LSDCD120 Series

120W, 20~30Vdc Input, Constant Current, DC-DC LED Driver

RoHS Compliant

Features

- Power Rating: 120W
- Input Voltage: 20~30Vdc
- Constant current design
- Fixed Output current(1050mA)
- Dimming: PWM, 0-10V
- Efficiency to 94%
- IP67
- Potted, watertight
- 3-year warranty

*Product images are for illustrative purposes only and may vary from actual design.

Application

- Indoor or outdoor lights

Model List*(See part number scheme for model number details)

Model Number	Input Voltage Range	Output Power	Output Voltage	Output Current Min.	Output Current Max.	Efficiency	Certification
LSDCD120S105SS	20~30Vdc	120W	60-120V	1050mA	1050mA	94%	CE
LSDC-120S105SS	20~30Vdc	120W	60-120V	1050mA	1050mA	94%	CE

*(-=No dimming/D=Dimming)

NOTE: All Applications require an In-Line fuse on the input and to be installed by the user.

Technical Data

DC voltage	60-120V
Constant current region	1050mA
Rated power	126W
Ripple and noise (max.) Note 2	1.3V
Current tolerance Note 3	±5.0%
Line regulation	±1.0%
Load regulation	±1.0%
Setup, rise time (Typ.) Note 6	210ms/985ms 24VDC at full load
Voltage range Note 4	20 ~ 30VDC
Efficiency (Typ.)	94%
DC current (Typ.)	5.59A/24VDC
Inrush current (Typ.)	COLD START105A at 24VDC
Leakage current	<0.6mA/24VDC

■ Technical Data(cont.)

Over current	95 ~ 108%
	Protection type: Constant current limiting, recovers automatically after fault condition is removed
Short current	Hiccup mode, recovers automatically after fault condition is removed
Over Voltage	135V
	Protection type: Hiccup mode, recovers automatically after fault condition is removed
Over temp.	Hiccup mode, recovers automatically after fault condition is removed
Working temp.	-35 ~ +60℃ (Refer to "Derating Curve")
Working humidity	20 ~ 90% RH non-condensing
Storage temp., Humidity	-40 ~ +85℃, 5 ~ 100% RH
Temp. coefficient	±0.3%℃ (0~50℃)
Vibration	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes
Isolation resistance	I/P – FG: 100M Ohms / 500VDC /25℃ / 70% RH
MTBF	200khrs min. MIL-HDBK-217F (25℃)
Dimension	195*46*33.5MM (L*W*H)
Packing	380±10g

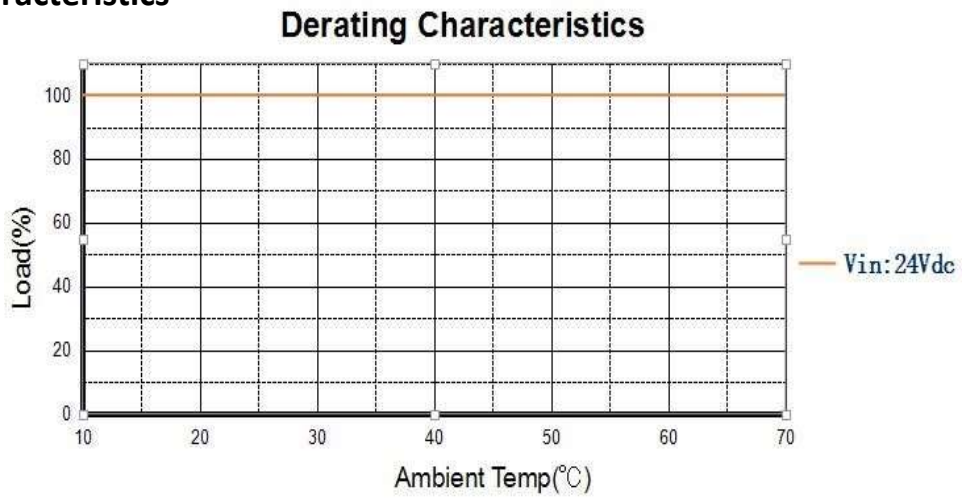
Notes:

1. All parameters NOT specifically mentioned are measured at 24Vdc input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted-pair wire terminated with 0.1uF & 47uF parallel capacitors.
3. Tolerance: includes set up tolerance, line regulation, & load regulation.
4. Derating may be needed under low input voltages. Please check the static characteristic for details.
5. Suitable for indoor or outdoor use without exposure to direct sunlight. Avoid exposure or immersion in water exceeding the IP67 rating.
6. The driver (PSU) start-up time is measured from initial cold start.
7. The driver (PSU) is considered a component that will be operated as part of a finished lighting assembly. The manufacturer of the finished lighting assembly must ensure EMC Directive compliance for the completed assembly.
8. Direct connection of the driver (PSU) to the LED lights is suggested. Not suitable for use in connecting additional drivers(PSU's).
9. To fulfill the requirements of the latest ERP regulations for lighting fixtures, this LED driver(PSU) can only be used with a switch; Not for permanent direct connection to AC main power.

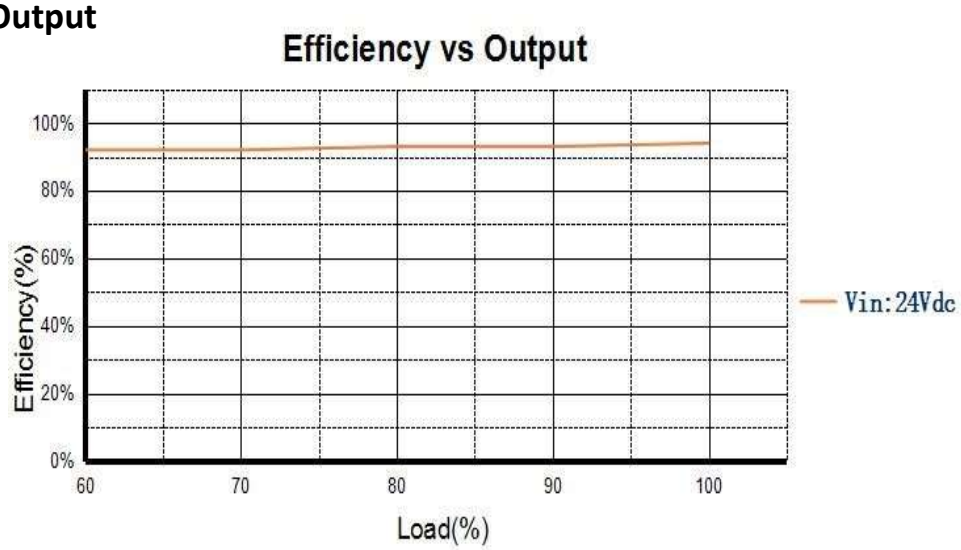
Disclaimer:

Autec Power Systems' (Autec) LED Drivers are Hi-Pot tested during the manufacturing process. Autec assumes no responsibility for secondary Hi-Pot testing at customer location or designated production line(s). Should customer require further Hi-Pot testing, at their own production line, following assembly of the LED Driver into the customer's assembled fixture, Autec requests advance notice. This request must be communicated to Autec in a timely manner and is recommended to be requested at time of issuing each purchase order.

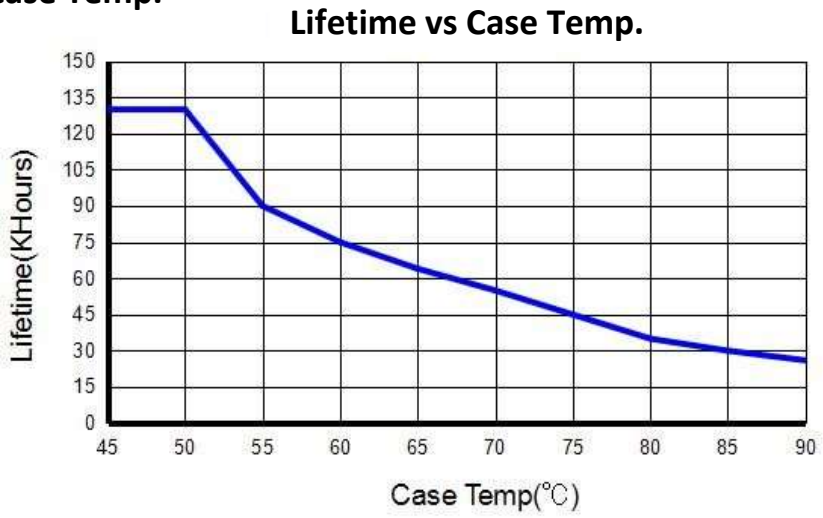
■ Derating Characteristics



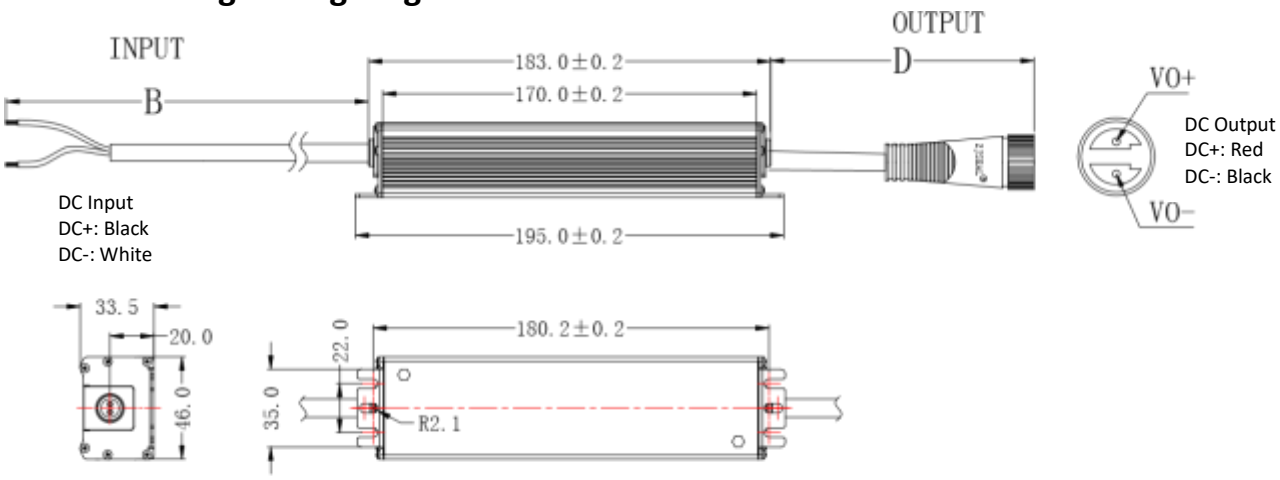
■ Efficiency vs Output



■ Lifetime vs Case Temp.



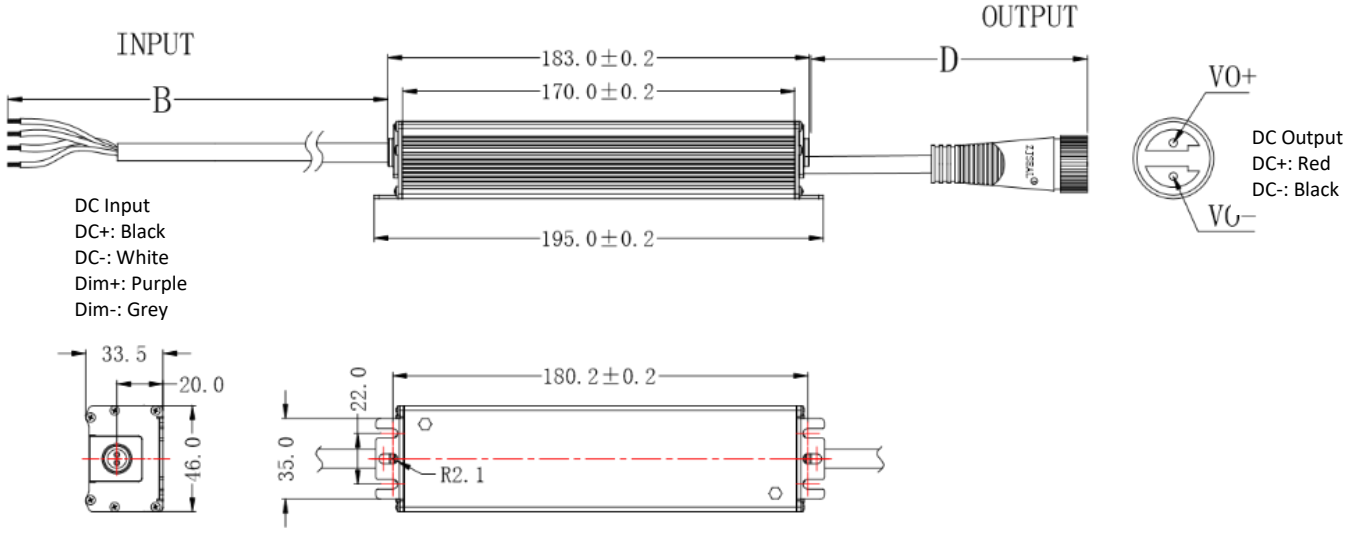
■ Non-Dimming Wiring diagram



I/P, O/P WIRE CODE TABLE

CODE	WIRE DIMENSION		
	B	C	D
5	350±20MM	NC	180±20MM

■ Dimming Wiring Diagram



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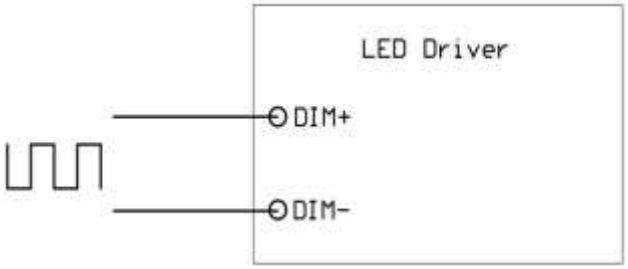
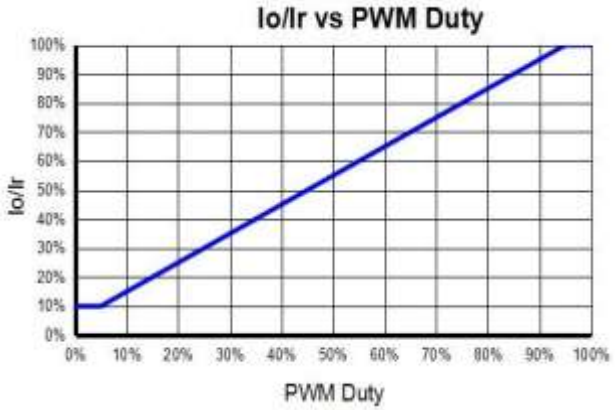
***Requires a slow blow in-line fuse and housing on the input cable, contact the factory.**

■ Dimming Function

• PWM Dimming





• 0-10V Analog Dimming

Input Dimming Voltage	0-10V
Input Source Current	0-10mA

Notes:

1. If the dimming function is not used, do not connect the dimming output wires.
2. *Io* is the actual output current and *Ir* is the rated current without dimming control.
3. For the driver (PSU) to operate properly, the load voltage must be maintained above the input voltage *t*, approximately 50% of the maximum output voltage for any given mode.
4. The dimming signal for the application is permitted to be less than1v and highly recommended.
5. Do not connect the dimming control **GND** wire (GRAY) to the output as the driver (PSU) will not function properly.

Part Number Scheme

LS D C - 120 S XXX S S

- LS=LED Driver Series
- D=DC/DC Input Voltage 20-30Vdc
- C=Constant Current
- "-"=Non-Dimmable
- 120=Output Power(Watts)
- S=Class II, 2 Wire Input
- S=Metal case
- XXX=Rated Current Ex.) 105=1050mA
- S=Single Output

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***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**