

# MT SERIES

## 50, 100 AND 150 WATTS OUTPUT METAL CASE DC-TO-DC CONVERTERS

### Key Superior Features

- **Five-sided Metal Case**  
(For Reduced EMI)
- **Over-Temperature Protection**  
(Thermal shutdown)
- **Over-Voltage Protection**
- **Total Isolation**  
(Input, Output & Cover)
- **Up to 90% efficiency**
- **375 Khz fixed frequency**
- **Broad Input Voltage Options**  
(24, 48, 150, 300V)
- **“Power-good” Signal**



### Additional Features

- Compatible with Lucent FC/FW Series
- Remote sense
- Remote Shut Down (ON/OFF Function)
- Parallel operation with load sharing
- Over-current protection
- Low output ripple and noise
- 90°C Maximum Operating Temperature
- Excellent transient response
- MTBF > 1,000,000 hours (35°C, G<sub>B</sub>)
- Trimmable output (+10%, -10%)
- UL (USA, Canada), VDE approved

### Summary Typical Characteristics

Set Point Accuracy	0.5%
Load/Line Regulation	0.05%
Output Drift with Temperature (per °C)	0.01%
Long Term Drift (per 1,000 hours)	0.2%
Switching Frequency	375 KHZ
Output Ripple - pp	1%
Output Voltage Trim Range	90 to 110%
Remote Sense Compensation	0.5V
Current Limit	130%
Short Circuit Current	145%
OVP Set Point	130%
Efficiency	80 to 90%
Input to Output Isolation	1,500 VDC
Input to Output Capacitance	1,700 pF
Weight	9.5 oz (270 gms)



**POWERCUBE**  
A NATEL COMPANY

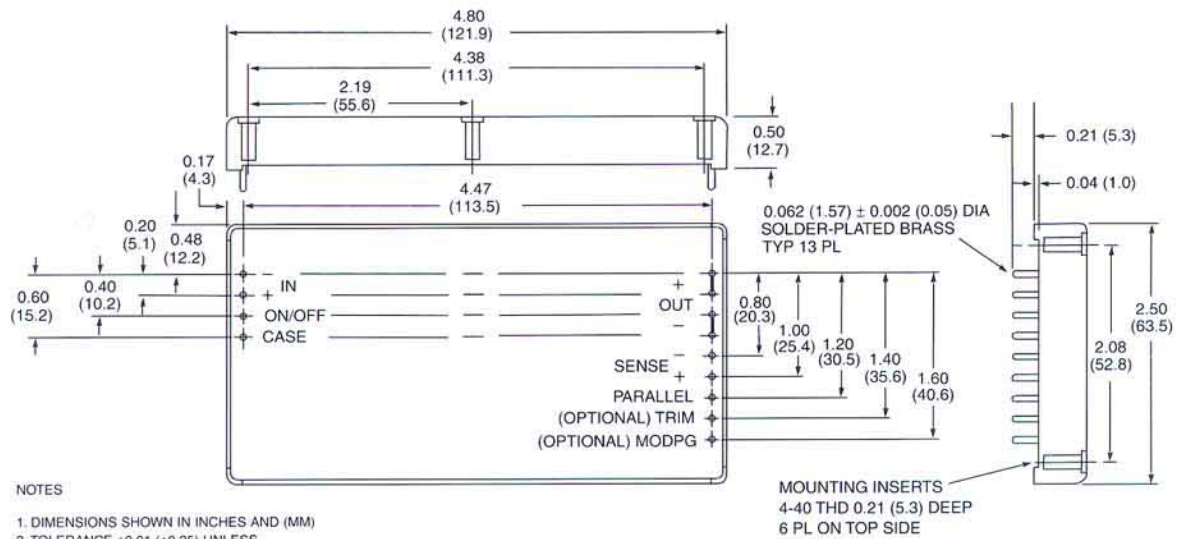
[www.powercube.com](http://www.powercube.com)

TEL: 1-800-866-3590 • FAX: 1-800-866-3589

9340 OWENSMOUTH AVENUE • CHATSWORTH • CALIFORNIA 91311

**ISO 9001**

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## NOTES

1. DIMENSIONS SHOWN IN INCHES AND (MM)
2. TOLERANCE  $\pm 0.01$  ( $\pm 0.25$ ) UNLESS OTHERWISE SPECIFIED

MECHANICAL OUTLINE

## Ordering Information

MT	W	-	I	-	O	G	-	S	T	P
Output Wattage	Input Voltage	Output Voltage	Performance Grade	Shutdown	Trim	Power-good				
050 = 50 Watts	024 = 24 V (18-36V)	03 = 3.3 V*	C = Commercial (-20°C to +90°C)	N = Negative Logic P = Positive Logic	T = Trim O = No Trim	P = "Power-good" signal O = No "Power-good" signal				
100 = 100 Watts	048 = 48 V (36-72V)	05 = 5.0 V	I = Industrial (-40°C to +90°C)							
150 = 150 Watts	150 = 150 V (100-200V)	12 = 12 V	M = Military (-55°C to +90°C)							
	300 = 300 V (200-400V)	15 = 15 V								
		24 = 24 V								
		28 = 28 V								

\* Outputs less than 5V are limited to 30A for 150W; 20A for 100W, and; 10A for 50W outputs.

## Other Products

- Autorange Universal Front-end Module** 500/750 Watts & 1000/1500 Watts **AC-to-DC Converters** in a very small size (1.45"x2.28"x0.5"), models UFM500/UFM1K.
- DC-to-DC Converters** available from Powercube in "full-brick" size (4.6"L X 2.4"W).
  - 50, 100, 150 and 200 Watts DC-to-DC Converters PD200 Series "full-brick" size (4.6"L X 2.4"W X 0.5"H) as a direct replacement for the industry's most popular devices.
  - 300 Watts, "full-brick" size, DC-to-DC Converters with four threaded holes for additional heatsink, as well as versatile mounting (TD300 Series).
- DC-to-DC Converters** available from Powercube in "half-brick" size (2.28"L X 2.4"W).
  - Low Profile (0.4" height), High Density 150 Watts output DC-to-DC Converters (PD150 Series).
  - 25, 50, 75 and 100 Watts DC-to-DC Converters as direct replacement for the industry's most popular devices (LPD150 Series).
  - 25, 50, 75, 100 and 150 Watts DC-to-DC Converters with four threaded holes for additional heatsink, as well as versatile mounting (TD Series).
  - 300 Watts High Density, "full-brick" size (4.6"L X 2.4"W X 0.5"H) PD301 Series.



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