



# 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 step .....500uS

### ■ GENERAL

Efficiency .....83%  
 Isolation Voltage .....2500Vdc, min.  
 Isolation Resistance .....10<sup>9</sup> Ohms, min.  
 Switching Frequency .....500KHz, typ.  
 Protection Overload .....% of FL at nominal Input  
 Input .....150%, max.  
 Short circuit .....hiccup, automatic recovery

### ■ ENVIRONMENTAL

Operating Temperature Range .....-40 to +85° C (with derating)  
 Storage Temperature Range .....-55 to +105° C  
 Cooling .....Free Air Convection  
 EMI/RFI .....Six Sided Continuous Shield

### ■ PHYSICAL

Case Material.....Nickel Coated Copper  
 Weight.....27g (0.95 oz.)  
 Dimensions .....2.00" 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

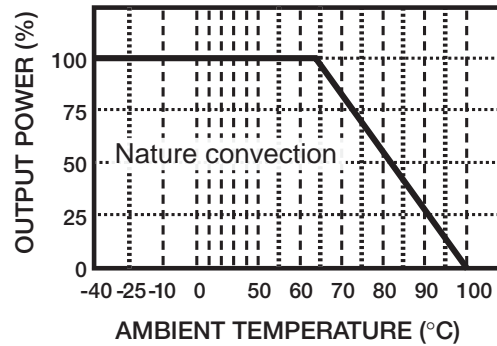
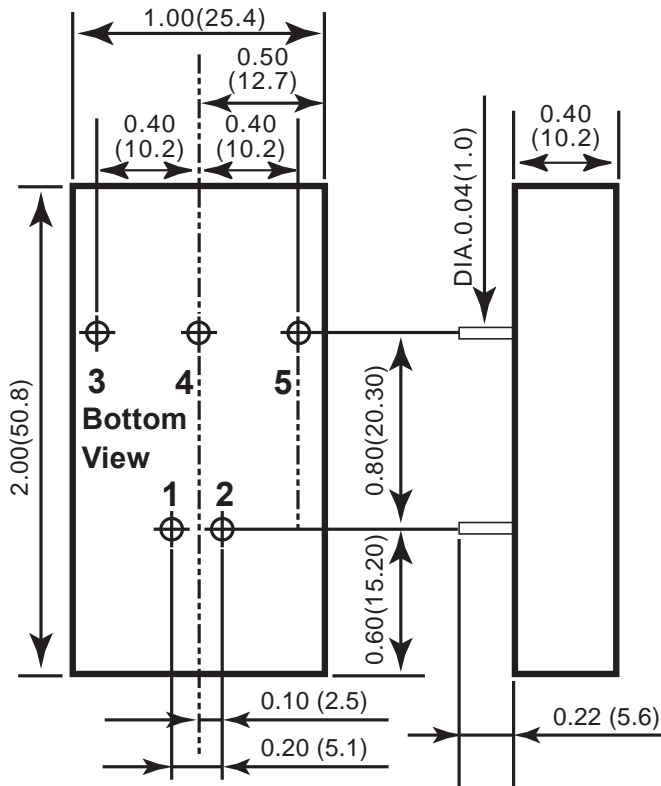
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Input Voltage Nominal (Range) (Vdc)	Output Voltage (Vdc)	Output Current (mA)	Efficiency	Model Number*	Case
12 (9-18)	±12	±625	83%	LWA15-24-12MHIA	P

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

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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