

## Features

- RoHS compatible for all six substances
- Worldwide AC Input Capabilities: 100/120/220/230/240 VAC
- ±0.05% Output Regulation
- Low Output Ripple
- UL, CSA, and TÜV Approvals
- Mean Time Before Failure (MTBF) in Excess of 300,000 Hours
- CE marked to Low Voltage Directive
- 100% Burn-In
- 2 Year Warranty
- Overvoltage Protection (OVP) Standard on 5V Single Outputs, Optional for other outputs under 48V

## Description

Power-One produces the industry's broadest selection of Linear power supplies with output voltages from 5 volts through 250 volts. Rugged technology and proven design merge to create quiet, highly-regulated, dependable DC power.

The Linear power supplies are approved to domestic and international regulatory standards, and are CE Marked to the Low Voltage Directive (LVD).

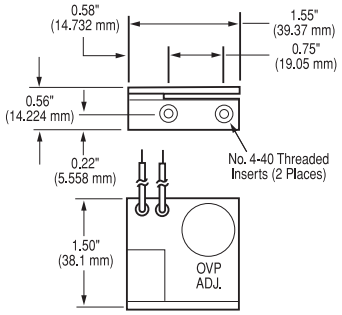
## Overvoltage Protection Options

### OVERVOLTAGE PROTECTION OPTIONS

These optional overvoltage protection modules are offered for use with Power-One's Linear power supplies. Each is user adjustable from 6.4V to 34V.

### OVP-12G



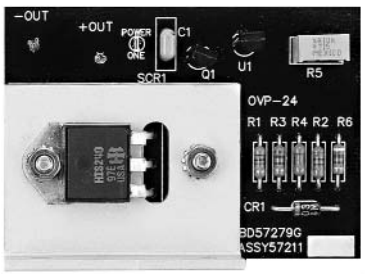



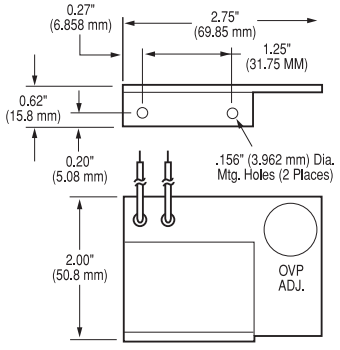

### OVP SELECTION GUIDE

| MODEL | CASE SIZE | OVP MODULES REQUIRED |
|---|---|---|
| SINGLE OUTPUT | B,C,N,D | (1) OVP-12G |
| | E,F | (1) OVP-24G |
| DUAL OUTPUT | AA,B,BB,CC | (1) OVP-12G protects both outputs |
| | E | (1) OVP-24G protects both outputs |
| TRIPLE OUTPUT | AA,BAA,D<br>CBB, 131<br>DBB,DCC | (1) OVP-12G protects both 12V through 15V outputs |
| PEAK CURRENT MODELS | N,BAA,CBB<br>131 | (1) OVP-12G protects any output not provided with built-in OVP |

**NOTE:** Outputs with factory built-in OVP are indicated in the Voltage/Current Rating Chart for each model. OVP is not available for 48V through 250V models.

### OVP-24G



Unsigned output voltages are isolated and can be used as either + or - polarities.

| Nominal Vout* | Max Amps | Model Input 100 to 264 VAC | Case Type | Additional Features & Notes |
|---|---|---|---|---|
| **5Vout** | | | | |
| 5 | 1.5 | HA5-1.5/OVP-AG | B | A |
| 5 | 3 | HB5-3/OVP-AG | B | A, C |
| 5 | 6 | HC5-6/OVP-AG | C | A, C |
| 5 | 9 | HN5-9/OVP-AG | N | A, C |
| 5 | 12 | HD5-12/OVP-AG | D | A, C |
| 5 | 18 | HE5-18/OVP-AG | E | A, C |
| 5 | 25 | F5-25/OVP-AG | F | A, C, D, H |
| 5 | 35 | G5-35/OVP-AG | F | A, C, D, H |
| 5 | 50 | CP197-AG | F | A, C, D |
| **12 to 15Vout** | | | | |
| 12 | 0.9 | HA15-0.9-AG | B | |
| 12 | 1.7 | HB12-1.7-AG | B | C |
| 12 | 3.4 | HC12-3.4-AG | C | C |
| 12 | 5.1 | HN12-5.1-AG | N | C |
| 12 | 6.8 | HD12-6.8-AG | D | C |
| 12 | 10.2 | HE12-10.2-AG | E | C |
| 12 | 16 | F15-15-AG | F | C, D, H |
| 15* | 0.9 | HA15-0.9-AG | B | |
| 15 | 1.5 | HB15-1.5-AG | B | C |
| 15 | 3 | HC15-3-AG | C | C |
| 15 | 4.5 | HN15-4.5-AG | N | C |
| 15 | 6 | HD15-6-AG | D | C |
| 15 | 9 | HE15-9-AG | E | C |
| 15* | 15 | F15-15-AG | F | C, D, H |
| **24 to 28Vout** | | | | |
| 24 | 0.5 | HA24-0.5-AG | B | |
| 24 | 1.2 | HB24-1.2-AG | B | C |
| 24 | 2.4 | HC24-2.4-AG | C | C |
| 24 | 3.6 | HN24-3.6-AG | N | C |
| 24 | 4.8 | HD24-4.8-AG | D | C |
| 24 | 7.2 | HE24-7.2-AG | E | C |
| 24 | 12 | F24-12-AG | F | C, D, H |
| 28* | 0.5 | HA24-0.5-AG | B | |
| 28 | 1 | HB28-1-AG | B | C |
| 28 | 2 | HC28-2-AG | C | C |
| 28 | 3 | HN28-3-AG | N | C |
| 28 | 4 | HD28-4-AG | D | C |
| 28 | 6 | HE28-6-AG | E | C |
| 28* | 10 | F24-12-AG | F | C, D, H |
| **48Vout** | | | | |
| 48 | 0.5 | HB48-0.5-AG | B | |
| 48 | 1 | HC48-1-AG | C | |
| 48 | 3 | HD48-3-AG | D | C |
| 48 | 4 | HE48-4-AG | E | C |

| Case Type | Dimensions (Inches) |
|---|---|
| AA | 6.50 x 4.00 x 2.10 |
| B | 4.87 x 4.00 x 2.10 |
| BAA | 10.25 x 4.00 x 2.95 |
| BB | 7.00 x 4.87 x 2.95 |
| C | 5.62 x 4.87 x 2.95 |
| CBB | 11.00 x 4.87 x 3.28 |
| CC | 9.38 x 4.87 x 3.28 |
| CP131 | 11.00 x 4.87 x 3.28 |
| D | 9.00 x 4.87 x 3.28 |
| DBB | 14.25 x 4.87 x 3.38 |
| DCC | 15.00 x 4.88 x 4.55 |
| E | 14.00 x 4.87 x 3.53 |
| F | 16.75 x 4.88 x 5.00 |
| N | 7.00 x 4.87 x 3.28 |

| Case Type | Dimensions (Millimeters) |
|---|---|
| AA | 165.10 x 101.60 x 53.34 |
| B | 123.70 x 101.60 x 53.34 |
| BAA | 260.35 x 101.60 x 74.93 |
| BB | 177.80 x 123.70 x 74.93 |
| C | 142.75 x 123.70 x 74.93 |
| CBB | 279.40 x 123.70 x 83.31 |
| CC | 238.25 x 123.70 x 83.31 |
| CP131 | 279.40 x 123.70 x 83.31 |
| D | 228.60 x 123.70 x 83.31 |
| DBB | 361.95 x 123.70 x 85.85 |
| DCC | 381.00 x 123.95 x 115.57 |
| E | 355.60 x 123.70 x 89.66 |
| F | 425.50 x 123.95 x 127.00 |
| N | 177.80 x 123.70 x 83.31 |

(See Additional Features Column)

- A Overvoltage protection, set at 6.2 V ±0.4 V.
- B Non-adjustable 3-terminal regulator.
- C Remote sense provided.
- D With output inhibit and parallel operation master/slave capability.
- E With output inhibit.
- F Adjustable 3-terminal regulator.
- G Can be made into an isolated output by removing jumper W1.
- H Model requires 100 LFM forced-air cooling above 75% of rated output power at 50 degrees C.

* May require jumpering or potentiometer adjustment.

Model numbers highlighted in yellow or shaded are not recommended for new designs.

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Nominal Vout* | Max Amps | Model Input 100 to 264 VAC | Case Type | Additional Features & Notes |
|---|---|---|---|---|
| **5V to 15Vout** | | | | |
| +5, –5 | 1.5, 1.5 | HAA5-1.5/OVP-AG | AA | A |
| +5, –5 | 3, 3 | HBB5-3/OVP-AG | BB | A |
| +5, –5 | 6, 6 | HCC5-6/OVP-AG | CC | A, C |
| 5, 12 to 15 | 2, 0.5 | HAA512-AG | AA | A |
| 5, 12 to 15 | 3, 1.25 | HBB512-AG | BB | A, C |
| 5, 12 to 15 | 6, 2.5 | HCC512-AG | CC | A, C |
| +12, –5* | 1, 0.4 | HAA15-0.8-AG | AA | C |
| +12, –5* | 1.7, 0.7 | HBB15-1.5-AG | BB | C |
| +12, –12 | 0.4, 0.4 | HAD12-0.4-AG | B | B |
| +12, –12 | 1, 1 | HAA15-0.8-AG | AA | C |
| +12, –12 | 1.7, 1.7 | HBB15-1.5-AG | BB | C |
| +12, –12 | 3.4, 3.4 | HCC15-3-AG | CC | C |
| +12, –12* | 5, 5 | HDD15-5-AG | E | C |
| +12, –15* | 1, 0.8 | HAA15-0.8-AG | AA | C |
| +12, –15* | 1.7, 1.5 | HBB15-1.5-AG | BB | C |
| +12, –15* | 3.4, 3 | HCC15-3-AG | CC | C |
| +12, –15* | 5, 5 | HDD15-5-AG | E | C |
| +15, –5* | 0.8, 0.4 | HAA15-0.8-AG | AA | C |
| +15, –5* | 1.5, 0.7 | HBB15-1.5-AG | BB | C |
| +15, –12* | 0.8, 1 | HAA15-0.8-AG | AA | C |
| +15, –12* | 1.5, 1.7 | HBB15-1.5-AG | BB | C |
| +15, –12* | 3, 3.4 | HCC15-3-AG | CC | C |
| 15, –12* | 5, 5 | HDD15-5-AG | E | C |
| **15V to 24Vout** | | | | |
| +15, –15 | 0.4, 0.4 | HAD15-0.4-AG | B | B |
| +15, –15 | 0.8, 0.8 | HAA15-0.8-AG | AA | C |
| +15, –15* | 1.5, 1.5 | HBB15-1.5-AG | BB | C |
| +15, –15* | 3, 3 | HCC15-3-AG | CC | C |
| +15, –15 | 5, 5 | HDD15-5-AG | E | C |
| +24, –24 | 0.6, 0.6 | HAA24-0.6-AG | AA | |
| +24, –24 | 1.2, 1.2 | HBB24-1.2-AG | BB | |
| +24, –24 | 2.4, 2.4 | HCC24-2.4-AG | CC | C |

* May require jumpering or potentiometer adjustment.

| Case Type | Dimensions (Inches) |
|---|---|
| AA | 6.50 x 4.00 x 2.10 |
| B | 4.87 x 4.00 x 2.10 |
| BAA | 10.25 x 4.00 x 2.95 |
| BB | 7.00 x 4.87 x 2.95 |
| C | 5.62 x 4.87 x 2.95 |
| CBB | 11.00 x 4.87 x 3.28 |
| CC | 9.38 x 4.87 x 3.28 |
| CP131 | 11.00 x 4.87 x 3.28 |
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| DBB | 14.25 x 4.87 x 3.38 |
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| N | 7.00 x 4.87 x 3.28 |

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|---|---|
| AA | 165.10 x 101.60 x 53.34 |
| B | 123.70 x 101.60 x 53.34 |
| BAA | 260.35 x 101.60 x 74.93 |
| BB | 177.80 x 123.70 x 74.93 |
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| CBB | 279.40 x 123.70 x 83.31 |
| CC | 238.25 x 123.70 x 83.31 |
| CP131 | 279.40 x 123.70 x 83.31 |
| D | 228.60 x 123.70 x 83.31 |
| DBB | 361.95 x 123.70 x 85.85 |
| DCC | 381.00 x 123.95 x 115.57 |
| E | 355.60 x 123.70 x 89.66 |
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(See Additional Features Column)

A Overvoltage protection, set at 6.2 V ±0.4 V.
B Non-adjustable 3-terminal regulator.
C Remote sense provided.
D With output inhibit and parallel operation master/slave capability.
E With output inhibit.
F Adjustable 3-terminal regulator.
G Can be made into an isolated output by removing jumper W1.
H Model requires 100 LFM forced-air cooling above 75% of rated output power at 50 degrees C.

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Nominal Vout* | Max Amps | Model Input 100 to 264 VAC | Case Type | Additional Features & Notes |
|---|---|---|---|---|
| **Triple Output Models, 5V to 24Vout** | | | | |
| +5, +12, –5* | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +12, –5* | 3, 1, 0.4 | HBAA-40W-AG | BAA | A, C |
| +5, +12, –5* | 6, 1, 0.4 | HCAA-60W-AG | D | A, C |
| 5, +12, –5* | 6, 1.7, 0.7 | HCBB-75W-AG | CBB | C |
| 5, +12, –5* | 8, 1.7, 0.7 | CP131-AG | CP131 | A, C |
| 5, +12, –5* | 12, 1.7, 0.7 | HDBB-105W-AG | DBB | A, C |
| 5, +12, –12 | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +12, –12 | 3, 1, 1 | HBAA-40W-AG | BAA | A, C |
| +5, +12, –12 | 6, 1, 1 | HCAA-60W-AG | D | A, C |
| 5, +12, –12 | 6, 1.7, 1.7 | HCBB-75W-AG | CBB | C |
| 5, +12, –12 | 8, 1.7, 1.7 | CP131-AG | CP131 | A, C |
| 5, +12, –12 | 12, 1.7, 1.7 | HDBB-105W-AG | DBB | C |
| 5, +12, –12 | 12, 3.4, 3.4 | HDCC-150W-AG | DCC | A, C |
| 5, +12, –15* | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +12, –15* | 3, 1, 0.8 | HBAA-40W-AG | BAA | A, C |
| +5, +12, –15* | 6, 1, 1 | HCAA-60W-AG | D | A, C |
| 5, +12, –15 | 6, 1.7, 1.5 | HCBB-75W-AG | CBB | C |
| 5, +12, –15 | 8, 1.7, 1.5 | CP131-AG | CP131 | A, C |
| 5, +12, –15* | 12, 1.7, 1.5 | HDBB-105W-AG | DBB | C |
| 5, +12, –15 | 12, 3.4, 3 | HDCC-150W-AG | DCC | A, C |
| 5, +15, –5* | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +15, –5* | 3, 0.8, 0.4 | HBAA-40W-AG | BAA | A, C |
| +5, +15, –5* | 6, 1, 0.4 | HCAA-60W-AG | D | A, C |
| 5, +15, –5* | 6, 1.5, 0.7 | HCBB-75W-AG | CBB | C |
| 5, +15, –5* | 8, 1.5, 0.7 | CP131-AG | CP131 | A, |
| 5, +15, –5* | 12, 1.5, 0.7 | HDBB-105W-AG | DBB | C |
| 5, +15, –12* | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +15, –12* | 3, 0.8, 1 | HBAA-40W-AG | BAA | A, C |
| +5, +15, –12* | 6, 1, 1 | HCAA-60W-AG | D | A, C |
| 5, +15, –12 | 6, 1.5, 1.7 | HCBB-75W-AG | CBB | C |
| 5, +15, –12 | 8, 1.5, 1.7 | CP131-AG | CP131 | A, C |
| 5, +15, –12* | 12, 1.5, 1.7 | HDBB-105W-AG | DBB | C |
| 5, +15, –12 | 12, 3, 3.4 | HDCC-150W-AG | DCC | A, C |
| 5, +15, –15* | 2, 0.4, 0.4 | HTAA-16W-AG | AA | A |
| 5, +15, –15* | 3, 0.8, 0.8 | HBAA-40W-AG | BAA | A, C |
| +5, +15, –15* | 6, 1, 1 | HCAA-60W-AG | D | A, C |
| 5, +15, –15 | 6, 1.5, 1.5 | HCBB-75W-AG | CBB | C |
| 5, +15, –15 | 8, 1.5, 1.5 | CP131-AG | CP131 | A, C |
| 5, +15, –15* | 12, 1.5, 1.5 | HDBB-105W-AG | DBB | C |
| 5, +15, –15 | 12, 3, 3 | HDCC-150W-AG | DCC | A, C |

* May require jumpering or potentiometer adjustment.

| Case Type | Dimensions (Inches) |
|---|---|
| AA | 6.50 x 4.00 x 2.10 |
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(See Additional Features Column)

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- B Non-adjustable 3-terminal regulator.
- C Remote sense provided.
- D With output inhibit and parallel operation master/slave capability.
- E With output inhibit.
- F Adjustable 3-terminal regulator.
- G Can be made into an isolated output by removing jumper W1.
- H Model requires 100 LFM forced-air cooling above 75% of rated output power at 50 degrees C.

## Input Specifications

| PARAMETER | CONDITIONS/DESCRIPTION | | MIN | NOM | MAX | UNITS |
|---|---|---|---|---|---|---|
| Input Voltage - AC (Note 1, 2) | Jumper selectable, shipped factory configured for 120VAC operation. All models must be externally fused for proper operation. Fuse ratings are marked on each unit. Consult factory for each unit's fuse requirements. | 100 VAC Tap<br>120 VAC Tap<br>220 VAC Tap<br>240 VAC Tap | 87<br>104<br>191<br>209 | 100<br>120<br>220<br>240 | 110<br>132<br>242<br>264 | VAC |
| Input Frequency | AC input. | | 47 | | 63 | Hz |
| Line Regulation | Output voltage charge for a 10% line change: F case models.<br>HAD12, HAD15.<br>Outputs with adjustable three terminal regulators.<br>All other models. | | -0.01<br>-1.0<br>-0.5<br>-0.05 | | +0.01<br>+1.0<br>+0.5<br>+0.05 | % |

**NOTES:** 1) Derate output current 10% for 50Hz operation.
2) Input voltage tolerance for 230VAC operation is +15%, -10%.

## Output Specifications

| PARAMETER | CONDITIONS/DESCRIPTION | MIN | NOM | MAX | UNITS |
|---|---|---|---|---|---|
| Output Adjustment | Minimum output adjustment range (Note 1). | -5 | | +5 | % |
| Efficiency | 5 volt outputs.<br>12 volt and 15 volt outputs.<br>24 volt and higher outputs. | | 45<br>55<br>60 | | % |
| Ripple and Noise (Note 2) | F case models.<br>5 volt, 12 volt, and 15 volt models.<br>All three terminal regulator outputs.<br>24 volt through 250 volt models. | | | 3.0<br>5.0<br>0.2<br>3.0mVPK-PK plus 0.02% of output voltage, max | mVPK-PK<br>mVPK-PK<br>%PK-PK |
| Load Regulation | Output change for a 50% load change: F case models.<br>HAD12, HAD15.<br>Outputs with adjustable three terminal regulators.<br>All other models. | -0.02<br>-1<br>-0.5<br>-0.05 | | +0.02<br>+1<br>+0.5<br>+0.05 | % |
| Transient Response | Recovery time, to within 1% of initial set point due to a 50% load change. | | | 50 | µs |

**NOTES:** 1) **OUTPUT VOLTAGE ADJUSTMENTS:** Output voltage adjustments can be made to within ±5% of factory setting of nominal output voltage. Locate the "Vadj" potentiometer on the power supply PCB and use a screwdriver to adjust the output pot. The HAD12 and HAD15 3 terminal regulator outputs are not adjustable.
2) Full load, 20MHz bandwidth.

## Safety, Regulatory, and EMI Specifications

| PARAMETER | CONDITIONS/DESCRIPTION | | MIN | NOM | MAX | UNITS |
|---|---|---|---|---|---|---|
| Agency Approvals | UL60950-1.<br>CSA 60950-1 "cUL".<br>EN60950-1.<br>IEC60950-1. | | | Approved | | |
| Dielectric Withstand Voltage | Input to output.<br>Input to ground. | | 3000<br>1500 | | | VAC |
| Electromagnetic Interference | FCC CFR title 47 Part 15 Sub-Part B - conducted.<br>EN55022 / CISPR 22 conducted.<br>EN55022 / CISPR 22 radiated. | | | Compatible with system compliance to Level B. | | |
| Leakage Current | Per EN60950 | (264VAC) | | 23 | 50 | µA |

## Interface Signals and Internal Protection

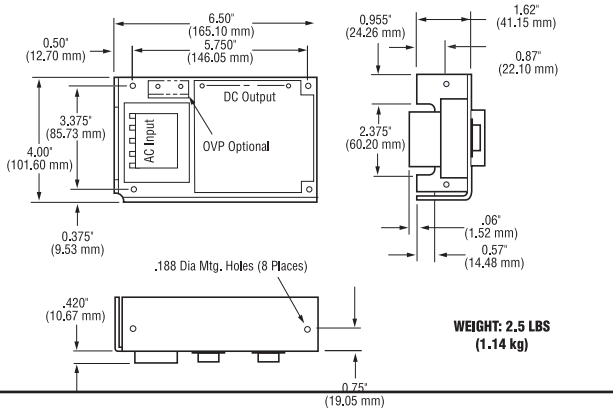
| PARAMETER | CONDITIONS/DESCRIPTION | MIN | NOM | MAX | UNITS |
|---|---|---|---|---|---|
| Overvoltage Protection | Provided on 5 volt output units where indicated.<br>Other outputs may use optional overvoltage protectors OVP-12 and OVP-24. | 5.8 | | 6.6 | V |
| Remote Sense | Total voltage compensation for cable losses with respect to the main output.<br>Provided on models where indicated. | | | 250 | mV |
| Overcurrent/Short Circuit Protection | Automatic current limit/foldback. Rated as a percentage of output power. | 115 | 120 | 140 | % |
| Master/Slave Operation | For parallel operation of up to 6 units. Master/slave pin provided on F case models only. Contact factory for application notes. | | | | |

## Environmental Specifications

| PARAMETER | CONDITIONS/DESCRIPTION | | MIN | NOM | MAX | UNITS |
|---|---|---|---|---|---|---|
| Operating Temperature | Derate output power linearly above 50°C by 3% per °C. | At 100% load | 0 | | 50 | °C |
| | | At 40% load | | | 70 | °C |
| Storage Temperature | | | -40 | | 85 | °C |
| Temperature Coefficient | 0°C to 50°C (after 15 minute warm-up). | | | 0.1 | 0.3 | %/°C |
| | 24 hours after warm-up. | | -0.3 | | +0.3 | % |
| Shock | Operating. | | | | 20 | GPK |
| Vibration | Random vibration from 10 Hz to 2 kHz, 3 axis. | | | | 6.15 | GRMS |
| Relative Humidity | Non-Condensing. | | 5 | | 95 | %RH |

**AA CASE**

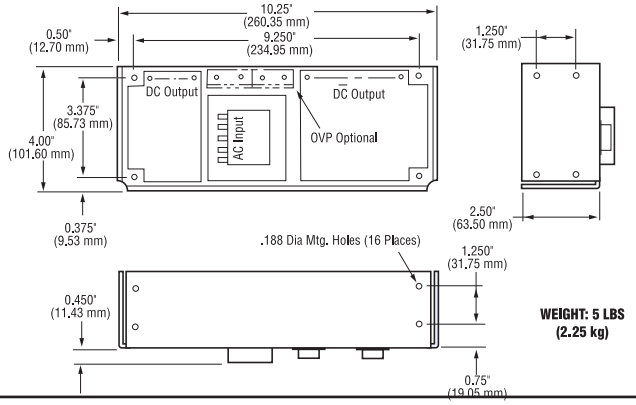
**OVERALL SIZE**
**6.50" x 4.00" x 2.10"**
**(165.10 mm) x (101.60 mm) x (53.34 mm)**




**WEIGHT: 2.5 LBS**
**(1.14 kg)**

**BAA CASE**

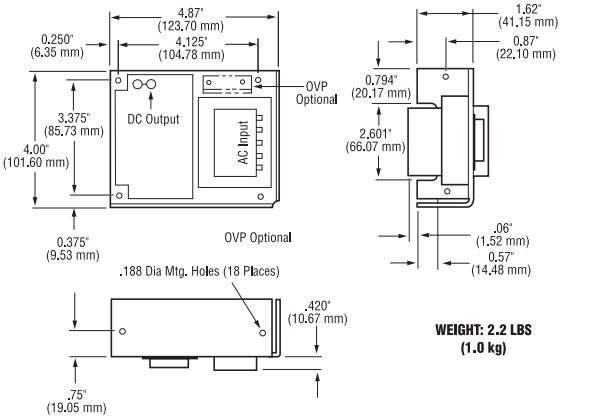
**OVERALL SIZE**
**10.25" x 4.00" x 2.95"**
**(260.35 mm) x (101.60 mm) x (74.93 mm)**




**WEIGHT: 5 LBS**
**(2.25 kg)**

**B CASE**

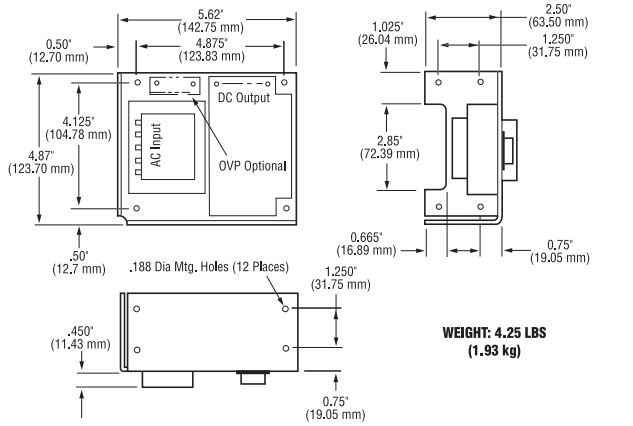
**OVERALL SIZE**
**4.87" x 4.00" x 2.10"**
**(123.70 mm) x (101.60 mm) x (53.34 mm)**




**WEIGHT: 2.2 LBS**
**(1.0 kg)**

**C CASE**

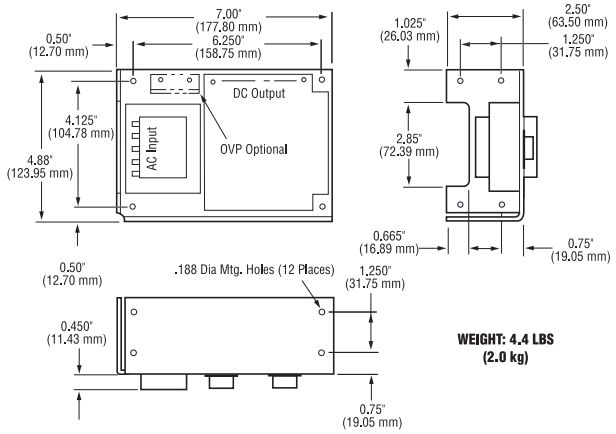
**OVERALL SIZE**
**5.62" x 4.87" x 2.95"**
**(142.75 mm) x (123.70 mm) x (74.93 mm)**




**WEIGHT: 4.25 LBS**
**(1.93 kg)**

## BB CASE

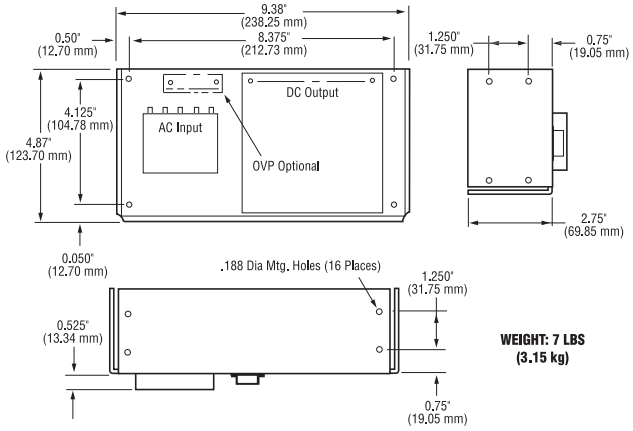
**OVERALL SIZE**
**7.00" x 4.87" x 2.95"**
**(177.80 mm) x (123.70 mm) x (74.93 mm)**




**WEIGHT: 4.4 LBS**
**(2.0 kg)**

## CC CASE

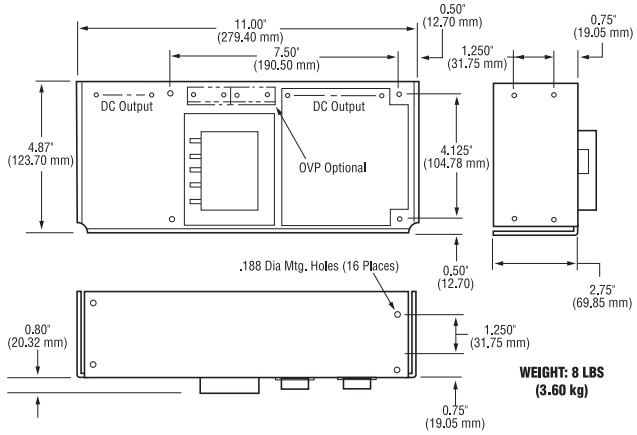
**OVERALL SIZE**
**9.38" x 4.87" x 3.28"**
**(238.25 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 7 LBS**
**(3.15 kg)**

## CBB CASE

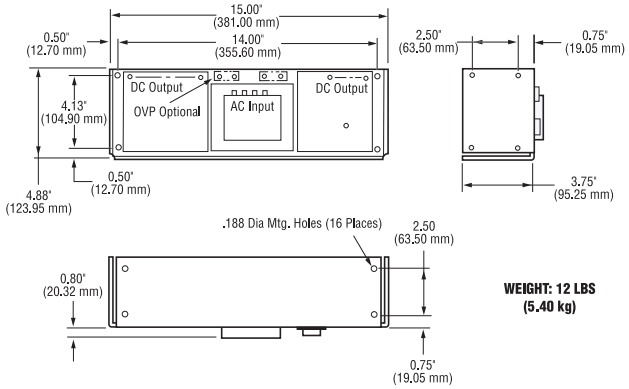
**OVERALL SIZE**
**11.00" x 4.87" x 3.28"**
**(279.40 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 8 LBS**
**(3.60 kg)**

## DCC CASE

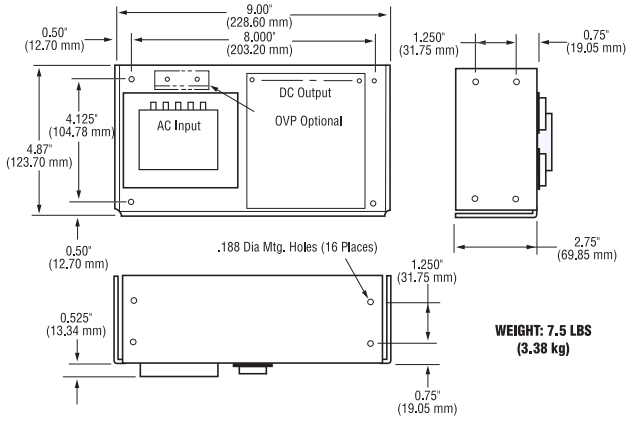
**OVERALL SIZE**
**15.00" x 4.88" x 4.55"**
**(381.00 mm) x (123.95 mm) x (115.57 mm)**




**WEIGHT: 12 LBS**
**(5.40 kg)**

## D CASE

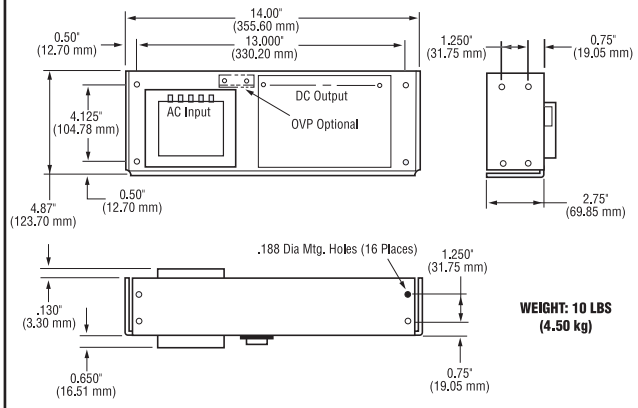
**OVERALL SIZE**
**9.00" x 4.87" x 3.28"**
**(228.60 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 7.5 LBS**
**(3.38 kg)**

## E CASE

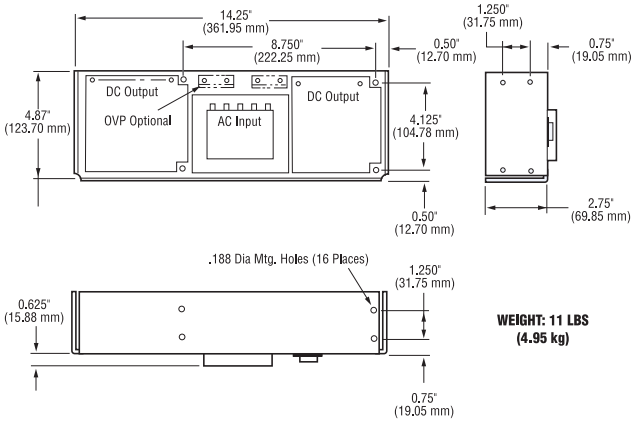
**OVERALL SIZE**
**14.00" x 4.87" x 3.53"**
**(355.60 mm) x (123.70 mm) x (89.66 mm)**




**WEIGHT: 10 LBS**
**(4.50 kg)**

## DBB CASE

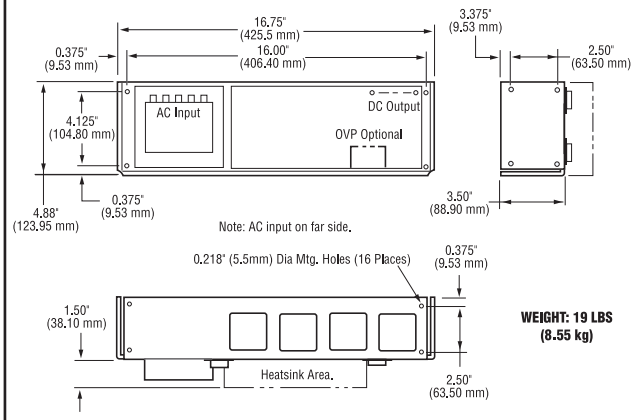
**OVERALL SIZE**
**14.25" x 4.87" x 3.38"**
**(361.95 mm) x (123.70 mm) x (85.85 mm)**




**WEIGHT: 11 LBS**
**(4.95 kg)**

## F CASE

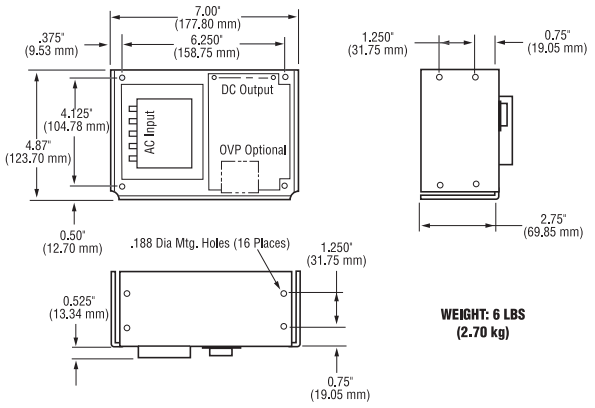
**OVERALL SIZE**
**16.75" x 4.88" x 5.00"**
**(425.5 mm) x (123.95 mm) x (127.00 mm)**




**WEIGHT: 19 LBS**
**(8.55 kg)**

## N CASE

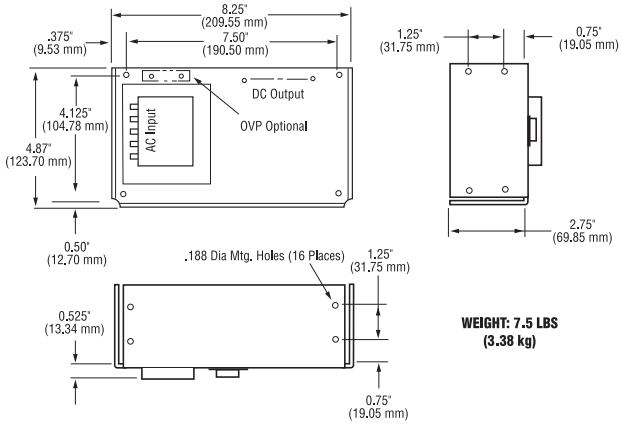
**OVERALL SIZE**
**7.00" x 4.87" x 3.28"**
**(177.80 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 6 LBS**
**(2.70 kg)**

## CP510-A CASE

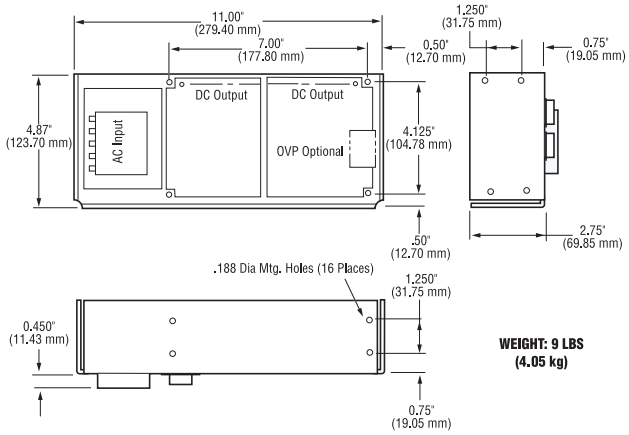
**OVERALL SIZE**
**8.25" x 4.87" x 3.28"**
**(209.55 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 7.5 LBS**
**(3.38 kg)**

## CP131 CASE

**OVERALL SIZE**
**11.00" x 4.87" x 3.28"**
**(279.40 mm) x (123.70 mm) x (83.31 mm)**




**WEIGHT: 9 LBS**
**(4.05 kg)**

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