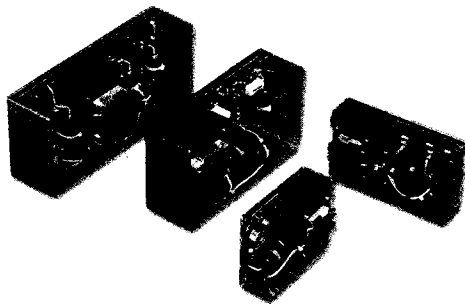


# 15-115 Watts LINEARS

## 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).  
Derate 10% for 50Hz.  
**Efficiency** Up to 60%; 40% typical  
**Fusing** External; see chart

#### Output

**Line regulation** 0.05% for 10% line change  
(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;  
all singles, some multiples  
**Overload protection** Current foldback with automatic  
recovery  
**Overvoltage protection** Standard on all 5V output; factory  
set at 6.2±0.4V. Other outputs use  
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

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Carlsbad, CA 92008  
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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 $\pm$ 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    |

### Dual Output

|                           |      |             |    |           |
|---------------------------|------|-------------|----|-----------|
| +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       |    |           |
| $\pm$ 12 V                | 0.60 | 1.0 A       | DA | ACV12D1   |
| $\pm$ 12 V                | 0.60 | 1.7 A       | DB | ACV12D1.7 |
| $\pm$ 12 V <sup>1,2</sup> | 0.60 | 3.4 A       | D  | ACV12D3.4 |
| $\pm$ 15 V                | 0.75 | 0.8 A       | DA | ACV15D0.8 |
| $\pm$ 15 V                | 0.75 | 1.5 A       | DB | ACV15D1.5 |
| $\pm$ 15 V <sup>1,2</sup> | 0.75 | 3.0 A       | D  | ACV15D3.0 |

### Triple Output

|                           |      |              |    |        |
|---------------------------|------|--------------|----|--------|
| 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 $\pm$ 12               | 27                            |
| DUAL $\pm$ 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

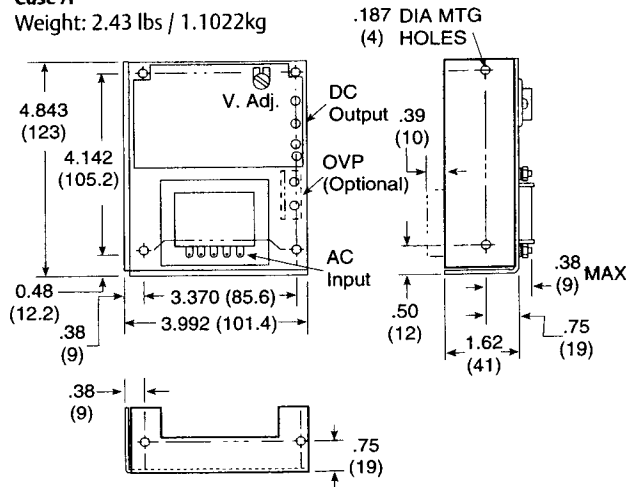
| Case | 115 VAC | 230 VAC |
|------|---------|---------|
| A    | 1 A     | 0.5 A   |
| B    | 1.5 A   | 0.75 A  |
| C    | 2 A     | 1 A     |
| D    | 3 A     | 1.5 A   |
| DA   | 1 A     | 0.5 A   |
| DB   | 1.5 A   | 0.75 A  |
| TB   | 2 A     | 1 A     |
| TC   | 2 A     | 1 A     |
| TE   | 3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

# DRAWINGS

LINEARS 15-115 watts  
ACV / ATV

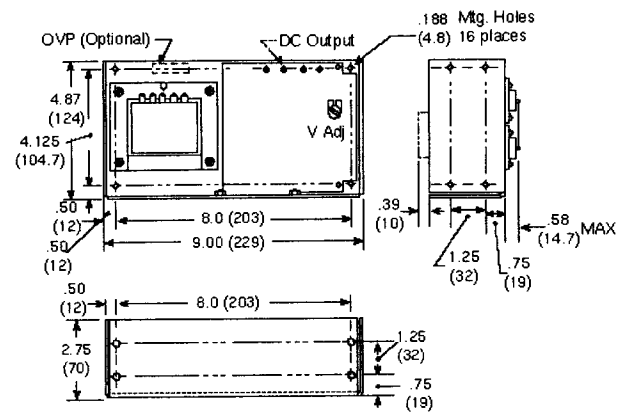
## Case A

Weight: 2.43 lbs / 1.1022kg



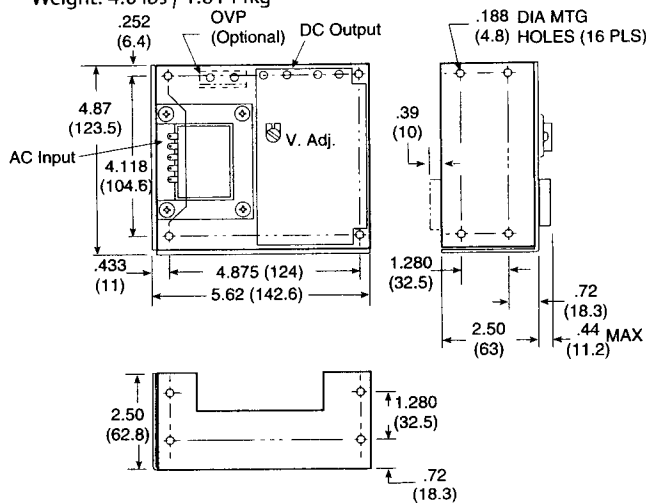
## Case D

Weight: 7.5 lbs / 3.4019kg



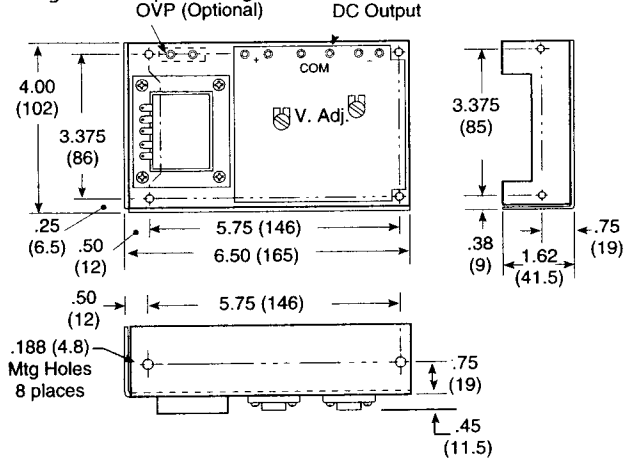
## Case B

Weight: 4.0 lbs / 1.8144kg



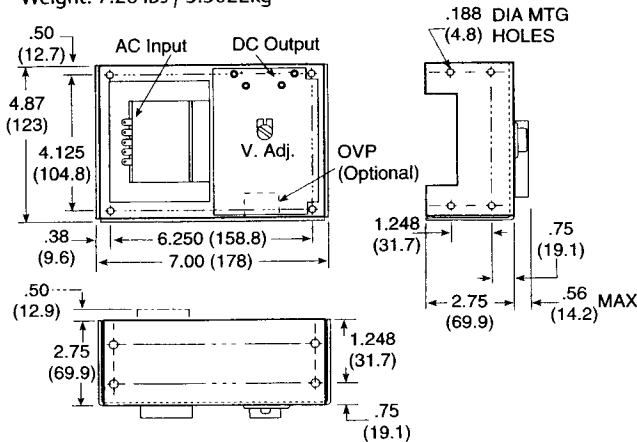
## Case DA

Weight: 2.2 lbs / 0.9979kg



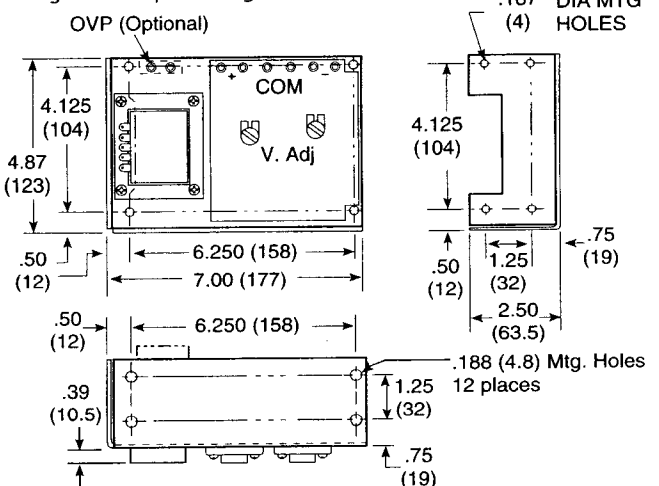
## Case C

Weight: 7.28 lbs / 3.3022kg



## Case DB

Weight: 4.4 lbs / 1.9958kg

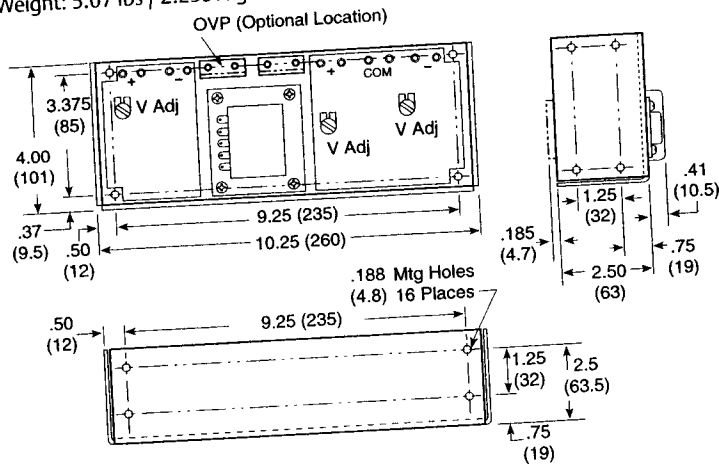




LINEARS

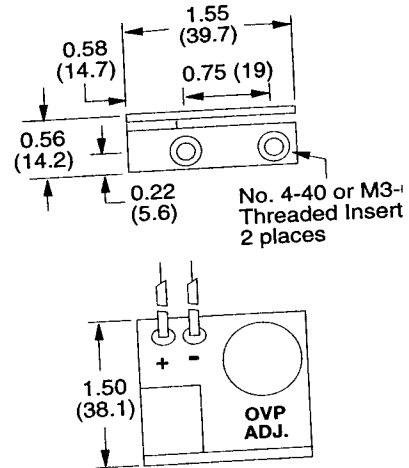
**Case TB**

Weight: 5.07 lbs / 2.2997kg



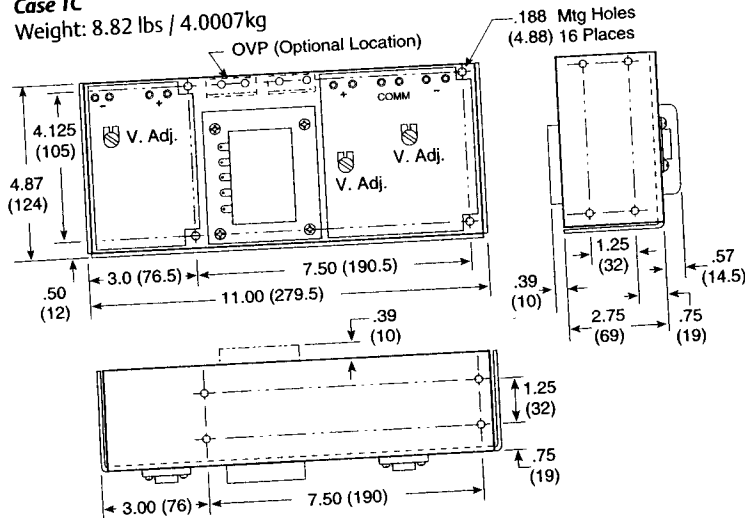
**Model No. A-OVP-1**

Weight: 0.05 lbs / 0.0227kg



**Case TC**

Weight: 8.82 lbs / 4.0007kg



**Case TE**

Weight: 8.82 lbs / 4.0007kg

