

25 Watt - ADSP25W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING



25W
 ADSP25W Series
 DIMMING

Model: ADSP25W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Off-Line Switch Mode
- Output Power: 25W Max.
- Input Voltage: 90 to 305VAC, 50/60Hz, 108-250VDC
- Number of Outputs: One
- Output Voltage: 24VDC - 72VDC
- Output Current: 350mA
- Optional 0-10V or PWM Positive Dimming 10% ~ 100%

Environmental

1. Operating temperature: Tc 90C Maximum. Reference -30 to +60°C ambient
2. Storage temperature range: -40 to +85°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s
7. MTBF@ 40°C: 482,000 hours @ Full Load per MIL-217F Notice 2.

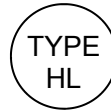
Safety and Compliance

1. UL8750, EN61347, CSA 22.2 safety recognized, UL Type HL
2. FCC, 47CFR Part 15 Class B compliant
3. Water resistant and Dust Proof Design: IP66, NEMA4, for Dry, Damp, Wet Locations.
4. Compact, Lightweight Design.
5. Safety Isolation between Primary and Secondary
6. Meets EN61000-3-2 & EN61000-3-3 Class C
7. Protection: output over-voltage, output over-current, output short circuit, reset by power cycling.
8. EN61000-4-5: 2kV L-N, 8/20 µsec surge protection.

Electrical Specifications at 25°C

- Input voltage range: 90 to 305VAC or 108-250VDC
- Frequency: 47~ 63HZ or 0Hz (DC)
- Power Factor: > .90 at full load 120Vac/230Vac 50/60Hz
- Inrush current: <15A at 25C, 230V, cold start, Max. Load
- Input current: 0.25A at 120Vac, 60Hz, Maximum Load
- Efficiency: 86% typical at 230Vac Full Load
- Maximum output power: 25W
- Constant Current regulation: +/-2% Over Input Line Variation
- Load regulation accuracy: +/-3%
- Leakage current: 400uA typical; Hold up time: half cycle

Constant Current Versions



IP66



Part Number ⁽²⁾	US Class 2	CN Class 2	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency ⁽¹⁾
ADSP25W-72-C0350	NO	NO	24 - 72 VDC	350 mA	± 3%	25W	86%

Notes

1. Typical efficiency measured at 230VAC input, full load
2. For dimmable versions add appropriate designator to the end of the part number: For Example: ADSP25W-72-C0350-RD is 0-10V or resistance dimmable version, ADSP25W-72-C0350-PD is PWM dimmable version.
 -RD 0-10V & Resistance dimmable version comes with an extra two wires +Purple/-Grey on the output side.
 -PD PWM Dimmable version comes with an extra two wires +Purple/-Grey on the output side.
3. -RD 0-10V Dimming is compatible with most quality 0-10V wall dimmers and direct 0-10V analog signal. See page 3 for details.
4. -PD PWM version is PWM Dimmable via a positive 10% to 100% Duty Cycle, 200Hz to 1KHz, 0-10V Pulse. See page 4 for details.

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LED Optimized Drivers

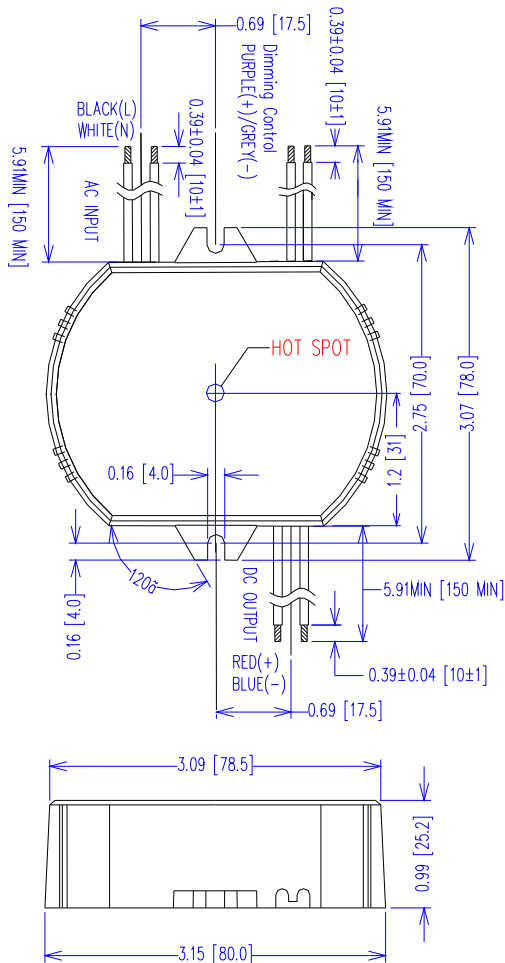
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Constant Voltage Versions

Part Number	US Class 2	CN Class 2	Output Constant Voltage	Output Current Maximum	Voltage Accuracy	Output Power Maximum	Typical Efficiency ⁽¹⁾
ADSP25W-72	NO	NO	72 VDC	350 mA	± 5%	25W	86%

Mechanical Dimensions: Inches [mm]



Material: Black PC ABS Plastic Case
 Fully Encapsulated
 Weight: 198 grams (7.0 oz) Typical

Labeling Example

ACDC INPUT
L = BLACK
N = WHITE

LED Optimized Driver
EPtronics, Inc.
www.EPtronics.com
800 643-0688/310 536-0700

Part Number: ADSP25W-72-C0350-RD
 Input Voltage: 90-305 VAC 50/60 Hz
 108-250VDC
 Input Current: 0.35 Amp Max
 Output Voltage: 24-72 VDC
 Output Current: 350 mA Constant Current
 0-10V CCR Dimmable Output

UL Type HL
E325626

IP66
0-10V Dim Input
DIM+ = PURPLE
DIM- = GRAY

DC OUTPUT
+ = RED
- = BLUE

HG REV E1.2 Made in China

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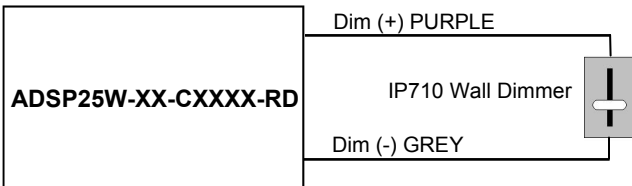
-RD 2-Wire 0-10V CCR Dimming Scheme

Parameters	Minimum	Typical	Maximum
Source Current out of 0-10V Purple Wire	0mA	—	2mA
Absolute Voltage Range on 0-10V (+) Purple Wire	-2.0V	—	+15V
Sink Current into 0-10V Purple Wire	0mA	—	1.2mA

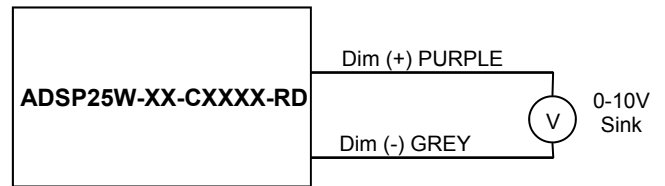
Notes

- RD 0-10V dimmable version comes with an extra two wires +Purple/-Grey on the output side.
- RD version is compatible with most 0-10V Wall Slide dimmers and direct 0-10V analog signal.
Recommended wall slide dimmer is Leviton IP710 or equivalent
- RD 0-10V dimmable version is not intended to dim below about 5% @ 0V or 10% @ 1.0V
- RD 0-10V dimmable version output will be 100% with Purple/Grey open and minimum with Purple/Grey Shorted.

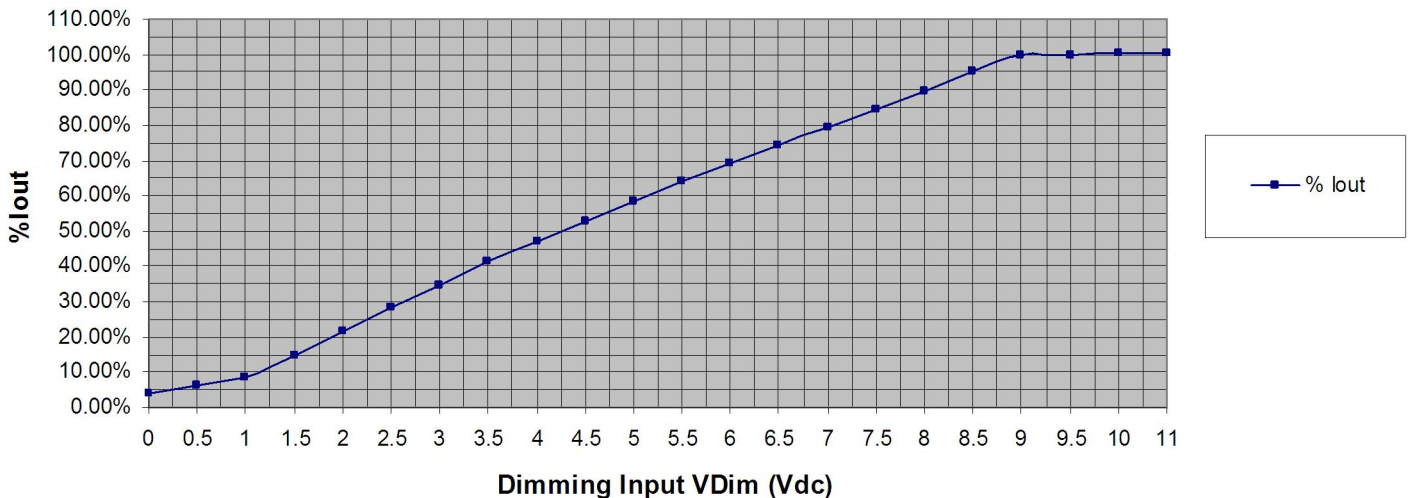
-RD 2-Wire Resistance Dimming Scheme



-RD 2-Wire 0-10V Analog Dimming Scheme



% Output Current vs. 0-10VDC Dimming Input



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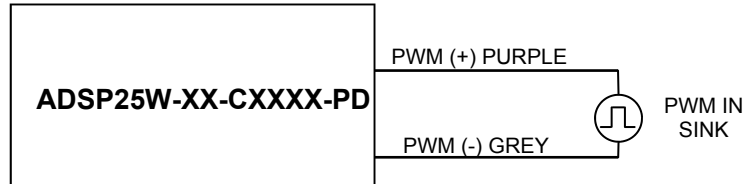
-PD 2-Wire CCR PWM Positive Dimming Scheme

Parameters	Minimum	Typical	Maximum
Absolute Maximum Voltage Range on PWM Input (Purple Wire)	-2.0V	10V	+15V
Input LOW Level Voltage Range (Purple Wire)	-2.0V	0V	+5.5V
Input HIGH Level Voltage Range (Purple Wire)	+9.0V	10V	+15V
Current into PWM Input (Purple Wire)	0mA	—	1.2mA
Source Current out of PWM Input (Purple Wire)	0mA	—	2mA
PWM Input Signal Frequency	500Hz	—	1500Hz
PWM Input Signal Positive Duty Cycle	0%	10-90%	100%

Notes

1. -PD PWM Dimmable version comes with an extra 2 wires +Purple/-Grey on the output side.
2. -PD PWM Dimmable version is not intended to dim below about 5% @ 0% Duty Cycle or 10% @ 10% Duty Cycle
3. -PD PWM dimmable version output will be 100% with Purple/Grey open and minimum with Purple/Grey Shorted.

-PD 2-Wire PWM Positive Dimming Scheme



% Output Current vs. 1.0 kHz, Positive Duty Cycle Dimming Input

