

EUCP320XY-1WxxV-0MWWZ

LED Constant Voltage Dimming Driver



Summary

EUCP320XY-1WxxV-0MWWZ series are constant voltage mode output LED driver. The series of products are suitable for outdoor because of IP67 and great surge immunity. The user can select corresponding model according to the dimming method and market requirements.

Product Features

- Supply voltage: 100-277VAC or 141-391VDC
- Great surge immunity 10kV
- PWM output frequency >1kHz
- 100,000Hour life @ Tc=75C
- 7 year warranty @ Tc<=80C
- 0-10V/PWM/DALI (optional) dimmable
- 2% minimum dimming output
- Dim off with 0.5W standby
- 12V 300mA auxiliary power to power controllers and fans (optional)
- Input over voltage protection (optional)
- UL Class P, ENEC/CB/CCC SELV output
- Safety according to EN 61347-1, 61347-2-3, 61347-2-13, 62384
- Application :strip lights, landscape lights, bay lights, street lights, flood lights

Model List

Model number	Input voltage range	Output power	Output voltage	Output current Min	Output current Max	Certification
EUCP320XY-1W24V-0MWWZ	100-277VAC	320 W	24V	0	13.3A	UL/FCC/CCC/CB/ENEC
EUCP320XY-1W48V-0MWWZ	100-277VAC	320 W	48V	0	6.7A	UL/FCC/CCC/CB/ENEC

XY=	Dimming method	Programmable	12Vaux	Dim-off		Z=	
NN	—	—	—	—		U	UL cable with ground wire
AN	0-10V	N	—	√		S	VDE cable/Class I
EN	0-10V	N	√	√			
DN	DALI	N	-	√			

Technical Parameters

Model		EUCP320XY-1WxxV-0MWWZ
Output	Channels	1
	Voltage accuracy	±3%
	Output overshoot	10% Vo, max.
Input	Voltage	100VAC – 277VAC
	Frequency	50/60Hz
	Current	2.9Amax@120VAC & Full-Load, 1.5Amax@220VAC & Full-Load
	Inrush current	65A peak, 1.2ms duration, <0.25A2s@230VAC, Cold Start 70A peak, 1.3ms duration, <0.5A2s@277VAC, Cold Start
	Efficiency	>90%@230VAC, full load
	PF	>0.9@60-100%load, refer to PF vs. Load curve
	THD	<15%@60-100%load, refer to THD vs. Load curve
Protection	Leakage Current	1mA max @277VAC 60Hz, UL8750, 0.75mAmax @240VAC 50Hz, IEC61347-1
	Input under voltage	Shut down and auto-restart
	Input over voltage	*Optional: Shutdown @320VAC
	Output over current	120% Io, typ.
	Short circuit	Auto recovery. The output recovers when short is removed.
Others	Over temperature	Lower the output current when Tc ≥ 105±10℃; Auto Recovery When Tc ≤ 70±10℃
	Setup time	1.2s max.
	Surge protection	Line to line 6kV, line to ground 10kV, IEC 61000-4-5
	Operating temperature	-40℃~+60℃ ; 10%RH~100%RH
	Storage temperature	-40℃~+85℃; 5%RH~100%RH
	MTBF	≥280,000 hours, 75℃ case temperature (MIL-HDBK-217F)
	Lifetime	≥100,000 hours, 75℃ case temperature, refer to life vs. Tc

		curve
	Case temperature	90°C max, marked in the Tc point of label
	Dimensions	8.82x3.54x1.63 by inch (body), 9.88x3.54x1.63 by inch (endcaps included)
		224 x 90 x 41.5 by mm (body), 251 x 90 x 41.5 by mm (endcaps included)
	Net weight	1600g
	Packing	10pcs/Carton/19kg, 500x370x335mm

Notes: Unless specified, all the test results are measured in 25°C room temperature.

* marked items are optional and contact with sales people to get the functions.

Dimming

Parameter	Min.	Typ.	Max.
Vdim sourcing current	200uA	300uA	450uA
Vdim allowed input voltage	-20 V		20 V
0-10V dimming range	2% (Vdim=1V)	Linear	100% (Vdim=9~10V)
PWM dimming range	2% (Duty=10%)	Linear	100% (Duty=90-100%)
Dim off threshold		0.5V or 5%	0.6V or 6%
Dim on threshold	0.6V or 6%	0.7V or 7%	
PWM High	3V		10V
PWM Low	0V		0.6V
PWM frequency	300Hz		2kHz
External PWM controller current sinking capability	300uA		
DA1,DA2 high Level	9.5	16	22.5
DA1,DA2 low Level	-6.5	0	6.5
DA1,DA2 current	0		2mA

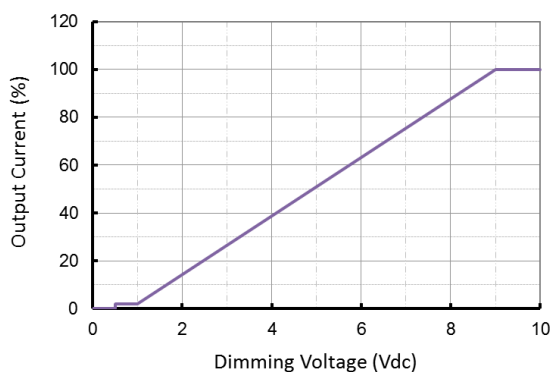
Safety/EMC Compliance

Safety Standard	Description
UL8750	Light emitting diode(LED) equipment for use in lighting products
UL1012	Power units other than class 2
IEC 61347-1	Lamp control gear Part 1: general and safety requirements
IEC 61347-2-13	Lamp control gear Part 2-13: particular requirement for d.c. or a.c. supplied electronic control gear for LED modules
EMI Standards	Description
IEC 55015	Conducted emission test & radiated emission test
IEC 61000-3-2	Harmonic current emissions; Class C
IEC 61000-3-3	Voltage fluctuations & flicker
FCC Part 15	ANSI C63.4:2009 Class B
EMS Standards	Description
IEC 61000-4-2	Electrostatic discharge (ESD): 8 kV air discharge, 4 kV contact discharge
IEC 61000-4-3	Radio frequency electromagnetic field susceptibility test (RS)
IEC 61000-4-4	Electrical fast transient (EFT)

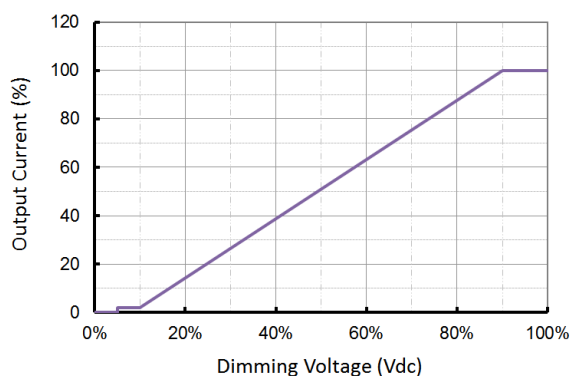
IEC 61000-4-5	Surge immunity test
IEC 61000-4-6	Conducted radio frequency disturbances test (CS)
IEC 61000-4-8	Power frequency magnetic field test
IEC 61000-4-11	Voltage dips
IEC 61547	Electromagnetic immunity requirements applies to lighting equipment

Dimming Curve

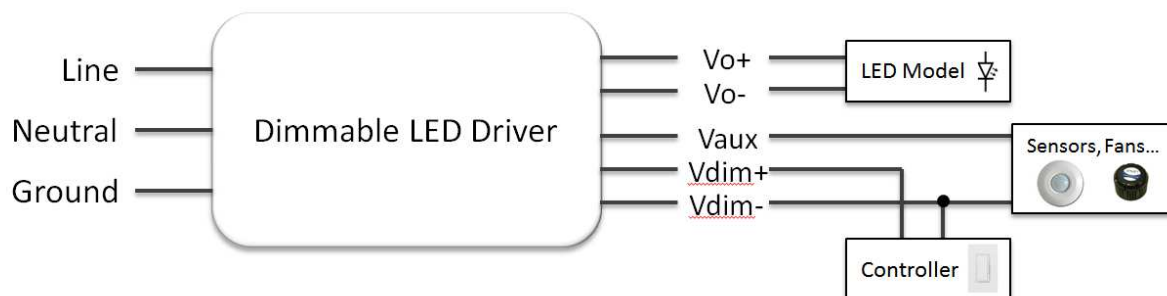
0-10V Dimming Curve



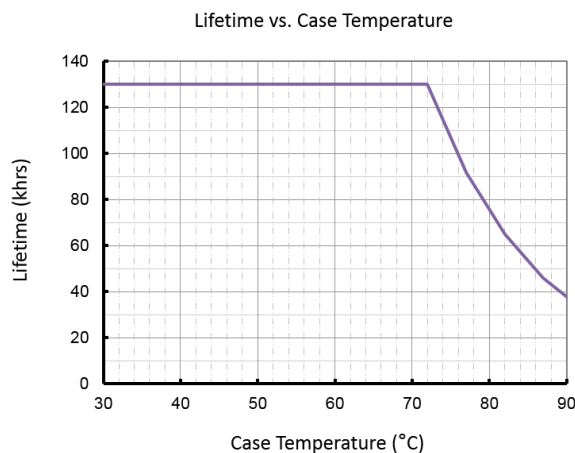
PWM Dimming Curve



Dimming Wiring

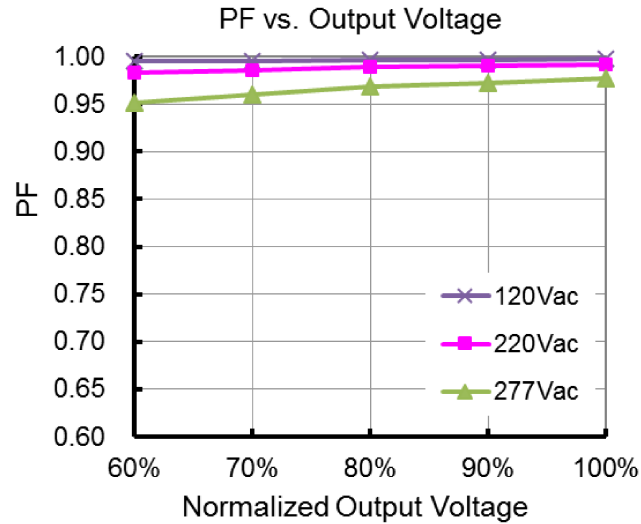


Lifetime vs. Case Temperature

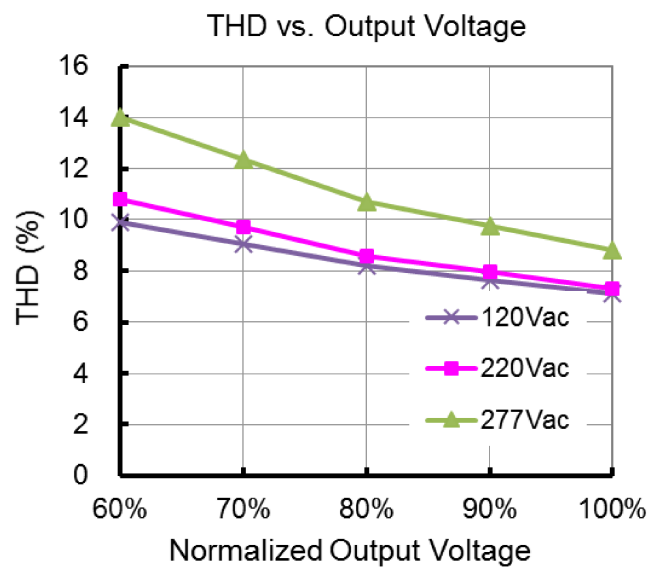


(End of Life: Maximum Failure Rate=10%)

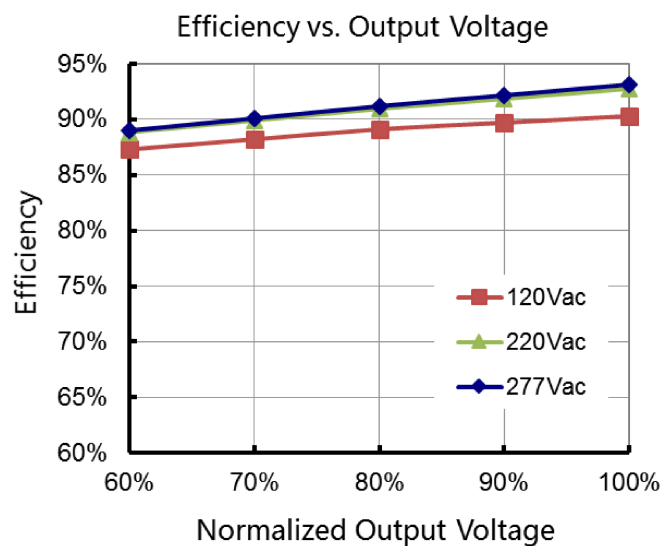
Power Factor vs. Load



THD vs. Load

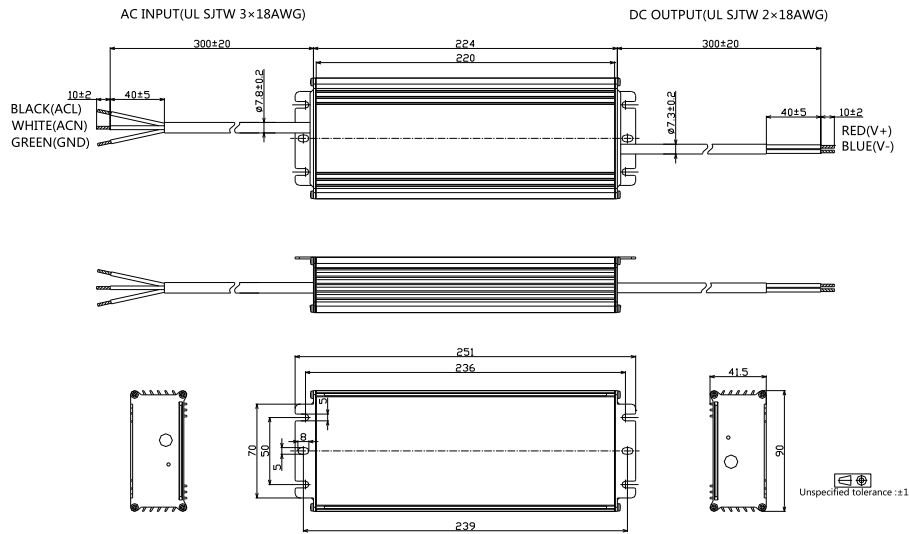


Efficiency vs. Load (24V Model)

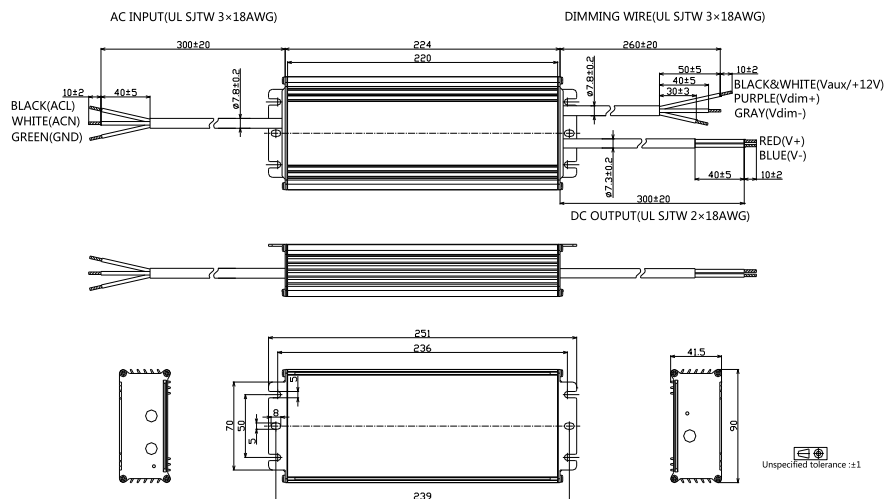


Dimension (mm)

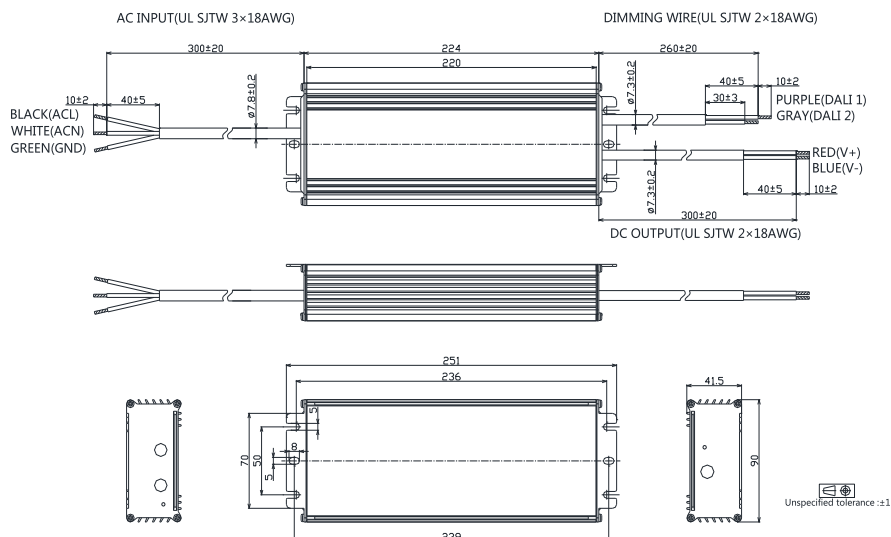
EUCP320NN-1WxxV-0MWWU



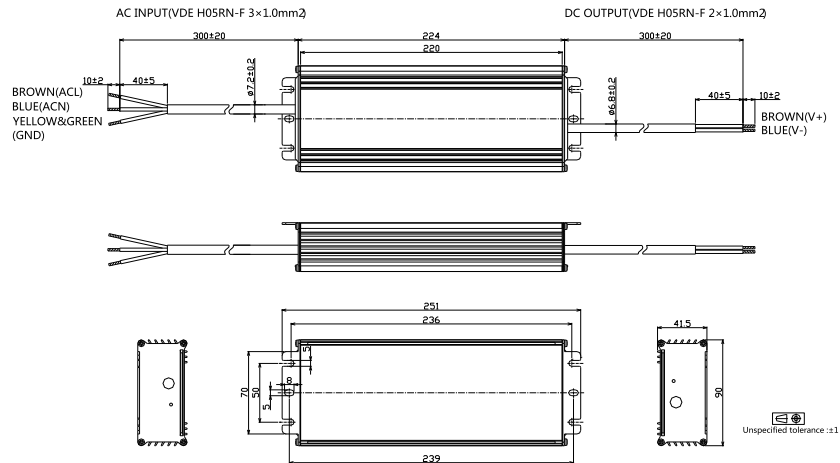
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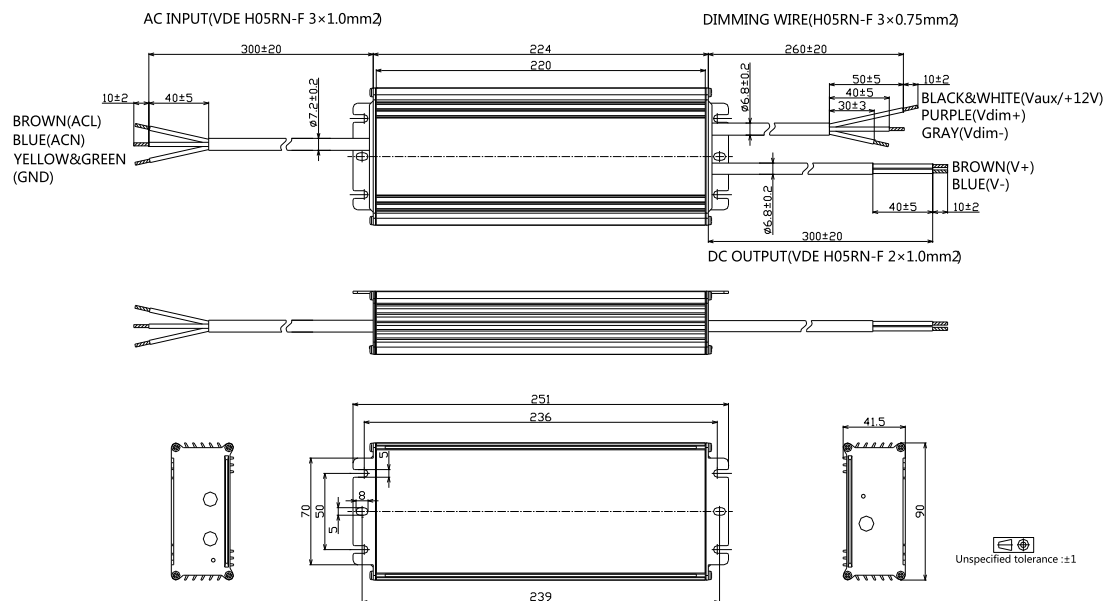
EUCP320DN-1WxxV-0MWWU



EUCP320NN-1WxxV-0MWWS



EUCP320EN-1WxxV-0MWWS



EUCP320DN-1WxxV-0MWWS

