

## PM700 SERIES

Single and dual output

Recommended for new design-ins

- **62% typical efficiency**
- **Low output ripple and noise**
- **Pi input filter**
- **No derating**
- **Short circuit protection**
- **Meets VDE 0871 level B**



This series of general purpose DC/DC converters from Computer Products includes three single output and four dual output models. The PM700 series provides excellent voltage regulation and isolation with low ripple and noise at three Watts output power. These compact modules contain pi input filters to minimise reflected ripple current. Other important specifications include: a minimum efficiency of 61%; line regulation of  $\pm 0.02\%$ ; load regulation of  $\pm 0.04\%$ ; low ripple and noise 10mV pk-pk; 500VDC isolation; and an output voltage accuracy of  $\pm 1.0\%$ .

[ 2 YEAR WARRANTY ]

## SPECIFICATION All specifications are typical at nominal input, full load at 25°C unless otherwise stated

OUTPUT SPECIFICATIONS		
Voltage accuracy		$\pm 1.0\%$ , max.
Voltage balance	Dual output	$\pm 0.5\%$ , max.
Line regulation	Full range	$\pm 0.02\%$
Load regulation	NL to FL	$\pm 0.04\%$
Ripple and noise 20 MHz BW	Single output	10 mV typical, 50mV max.
	Dual output	6 mV typical, 35mV max.
Transient response	NL-FL, All outputs	200mV peak dev., 10 $\mu$ s recovery
	FL-NL, Singles	300mV peak dev., 200 $\mu$ s recovery
	FL-NL, Duals	20 $\mu$ s recovery
Temperature coefficient		$\pm 0.02\%/^{\circ}\text{C}$ , max.
Short circuit protection		Automatic restart, 8 hours max.
INPUT SPECIFICATIONS		
Input voltage range		See table on facing page
Input filter	See Note 3	Pi network

ELECTROMAGNETIC COMPATIBILITY SPECIFICATIONS		
Conducted noise	EN55022, EN55011	VDE0871 Level B
GENERAL SPECIFICATIONS		
Efficiency	FL and nominal input	61%, min.
	FL and nominal input	62%, typical
Isolation voltage		500VDC, min.
Switching frequency		20kHz, min.
Case material		Non-conductive black plastic
Weight		57g (2oz.)
MTBF		680,000 Hours
ENVIRONMENTAL SPECIFICATIONS		
Thermal performance	Operating ambient	-25°C to +71°C
	Non-operating amb.	-40°C to +125°C
	Case	+95°C max
	Derating Cooling	None Free air convection
Relative humidity	Non-condensing	20% to 80% RH
Altitude	Operating	10,000 feet max.
	Non operating	40,000 feet max.
Vibration		2.5G rms (approx.) 5Hz to 500Hz

# 3 Watt Nominal input DC/DC converters

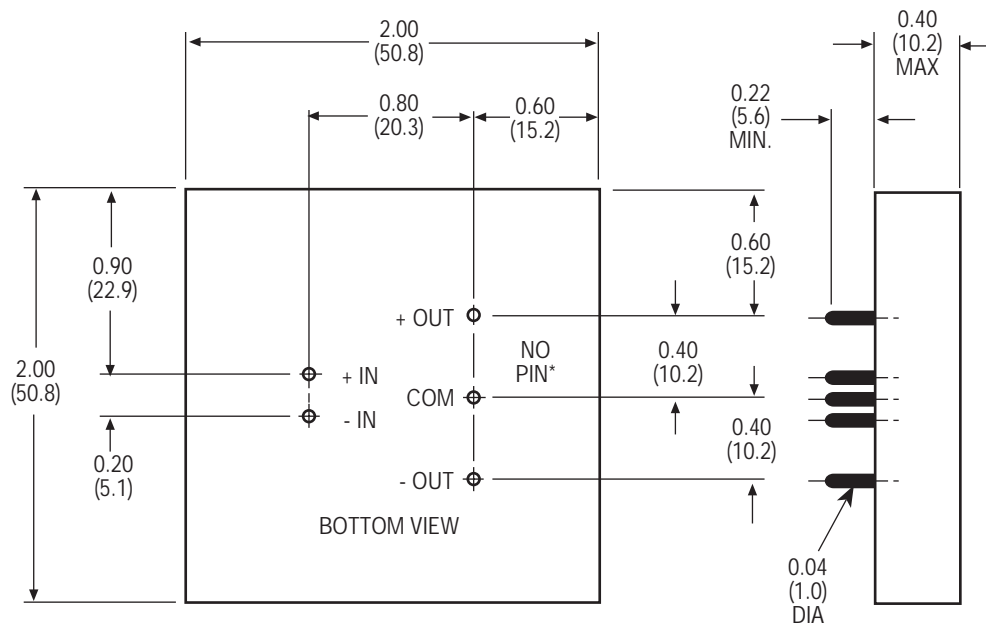
INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		REFLECTED RIPPLE CURRENT (1)	REGULATION		MODEL NUMBER
			NO LOAD	FULL LOAD		LINE	LOAD	
5VDC	5VDC	600mA	125mA	935mA	32mA pk-pk	±0.02%	±0.04%	PM701
5VDC	±15VDC	±100mA	135mA	955mA	33mA pk-pk	±0.02%	±0.02%	PM752
12VDC	5VDC	600mA	50mA	364mA	24mA pk-pk	±0.02%	±0.04%	PM711
12VDC	±15VDC	±100mA	55mA	376mA	24mA pk-pk	±0.02%	±0.02%	PM762
24VDC	5VDC	600mA	25mA	163mA	22mA pk-pk	±0.02%	±0.04%	PM721
24VDC	±12VDC	±125mA	25mA	170mA	23mA pk-pk	±0.02%	±0.02%	PM771
24VDC	±15VDC	±100mA	30mA	168mA	22mA pk-pk	±0.02%	±0.02%	PM772

## Notes

- Figures are peak to peak.
- Standard specifications are conservative and can be optimised for specific applications. In particular, converter start-up at lower than specified temperature, wider input voltage range and output voltage adjustment are all relatively simple modifications to the standard product. Consult factory for details.
- Fixed frequency design provides for easier input filtering and better noise performance.

INPUT VOLTAGE	60% FL	80% FL	100%FL
5V	4.4 to 6.5V	4.5 to 6.0V	4.65 to 5.5V
12V	10.56 to 15.6V	10.8 to 14.4V	11.16 to 13.2V
24V	21.12 to 31.2V	21.6 to 28.8V	22.32 to 26.4V

## Standard Pin Configuration



ALL DIMENSIONS IN INCHES (mm)

\* NO PIN ON SINGLE MODELS