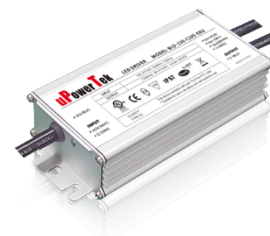


75W, 100-277Vac Input, NFC Programmable LED Driver

■ Features

- Supply Voltage: 90-305Vac or 127-420Vdc, 380Vac for 2 hours
- Great Surge Immunity 10kV
- -55°C Cold Ambient Startup (Optional)
- 100,000Hour Life @ Tc=75°C
- 7 Year Warranty @ Tc<=75°C
- Airset™ NFC Programmability
- +/-2% Output Current Accuracy (Programmable Model)
- 0-10V/PWM/Time/DALI/DMX Dimmable
- Dim Off with 0.5W Standby Power
- 12V 300mA Auxiliary Power to Power Controllers and Fans (Model Depending)
- Input Over Voltage Protection (Optional)
- Class II Model Available
- UL Class P, Class 2
- ENEC/CB/CCC SELV Output, safety according to EN 61347-1, 61347-2-3, 61347-2-13, 62384



■ Application

- Bay lights, Street lights, Tunnel lights, Flood lights

■ Model List (See appendix for more details about the operation range)

Model Number	Input Voltage Range	Output Power	Output Voltage	Full Power Settable Current Min	Full Power Settable Current Max	Certification
BLD-075-C050-XYZ	90 ~ 305 Vac	75 W	90-214Vdc	350mA	500mA	UL/FCC/CB/ENEC/ CCC/BIS/RCM/PSE
BLD-075-C070-XYZ	90 ~ 305 Vac	75 W	64-150Vdc	500mA	700mA	
BLD-075-C105-XYZ	90 ~ 305 Vac	75 W	43-107Vdc	700mA	1050mA	
BLD-075-C140-XYZ	90 ~ 305 Vac	75 W	32-71Vdc	1050mA	1400mA	
BLD-075-C210-XYZ	90 ~ 305 Vac	75 W	21-54Vdc	1400mA	2100mA	
BLD-075-C280-XYZ	90 ~ 305 Vac	75 W	16-36Vdc	2100mA	2800mA	

XY=	Dimming Method	Programmable	12Vaux	Dim-off
NN	-	-	-	-
DN	0-10V	-	-	-
TR	Time	√	-	-
DR	0-10V/PWM/Time	√	-	-
ER	0-10V/PWM/Time	√	√	√
AN	DALI	-	-	√
MR	DMX512	√	-	√

Z = U, UL cable with ground wire
May 11, 2018, All rights reserved.

S, VDE cable/Class I

D, VDE cable/Class II

Website: www.upowertek.com

■ 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	0.8Amax@120Vac & Full-Load, 0.4Amax@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
Leakage Current	1mA max @277Vac 60Hz, UL8750, 0.75mAmax @220Vac 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
Current Accuracy	±5%lo
Ripple Current	lp-p:5%lo 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	Case Temperature $T_c = -40^\circ\text{C} \sim +90^\circ\text{C}$; 10%RH~100%RH
Storage Temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$; 5%RH~100%RH
MTBF	$\geq 320,000$ hours, 75°C case temperature (MIL-HDBK-217F)
Lifetime	$\geq 100,000$ hours, 75°C case temperature, refer to life vs. T_c curve
Case Temperature	90°C max, marked in the T_c point of label
Dimensions	5.16x2.66x1.32 by inch (body), 6.22x2.66x1.32 by inch (endcaps included) 131.0x67.5x33.5 by mm (body), 158.0x67.5x33.5 by mm (endcaps included)
Net Weight	650g
Packing	25pcs/Carton/17.3kg, 490x370x230mm

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

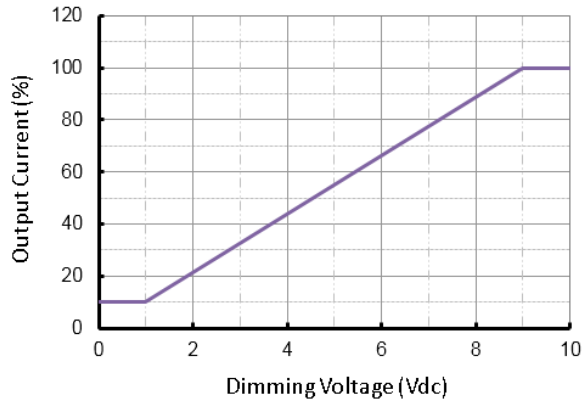
■ Dimming

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	3.8V		10V
PWM Low	0V		0.6V
PWM Frequency	300Hz		2kHz
External PWM Controller Current Sinking Capability	300uA		
DALI Interface Standard		IEC62386	
DA1,DA2 High Level	9.5	16	22.5
DA1,DA2 Low Level	-6.5	0	6.5
DA1,DA2 Current	0		2mA

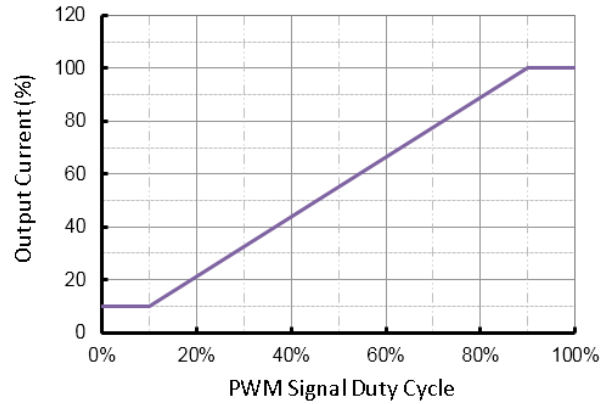
- Dimming Curve

a. Without dim-off

0-10V Dimming Curve

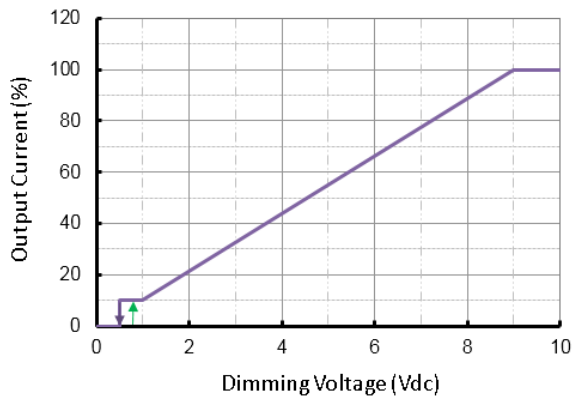


PWM Dimming Curve

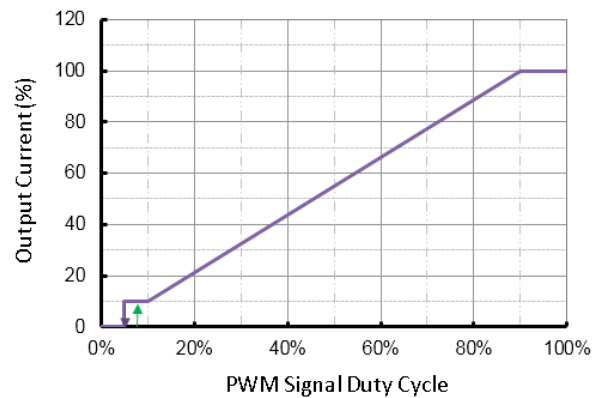


b. With dim-off

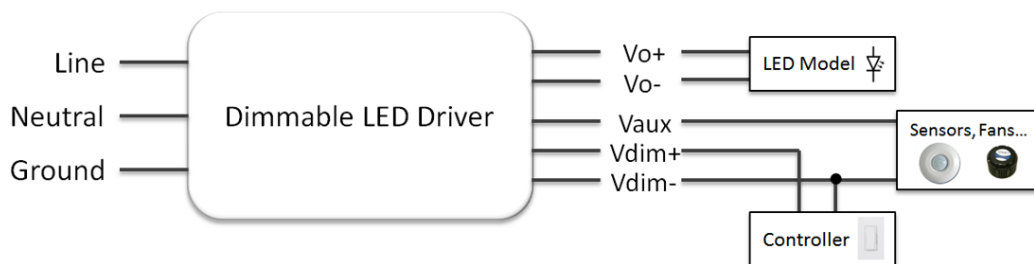
0-10V Dimming Curve



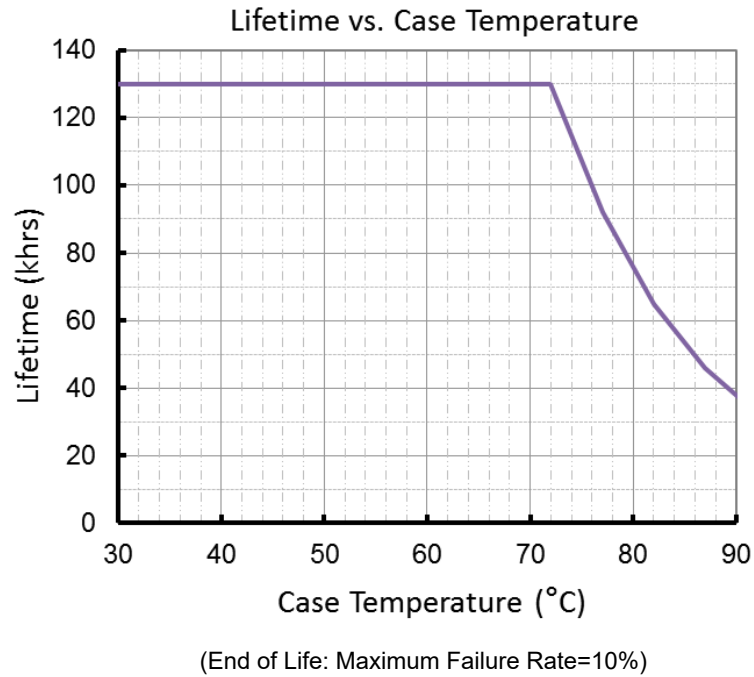
PWM Dimming Curve



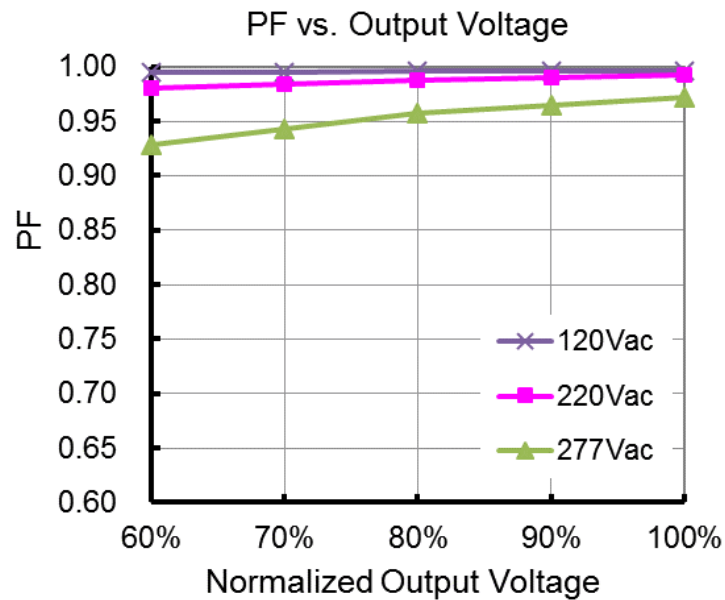
- Dimming Wiring



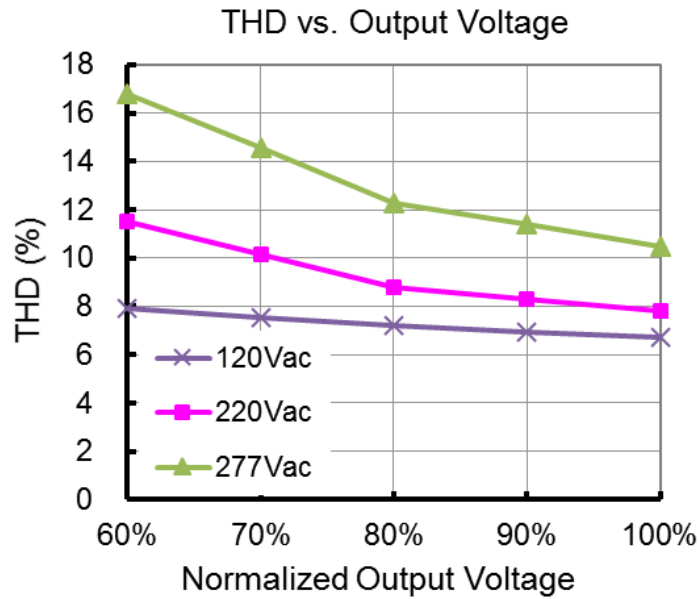
■ Lifetime vs. Case Temperature



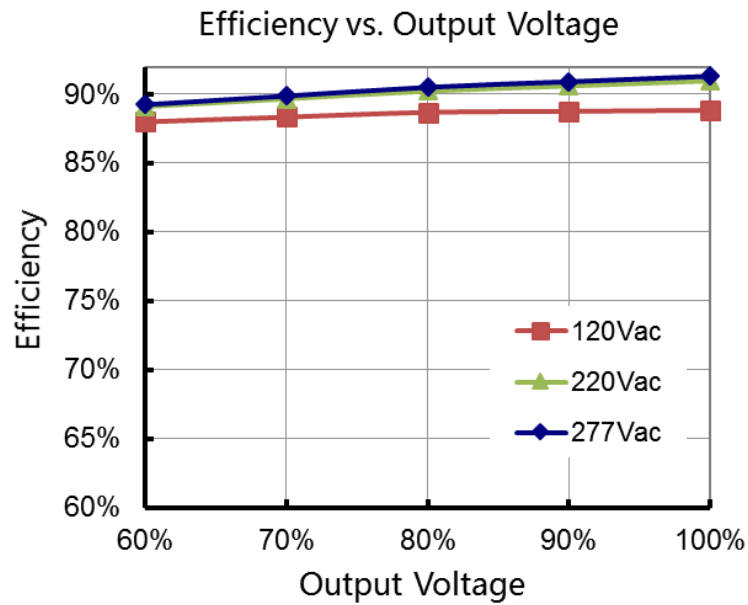
■ Power Factor vs. Load



■ THD vs. Load

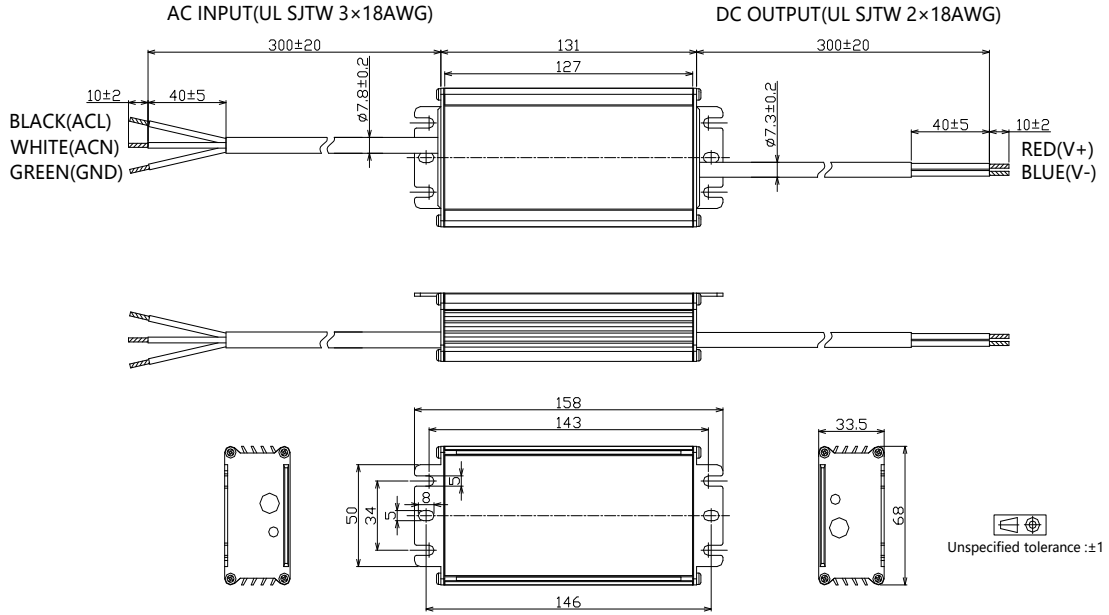


■ Efficiency vs. Load (1.05A Model)

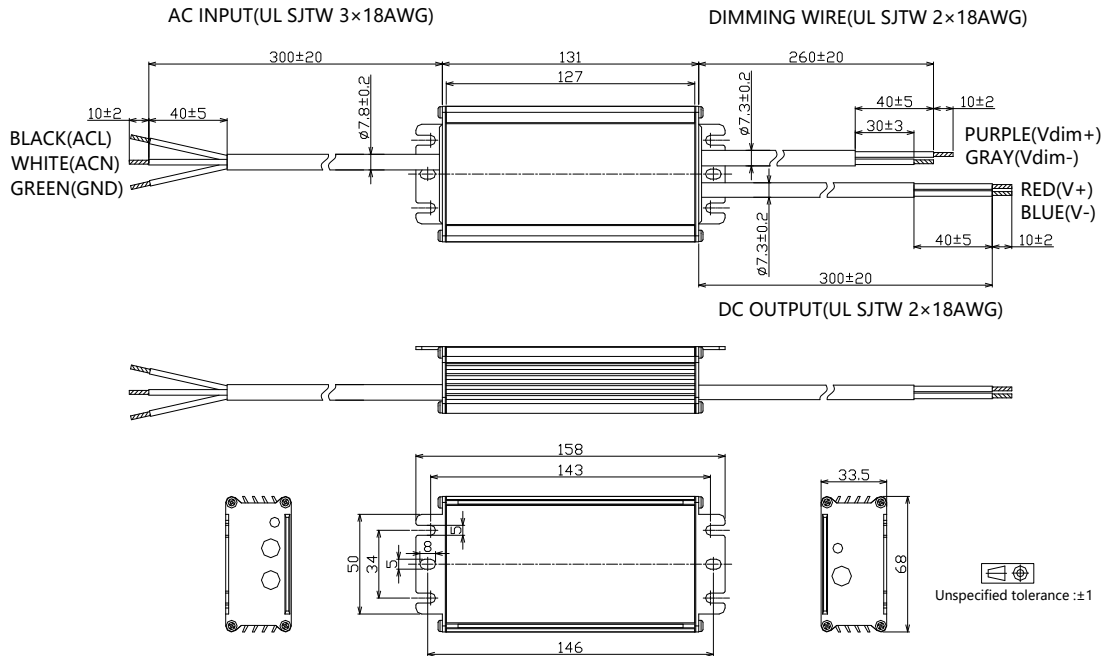


■ Mechanical Design

- BLD-075-Cxxx-NN/TRU (UL Cable)

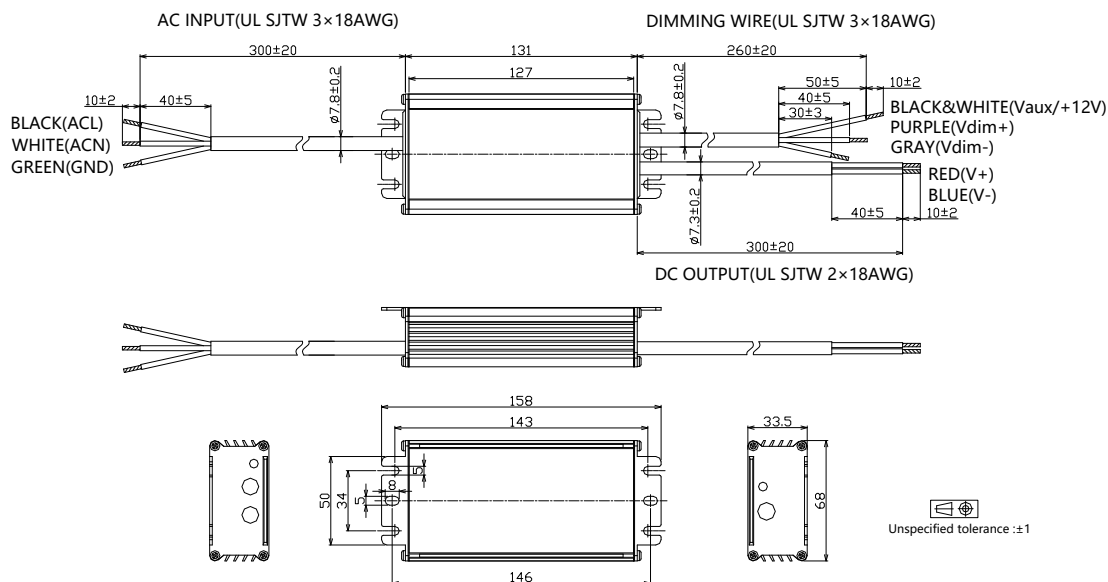


- BLD-075-Cxxx-DN/DRU (UL Cable)

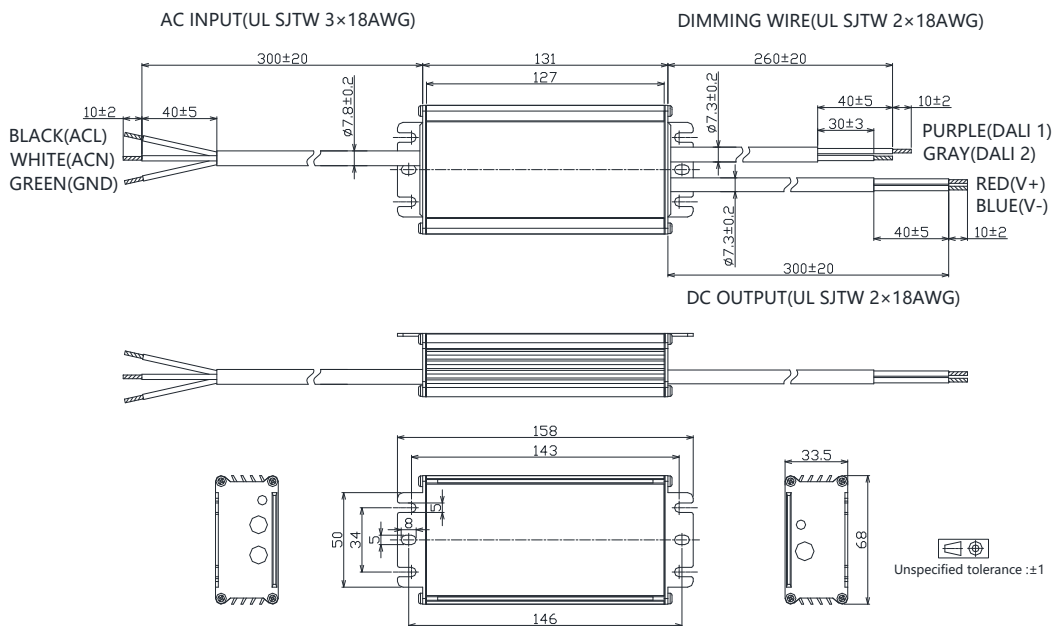


75W, 100-277Vac Input, NFC Programmable LED Driver

- BLD-075-Cxxx-ERU (UL Cable)

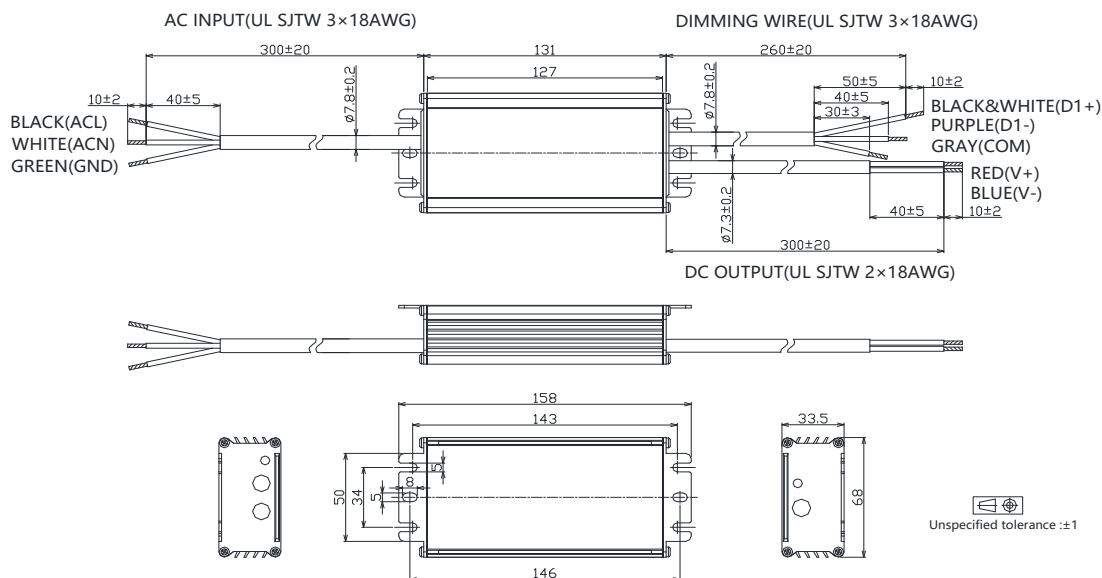


- BLD-075-Cxxx-ANU (UL Cable)

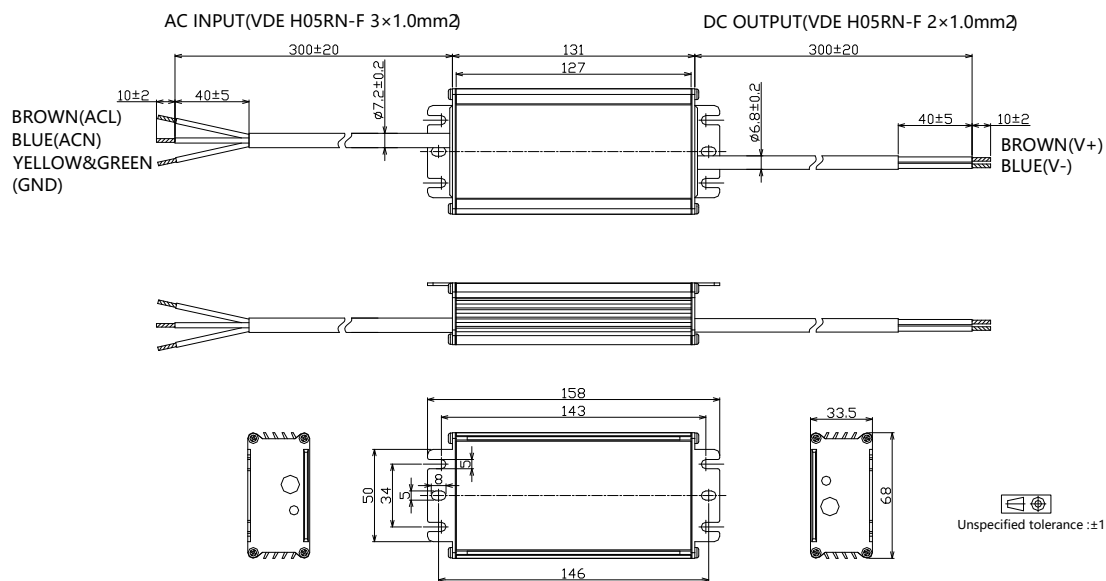


75W, 100-277Vac Input, NFC Programmable LED Driver

- BLD-075-Cxxx-MRU (UL Cable)

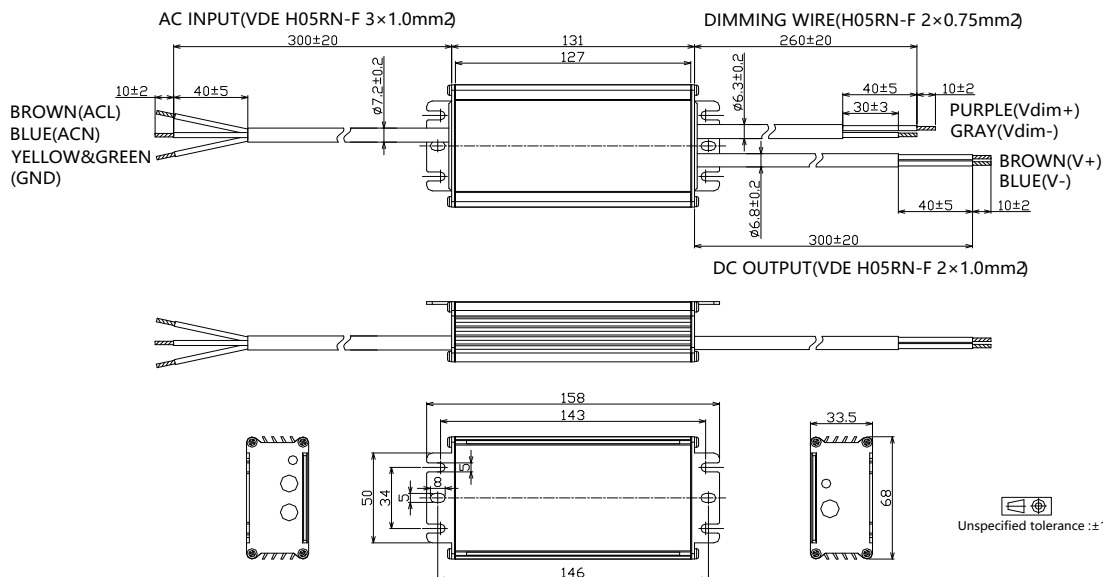


- BLD-075-Cxxx-NN/TRS (VDE Cable)

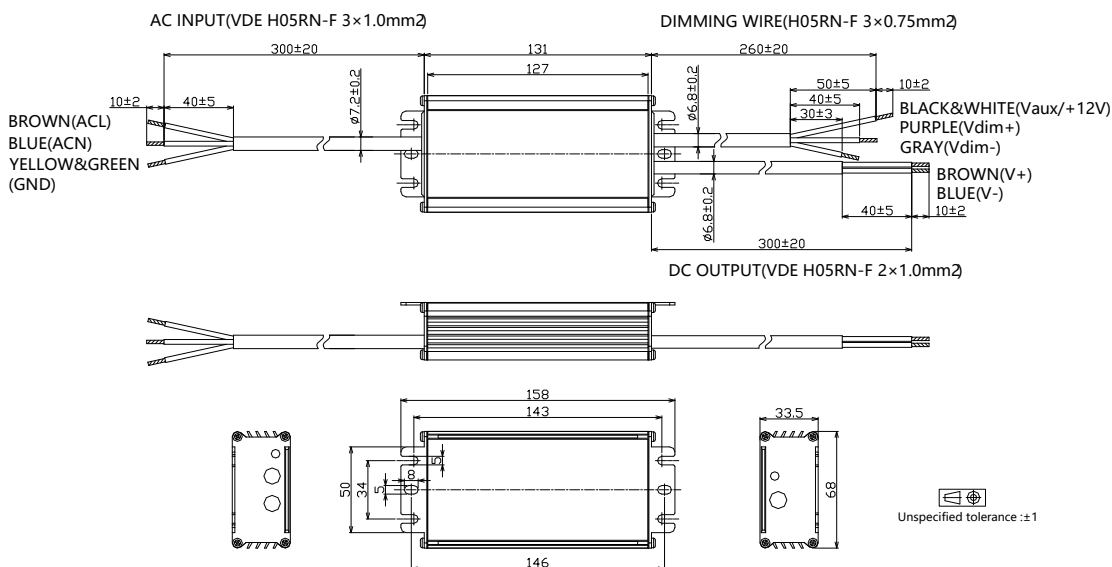


75W, 100-277Vac Input, NFC Programmable LED Driver

- BLD-075-Cxxx-DN/DRS (VDE Cable)

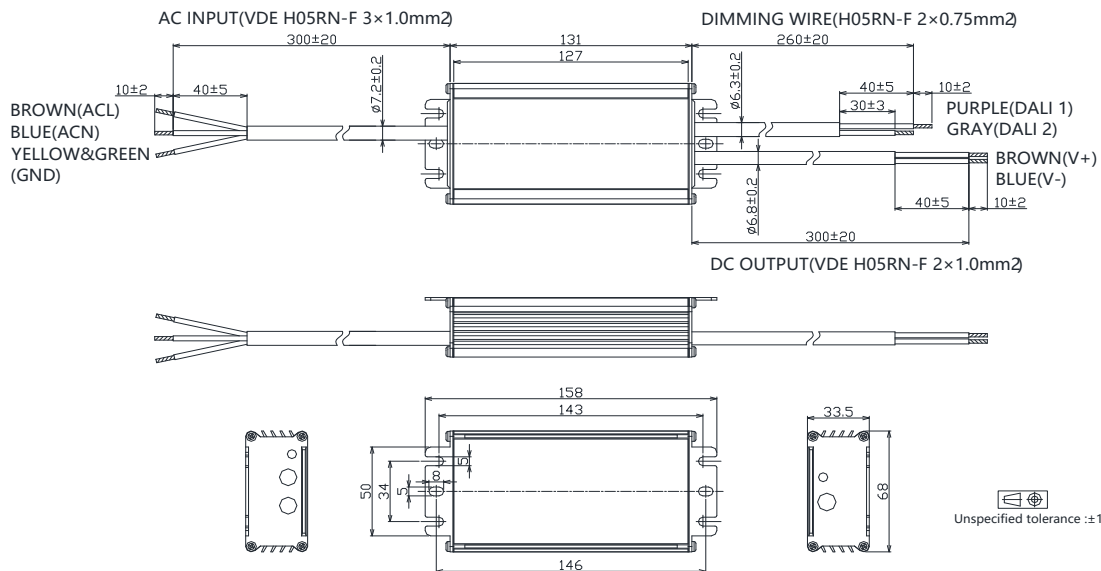


- BLD-075-Cxxx-ERS (VDE Cable)

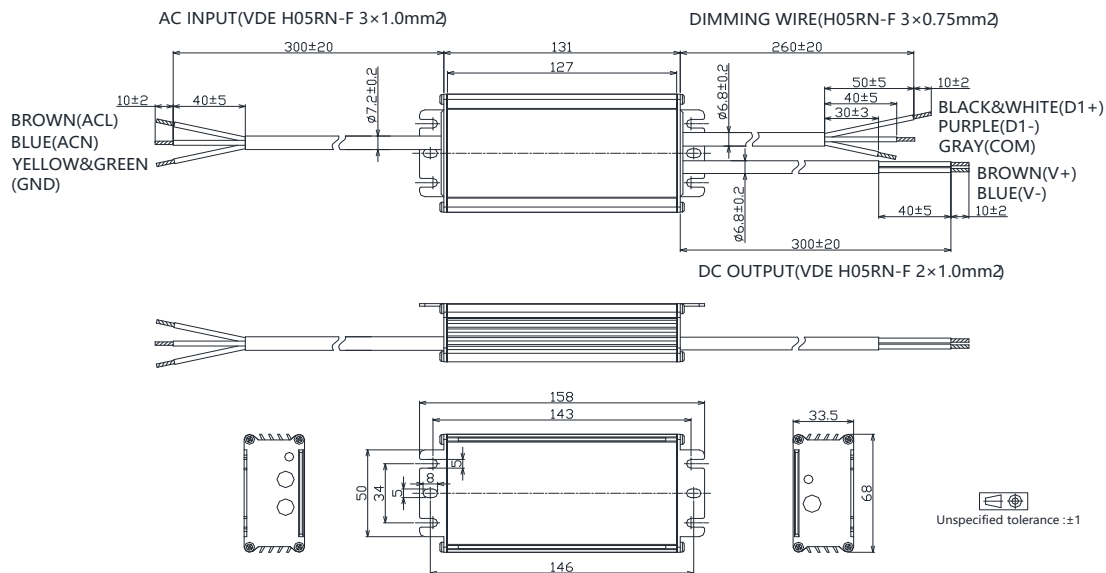


75W, 100-277Vac Input, NFC Programmable LED Driver

- BLD-075-Cxxx-ANS (VDE Cable)



- BLD-075-Cxxx-MRS (VDE Cable)



■ Appendix – Operation Range

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C050	500	75	90	150	50
	450	75	100	167	45
	400	75	113	188	40
	350	75	129	214	35
	300	64	129	214	35
	250	54	129	214	35
	200	43	129	214	35
	150	32	129	214	35

	35	8	129	214	35

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C070	700	75	64	107	70
	650	75	69	115	65
	600	75	75	125	60
	550	75	82	136	55
	500	75	90	150	50
	450	68	90	150	50
	400	60	90	150	50
	350	53	90	150	50

	50	8	90	150	50

75W, 100-277Vac Input, NFC Programmable LED Driver

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C105	1050	75	43	71	105
	1000	75	45	75	100
	950	75	47	79	95
	900	75	50	83	90
	850	75	53	88	85
	800	75	56	94	80
	750	75	60	100	75
	700	75	64	107	70
	650	70	64	107	70
	600	64	64	107	70
	550	59	64	107	70
	500	54	64	107	70

	70	8	64	107	70

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C140	1400	75	32	54	140
	1300	75	35	58	130
	1200	75	38	63	120
	1100	75	41	68	110
	1050	75	43	71	105
	1000	71	43	71	105
	950	68	43	71	105
	900	64	43	71	105
	850	61	43	71	105
	800	57	43	71	105
	750	54	43	71	105
	700	50	43	71	105

	105	8	43	71	105

75W, 100-277Vac Input, NFC Programmable LED Driver

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C210	2100	75	21	36	210
	2000	75	23	38	200
	1900	75	24	39	190
	1800	75	25	42	180
	1700	75	26	44	170
	1600	75	28	47	160
	1500	75	30	50	150
	1400	75	32	54	140
	1300	70	32	54	140
	1200	64	32	54	140
	1100	59	32	54	140
	1000	54	32	54	140

	140	8	32	54	140

Model	Typical Set Output Current (mA)	Max Output Power (W)	Output Voltage Min (V)	Output Voltage Max(V)	Minimum Dimming Current (mA)
-C280	2800	75	16	27	280
	2700	75	17	28	270
	2600	75	17	29	260
	2500	75	18	30	250
	2400	75	19	31	240
	2300	75	20	33	230
	2200	75	20	34	220
	2100	75	21	36	210
	2000	71	21	36	210
	1900	68	21	36	210
	1800	64	21	36	210
	1700	61	21	36	210

	210	61	21	36	210