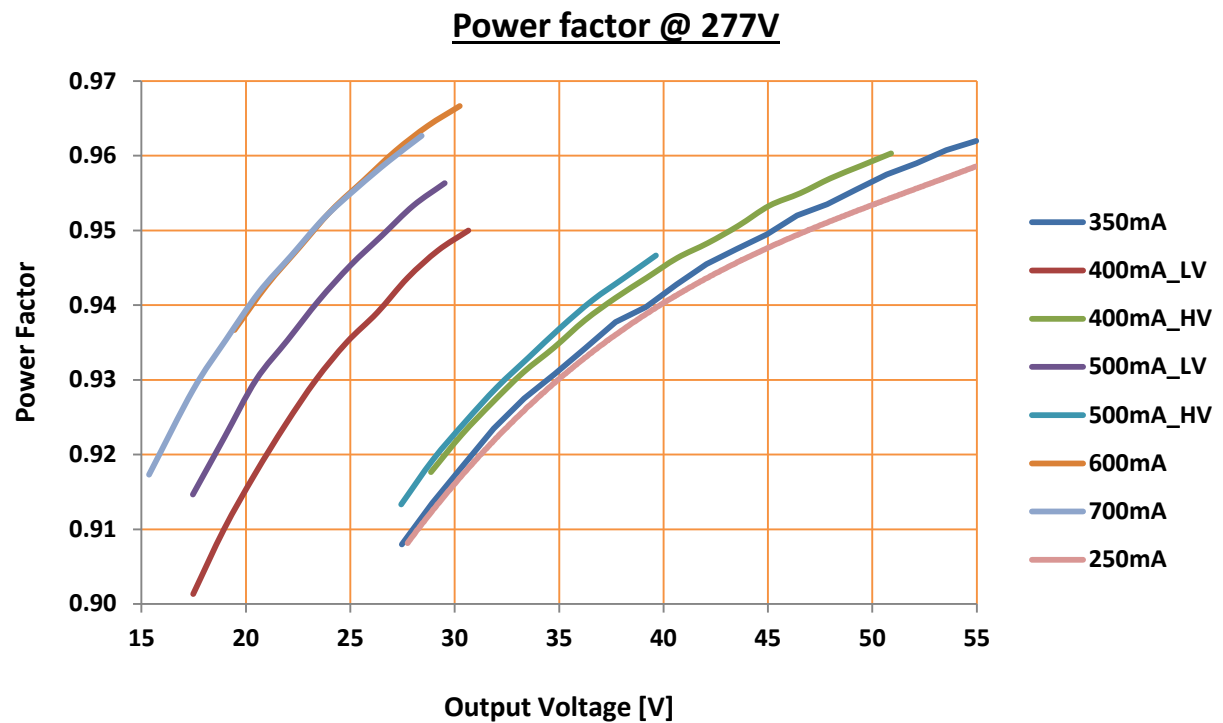
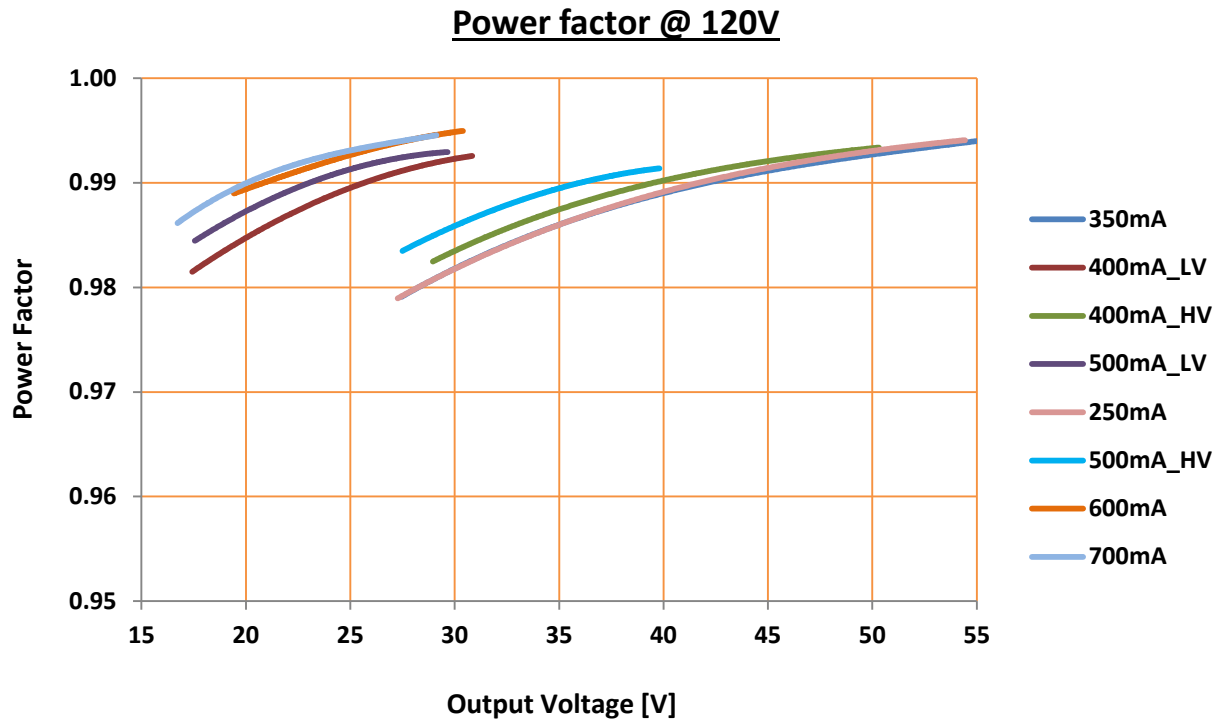
Efficiency @ 120V



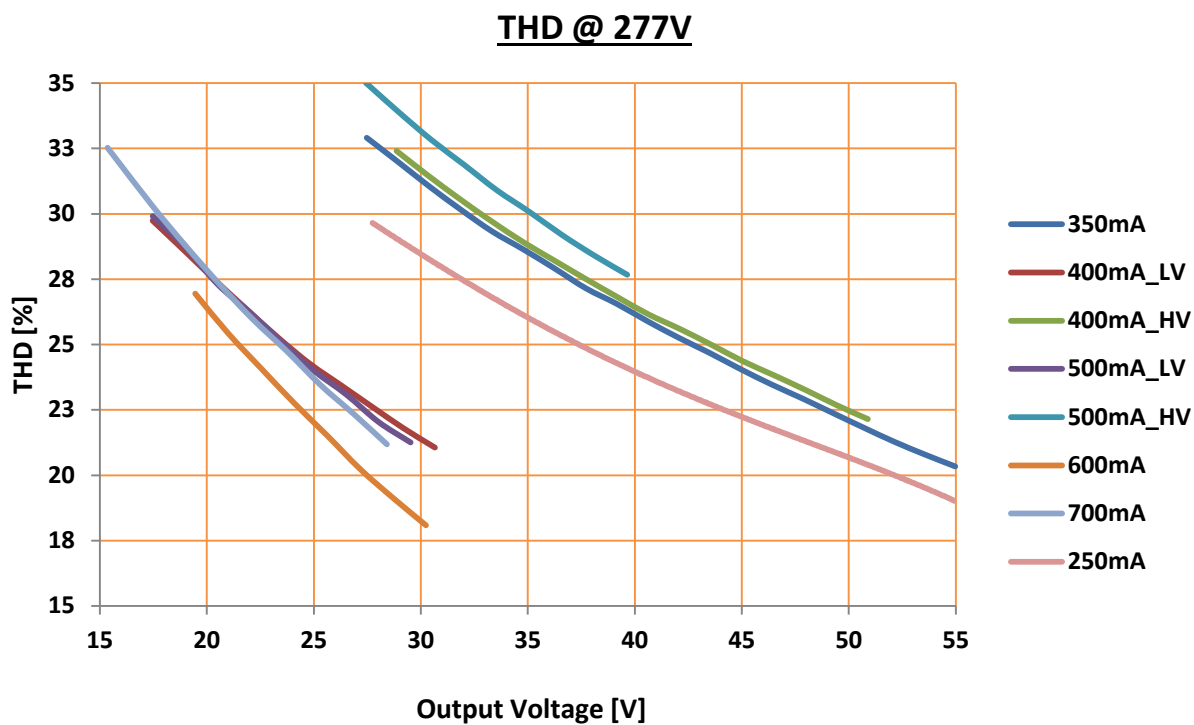
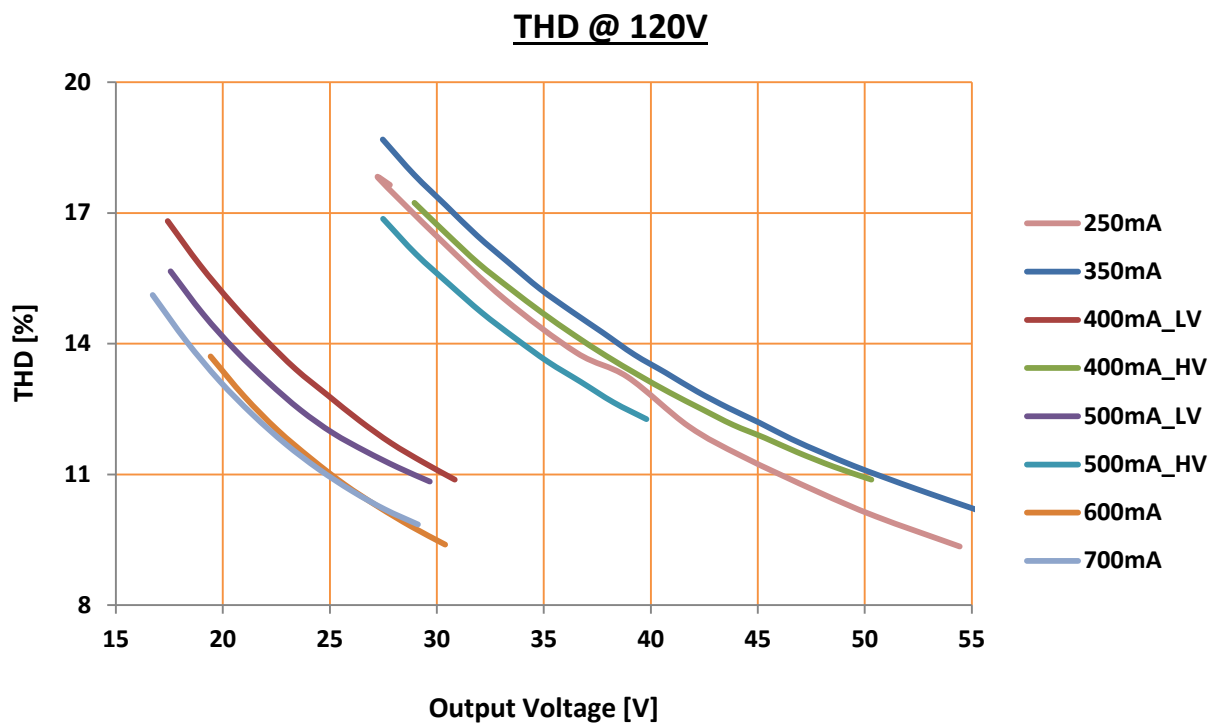
Efficiency @ 277V



POWER FACTOR VS OUTPUT VOLTAGE



THD VS OUTPUT VOLTAGE



DIMMER COMPATIBILITY

		Item Numbers						
		79423 79428	79375 79374	79422 79427	79419 79418	79421 79426	79429 79424	79420 79425
Manufacturer	Part number	350mA	400mA LV	400mA HV	500mA LV	500mA HV	600mA	700mA
Lutron	SLV-603P	•	•	•	•	•	•	•
Lutron	DV-10P	•	•	•	•	•	•	•
Lutron	DVLV-600P	•	•	•	•	•	•	•
Lutron	DVEL- 300P	•	•	•	•	•	•	•
Lutron	MAW-600	•	•	•	•	N	•	•
Leviton	IPI06	•	•	•	•	•	•	•
Leviton	VPI06	•	•	•	N	•	•	•
Leviton	ATI06	•	•	•	N	•	•	•
Hubbell	RS600P	•	•	•	•	•	•	•
Lutron	NT-603P	•	•	•	•	•	•	•
Lutron	D-600P	•	•	•	•	•	•	•
Lutron	DVWCL-153PH	•	•	•	•	•	•	•
Lutron	LX-600PL-LA	•	•	•	•	•	•	•
Leviton	VPM10-ILX	•	•	•	•	•	•	•
Leviton	IPE04	•	•	•	•	•	•	•
Lutron	MAELV-600	•	•	•	•	•	•	•
Cooper	1061	•	•	•	•	•	•	•

Note1: The absence of a dimmer from this chart does not necessarily imply incompatibility. Please reference the dimmer manufacturer's instructions for installation.

Note2: The best dimming performance can be achieved when connecting atleast 2 of these LED drivers on a compatible dimmer.

UL conditions of acceptability (E320395)

Conditions of Acceptability – When installed in the end-product, consideration shall be given to the following:

- These products been evaluated for the following characteristics

Model No.	Input Characteristics	Input Characteristics	Product is rated
Products with output voltages of 30 V rms or 42.4 V peak	Input type- Branch Circuit (Mains)	Output type- CC, Output is Class 2 (a, b)	Damp
All other products covered in this report	Input type- Branch Circuit (Mains)	Output type- CC, Output is Class 2 (a) and LVLE (c)	Damp

a- As defined in UL 8750, Clause 7.12.1

b- As defined in CAN/CSA-C22.2 No. 250.13-12, Clause 8.12.1

c- As defined in CAN/CSA-C22.2 No. 250.13-12, Annex A

- The LED driver has been evaluated using an electronic LED load resulting in a Class 2 output with a rated output current of 250-700 mA.
- The unit was tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary

- The PWB spacing for use in Damp locations has been evaluated to UL1310, Clause 24.5 per the Standard for Insulation Coordination Including Clearances and Creepage Distances for Electrical Equipment, UL 840, Table 9.1 for an Overvoltage Category II and Pollution Degree 1 (potted enclosure and under the PWB).
- The products are intended for use in Dry and Damp locations. The use in other environmental locations shall be considered in the end product.
- The unit was not evaluated for supply grounding connection. Consideration for connecting the metal enclosure to a suitable grounding and bonding point shall be considered in the end product
- For models with rated output voltages above 30 V rms (42.4 V peak), end use acceptability shall be determined for cUL applications based on accessibility to the user.
- These products are intended to be installed within an end-product enclosure. Acceptability of the LED driver- with respect to enclosure, mounting, spacing, casualty, temperature and segregation- is to be determined as part of the end product evaluation.
- Normal Temperature Testing on OTXXW/ZZZC/UNV/PC models was completed in ambient temperatures to result in a 90⁰C Max. Tc point temperature. Ambient temperatures ranged from 68 to 90⁰C. Applications with ambient temperatures above 68⁰C shall be determined suitable in the end-use.

WARRANTY

OPTOTRONIC[®] products are covered by our LED Module, OPTOTRONIC Power Supply or Control Warranty. For additional details, refer to the latest version of the warranty (LED089) available at www.osramamericas.com/optotronic.