



10DMWE4_1.5 series

10W - Single/Dual Output - Ultra Wide Input - Isolated & Regulated DC-DC Converter

DC-DC Converter 10 Watt

- 10W DIL Package
- 4:1 Wide input range
- 100% Burned-in
- High efficiency
- UL94V-0 package material
- Customized solutions available
- RoHS compliant
- Remote Control: On/Off

The 10DMWE4_1.5 series are isolated 10W DC-DC converters. Designed with high efficiency, they allow the operating temperature range of these units to be -40°C to +100°C (with derating) in a 6 pin DIP package with industry-standard footprint. Further features include wide 4 : 1 input voltage range, remote on/off control, trimmable output, short-circuit protection and over voltage protection.

These converters are well suitable for battery operated equipment, measurement equipment, telecom, wireless network, Industry control system, everywhere where isolated, tightly regulated voltages and compact size are required.



Common specifications

Short circuit protection:	Hiccup, automatic recovery
Operation temperature range:	-40°C~+100°C
Storage temperature range:	-55°C~+125°C
Storage humidity range:	95% max.
Switching frequency:	400kHz typ.
MTBF (MIL-HDBK-217F @25°C):	560000 hours
Case material:	Nickel coated copper with no-conductive base
Cooling:	Free air convection
Dimensions:	25.4 x 25.4 x 10.6 mm
Weight:	16.5g

Output specifications

Item	Test condition	Min	Typ	Max	Units
Voltage tolerance	Full load@Vin (nom.)			±2	%
Line regulation	9V output			±0.5	%
	others			0.5	%
Load regulation	• Single (and 9V output)			±0.5	%
	• Dual (balance load)			±1.0	%
Cross regulation	Dual (25% to 100% load)			±5	%
Minimum load	Output: 3-15V types BW = DC to 20MHz			100	mVp-p
Ripple & Noise	Output > 15V types BW = DC to 20MHz			1% of Vout	mVp-p
Transient response setting time	25% load step change		300		µs

* Ripple & noise measurement bandwidth is 20 MHz, measured with a 1uF M/C and

Input specifications

Item	Test condition	Min	Typ	Max	Units
Voltage Type				4:1	
Input filter	PI network				

Isolation specifications

Item	Test condition	Min	Typ	Max	Units
Isolation voltage	Input to output			1500	VDC
Isolation resistance	Test at 500VDC	1000			MΩ

Example:

10DMWE4_2415S1.5

10 = 10Watt; D = DIP; M = series; WE4 = wide input (4:1); 24 = 9-36Vin; 15 = 15Vout; ; S = Single output; 1.5 = 1500VDC isolation

Note:

1. Only typical model listed. Non-standard models will be different from the above, please contact us for more details.
2. All specifications are measured at TA = 25°C, humidity <75%, nominal input voltage and rated output load unless otherwise specified.
3. In this datasheet, all the test methods of indications are based on corporate standards.

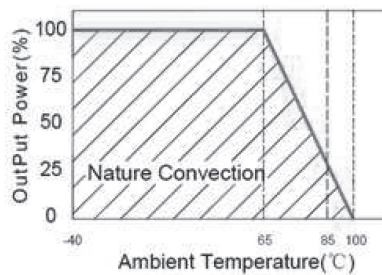
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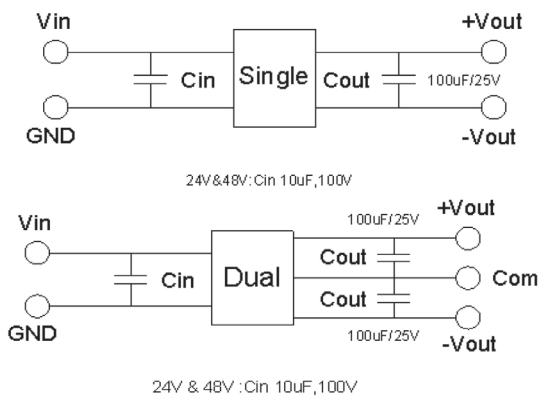
Product Selection Guide

Part Number	Input Voltage [VDC]		Input Current [mA, Typ]		Output Voltage [VDC]	Output Current [mA]	Efficiency [%, Typ.]
	Nominal	Range	No load	Full load			
10DMWE4_2403S1.5	24	9-36	50	388	3.3	2400	85
10DMWE4_2405S1.5	24	9-36	40	496	5	2000	84
10DMWE4_2409S1.5	24	9-36	30	489	9	1111	84
10DMWE4_2412S1.5	24	9-36	20	482	12	830	86
10DMWE4_2415S1.5	24	9-36	20	474	15	660	87
10DMWE4_4803S1.5	48	18-75	30	194	3.3	2400	85
10DMWE4_4805S1.5	48	18-75	40	248	5	2000	84
10DMWE4_4812S1.5	48	18-75	10	241	12	830	86
10DMWE4_4815S1.5	48	18-75	10	237	15	660	87
10DMWE4_2412D1.5	24	9-36	20	482	±12	±415	86
10DMWE4_2415D1.5	24	9-36	20	474	±15	±330	87
10DMWE4_2424D1.5	24	9-36	20	474	±24	±208	90
10DMWE4_4812D1.5	48	18-75	10	241	±12	±415	86

Temperature derating curve



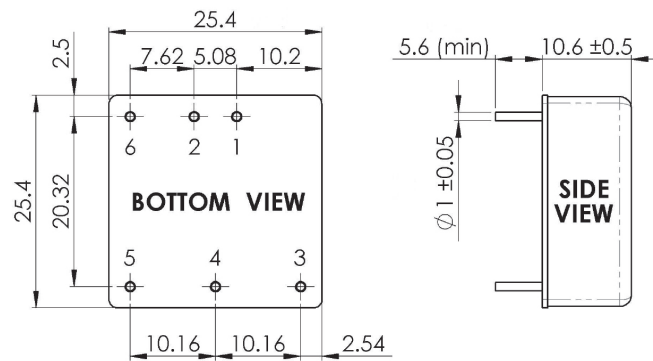
Recommended Test Circuit



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Mechanical dimensions



Unit : mm
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN connection	1	2	3	4	5	6
Single	+Vin	-Vin	+Vout	Trim	-Vout	Remote On/Off
Dual	+Vin	-Vin	+Vout	Com	-Vout	Remote On/Off