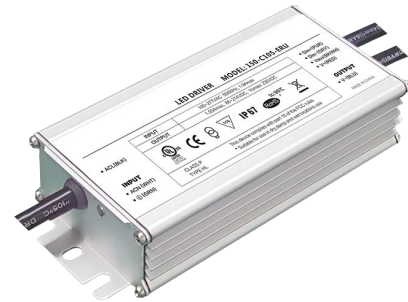


## ■ Features

- Supply Voltage: 90-305Vac or 127-420Vdc, 380Vac for 2 Hours
- Great Surge Immunity 10kV
- PWM Output Frequency >1kHz
- 100,000Hour Life @ Tc=75°C
- 7 Year Warranty @ Tc<=75°C
- High Quality 105°C Longlife Capacitors
- 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)
- Class II Model Available
- 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, Tunnel lights, Flood lights

## ■ Model List

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min	Output Current Max	Certification
BLTSD-040-V012-XYZ	90 ~ 305 Vac	40 W	12V	0	3.3A	UL/FCC/CB/ENEC/CCC
BLTSD-040-V024-XYZ	90 ~ 305 Vac	40 W	24V	0	1.7A	UL/FCC/CB/ENEC/CCC
BLTSD-040-V048-XYZ	90 ~ 305 Vac	40 W	48V	0	0.8A	UL/FCC/CB/ENEC/CCC

XY=	Dimming Method	Programmable	12Vaux	Dim-off
NN	-	-	-	-
DN	0-10V	-	-	√

Z = U, UL cable with ground wire    S, VDE cable/Class I    D, VDE cable/Class II

## ■ Technical Data

Input Voltage	90~305Vac or 127V-420Vdc, 380Vac for 2 Hours
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	0.5 A Max @ 120Vac & Full-Load, 0.25A Max @ 220Vac & Full-Load
Inrush Current	65A peak, 1.2ms duration, <0.25A 2s @ 230Vac, Cold Start 70A peak, 1.3ms duration, <0.5A 2s @ 277Vac, Cold Start
Leakage Current	1mA Max @ 277Vac 60Hz, UL8750, 0.75mA Max @ 240Vac 50Hz, IEC61347-1
Input Under Voltage	Shut Down and Auto-Restart
Input Over Voltage	*Optional: Shutdown @ 320Vac
Surge Protection	Line to Line 6kV, Line to Ground 10kV, IEC 61000-4-5
Voltage Accuracy	±3% Vo
Setup Time	1.2s Max.
Overshoot	10% Vo, Max.
Output Over Current	120% Io, Typ.
Short Circuit	Auto Recovery. The Output Recovers when Short is Removed.
Over Temperature	Turn off the Output when $T_c \geq 105 \pm 10^\circ\text{C}$ Auto Recovery When $T_c \leq 70 \pm 10^\circ\text{C}$
Operating Temperature	-40°C~+70°C ; 10% RH~100% RH
Storage Temperature	-40°C~+85°C; 5% RH~100% RH
MTBF	≥320,000 Hours, 75°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	4.29 x 2.66 x 1.32 by Inch (body), 5.35 x 2.66 x 1.32 by Inch (Endcaps Included) 109.0 x 67.5 x 33.5 by mm (body), 136.0 x 67.5 x 33.5 by mm (Endcaps Included)
Net Weight	650g
Packing	25pcs / Carton / 17.3kg, 490 x 370 x 230mm

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

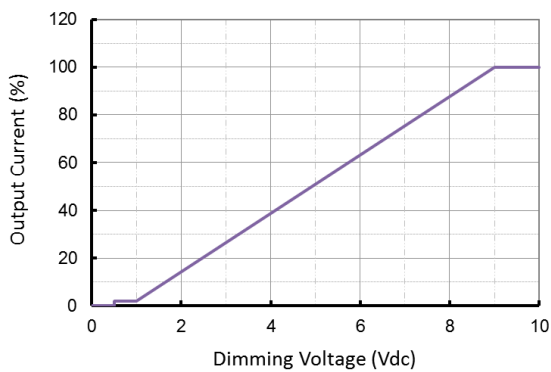
\* Marked Items are Optional and Contact with Sales people to get the functions.

## ■ Dimming

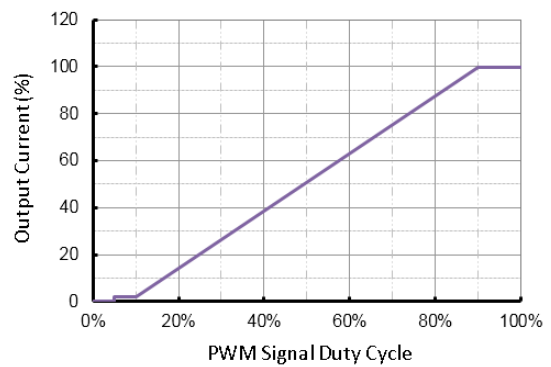
Parameter	Min.	Typ.	Max.
Vdim Sourcing Current	200uA	300uA	450uA
Vdim Allowed Input Voltage	-20 V		20 V
0-10V Dimming Range	2% (Vdim=1V)	Linear	100% (Vdim=9~10V)
PWM Dimming Range	2% (Duty=10%)	Linear	100% (Duty=90-100%)
Dim off threshold	0.4V or 4%	0.5V or 5%	0.6V or 6%
Dim on threshold	0.6V or 6%	0.7V 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

### Dimming Curve

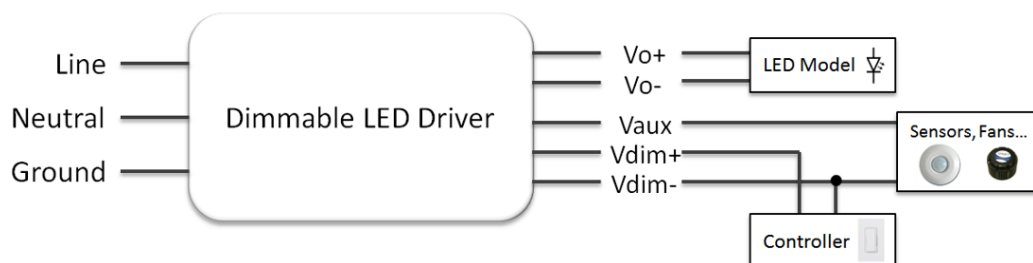
0-10V Dimming Curve



PWM Dimming Curve



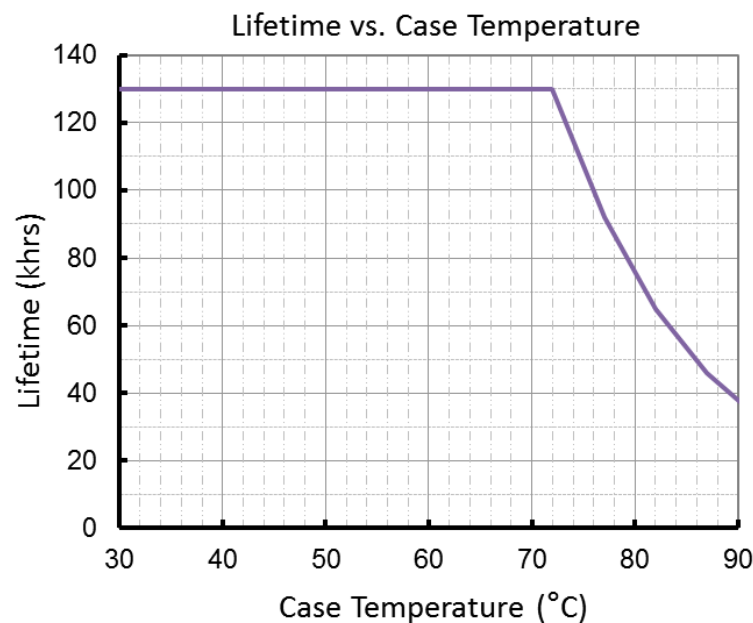
### Dimming Wiring



## ■ Safety/EMC Compliance

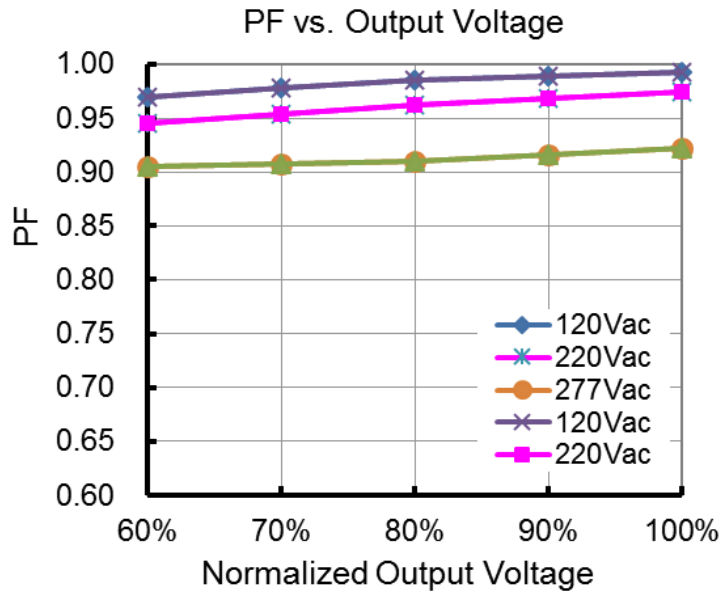
Safety Standard	Description
UL8750	Light Emitting Diode(LED) Equipment for use in Lighting Products
UL1310	Class 2 Power units
IEC 61347-1	Lamp Control Gear Part 1: General and Safety Requirements
IEC 61347-2-13	Lamp Control Gear Part 2-13: Particular Requirement for DC or AC Supplied Electronic Control 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

## ■ Lifetime vs. Case Temperature

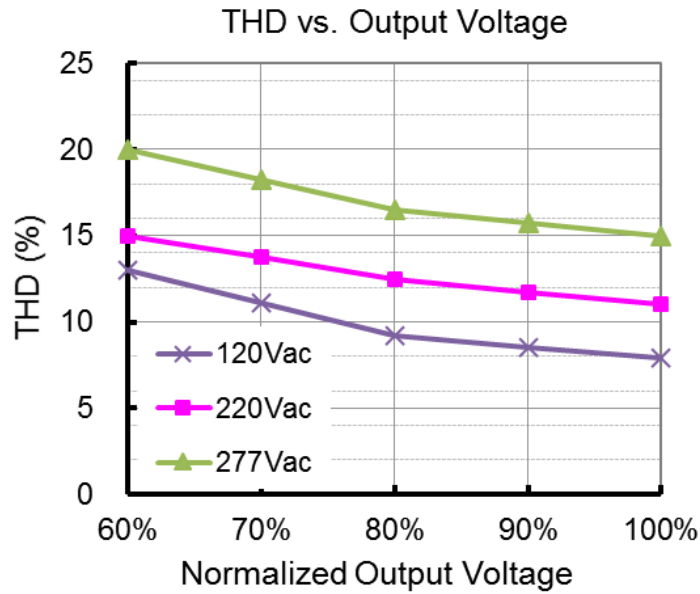


(End of Life: Maximum Failure Rate=10%)

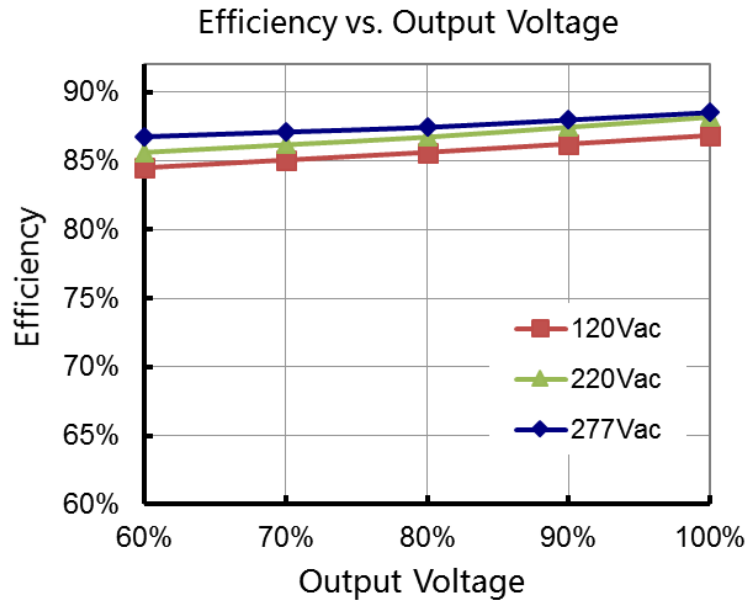
■ Power Factor vs. Load



■ THD vs. Load

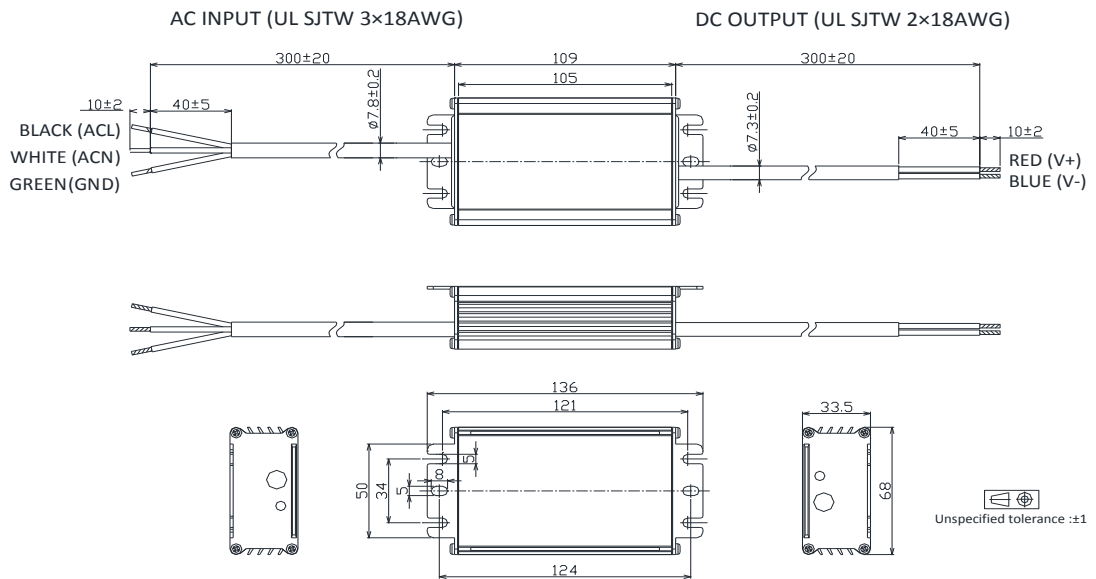


■ Efficiency vs. Load (24V Model)

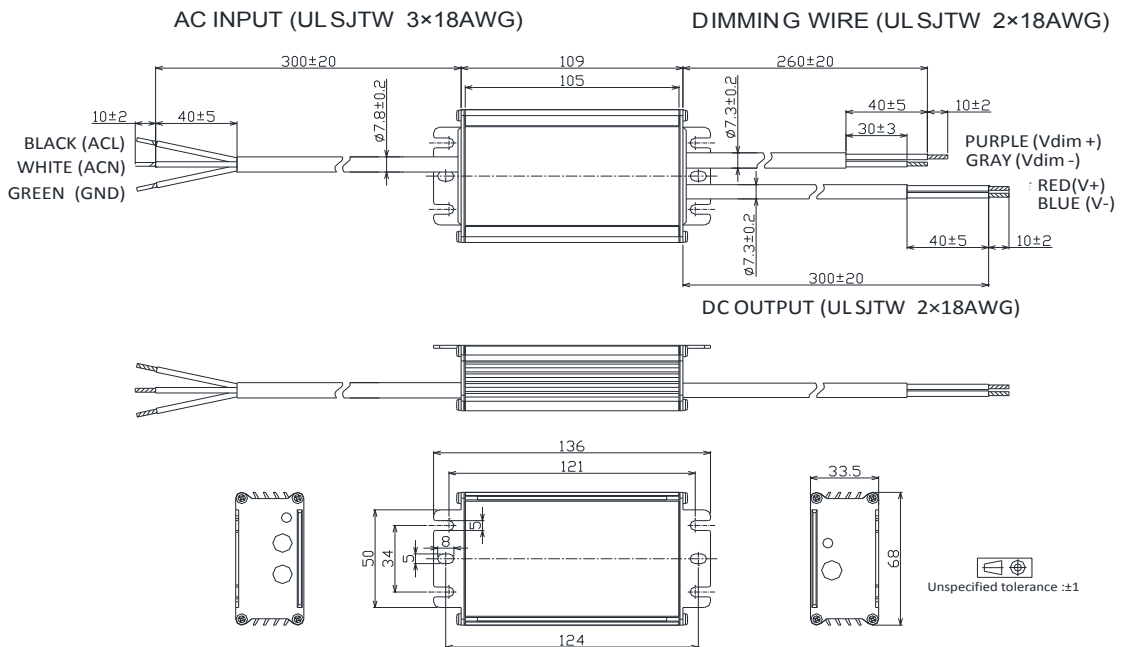


■ **Mechanical Design**

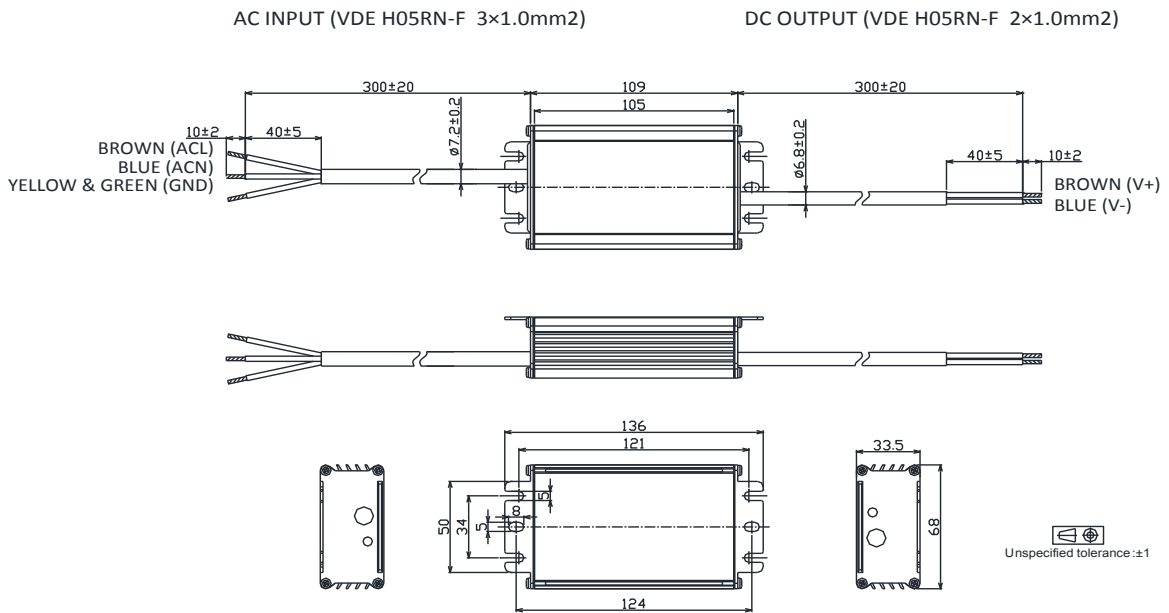
- **BLTSD-040-Vxxx-NNU (UL Cable)**



- **BLTSD-040-Vxxx-DNU (UL Cable)**



- **BLTSD-040-Vxxx-NNS (VDE Cable)**



- **BLTSD-040-Vxxx-DNS (VDE Cable)**

