

Features

- Constant Voltage Output
- High Efficiency (Up to 90%)
- Non Isolated and Share the Same Ground
- Waterproof (IP65)
- Anti-Reverse Protection
- Only Suitable for Inventronics LED Drivers with DALI
(See Compatible Driver List)
- 7 Years Warranty



Description

The DBV-002S024SS is a DC-DC converter which operates from a 9 ~ 15 Vdc input range and a 24Vdc output. It is designed to be compatible with Inventronics DALI dimmable LED drivers. Feature includes anti-reverse protection.

Models

Output Voltage	Input Voltage Range	Output Current Range	Max. Output Power	Typical Efficiency (1)	Model Number
24 Vdc	9 ~ 15 Vdc	0 ~ 85 mA	2.04 W	90%	DBV-002S024SS

Note: (1) Measured at 100% load and 12Vdc input (see below "General Specifications" for details).

Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Input Voltage Range	9 Vdc	-	15 Vdc	
Input DC Current	-	-	200 mA	Measured at 100% load and 12 Vdc input

Note: All specifications are typical at 25°C unless otherwise stated.

Output Specifications

Parameter	Min.	Typ.	Max.	Notes
Output Voltage	-	24 V	-	At 100% load condition
Output Voltage Tolerance	-5%Vo	-	5%Vo	At 100% load condition
Output Current Range	0 mA	-	85 mA	
Total Output Voltage Ripple (pk-pk)	-	-	2%Vo	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1µF ceramic capacitor and a 10µF electrolytic capacitor.
Line Regulation	-	-	±3%	Measured at 100% load

Output Specifications (Continued)

Parameter	Min.	Typ.	Max.	Notes
Load Regulation	-	-	±3%	
Turn-on Delay Time	-	-	0.5 s	Measured at 100% load and 12 Vdc input
Temperature Coefficient of Vo	-	0.03%/°C	-	Case temperature = 0°C~Tc max

Note: All specifications are typical at 25°C unless otherwise stated.

General Specifications

Parameter	Min.	Typ.	Max.	Notes
Efficiency at 12Vdc input	-	90%	-	Measured at 100% load and steady-state temperature in 25°C ambient;
MTBF	-	7,211,000 Hours	-	Measured at 12Vdc input, 100%Load and 25°C ambient temperature (MIL-HDBK-217F)
Operating Case Temperature for Warranty Tc_w	-40°C	-	+75°C	Case temperature for 7 years warranty Humidity: 10%RH to 100%RH
Storage Temperature	-40°C	-	+85°C	Humidity: 5%RH to 100%RH
Dimensions Inches (L × W × H) Millimeters (L × W × H)		1.58 × 1.07 × 0.87 40.2 × 27.2 × 22		With mounting ear 2.09 × 1.07 × 0.87 53 × 27.2 × 22
Net Weight	-	38 g	-	

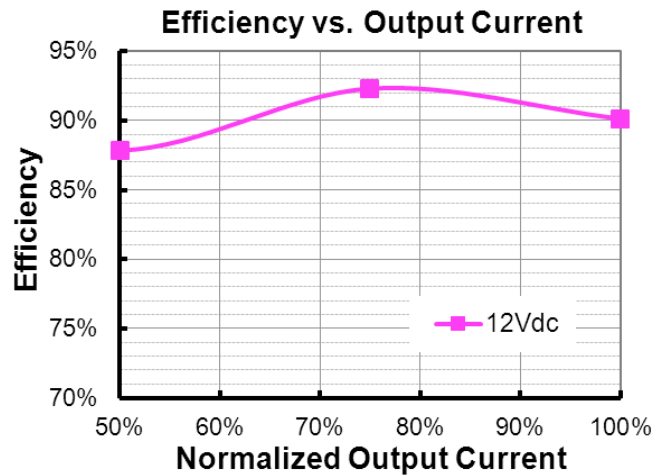
Note: All specifications are typical at 25°C unless otherwise stated.

Safety Compliance

Safety Category	Standard
CE	EN 61347-1, EN61347-2-11
EMI Standards	Notes
EN 55015 ⁽¹⁾	Conducted emission Test &Radiated emission Test

Note: (1) This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

Efficiency vs. Load

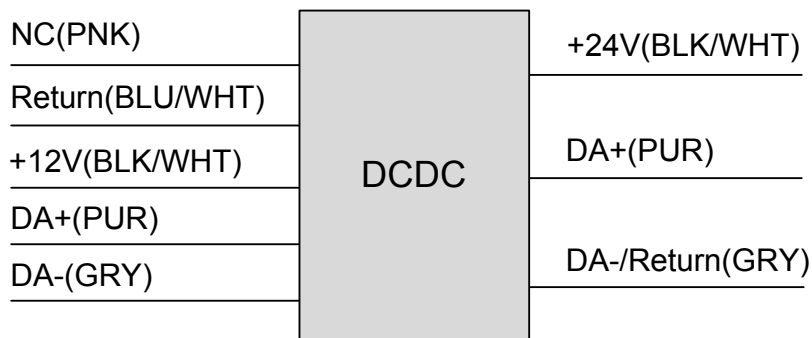


Protection Functions

Parameter	Notes
Anti-Reverse Protection	No damage will occur.

Function Definition of Interface

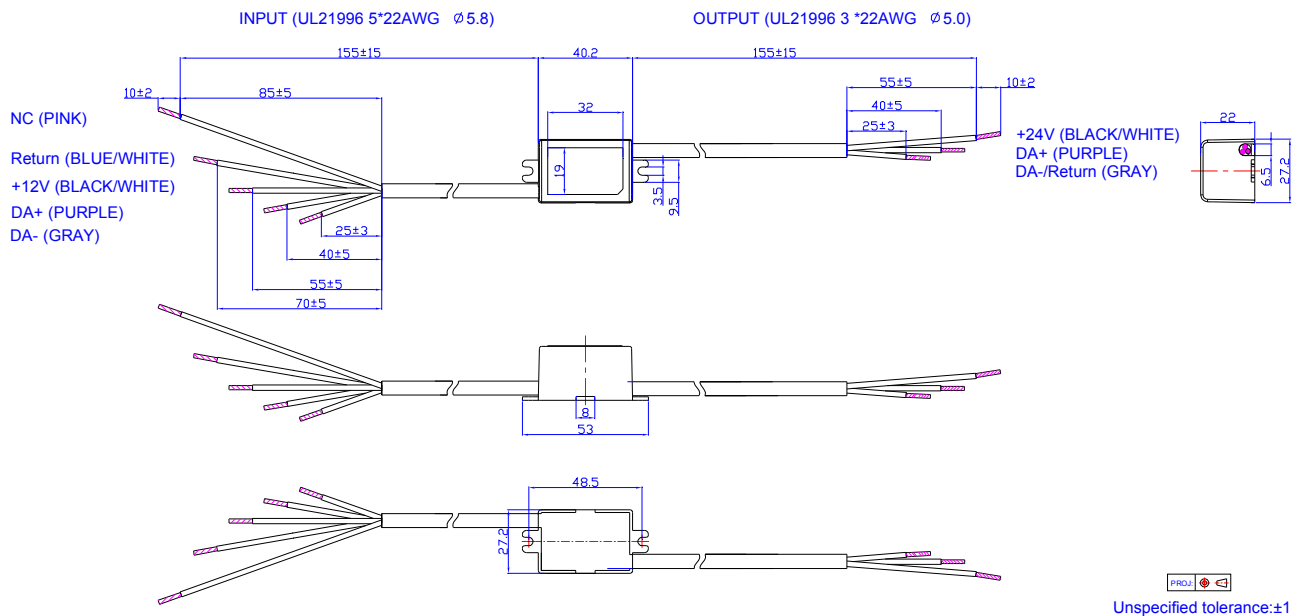
Wire Color	Function	Notes
PINK	NC	Connect to driver's "OTP+" or "Tmon"
BLUE/WHITE	Return	Return for auxiliary power
BLACK/WHITE	+12V	Input from driver's 12V auxiliary power
PURPLE	DA+	DALI signal output to driver's DALI interface
GRAY	DA-	DALI signal output to driver's DALI interface
BLACK/WHITE	+24V	24V auxiliary power output to control device
PURPLE	DA+	DALI signal input from DALI master
GRAY	DA-/Return	DALI signal input from DALI master



Compatible Driver List

Series Number	Part Number	Notes
EBS	EBS-040SxxxBTE	
	EBS-120SxxxBTE	
EUD	EUD-075SxxxBT/BV	
	EUD-150SxxxBTA/BVA	
	EUD-200SxxxBTA/BVA	
	EUD-240SxxxBTA/BVA	

Mechanical Outline



RoHS Compliance

Our products comply with the European Directive 2011/65/EU, calling for the elimination of lead and other hazardous substances from electronic products.

Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2019-02-21	A	Datasheet Release	/	/
2019-06-13	B	Compatible Driver List	EBS-120SxxxBTE EUD-075SXXXBT/BV EUD-200SXXXBTA/BVA EUD-240SXXXBTA/BVA	Added