



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
 - 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

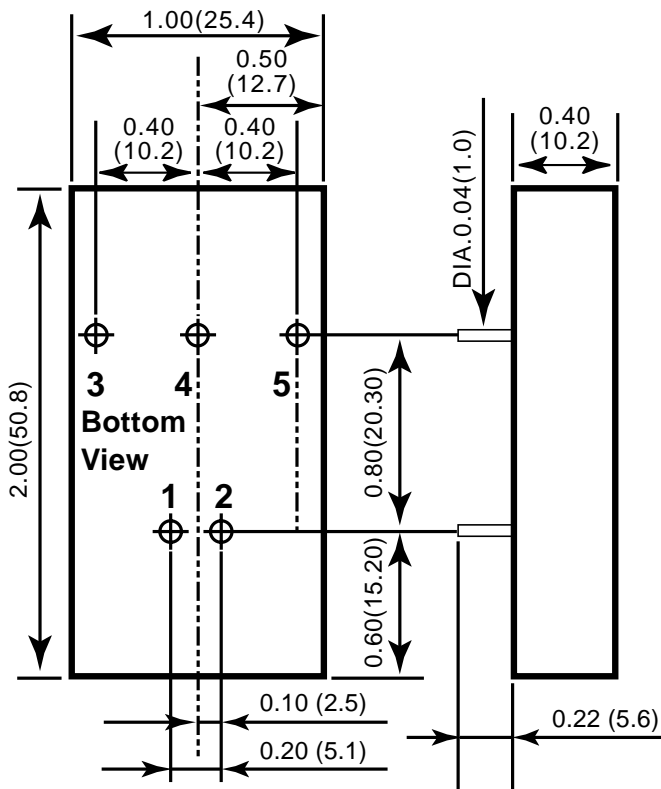
(Continued)

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

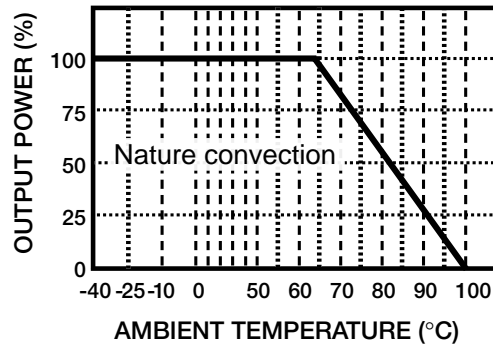
• Other output voltages and currents are available. Contact factory.

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



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



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



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