



General Information

Item Number	*276PF7 F-type *276PF8 J-type
Type	Constant Current
Output Power	20W (Max.)
Programming Tool	*274A17 Required *2743V2 Optional
Software	Download
Programmable Features	Output current Minimum dimming level

Environmental Specifications

Ambient Operating Temperature	-30°C to 50°C
Case Temperature (Tc)	80°C (50k hrs) ¹ 90°C (20k hrs)
Max. Storage Temp.	75°C
Max. Relative Humidity (%)	85% non-condensing
Transient Protection	ANSI C82.77 Low Bay 2.5kV
UL Rating	Dry & Damp
UL File number	E320395
IP Rating	IP20
EMI Compliance	FCC Part 15 Class A FCC Part 15 Class B @120VAC
Sound Rating	Class A

¹ 5 year warranty applicable at 85°C

Electrical Specifications

Input

Input Voltage (VAC)	120-277 (+/- 10%)	
Frequency Range (Hz)	50-60 (+/- 10%)	
	120V	277V
Input Current (A)	0.3	0.09
THD @ Full load	<20%	<20%
Power Factor @ Full load	>0.9	>0.9
Efficiency @ Full load	≥82%	≥80%
Inrush Current (Apk) ¹	3.0	10.0
Line Regulation @ Full load	<5%	<5%

¹ Complies to NEMA 410 inrush current requirements

Output

Output Current (mA) ¹	250-500mA
Default Current (mA)	300mA
Output Voltage (VDC)	26-42VDC
Output Ripple Current	<30% (<1kHz)
Max. Output Power (W)	20W
LED Power-Up Time	<0.5sec
Load Regulation	<3%
Over Voltage Protection	Yes, non-latching
Over Load Protection	Yes, non-latching
Output Short-Circuit Protection	Yes, non-latching
Over Temperature Protection	Power Foldback at 95°C

¹ Programmable with 1mA resolution with +/- 5% accuracy

Dimming

Dimming Control	0 – 10V & Phase-cut
Dimming Range	5-100% (0-10V) 1 ¹ -100% (Phase-cut, 120VAC)
Dimming Type	Current Reduction
Dimming Input Isolation	2.5kV
Source/Sink Current	0.2mA max

CAUTION: More than one power supply present.

¹ Driver can be dimmed to 5% level of the programmed output current.

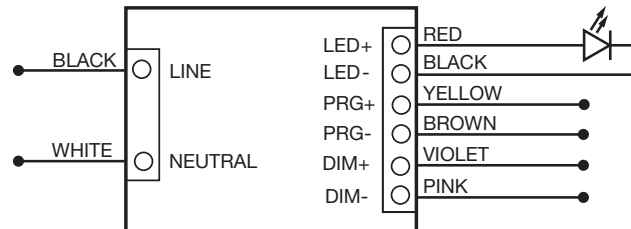
For Phase-cut, 120VAC, 1% dimming is achievable under certain conditions. Reference the Design Guide for further clarification and guidance.



Ordering Information

Item Number	Ordering Abbreviation	Total Output Power (W)	Output Current Range (mA)	Default Current Setting (mA)	Output Voltage Range (VDC)	Dimming Control	Housing Type
*276PF7	OT 20W UNV 0A5 DUALDIM DIM-5 F-HOUSING J25	20	250-500	300	26-42	0-10V / Phase Cut	F-Type
*276PFF	OT 20W UNV 0A5 DUALDIM DIM-5 J-HOUSING J25	20	250-500	300	26-42	0-10V / Phase Cut	J-Type

Wiring Diagram



- Notes:**
- Maximum suggested remote mounting distance is 16 feet.
 - Input (L/N) and LED Output wire leads are two core ANSI/UL1015/AWG18, temperature 105°C copper wire.
 - Cable Length: 150mm, stripped and tinned (10mm)
 - DIM and PRG wire leads are two core ANSI/UL1015/AWG22, temperature 105°C copper wire.
 - Cable Length: 170mm, stripped and tinned (10mm)
 - OT Outdoor Programming Tool *2743V2 can be used for PRG connection (for drivers with flying leads).
 - Driver case must be grounded.

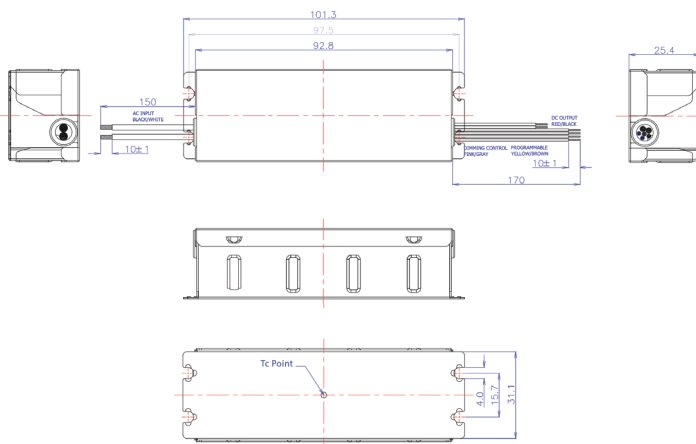
Key Application Notes

OT20 Dual Dim is compatible with both 0-10V dimming controllers and Phase Cut dimmers including:

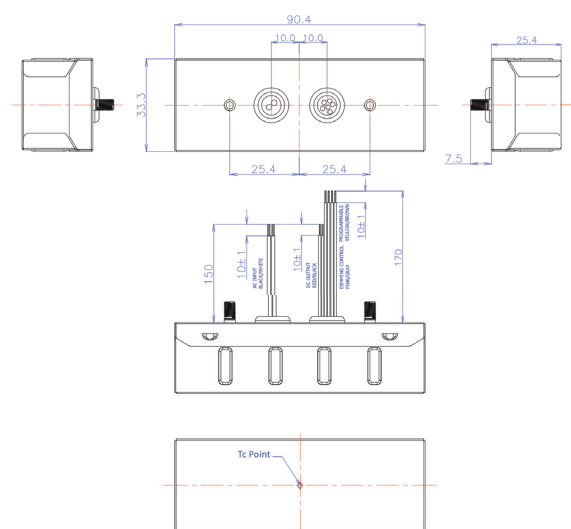
- Electronic Low Voltage (ELV) / Reverse Phase / Trailing Edge Dimming
- TRIAC / Forward Phase / Leading Edge Dimming
- Phase Cut dimming is only available when Input Voltage is 120VAC
- If PRG(+/-) leads are shorted during operation, output current will reduce to 10-50% of nominal level

Mechanical Diagrams

F-Style (side-feed) Housing



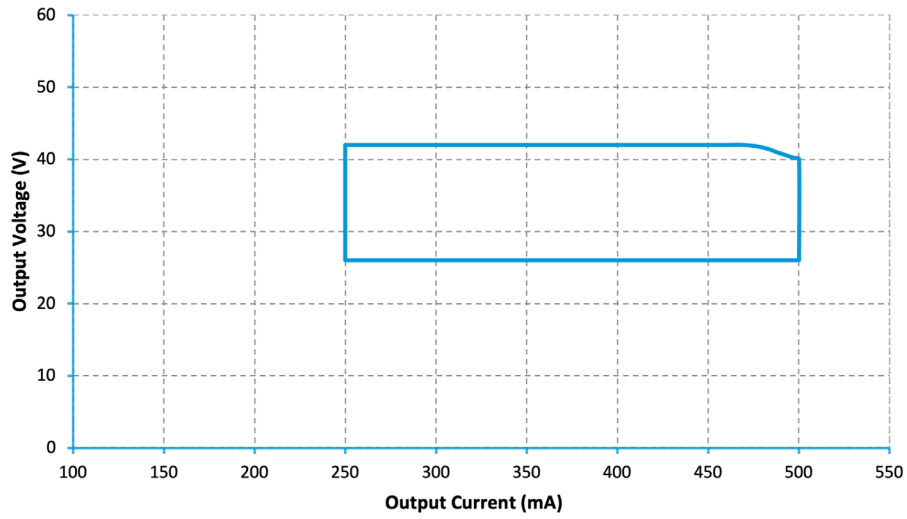
J-Style (bottom-feed) Housing



Mechanical Specifications

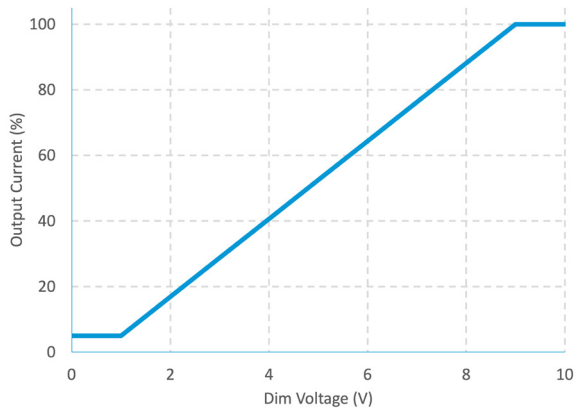
Housing	F-Style	J-Style
Length	3.98" (101.3mm)	3.56" (90.4mm)
Width	1.22" (31.1mm)	1.31" (33.3mm)
Height	1.0" (25.4mm)	1.0" (25.4mm)

Operating Range



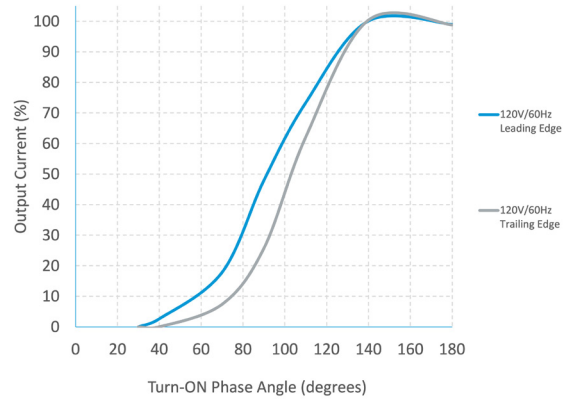
Dimming Curves

0-10V Dimming



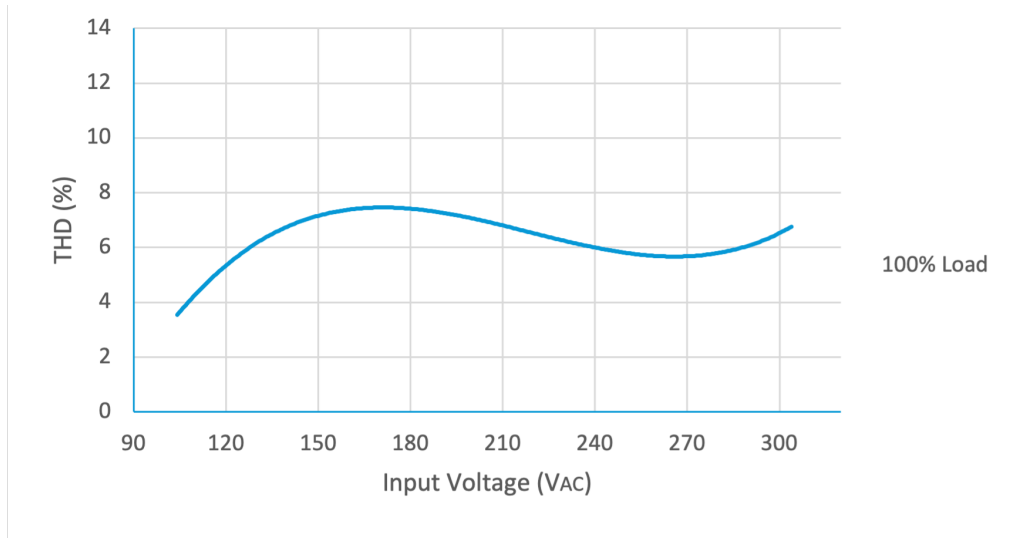
Note: – Minimum Output Current is 5mA

Typical dimming vs Turn-ON phase angle of AC input

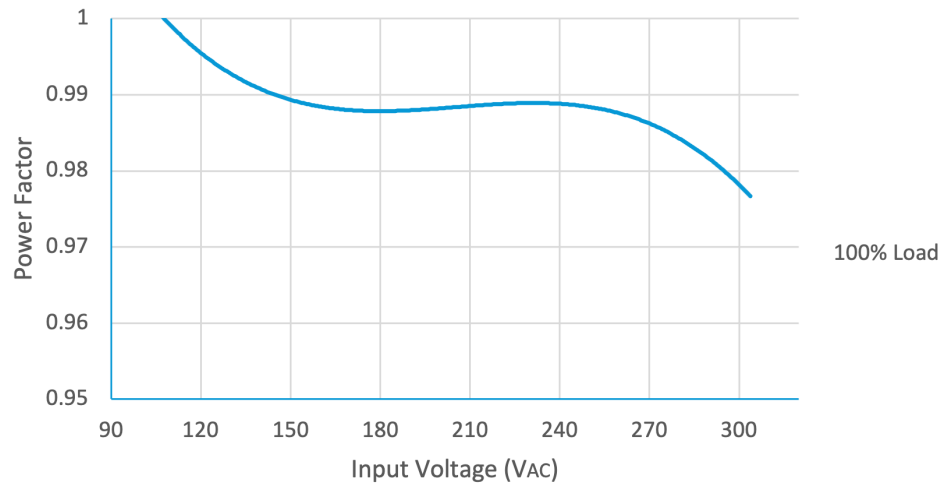


Note: Operating the driver below the minimum Turn-On Phase Angle can result in driver output turning off or unstable performance.

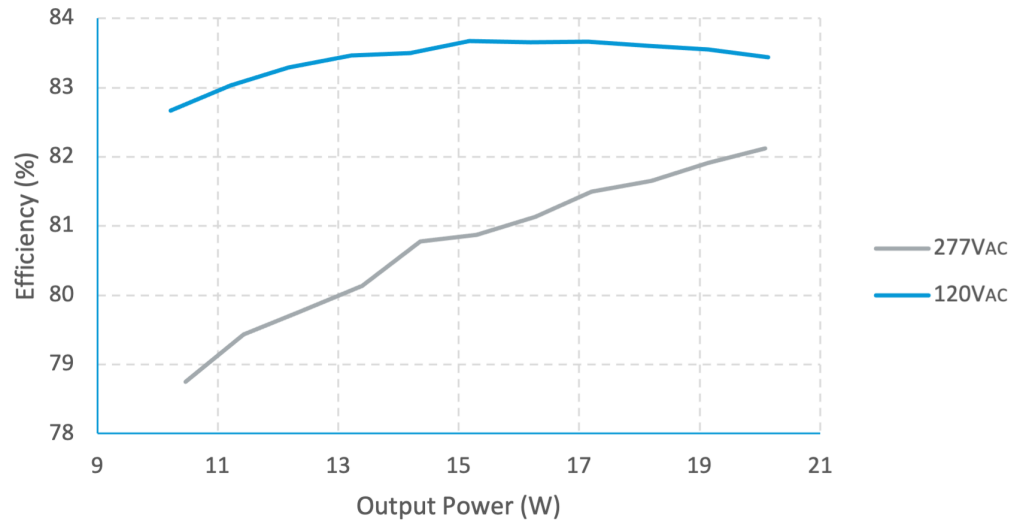
THD vs. Input Voltage (Full Load)



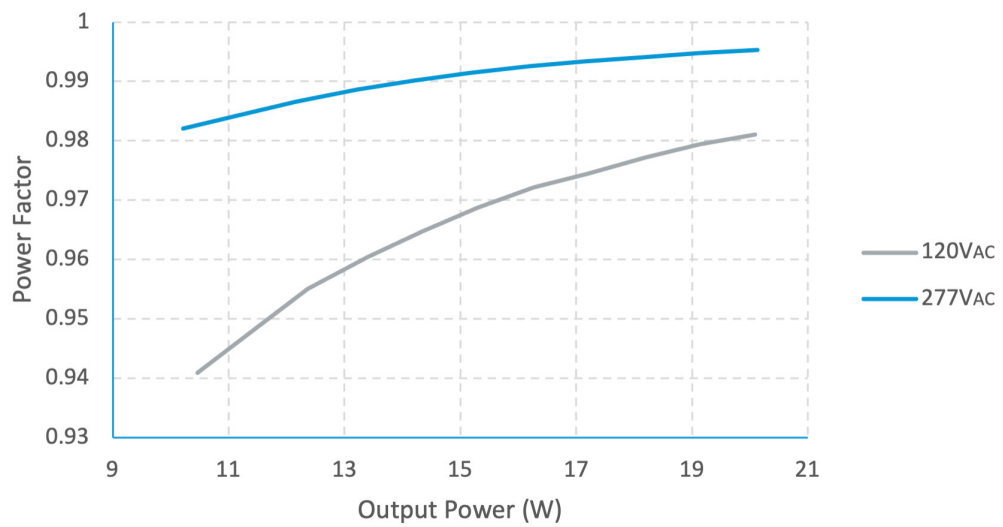
Power Factor vs. Input Voltage (Full Load)



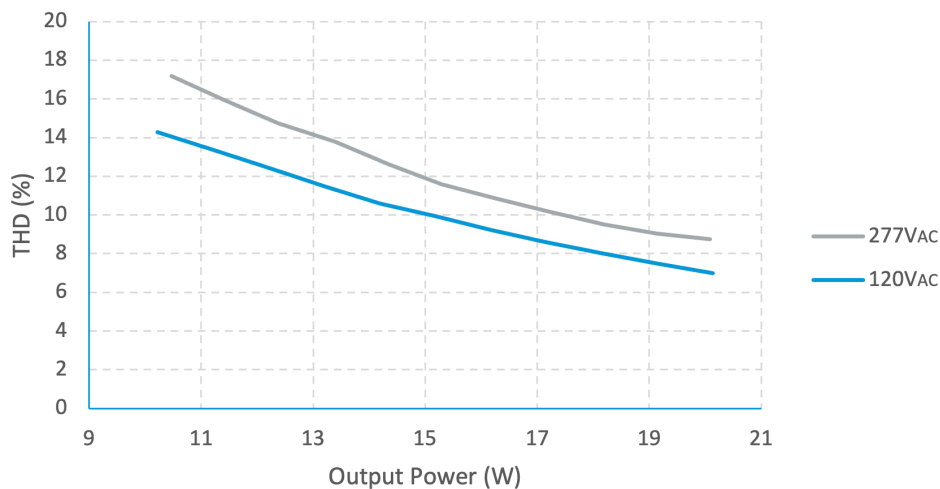
Efficiency vs. Output Power



Power Factor vs. Output Power



THD vs Output Power



Inrush Characteristic

Vin (V)	Ipeak (A)	T (@10% of Ipeak)
120	3.0	32 μ s
277	10.0	26 μ s

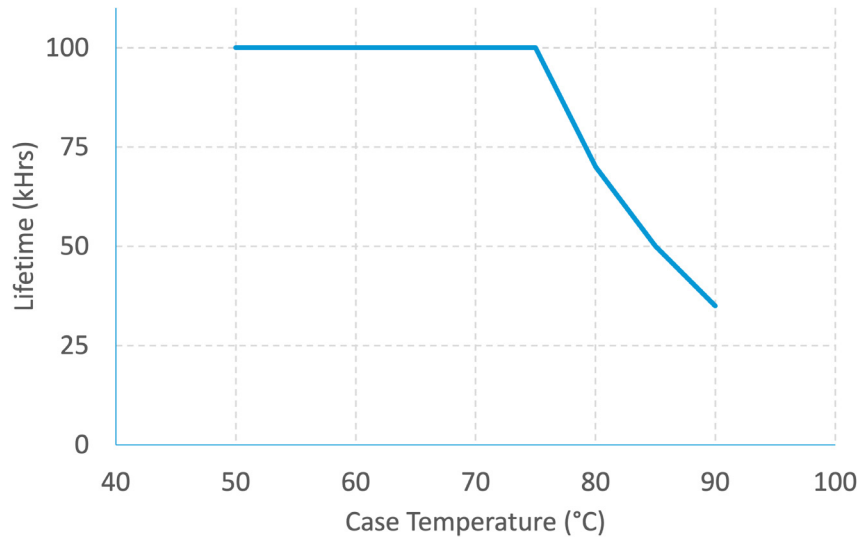
Complies to NEMA 410 inrush current requirements

Dimmer/Sensor Compatibility

Manufacturer	Model	Type
LUTRON	SCL-153P	Leading Edge (Forward Phase) / TRIAC
LEVITON	6674-P	Leading Edge (Forward Phase) / TRIAC
LUTRON	MACL-153M	Leading Edge (Forward Phase) / TRIAC
LUTRON	DVCL-153P	Leading Edge (Forward Phase) / TRIAC
LUTRON	PD-6WCL	Leading Edge (Forward Phase) / TRIAC
LEGRAND	RHCL453P	Leading Edge (Forward Phase) / TRIAC
LEVITON	IPE04-1LZ	Trailing Edge (Reverse Phase)
LUTRON	DVLV-600P	Trailing Edge (Reverse Phase)
LUTRON	MAELV-600	Trailing Edge (Reverse Phase)
LUTRON	SELV-300P	Trailing Edge (Reverse Phase)
LUTRON	RA2 RRD 6NA 600W	Trailing Edge (Reverse Phase)
LUTRON	DVELV-300P	Trailing Edge (Reverse Phase)

- Notes:**
- Trailing Edge dimmers often have adjustable conduction phase-angles. Fine tuning of the phase-angle may be required to ensure minimum dimming performance.
 - Compatibility testing must be performed in a representative application.
 - The absence of a dimmer from this chart does not imply incompatibility.
 - Driver may turn off if the phase angle drops below the minimum turn-on phase angle of 40° and 60° for leading edge and trailing edge dimmers, respectively.

Lifetime vs Case Temperature



Warranty

OPTOTRONIC® by eldoLED are covered by a 5-year limited warranty.
Complete warranty terms can be found at: www.eldoled.com/legal/terms-and-conditions

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Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.