



MT3

3 WATT DC/DC CONVERTER, SINGLE & MULTIPLE OUTPUTS



FEATURES

- ▶ 5 SIDED METAL CASE
- ▶ WIDE INPUT VOLTAGES
- ▶ HIGH EFFICIENCY AND RELIABILITY
- ▶ SINGLE AND DUAL OUTPUTS
- ▶ REGULATED OUTPUTS
- ▶ INTERNAL EMI FILTER
- ▶ LOW OUTPUT RIPPLE AND NOISE
- ▶ SHORT CIRCUIT PROTECTION
- ▶ DIRECT PCB-SOLDERING
- ▶ INDUSTRY STANDARD PINOUT (IC-24P)
- ▶ LOW PROFILE, 10mm (0.39") HEIGHT
- ▶ REMOTE CONTROL FUNCTION
- ▶ (ULTRA-WIDE INPUT RANGE MODELS)
- ▶ FIVE YEAR WARRANTY

EMI

Complies with: **CISPR CLASS A**

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load

INPUT SPECIFICATIONS

Input Voltage
 Wide Range - 2:1..... 5V/12V/20V/24V/48VDC
 Ultra Wide Range - 4:1..... 9-36VDC, 18-72VDC
 Input Filter..... PI-Network

OUTPUT SPECIFICATIONS

Output Voltage Accuracy..... Wide Range - 2:1 $\pm 5\%$
 Ultra Wide Range - 4:1 $\pm 2\%$
 Over-Current Protection..... Built-in (Automatic Recovery)
 Ripple Wide range- 2:1 150 mVp-p (DC to 20MHz)
 Ultra Wide Range - 4:1 100 mVp-p (DC to 20MHz)
 Line Regulation..... 1.0% max.
 Line Filter..... Built-in
 Remote Control..... Built-in
 Load Regulation..... Wide Range - 2:1
 1% max. Single Output
 5% max. Dual Output
 Ultra Wide Range - 4:1
 5% max.

GENERAL SPECIFICATIONS

Isolation Voltage
 Primary to Secondary..... DC 500V/ 1min. 5mA
 Primary to Case..... DC 500V/ 1min. 5mA
 Secondary to Case..... DC 500V/ 1min. 5mA
 MTBF..... >1,000,000 hours
 Isolation Resistance..... Input-Output-Case 50M-ohms min.
 (Measured at 500 VDC)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature -25°C ~ +71°C
 Case Temperature +91°C
 Temperature Coefficient..... $\pm 0.05\%$ / °C
 Humidity..... 30%~95% RH
 Storage Temperature..... Wide Range - 2:1 -25°C ~ +85°C
 Ultra Wide Range - 4:1 -40°C ~ +100°C

PHYSICAL SPECIFICATIONS

Case Material..... Nickel-Plated Steel
 Dual In-Line Pin Configuration

Series

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. TYP.	PIN TYPE
MT3-0503SI	5VDC (4.5 - 7V)	3.3VDC	650mA	69%	A
MT3-0505SI		5VDC	500mA	72%	
MT3-0512SI		12VDC	240mA	74%	
MT3-0512WI		±12VDC	±120mA	74%	
MT3-0515WI		±15VDC	±95mA	74%	
MT3-1203SI	12VDC (9.5-18V)	3.3VDC	750mA	71%	
MT3-1205SI		5VDC	550mA	73%	
MT3-1212SI		12VDC	250mA	78%	
MT3-1212WI		±12VDC	±125mA	78%	
MT3-1215WI		±15VDC	±100mA	78%	
MT3-2003SI	12/24VDC (10-30V)	3.3VDC	700mA	72%	
MT3-2005SI		5VDC	550mA	75%	
MT3-2012SI		12VDC	250mA	80%	
MT3-2012WI		±12VDC	±125mA	80%	
MT3-2015WI		±15VDC	±100mA	80%	
MT3-2403SI	24VDC (18-36V)	3.3VDC	750mA	76%	
MT3-2405SI		5VDC	550mA	80%	
MT3-2412SI		12VDC	250mA	82%	
MT3-2412WI		±12VDC	±125mA	83%	
MT3-2415WI		±15VDC	±100mA	83%	
MT3-4803SI	48VDC (36-72V)	3.3VDC	750mA	76%	
MT3-4805SI		5VDC	550mA	80%	
MT3-4812SI		12VDC	250mA	82%	
MT3-4812WI		±12VDC	±125mA	82%	
MT3-4815WI		±15VDC	±100mA	83%	

TYPE A: SINGLE OUTPUT

1, 24	INPUT + V
12, 13	INPUT - V
11, 14	OUTPUT + V
10, 15	OUTPUT - V
2, 23	NC
3, 22	NC

TYPE A: DUAL OUTPUT

1, 24	INPUT + V
12, 13	INPUT - V
11, 14	OUTPUT1 + V
10, 15	COMMON
2, 23	OUTPUT2 - V
3, 22	COMMON



NOTE:

All specifications typical and nominal / full load and 25°C unless otherwise noted.
 Avoid sustained operation in overload or dead short conditions.
 Specifications subject to changes without notice.

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EEF. TYP.	PIN TYPE
MT3-DH05SI MT3-DH12SI MT3-DH15SI MT3-DH05WI MT3-DH12WI MT3-DH15WI	12/24VDC (9-36V)	5VDC 12VDC 15VDC ±5VDC ±12VDC ±15VDC	125-500mA 62-250mA 50-200mA ±62-250mA ±31-125mA ±25-100mA	80% 81% 81% 80% 81% 81%	B
MT3-HL05SI MT3-HL12SI MT3-HL15SI MT3-HL05WI MT3-HL12WI MT3-HL15WI	24/48VDC (18-72V)	5VDC 12VDC 15VDC ±5VDC ±12VDC ±15VDC	125-500mA 62-250mA 50-200mA ±62-250mA ±31-125mA ±25-100mA	82% 83% 83% 81% 82% 82%	

TYPE B: SINGLE	
1, 2	INPUT + V
23, 24	INPUT - V
13	OUTPUT + V
12	OUTPUT - V
10, 11, 15	NC
20	SHUTDOWN

TYPE B: DUAL	
1, 2	INPUT + V
23, 24	INPUT - V
15	OUTPUT + V
13	OUTPUT - V
10, 11	COMMON
12	NC
20	SHUTDOWN



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