

**80W, Built In PFC Function, NFC Programmable LED Driver**

■ **Features**

- Supply Voltage: 90-305Vac or 127-250Vdc
- 100,000Hour Life @ Tc=75C
- 5 Year Warranty
- Airset™ NFC Programmability
- 1% 0-10V/PWM/Time/DALI Dimmable
- Isolated Dimming Input
- Dim Off with 0.5W Standby Power (Optional)
- Built In PFC Function
- 12V 300mA Auxiliary Power (Optional)
- Low Inrush Current
- Class II (Optional)
- UL Type TL
- ENEC/CB/CCC SELV Output
- Safety according to EN 61347-1, 61347-2-3, 61347-2-13, 62384



■ **Model List**

Model Number	Input Voltage Range	Output Power	Output Voltage	Full Power Settable Current Min	Full Power Settable Current Max	Certification (TBD)
80W-C210-XYZ	90 ~ 305 Vac	80 W	23-76Vdc	1050mA	2100mA	UL/FCC/CB/ENEC/CCC
80W-C105-XYZ	90 ~ 305 Vac	80 W	45-160Vdc	500mA	1050mA	UL/FCC/CB/ENEC/CCC

XY=	Dimming Method	Programmable	12Vaux	Dim-off
NN	-	-	-	-
DN	0-10V	-	-	-
ER	0-10V/PWM/Time	√	√	√
AR	DALI/0-10V	√	√	√

Z: C, Class I input; E: Class II Input

## 80W, 100-277Vac Input, NFC Programmable LED Driver

## ■ Technical Data

Input Voltage	90~305Vac or 127V-250Vdc
Input Frequency	47~63Hz
Power Factor	>0.9@60-100%load, refer to PF vs. Load curve
THD	<15%@60-100%load, refer to THD vs. Load curve
Input Current	1.8 Amax@110Vac & Full-Load, 0.9Amax@220Vac & Full-Load
Inrush Current	2A peak, 1.2ms duration, <0.025A2s@230Vac, Cold Start 4A peak, 1.3ms duration, <0.05A2s@277Vac, Cold Start
Leakage Current	1mA max @277Vac 60Hz, UL8750, 0.75mAmax @220Vac 50Hz, IEC61347-1
Input Under Voltage	Shut down and auto-recovery
Surge Protection	Line to line 2kV, line to ground 4kV, IEC 61000-4-5
Current Accuracy	±5%Io
Ripple Current	Ip-p:5%Io max
Setup Time	1.2s max
Overshoot	10% Io max & LED Load
Output Over Voltage	120% Vomax, typ.
Short Circuit	Auto recovery. The output recovers when short is removed.
Over Temperature	Lower the output current when $T_c \geq 105 \pm 10^\circ\text{C}$ ; Auto Recovery When $T_c \leq 70 \pm 10^\circ\text{C}$
Auxiliary Power (Vaux)	12V+/-5%, 300mA max
Operating Temperature	-30°C~+70°C ; 10%RH~100%RH
Storage Temperature	-30°C~+85°C; 5%RH~100%RH
MTBF	≥350,000 hours, 50°C case temperature (MIL-HDBK-217F)
Lifetime	≥100,000 hours, 75°C case temperature, refer to life vs. Tc curve
Case Temperature	90°C max, marked in the Tc point of label
Dimensions	14.17x1.15x1.00 by inch 360.0x29.4x25.4 by mm
Net Weight	-
Packing	-

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.

## ■ Safety/EMC Compliance

Safety Standard	Description
UL8750	Light emitting diode(LED) equipment for use in lighting products
UL1012/1310	Power units other than class 2 / Class 2 power units
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

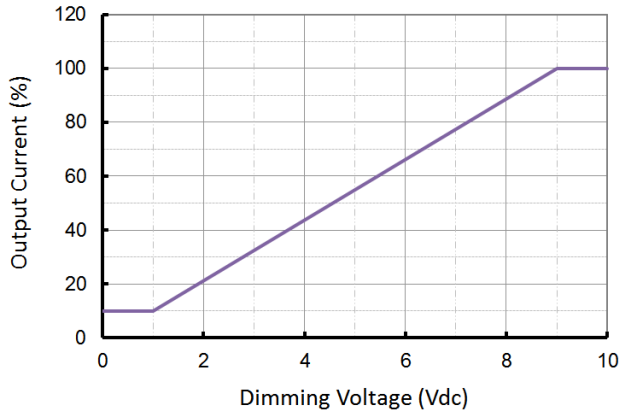
Parameter	Min.	Typ.	Max.
Vdim Sourcing Current	200uA	300uA	450uA
Vdim Allowed Input Voltage	-20 V		20 V
0-10V Dimming Range	10% (Vdim=1V)	Linear	100% (Vdim=9~10V)
PWM Dimming Range	10% (Duty=10%)	Linear	100% (Duty=90-100%)
Dim off threshold	0.4V or 4%	0.5V or 5%	0.6V or 6%
Dim on threshold	0.6V or 6%	0.7V or 7%	0.8V or 8%
PWM High	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

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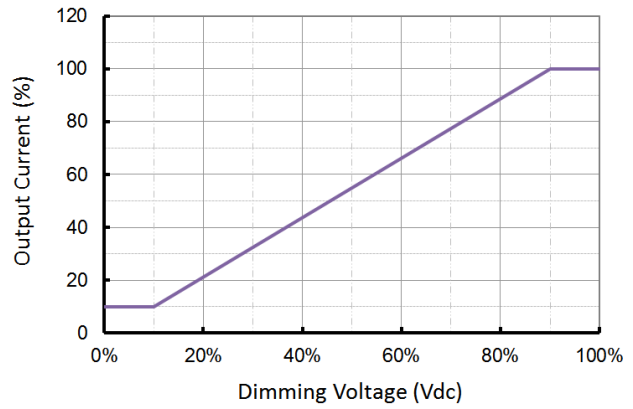
- Dimming Curve

a. Without dim-off

0-10V Dimming Curve

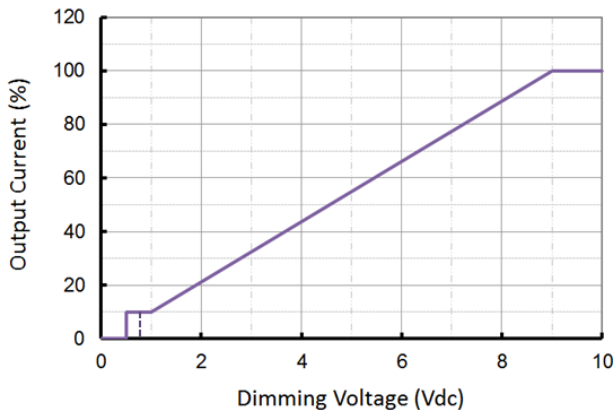


PWM Dimming Curve

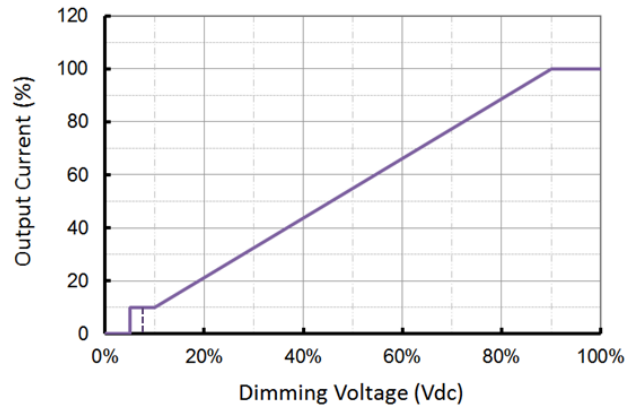


b. With dim-off

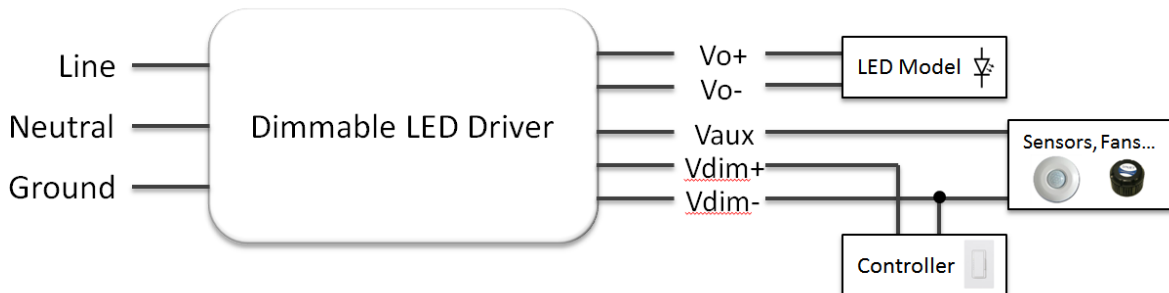
0-10V Dimming Curve



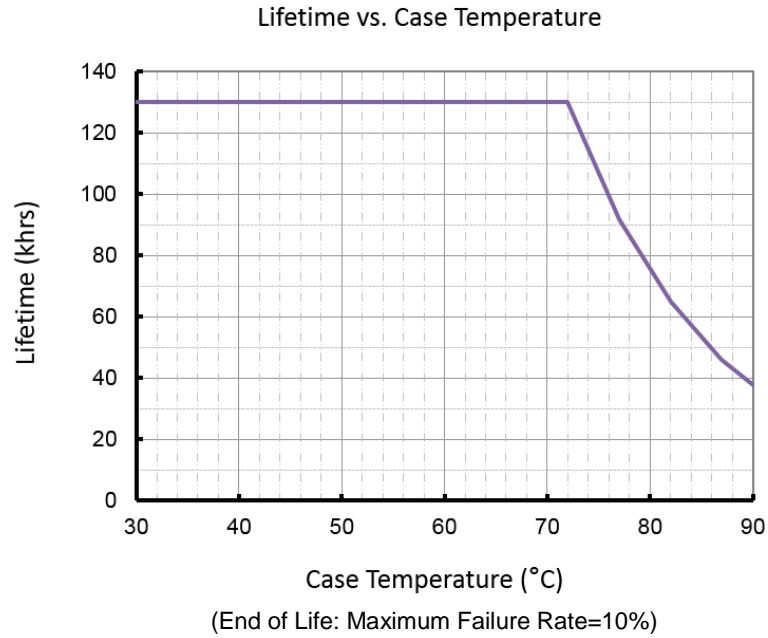
PWM Dimming Curve



- Dimming Wiring



■ Lifetime vs. Case Temperature



## ■ Mechanical Design

