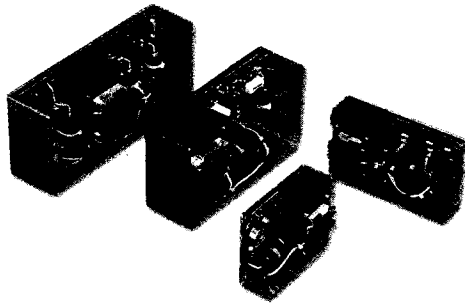


# 15-115 Watts LINEARS

## ACV/ATV Series



### Special Features

- 100% burn-in
- 100% vacuum varnish
- Impregnated transformer
- Cross references with other manufacturers
- Installation instructions/ specification sheet with each unit
- World wide AC input voltage taps
- Built in OVP on 5V output

**Options:**

Overvoltage protection: SCR crowbar module, 6.2 to 34 V

### Environmental & Safety

Operating temperature:

0°C to 50°C (derate at 40% at 70°C)

Storage temperature: -55°C to +85°C

Temperature coefficient:

±0.01% per degree Celsius, typical

Cooling: Natural convection

#### Safety

**TUV** EN60950 (IEC950)

**UL** UL1950

**CSA** CSA22.2 950-M89

CSA22.2 234-M90

**CE** Mark

Designed to meet UL544 specifications.

**Total Power:** 15-115 Watts  
**Input Voltages:** 100-240 VAC  
**No. of Outputs:** 1-3

### Electrical Specs

#### Input

|            |  |
|------------|--|
| AC nominal | 100/120/220/230/240 VAC field selectable           |
| Frequency  | 47 - 63 Hz (single phase).<br>Derate 10% for 50Hz. |
| Efficiency | Up to 60%; 40% typical                             |
| Fusing     | External; see chart                                |

#### Output

|                        |  |
|------------------------|--|
| Line regulation        | 0.05% for 10% line change<br>(entire operating range)  |
| Load regulation        | 0.05% for 50% load change  |
| Voltage adjust         | ± 5% min. all outputs  |
| Ripple                 | RMS: 2 mV, P-P: 3 mV   |
| Stability              | 0.05 % for 24 hours after warm-up  |
| Overshoot              | None   |
| Transient response     | 50 μsec at 50% load changes  |
| EMI-filter             | FCC-Class B & VDE0871 Level B  |
| Remote sense           | Up to 0.5 V-total cable drop;<br>all singles, some multiples                                 |
| Overload protection    | Current foldback with automatic<br>recovery  |
| Overvoltage protection | Standard on all 5V output; factory<br>set at 6.2±0.4V. Other outputs use<br>optional A-OVP-1 |
| Leakage current        | Less than 50 μA  |
| Shock.                 | MIL STD 810C, 516.2 V, 24"   |
| Vibration              | MIL STD 810C, 514.2, X AW  |

AMERICAS

5810 Van Allen Way  
 Carlsbad, CA 92008  
 Telephone: 760-930-4600  
 Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park  
 Merry Hill, Dudley  
 West Midlands, DY5 1LX, UK  
 Telephone: 44 (1384) 842-211  
 Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21  
 Tower1, Metroplaza  
 223, Hing Fong Road  
 Fwai Fong, New Territories  
 Hong Kong  
 Telephone: 852-2437-9662  
 Facsimile: 852-2402-4426



## Ordering Information

| Nominal Output Voltage    | Adj. Range ± V | Max Current 50°C | Case Size | Model Number |
|---------------------------|----------------|------------------|-----------|--------------|
| <b>Single Output</b>      |                |                  |           |              |
| 5 V                       | 0.25           | 3.0 A            | A         | ACV5N3-1     |
| 5 V                       | 0.25           | 6.0 A            | B         | ACV5N6-1     |
| 5 V                       | 0.25           | 9.0 A            | C         | ACV5N9-1     |
| 5 V                       | 0.25           | 12.0 A           | D         | ACV5N12-1    |
| 12 V                      | 0.60           | 1.7 A            | A         | ACV12N1.7    |
| 12 V                      | 0.60           | 3.4 A            | B         | ACV12N3.4    |
| 12 V                      | 0.60           | 5.0 A            | C         | ACV12N5      |
| 12 V                      | 0.60           | 6.8 A            | D         | ACV12N6.8    |
| 15 V                      | 0.75           | 1.5 A            | A         | ACV15N1.5    |
| 15 V                      | 0.75           | 3.0 A            | B         | ACV15N3      |
| 15 V                      | 0.75           | 4.5 A            | C         | ACV15N4.5    |
| 15 V                      | 0.75           | 6.0 A            | D         | ACV15N6      |
| 24 V                      | 1.20           | 1.2 A            | A         | ACV24N1.2    |
| 24 V                      | 1.20           | 2.4 A            | B         | ACV24N2.4    |
| 24 V                      | 1.20           | 3.6 A            | C         | ACV24N3.6    |
| 24 V                      | 1.20           | 4.8 A            | D         | ACV24N4.8    |
| <b>Dual Output</b>        |                |                  |           |              |
| +5 V <sup>1,2</sup>       | 0.25           | 3.0 A            | C         | ACV101       |
| +12 to +15 V <sup>1</sup> | 0.60           | 1.5 to 1.2A      |           |              |
| +5 V <sup>1,2</sup>       | 0.25           | 6.0 A            | D         | ACV103       |
| +12 V <sup>1,2</sup>      | 0.60           | 3.4 A            |           |              |
| ± 12 V                    | 0.60           | 1.0 A            | DA        | ACV12D1      |
| ± 12 V                    | 0.60           | 1.7 A            | DB        | ACV12D1.7    |
| ± 12 V <sup>1,2</sup>     | 0.60           | 3.4 A            | D         | ACV12D3.4    |
| ± 15 V                    | 0.75           | 0.8 A            | DA        | ACV15D0.8    |
| ± 15 V                    | 0.75           | 1.5 A            | DB        | ACV15D1.5    |
| ± 15 V <sup>1,2</sup>     | 0.75           | 3.0 A            | D         | ACV15D3.0    |
| <b>Triple Output</b>      |                |                  |           |              |
| 5 V <sup>1,2</sup>        | 0.25           | 2.0 A            |           |              |
| 12 to 15 V <sup>1</sup>   | 0.60           | 0.4 to 0.32A     | DA        | ATV251       |
| 12 to 15V <sup>1</sup>    | 0.60           | 0.4 to 0.32A     |           |              |
| 5 V <sup>1,2</sup>        | 0.25           | 3.0 A            |           |              |
| +12 to +15 V              | 0.60           | 1.0 to 0.8A      | TB        | ATV351       |
| -12 to -15 V              | 0.60           | 1.0 to 0.8A      |           |              |
| 5 V <sup>2</sup>          | 0.25           | 6.0 A            |           |              |
| +12 to +15 V <sup>2</sup> | 0.60           | 1.0 to 0.8A      | D         | ATV401       |
| -12 to -15 V <sup>2</sup> | 0.60           | 1.0 to 0.8A      |           |              |
| 5 V <sup>1,2</sup>        | 0.25           | 6.0 A            |           |              |
| +12 to +15 V              | 0.60           | 1.8 to 1.4A      | TC        | ATV451       |
| -12 to -15 V              | 0.60           | 1.8 to 1.4A      |           |              |
| 5 V <sup>1,2</sup>        | 0.25           | 9.0 A            |           |              |
| +12 to +15 V              | 0.60           | 1.8 to 1.4A      | TE        | ATV551       |
| -12 to -15 V              | 0.60           | 1.8 to 1.4A      |           |              |
| 5 V                       | 0.25           | 3.0 A            |           |              |
| -5                        | 1.20           | 0.5 A            | TC        | ATV101       |
| +24 <sup>1</sup>          | 1.20           | 3.0 A            |           |              |

<sup>1</sup> Isolated output.  
<sup>2</sup> With remote sense.

| Option                                  | Model   |
|---|---------|
| Universal Overvoltage Protection Module | A-OVP-1 |

**Recommended Trigger Voltages for OVP Module**

| Power Supply Output Voltage | Suggested OVP Trigger Voltage |
|-----------------------------|-------------------------------|
| 5                           | 6.2                           |
| 12                          | 14                            |
| 15                          | 17                            |
| 24                          | 27                            |
| DUAL ±12                    | 27                            |
| DUAL ±15                    | 33                            |

**AC-Input Transformer Tap Connection**

| Input Voltage | Connect   | Power to |
|---------------|-----------|----------|
| 100V          | 1-3 / 2-4 | 1 & 5    |
| 120V          | 1-3 / 2-4 | 1 & 4    |
| 220V          | 2-3       | 1 & 5    |
| 230V          | 2-3       | 1 & 4    |
| 240V          | 2-3       | 1 & 4    |

**Suggested External Fuses**

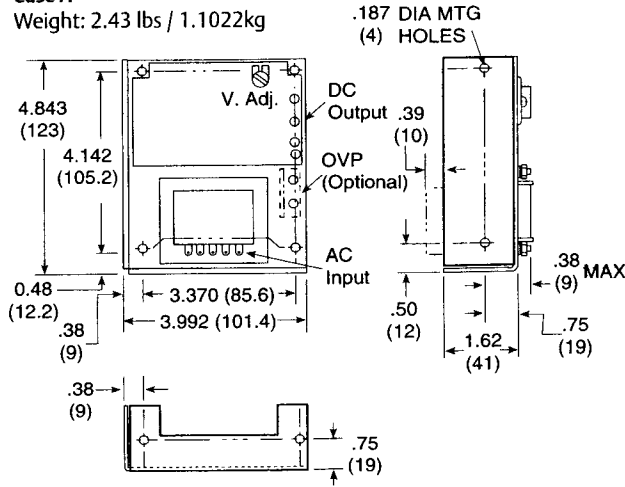
| Case | 115 VAC | 230 VAC |
|------|---------|---------|
| A    | 1 A     | 0.5 A   |
| B    | 1.5 A   | 0.75 A  |
| C    | 2 A     | 1 A     |
| D    | 3 A     | 1.5 A   |
| DA   | 1 A     | 0.5 A   |
| DB   | 1.5 A   | 0.75 A  |
| TB   | 2 A     | 1 A     |
| TC   | 2 A     | 1 A     |
| TE   | 3 A     | 1.5 A   |

# DRAWINGS

LINEARS 15-115 watts  
ACV / ATV

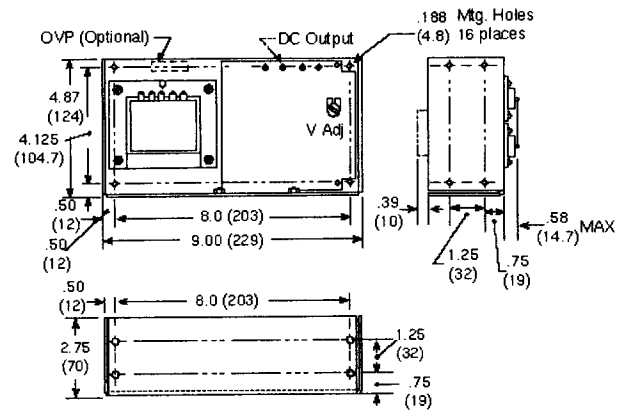
**Case A**

Weight: 2.43 lbs / 1.1022kg



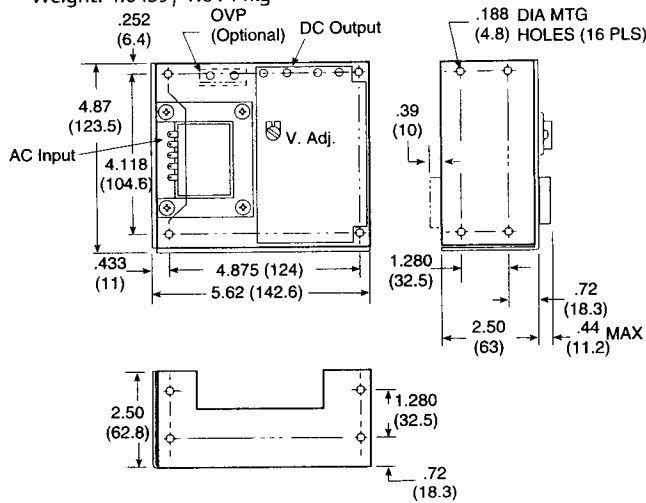
**Case D**

Weight: 7.5 lbs / 3.4019kg



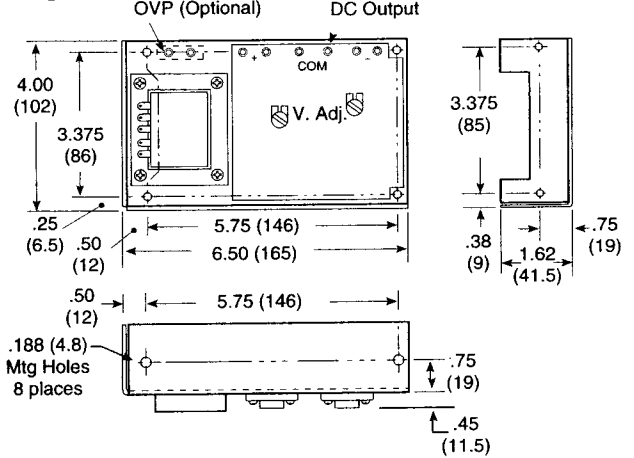
**Case B**

Weight: 4.0 lbs / 1.8144kg



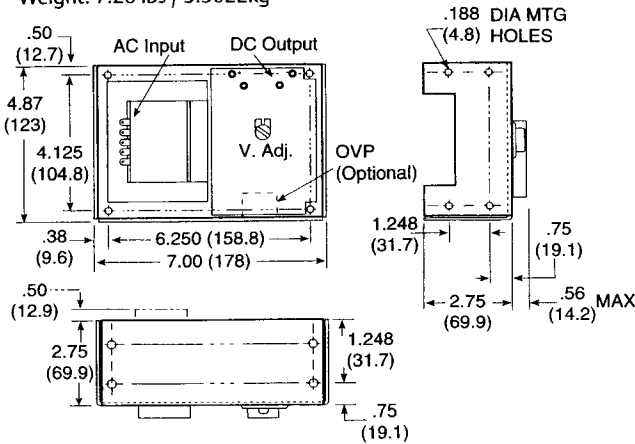
**Case DA**

Weight: 2.2 lbs / 0.9979kg



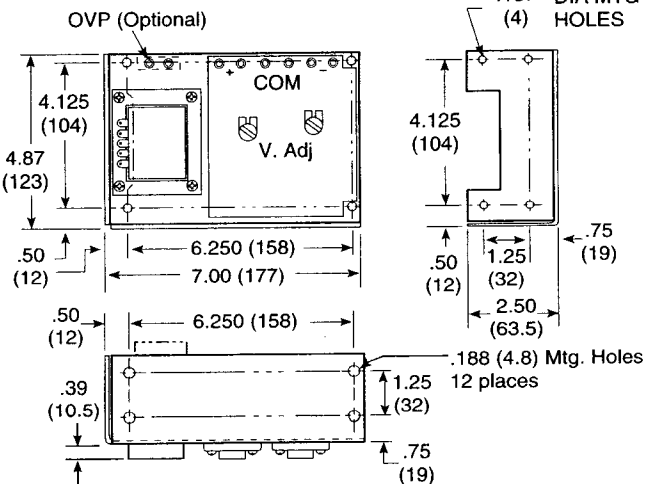
**Case C**

Weight: 7.28 lbs / 3.3022kg



**Case DB**

Weight: 4.4 lbs / 1.9958kg



AMERICAS

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 Carlsbad, CA 92008  
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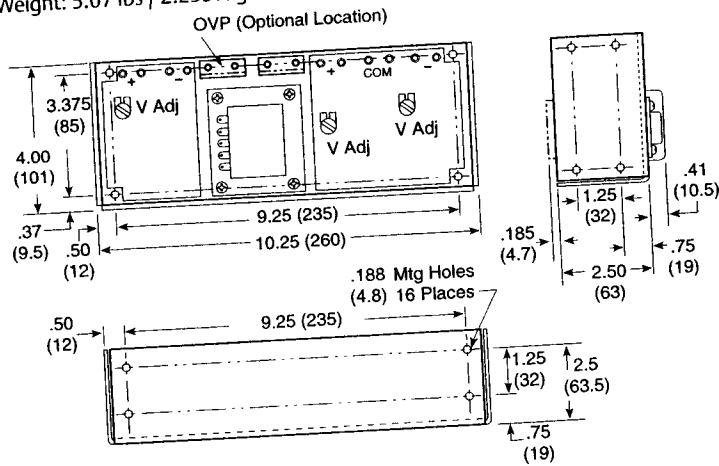
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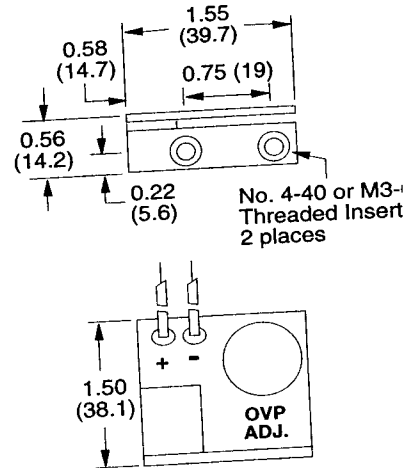
Case TB

Weight: 5.07 lbs / 2.2997kg



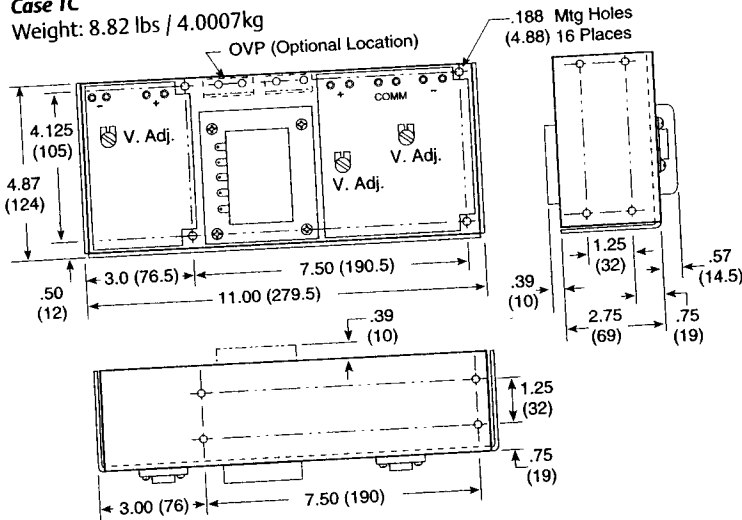
Model No. A-OVP-1

Weight: 0.05 lbs / 0.0227kg



Case TC

Weight: 8.82 lbs / 4.0007kg



Case TE

Weight: 8.82 lbs / 4.0007kg

