

T-57-11



LWM & WF SERIES

Single Output

- Up to 8 Watt/Cubic Inch
- Ultra-Wide Input Range
- Efficiencies to 89%
- Constant Switching Frequency 75 kHz
- Economically Priced
- Six-Sided Shield

The New LWM Series of Switching Regulators offer many advantages over the older WM Series. Using a 75 kHz fixed frequency controller our engineers were able to significantly improve the performance, while reducing case sizes to $2.56 \times 3.0 \times 0.38$ inches high and $2.56 \times 3.0 \times 0.83$ inches high with power densities to 8 watts per cubic inch. There are two output power levels available in the LWM Series covered by six different models. Key features of the LWM Series include an input filter to suppress input reflected ripple current, output over-voltage protection by clamping, input surge protection to 60V, and output short circuit protection. Output voltage can be externally adjusted by $\pm 10\%$. Other features on the higher power LWM series are logic on/off control and remote sensing capability. For lower power applications the WF Series offers similar features in a compact $2.0 \times 2.0 \times 0.38$ inches size case.

COMPUTER PRODUCTS™
STEVENS-ARNOLD INC.

(617) 268-1170

SPECIFICATIONS

All Specifications Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

OUTPUT SPECIFICATIONS

Voltage Accuracy, LWM	±1.0%, max.
WF	±2.0%, max.
External Trim Range	±10.0%
Temperature Coefficient, LWM	±0.02%, max.
WF	±0.1%, max.
Voltage Stability, 24 Hr., LWM	±0.05%, max.
WF	±0.5%, max.
Short Circuit Protection	
Output to Common	Continuous
Overvoltage Protection	All Models
Ripple/Noise, 20 MHz BW	
LWM	60 mV P-P, 15 mV RMS, max.
WF	60 mV P-P, 10 mV RMS, max.

INPUT SPECIFICATIONS

Input Voltage Range	See Table
Input Filter, WF	Low ESR Cap.
LWM, XA Case	Low ESR Cap.
LWM, XC Case	Pi Network
Voltage Reversal	Not Protected

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation	Not Galvanically Isolated
Minus Input Connected Minus Output	
Switching Frequency, LWM	75 kHz
WF	100 kHz
Input Idle Current During Shutdown	10 mA

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature Range	−25°C to +71°C
Derating	None
Storage Temperature Range	−55°C to +105°C
Cooling	Free-Air Convection

PHYSICAL SPECIFICATIONS

Weight	
XA Package	4 oz. (114 grams)
XC Package	7.5 oz. (213 grams)
Z Package	3.5 oz. (99 grams)
Case Material	Black Coated Copper with Non-Conductive Base
Mating Socket	MS-X, MS-Z

REMOTE ON/OFF CONTROL, LWM XC Models

Logic Compatibility	CMOS or Open Collector TTL
E _c -ON, 5V Models	4.2 VDC or Open Circuit
12 & 15 V Models	9.6 VDC or Open Circuit
E _c -OFF, 5V Models	3.5 VDC
12 & 15 V Models	9.0 VDC
Control Input Resistance	100k ohms

TWO-YEAR WARRANTY


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5 & 15 to 45 Watt DC/DC Converters

INPUT VOLTAGE ¹	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT ¹		% EFF	REGULATION ²		CASE	MODEL NUMBER
			NO LOAD	FULL LOAD		LINE ³	LOAD ⁴		
7-40 VDC	5 VDC	3000 mA	20 mA	1570 mA	80	±0.5%	±0.5%	XA	LWM12S05/3000XA
7-40 VDC	5 VDC	5000 mA	20 mA	2600 mA	80	±0.5%	±0.5%	XC	LWM12S05/5000XC
14-40 VDC	12 VDC	2000 mA	20 mA	1180 mA	85	±0.5%	±0.5%	XA	LWM24S12/2000XA
14-40 VDC	12 VDC	3500 mA	20 mA	2010 mA	87	±0.5%	±0.5%	XC	LWM24S12/3500XC
17-40 VDC	15 VDC	1500 mA	20 mA	1080 mA	87	±0.5%	±0.5%	XA	LWM24S15/1500XA
17-40 VDC	15 VDC	3000 mA	20 mA	2110 mA	89	±0.5%	±0.5%	XC	LWM24S15/3000XC
7-32 VDC	5 VDC	1000 mA	16 mA	555 mA	75	±0.5%	±1.0%	Z	WF12S05/1000Z

NOTES: For Remote On/Off Control in XA Package, Consult Factory.

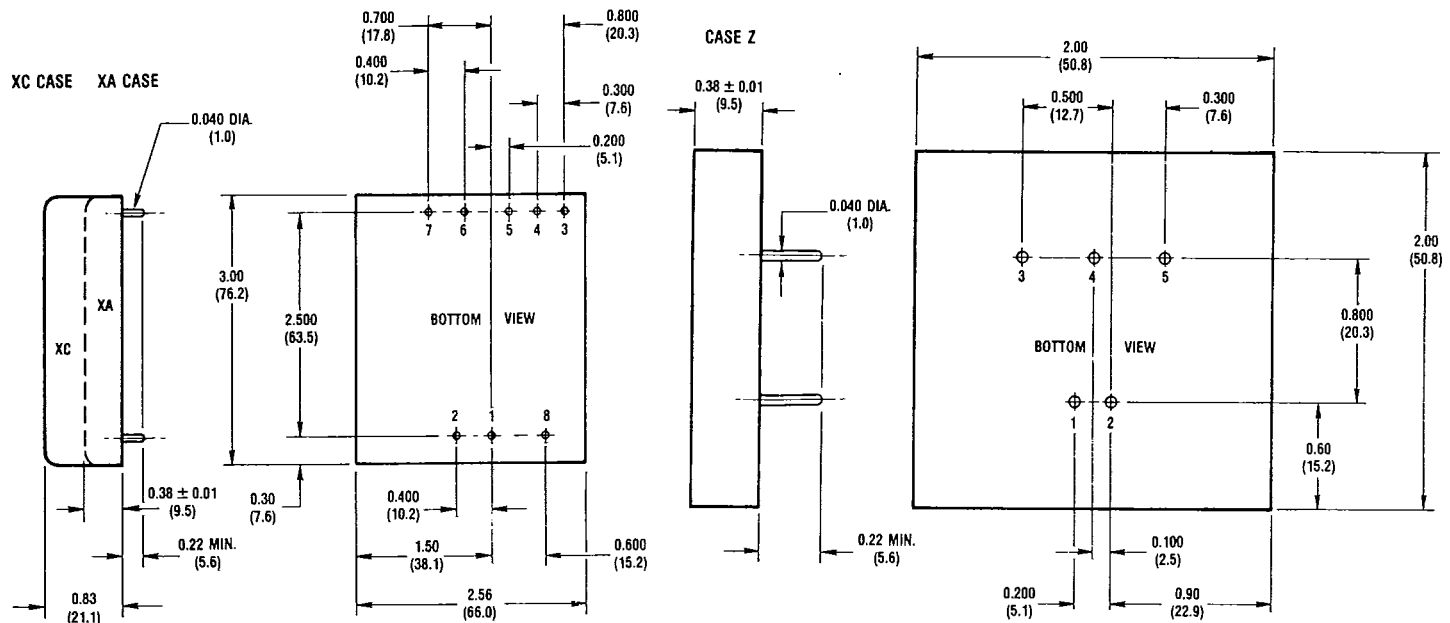
Other Input/Output Combinations Available. Consult Factory.

1. Nominal input 12, 24 VDC.

2. Maximum.

3. Measured from High Line to Low Line.

4. Measured from Full Load to No Load.



ALL DIMENSIONS IN INCHES (mm)

Pin Connections			
Pin	XC Case	XA Case	Z Case
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	Output Sense +	Output Trim Down	+ Output
4	Output Trim	Output Trim	Output Trim
5	Output Sense -	Output Trim up	- Output
6	+ Output	+ Output	No Pin
7	- Output	- Output	No Pin
8	Remote On/Off	No Pin	No Pin

 Tolerance .xx = ±0.04
 .xxx = ±0.005
