



POLYTRON DEVICES, INC.

15 Watt Dual Output DC/DC Converters

LWA15/MHIA Series

15 WATT DUAL OUTPUT

Regulated, 2:1 Input Range

MEDICAL

DC/DC Converters



FEATURES

- **UL and CE Approved**
- **UL60601**
- **CAN/CSA C22.2 No. 601.1**
- **Double Insulation**
- **Wide Operating Temp. Range (-40 to +85° C)**
- **2500 Vdc Input/Output Isolation**
- **Efficiency: 83%**
- **Short Circuit and Over Voltage Protection**
- **6 Sided Continuous Metal Shielding**

Specifications

Typical @ 25°C Under Full Load and Nominal Input Voltage, Unless Otherwise Specified.

■ **INPUT**

Input Voltages 24Vdc.....18-36Vdc

■ **OUTPUT**

Minimum load (note 1)10% of full load
 Voltage Accuracy (Full load and nominal Vin)±1%
 Line Regulation (LL to HL at FL)±1%
 Load Regulation, 10% to 100% FL±2%
 Ripple and Noise (20MHz BW)75mVp-p
 Temperature Coefficient (at FL)±0.02%/°C, max
 Transient Response, 25% load step500uS

■ **GENERAL**

Efficiency83%
 Isolation Voltage2500Vdc, min.
 Isolation Resistance10⁹ Ohms, min.
 Switching Frequency500KHz, typ.
 Protection Overload% of FL at nominal Input
 Input150%, max.
 Short circuithiccup, automatic recovery

■ **ENVIRONMENTAL**

Operating Temperature Range-40 to +85° C (with derating)
 Storage Temperature Range-55 to +105° C
 CoolingFree Air Convection
 EMI/RFISix Sided Continuous Shield

■ **PHYSICAL**

Case Material.....Nickel Coated Copper
 Weight.....27g (0.95 oz.)
 Dimensions2.00" x 1.00" x 0.40" (50.8 X 25.4 X 10.2 mm)

■ **EMC CHARACTERISTICS**

| | | |
|---------------------|-------------|-----------------|
| Conducted emissions | EN55022 | Level A |
| Radiated emissions | EN55022 | Level A |
| Conducted immunity | EN61000-4-6 | Perf. Criteria2 |
| Radiated immunity | EN61000-4-3 | Perf. Criteria2 |
| Surge | EN61000-4-5 | Perf. Criteria2 |
| Fast transient | EN61000-4-4 | Perf. Criteria2 |
| ESD | EN61000-4-2 | Perf. Criteria2 |

"Manufacturer since 1969"

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Selection Guide

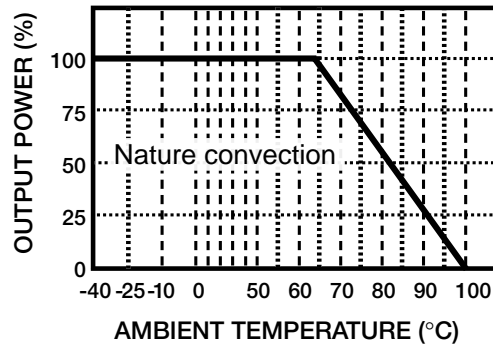
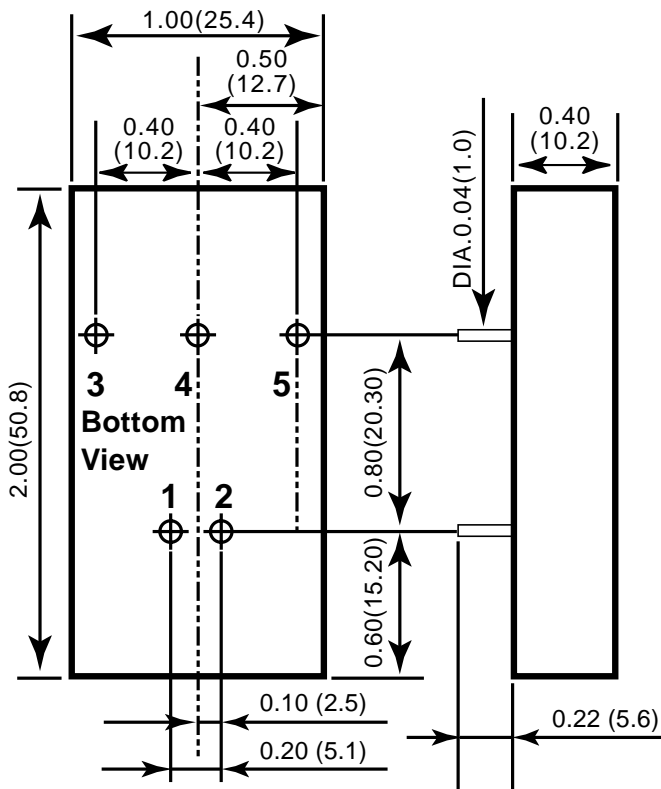
(Continued)

| Input Voltage Nominal (Range) (Vdc) | Output Voltage (Vdc) | Output Current (mA) | Efficiency | Model Number | Case |
|-------------------------------------|----------------------|---------------------|------------|-----------------|------|
| 12 (9-18) | ±12 | ±625 | 83% | LWA15-24-12MHIA | P |

• Other output voltages and currents are available. Contact factory.

① There is a 10% Minimum load requirement on the output to maintain specified regulation. Operation under no-load condition will not damage these devices. However, they may not meet all of the listed specifications.

Mechanical Specifications



| PIN CONNECTIONS | |
|-----------------|--------|
| PIN NO. | DUAL |
| 1 | +Vin |
| 2 | -Vin |
| 3 | +Vout |
| 4 | Common |
| 5 | -Vout |

All dimensions in inches (mm)
Pin Pitch tolerance ±0.014 (0.35)



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