

## Main Features:



- Input Voltage: 180~528Vac or 250~740Vdc
- Output Wattage: Constant Wattage (C.P.) at **810W** with Adjustable Current Setting
- Programmable Method: Wireless (NFC)
- High Efficiency: Up to **96%**
- Dimming Function: **0-10V with Dim to off (dto)**
- Auxiliaire Voltage: **12Vaux** with **300mA**
- Lightning Protection: Built-in Surge Protector at 10KV/5KA
- Reliability Protection: OVP, SCP, OTP
- Safety Regulation: Complies with UL8750 & EN61347
- **Type TL and HL** Program Certified from UL
- **Class P** UL standard for retrofit kit
- Waterproof Rating: IP67
- Five Year Warranty under Normal Usage Conditions



## SPECIFICATION

Model No. <sup>(i)</sup>	Output Voltage Range	Programmable Output Constant Current Range	OVP	OTP	Case Temperature
	(Vdc)	(mA) <sup>(i)</sup>	(Vdc max.)	(°C) <sup>(ii)</sup>	(Tc)
<b>LDD-810D193P4200HH-V</b>	114 – 222	3600 – 4200	120% Vo <sub>max</sub> , typ.	Tc ≥ 105 ± 10°C	90C
<b>LDD-810D135P6000HH-V</b>	80 – 190	4200 – 6000	120% Vo <sub>max</sub> , typ.	Tc ≥ 105 ± 10°C	90C
<b>LDD-810D094P8600HH-V</b>	56 – 133	6000 – 8600	120% Vo <sub>max</sub> , typ.	Tc ≥ 105 ± 10°C	90C
<b>LDD-810D045P18KHH-V</b>	30 – 56	14500 – 18000	120% Vo <sub>max</sub> , typ.	Tc ≥ 105 ± 10°C	90C
Note	(i) Pre-set Constant Current Value with dimming				
	(ii) Lower the output current when Tc ≥ 105 ± 10°C; Auto Recovery When Tc ≤ 70 ± 10°C				

Input Spec.	Condition Description	Min.	Normal	Max.	Units
Input Voltage Range	Dedicated High Voltage Input	180	208-480	528	VAC
Input Frequency Range		47	50/60	63	Hz
Input Current	<b>277 VAC/480 VAC input, full load output</b>			<b>3.5/2.0</b>	A
Power Factor	@60% - 100% load		> 0.9		
THD (total harmonic distortion)	@60% - 100% load		< 15		%
Inrush Current	At 277 VAC input, 25°C cold start / At 480 VAC input, 25°C cold start			7.1/ 13.3	A
Leakage Current	max @277Vac 60Hz			1.0	mA

Surge Protection	Line to line 6kV, line to ground 10kV, IEC 61000-4-5				
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Output Spec.	Condition Description	Min.	Normal	Max.	Units
Current Accuracy			±5		%
Ripple Current	At 100%-60% Load. The result differs according to different LED load characteristic.			5	% Ip-p (Io)
Overshoot/Undershoot	% of Iout max & LED load			10	%
Turn-On Delay	Startup time at cold start			1.2	s
Auxiliary Power (Vaux)	With 300mA max	-5%	12	+5%	Vdc

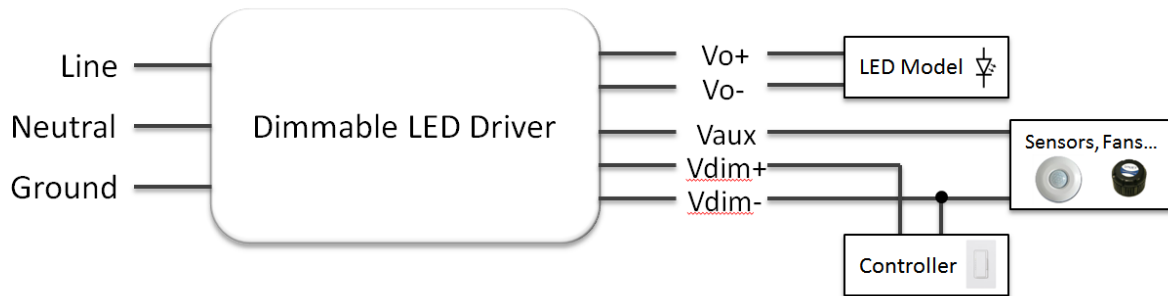
General Spec.	Condition Description	Min.	Normal	Max.	Units
Efficiency	Measured at full load in the thermal balanced condition		93	96	%
MTBF	measured at Tc= 75°C (MIL-HDBK-217F)		≥320,000		Hours
Lifetime	measured at Tc= 75°C		≥100,000		Hours
Operating/Storage Temperature	10%RH~100%RH (See De-rating Curve for more details )	-40/-40		90/85	°C
Dimension (OL/L x W x H)	OL is the overall length with mounting plates	363/336*90*41.5			mm
		14.29/13.22*3.54*1.63			inch
Weight	Net weight without package	5.74/2.6			lb/kg

Safety & EMC Compliance	Category	Condition Description
Safety Regulations	UL8750	Light Emitting Diode(LED) Equipment for Use in Lighting Products
	UL1012	Power Unit Other Than Class 2
	IEC 61347-1	Lamp Controlgear Part 1: General and Safety Requirements
	IEC 61347-2-13	Lamp Controlgear Part 2-13: Particular Requirement for d.c. or a.c. Supplied Electronic Controlgear for LED Modules
	CE	Europe: EN 61347-1, EN61347-2-13
EMI Standards	IEC 55015	Conducted emission test & Radiated emission test
	IEC 61000-3-2	Harmonic current emissions; Class C (≥75% load)
	IEC 61000-3-3	Voltage fluctuations & flicker
	FCC Part 15	Class B
EMS Standards	IEC 61000-4-2	Electrostatic discharge (ESD)
	IEC 61000-4-3	Radio frequency electromagnetic field susceptibility test (RS)
	IEC 61000-4-4	Electrical fast transient (EFT)
	IEC 61000-4-5	Surge immunity test L-N:2kV; LN-PE:4kV (External Surge Protection Device 4K/6K or 6K/10K)
	IEC 61000-4-6	Conducted radio frequency disturbances test (CS)
	IEC 61000-4-8	Power frequency magnetic field test
	IEC 61000-4-11	Voltage dips
	IEC 61547	Electromagnetic immunity requirements applies to lighting equipment

## ■ Dimming Curve

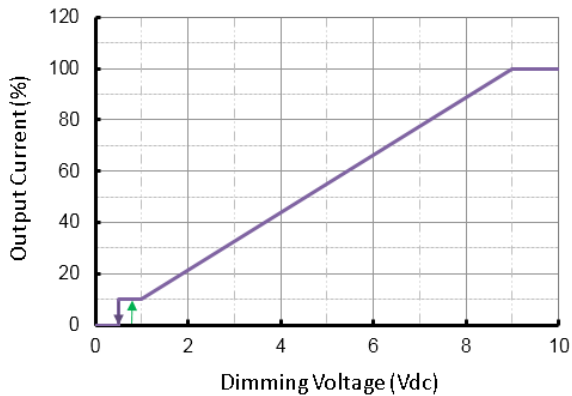
Parameter	Min.	Typ.	Max.
Vdim Sourcing Current	100uA	150uA	200uA
Vdim Allowed Input Voltage	-20 V		20 V
0-10V Dimming Range	10% (Vdim=1V)	Linear	100% (Vdim=9~10V)
PWM Dimming Range	10% (Duty=10%)	Linear	100% (Duty=90-100%)
Dim off threshold	0.4V or 4%	0.5V or 5%	0.6V or 6%
Dim on threshold	0.6V or 6%	0.7V or 7%	0.8V or 8%
PWM High	3.8V		10V
PWM Low	0V		0.6V
PWM Frequency	300Hz		2kHz
External PWM Controller Current Sinking Capability	300uA		

Dimming Wire

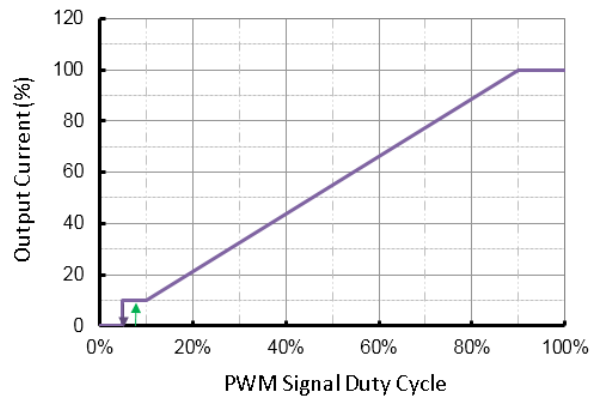


With dim-off (dto)

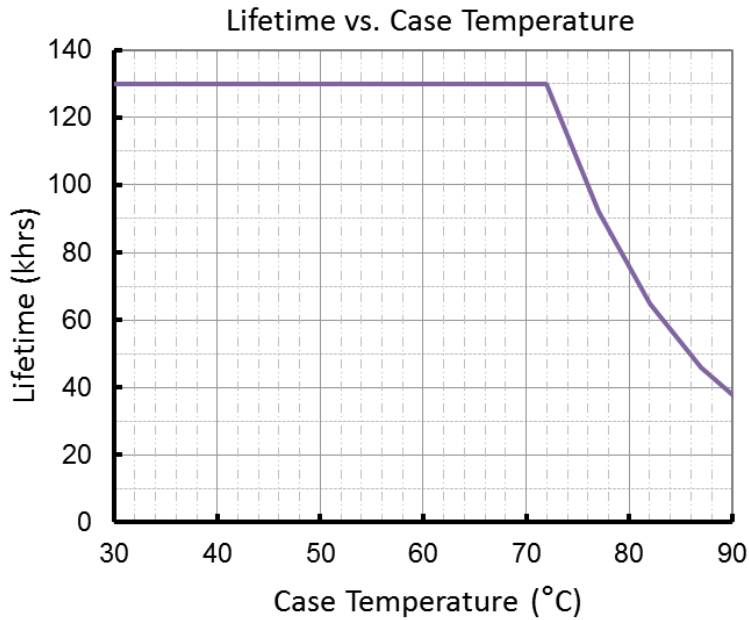
0-10V Dimming Curve



PWM Dimming Curve

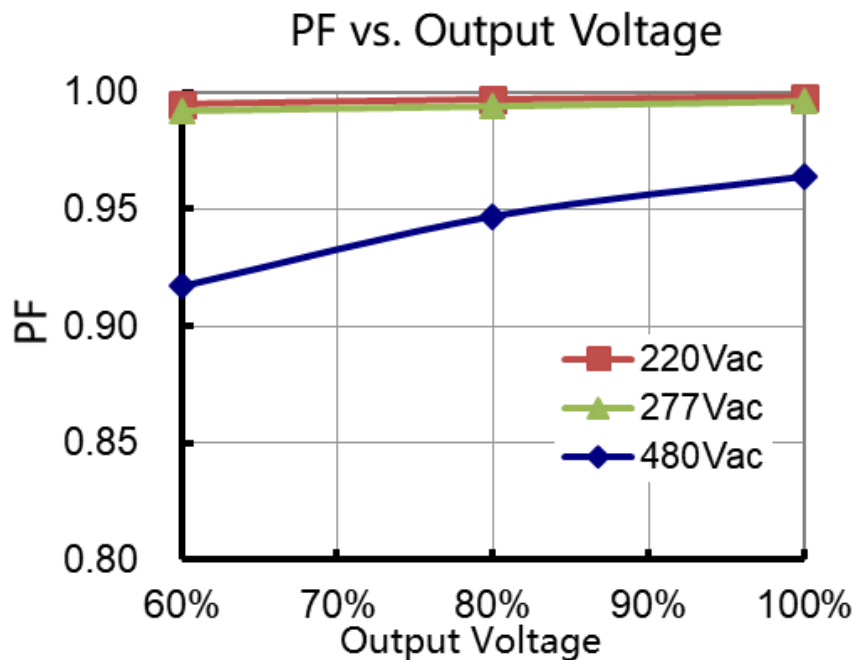


■ Lifetime vs. Case Temperature

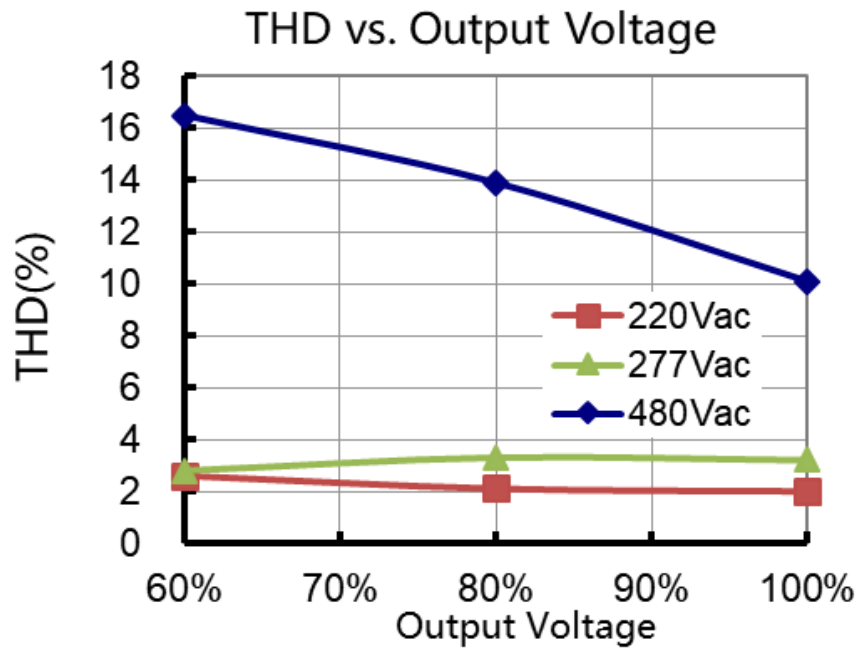


(End of Life: Maximum Failure Rate=10%)

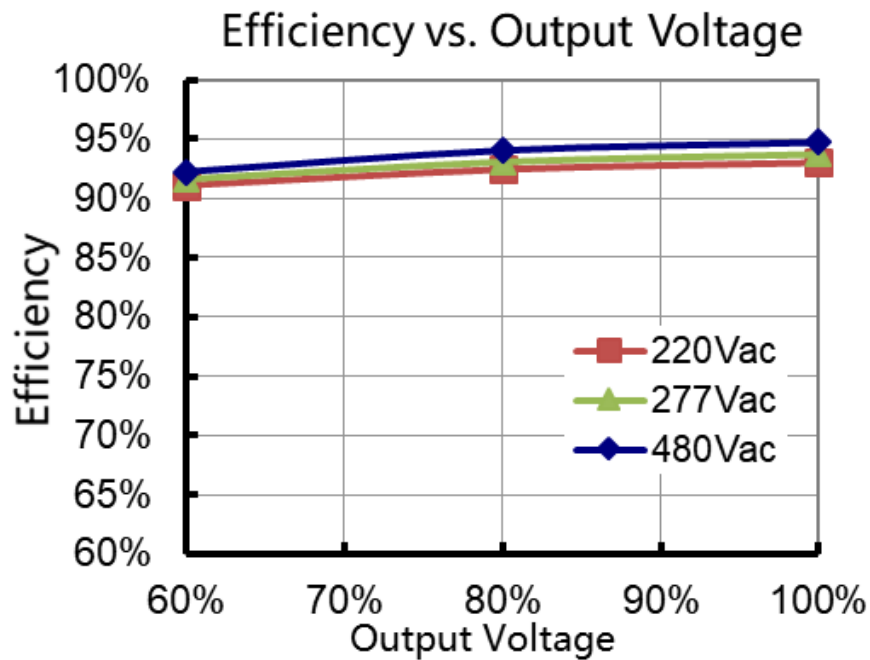
■ Power Factor VS Load



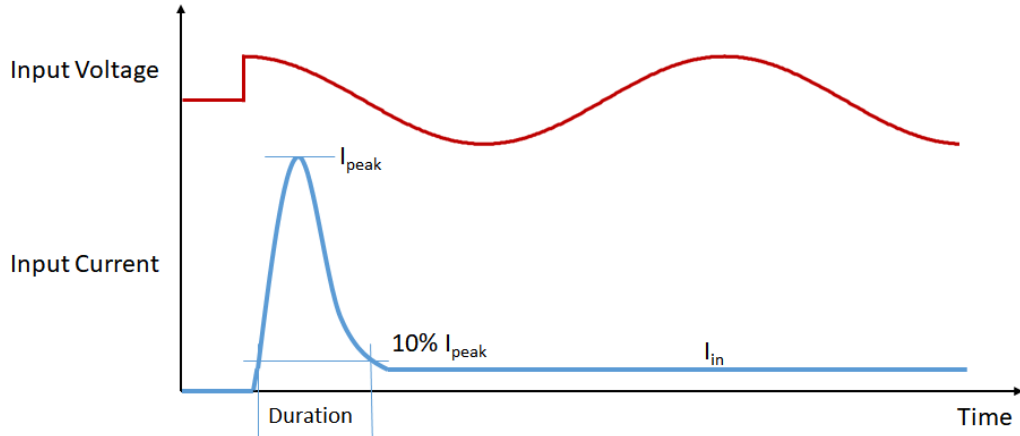
■ THD VS Load



■ Efficient VS Load(18A model)



■ Inrush current

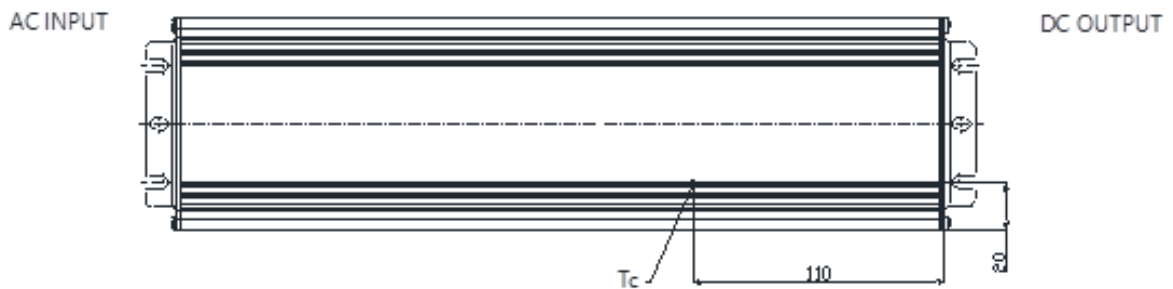


Input Voltage	I <sub>peak</sub>	Duration
277Vac	7.1A	19.3mS
380Vac	10.5A	14.1mS
480Vac	13.3A	15.4mS

■ Dielectric Strength

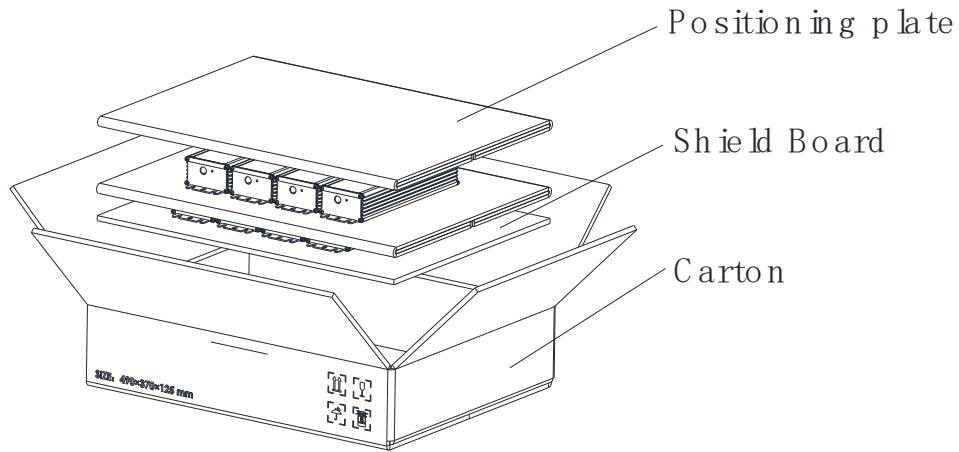
Unit: Vac	Input	Output	Dimming	Case
Input	-	3920	3920	1960
Output	3920	-	1960	1960
Dimming	3920	1960	-	1960
Case	1960	1960	1960	-

■ Tc Point

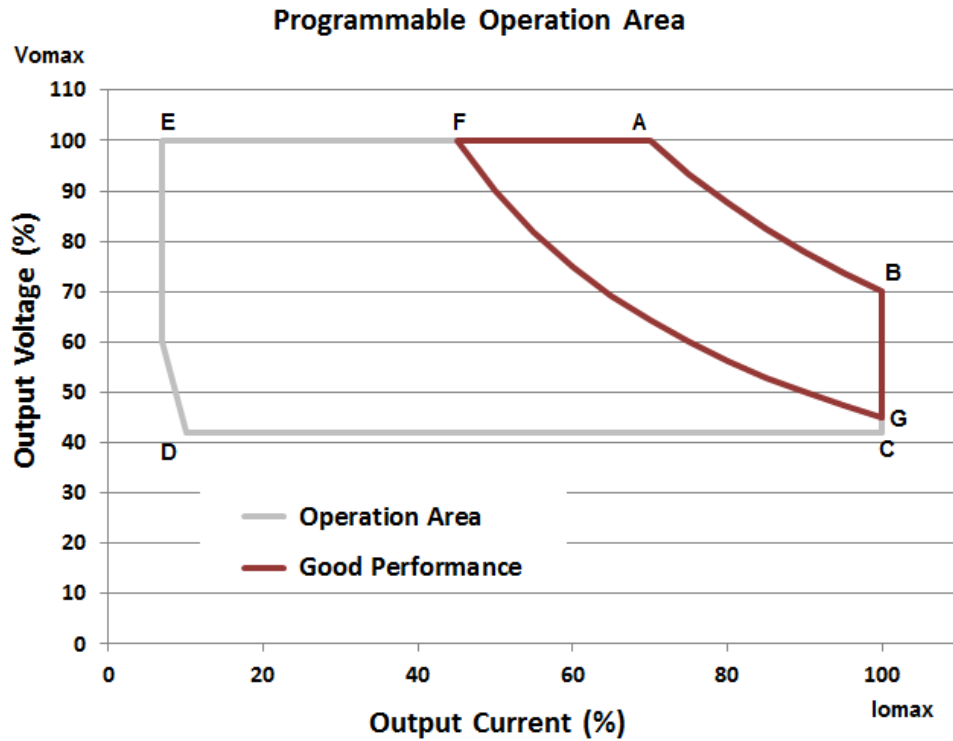


Packaging information

Typical Carton Dimension(L×W×H)	490×280×130 mm
Positioning plate	2pcs/carton
Shield Board	1pcs/carton
LED Drivers	4pcs/carton



■ Current vs. Voltage Curve



$I_o$ (mA)   $V_o$ (V)	<b>B</b> I <sub>max</sub> (Rated)	<b>A</b> V <sub>max</sub> (min I of C.P.)	<b>F</b> (60% of I at A)   (as V <sub>max</sub> )	<b>G</b> (as I <sub>max</sub> )   (60% of V at B)	<b>C</b> (as I <sub>max</sub> )   V <sub>min</sub> = (60% of V at B)	<b>D</b> (10% of I <sub>max</sub> )   (60% of V at B)	<b>E</b> (10% of I at A)   (as V <sub>max</sub> )
<b>LDD-810D193P4200HH-V</b>	4200   193	3600   222	2160   222	4200   116	4200   116	420   116	360   222
<b>LDD-810D135P6000HH-V</b>	6000   135	4200   190	2520   190	6000   81	6000   81	600   81	420   190
<b>LDD-810D094P8600HH-V</b>	8600   94	6000   133	3600   133	8600   56	8600   56	860   56	600   133
<b>LDD-810D045P18KHH-V</b>	18000   45	14500   56	10800   56	18000   27	18000   27	1800   27	1450   56
On <b>BA</b> Curve Line	Constant Power Area						
Within <b>BAFG</b> Box	Good Performance Area						
Within <b>ABCDE</b> Box	Operational Area						



## ■ Mechanical Outline (Unit: mm)

Note: Dimensions in millimeters, where 25.4 mm = 1 inch

Tolerance:  $\pm 0.51$  mm

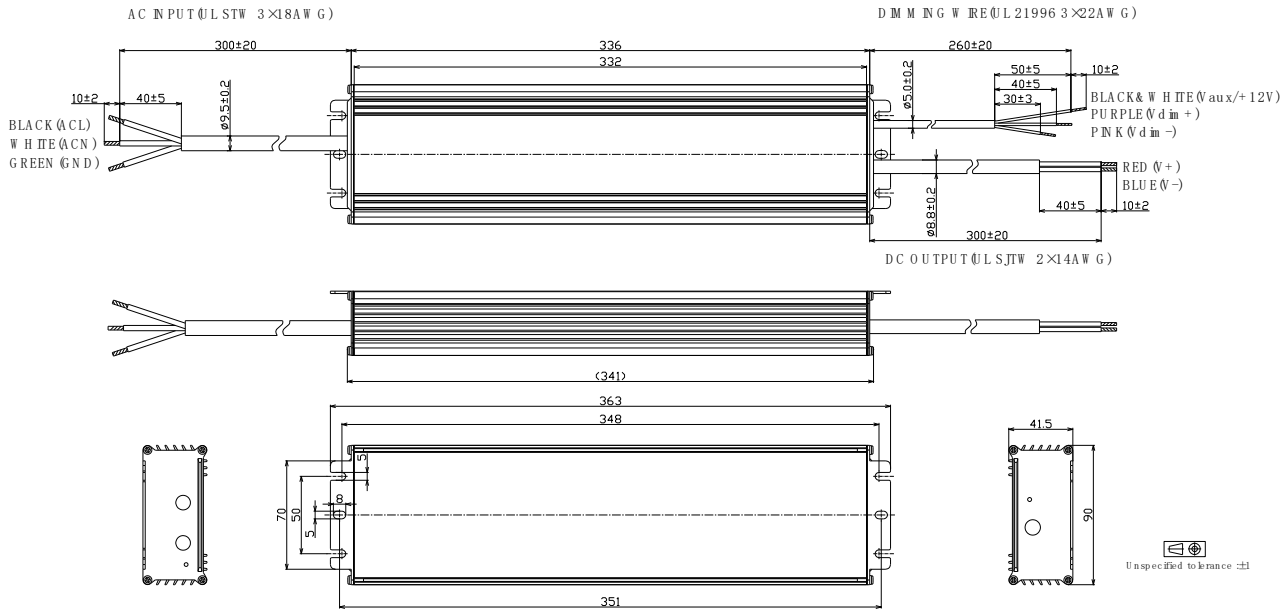


Figure 36, AR15PT

**Safety Note:** Please make sure the output cable does not connect to dimming cable or the cables of other drivers until 20 seconds after being tested because of the remained voltage in the output capacitor.

Revision

Date	Rev.	Description of Change		
		Item	Old	New
02/04/2023	V2a	In Draft Release	/	/