

## 60 Watt - ADSP60W Series

CONSTANT VOLTAGE OR CONSTANT CURRENT LED DRIVER WITH DIMMING



**ADSP60W Series**  
**60W**  
 DIMMING

### Model: ADSP60W Series

- Drive Mode: Constant Current or Constant Voltage
- Technology: PFC Off-Line Switch Mode
- Output Power: 60W Max.
- Input Voltage: 90 to 305VAC, 50/60Hz, 108-250VDC
- Number of Outputs: One
- Output Voltage: 28VDC - 86VDC
- Output Current: 700mA
- Optional 0-10V or PWM Positive Dimming 10% - 100%

### Environmental

1. Operating temperature: Tc 90C Maximum. Reference -30 to +65°C ambient
2. UL Type TL (Tref Max/Meas. Tref): UL Class 2 90/54°C, UL Non Class 2 90/51°C
3. Storage temperature range: -40 to +85°C
4. Humidity (non-condensing): 5% - 95%RH
5. Cooling: Convection
6. Vibration Frequency: 5-55Hz/2g, 30 minutes
7. Impact resistance: 1g/s
8. MTBF@ 40°C: 418,000 hours @ Full Load per MIL-217F Notice 2.

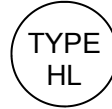
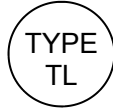
### Safety and Compliance

1. UL8750, EN61347, CSA 22.2, UL Type TL & HL recognized.
2. FCC, 47CFR Part 15 Class B compliant
3. Water resistant and Dust Proof Design: IP66, NEMA13, 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. Transient protection built in.

### 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: <30A at 25C, 230V, cold start, Max. Load
- Input current: 0.90A Maximum
- Efficiency: 90% typical at 230Vac Full Load
- Maximum output power: 60W
- 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 <sup>(2)</sup>	US Class 2	CN Class 2	Output Voltage Range	Output Constant Current	Current Accuracy	Output Power Maximum	Typical Efficiency <sup>(1)</sup>
ADSP60W-86-C0700	NO	NO	28 - 86 VDC	700 mA	± 3%	60W	90%

### 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: ADSP60W-86-C0700-RD is 0-10V or resistance dimmable version, ADSP60W-86-C0700-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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## Constant Voltage Versions

Part Number	US Class 2	CN Class 2	Output Voltage	Output Current Range	Voltage Accuracy	Output Power Maximum	Typical Efficiency <sup>(1)</sup>
ADSP60W-86	NO	NO	86 VDC	175 - 700 mA	± 5%	60W	90%

## Mechanical Dimensions: Inches [mm]

Material: Black Aluminum Housing

## Labeling Example

**0-10V CCR Dimmable LED Optimized Driver**  
EPtronics, Inc.  
www.EPtronics.com  
800.643.0688/310.536.0700

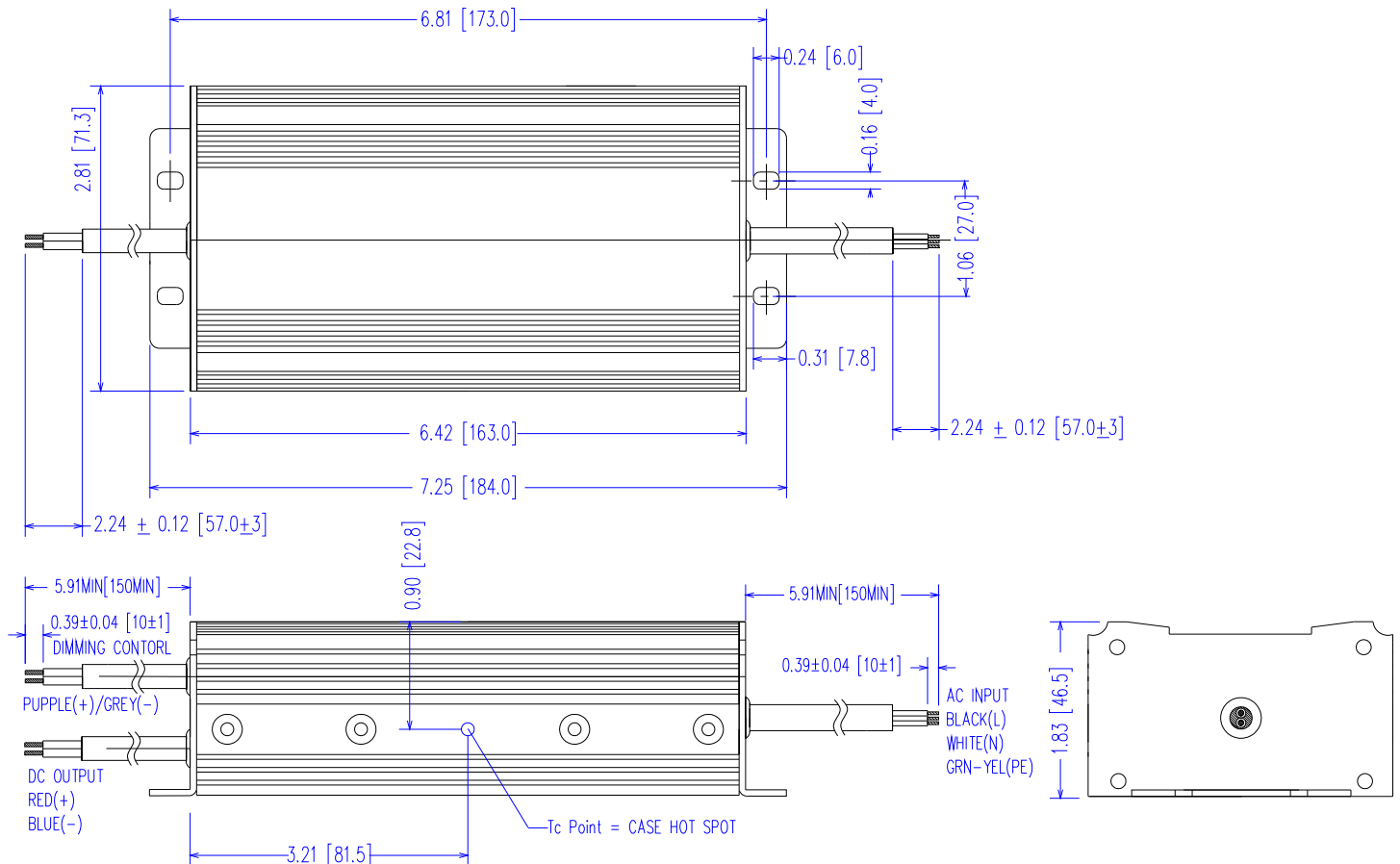
Part Number: ADSP60W-86-C0700-RD  
Input Voltage: 90-305VAC 50/60Hz  
108-250VDC  
Input Current: 0.76 Amp Max  
Output Voltage: 28-86 VDC  
Output Current: 700 mA CC  
0-10V CCR Dimmable Output  
UL Type HL & TL 90/51°C

DC OUTPUT  
+ = RED  
- = BLUE

0-10V DIMMING  
DIM+ = PURPLE  
DIM- = GRAY

IP66  
Made in China REV: A1.2

LEGEND:  
AC/DC INPUT  
LINE = BLACK  
NEUT = WHITE  
GND = GREEN/EL  
DIM+ = PURPLE  
DIM- = GRAY



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DIMMING  
 ADSP60W Series  
**60W**

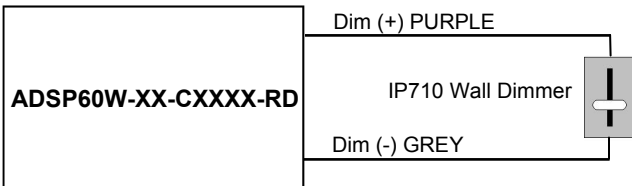
### -RD 2-Wire 0-10V CCR Dimming Scheme

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

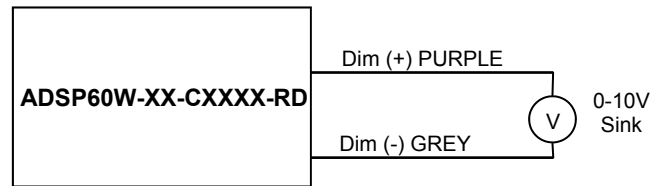
### Notes

- 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.

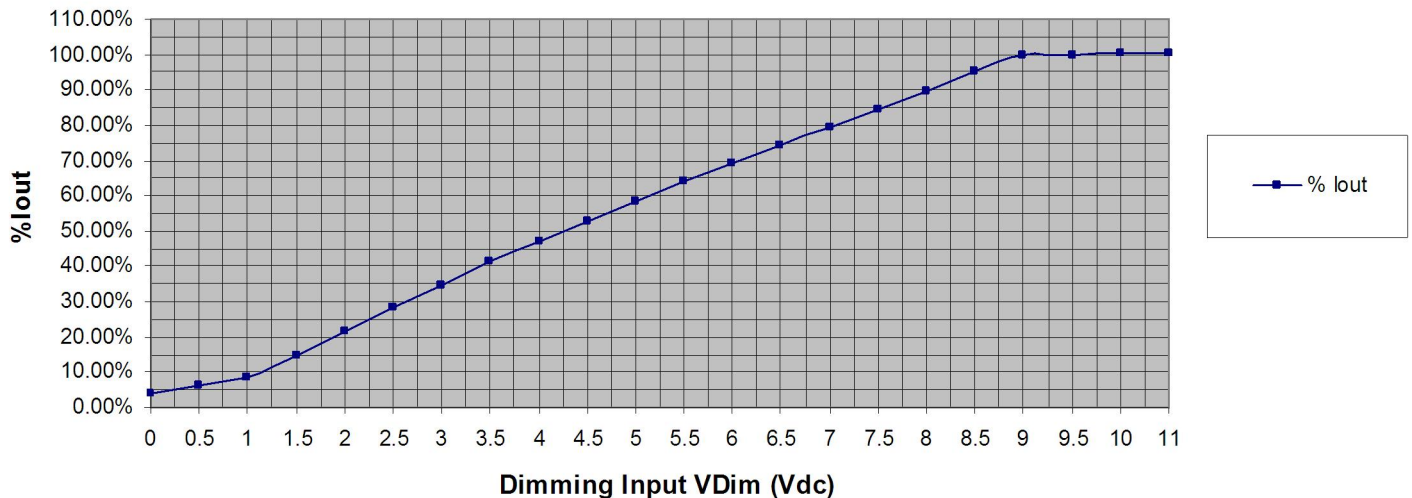
### -RD 2-Wire Resistance Dimming Scheme



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



% Output Current vs. 0-10VDC Dimming Input



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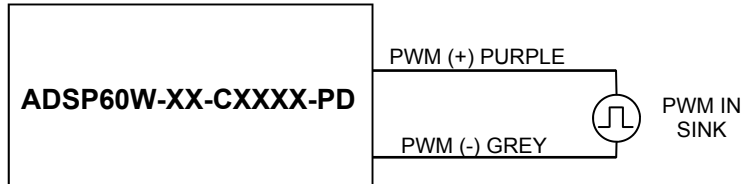
## -PD 2-Wire CCR PWM Positive Dimming Scheme

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

