

Product Datasheet

The global certified BLD-600-V series is a dual stage high efficiency LED driver. 100khour long life and 7-year warranty provide high confidence to luminaire users. All around protections including digital OTP, SCP and OCP with auto-recovery secure 24hour non-stop operation for luminaires.

☑ Strip ☑ Light box ☑ Signage ☑ Bath ☑ Swimming

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Features

- Absolute Supply Voltage: 108-305Vac
- Great Surge Immunity 10kV
- 95% Efficiency
- Low Inrush Current
- 100,000Hour Life @ Tc=75℃
- 7 Year Warranty @ Tc<=75℃
- UL Class P, ENEC/CB/RCM 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
BLD-600-V054-NNU/S	108-305Vac	600 W	54Vdc	0A	11.1A	UL/FCC/CB/ENEC/RCM/EAC
BLD-600-V048-NNU/S	108-305Vac	600 W	48Vdc	0A	12.5A	
BLD-600-V024-NNU/S	108-305Vac	600 W	24Vdc	0A	25A	

Technical Data

Input Voltage	108-305Vac
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	2.6Amax@277Vac & Full-Load, 5.8Amax@120Vac & Full-Load
Inrush Current	See Inrush Current Section in the datasheet
Leakage Current	1mA max @277Vac 60Hz, UL8750,0.75mA max @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
Voltage Accuracy	±5%Vo
Voltage Ripple	Vp-p:5%Vo max
Setup Time	1.2s max
Overshoot	10% Io max & LED Load
Output Over Voltage	110% Vomax, typ.
Short Circuit	Auto recovery. The output recovers when short is removed.

Over Temperature	Lower the output current when Tc≧105±10℃; Auto Recovery When Tc≦ 70±10℃
Operating Temperature	Case Temperature Tc=-40℃~+90℃； 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℃ max, marked in the Tc point of label
Dimensions	9.33x4.92x1.69 by inch (body), 10.3x4.92x1.69 by inch (endcaps included)
	237 x 125 x 43 by mm (body), 262 x 125 x 43 by mm (endcaps included)
Net Weight	2600g
Packing	See Package Information Section in the datasheet

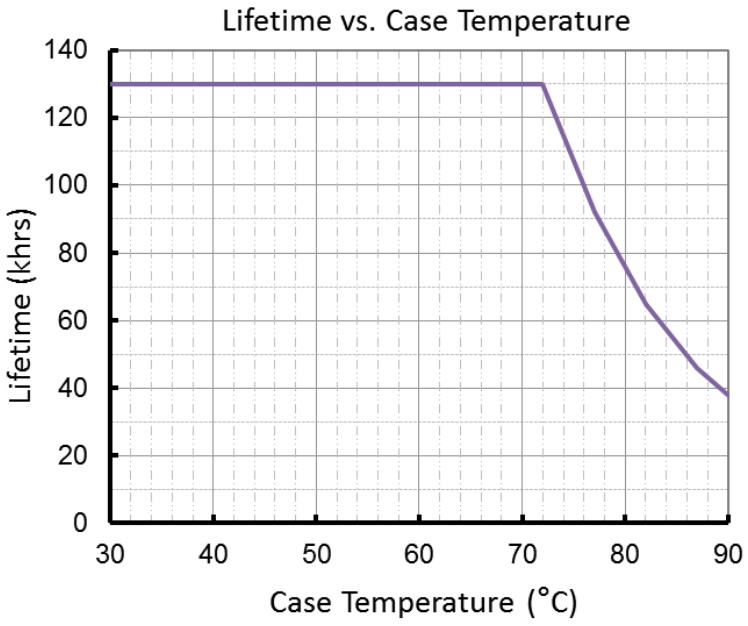
Notes: Unless specified, all the test results are measured in 25℃ room temperature.

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

■ Safety/EMC Compliance

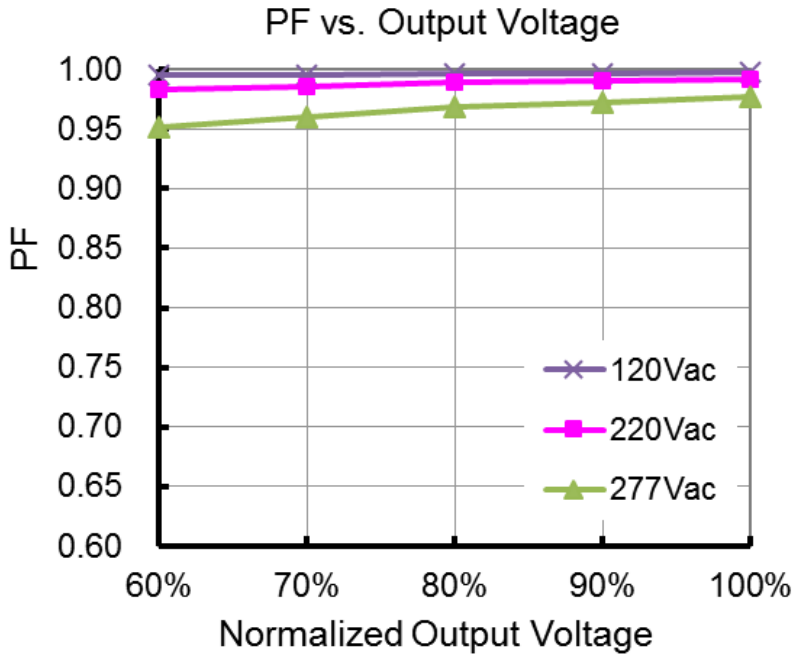
Safety Standard	Description
UL8750	Light emitting diode(LED) equipment for use in lighting products
UL1012	Power units other than class 2
IEC 61347-1	Lamp control gear Part 1: general and safety requirements
IEC 61347-2-13	Lamp control gear Part 2-13: particular requirement for d.c. or a.c. supplied 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

■ Lifetime vs. Case Temperature

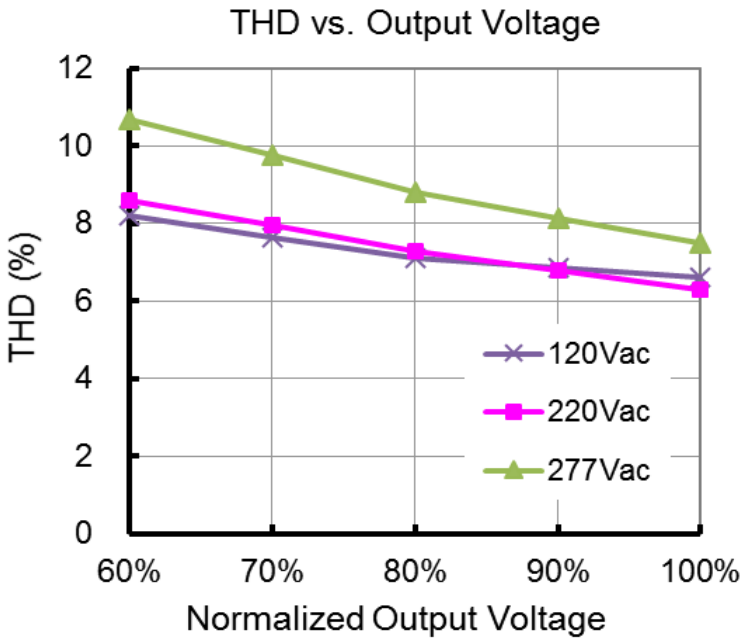


(End of Life: Maximum Failure Rate=10%)

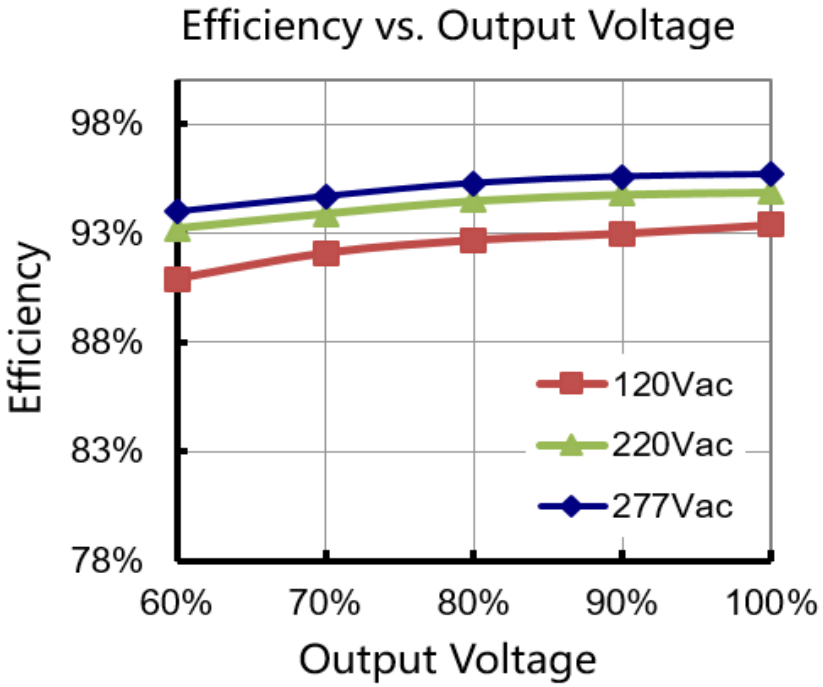
■ Power Factor vs. Load



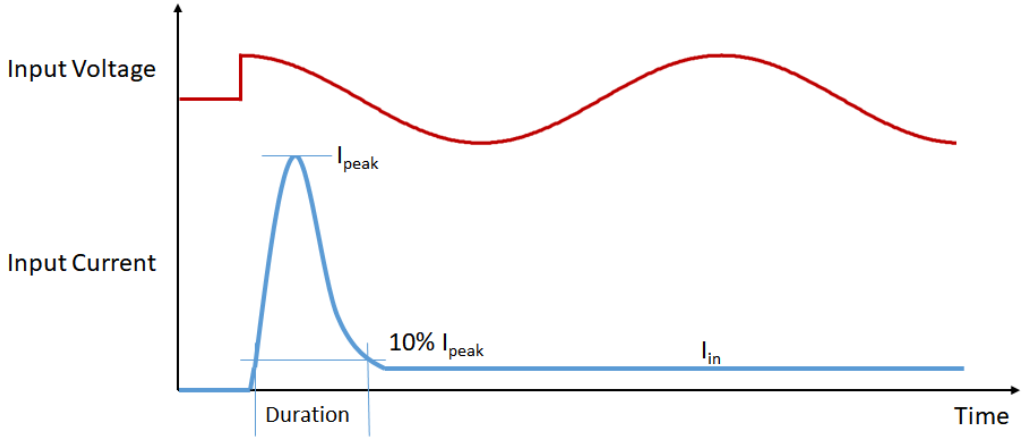
■ THD vs. Load



■ Efficiency vs. Load (54V Model)



■ Inrush Current



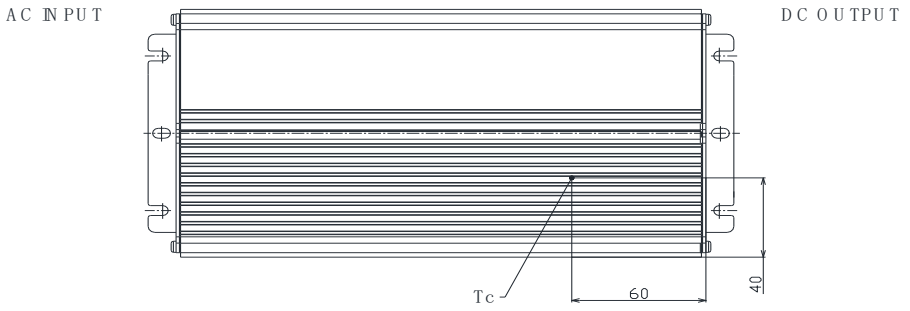
Input Voltage	I_{peak}	Duration
120Vac	3A	60mS
220Vac	5A	70mS
277Vac	8A	70mS

Please contact with us for MCB calculation and waveforms.

■ Dielectric Strength

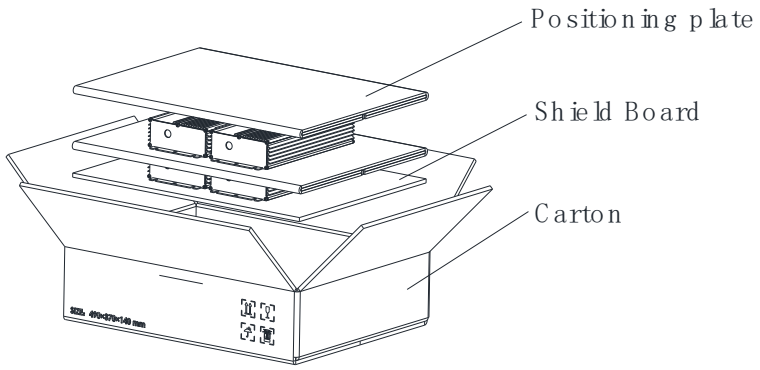
Unit: Vac	Input	Output	Dimming	Case
Input	-	3750	3750	1554
Output	3750	-	-	1554
Dimming	3750	-	-	1554
Case	1554	1554	1554	-

■ Tc Point



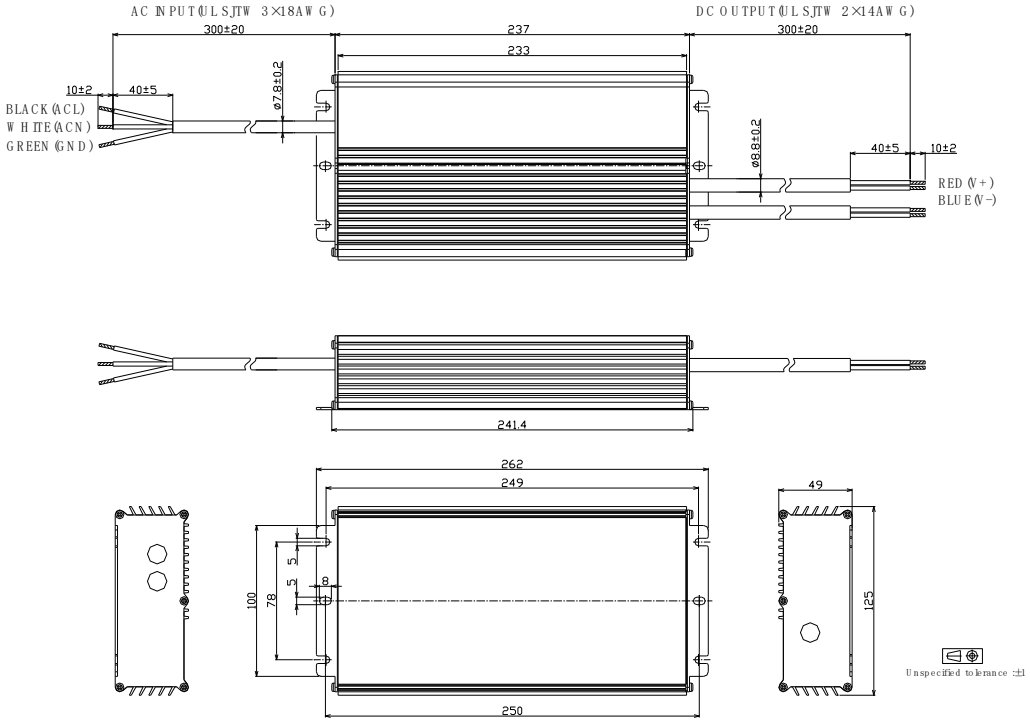
■ Packaging Information

Typical Carton Dimension(L×W×H)	490×370×140 mm
Positioning plate	2pcs/carton
Shield Board	1pcs/carton
LED Drivers	4pcs/carton

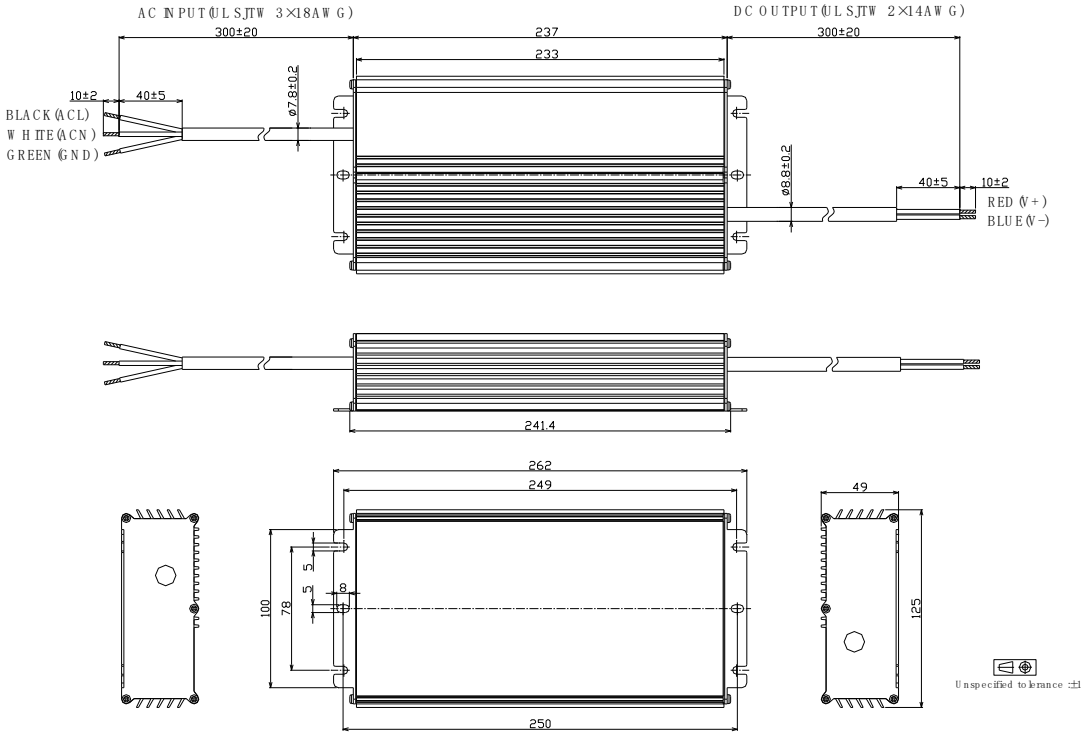


■ Mechanical Design

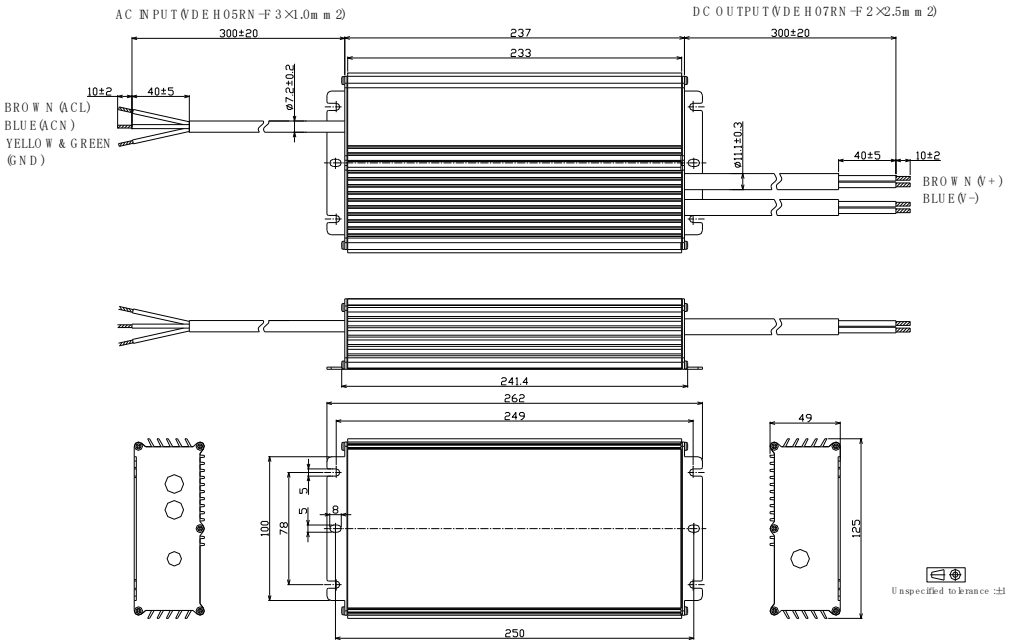
- UL Cable Model (24V Output Models)



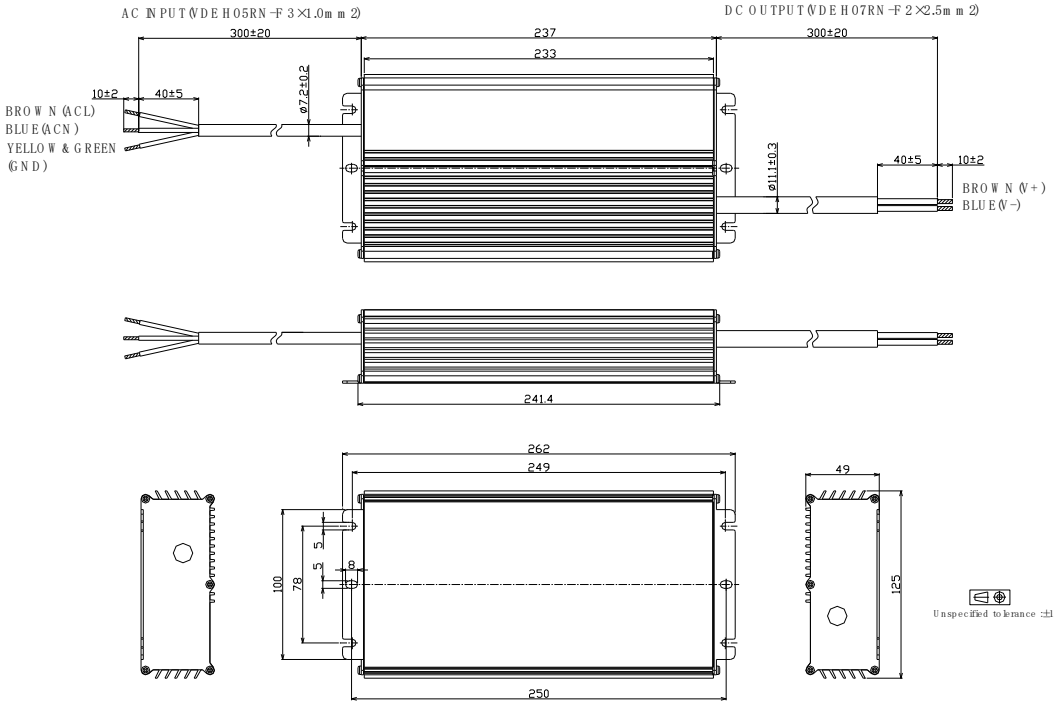
- UL Cable Model (48V, 54V Output Models)



- VDE Cable Model (24V Output Models)



- VDE Cable Model (48V, 54V Output Models)



■ Revision History

Revision	Date	Contents
B	2022-03-22	1. Index page added 2. Reduced dimming interface sourcing current 3. DALI 2.0 compatibility added 4. Programming instruction added 5. Inrush current data added 6. Tc point position indication added 7. Dielectric strength level added 8. Packaging information added 9. Mechanical design change with dimming cable color 10. Revision history added

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