

Size: 0.77in x 0.40in x 0.28in (19.5mm x 10.2mm x 7.1mm)

FEATURES

- Standard SIP-7 Package
- I/O Isolation of 3000VDC
- 3.3, 5, 12, or 24VDC Input
- Single or Dual Outputs Available
- Over Load and Short Circuit Protection
- UL/cUL/IEC/EN 62368-1 (60950-1) Safety Approval & CE Marking

DESCRIPTION

The DCMAPU01H series offers 1 watt of output power in a compact 0.77" x 0.40" x 0.28" standard SIP-7 package. This series consists of both single and dual output models with either a 3.3VDC, 5VDC, 12VDC, or 24VDC input voltage. Each model in this series has an I/O isolation of 3000VDC as well as over load and short circuit protection. This series has UL/cUL/IEC/EN 62368-1 (60950-1) pending safety approvals. Please call factory for order details.

MODEL SELECTION TABLE

Single Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current		Input Current		Output Power	Load Regulation (Max)	Efficiency (@Max.Load)
			Min Load	Max Load	@No Load	@Max Load			
DCMAPU01-033S033H	3.3VDC (2.97~3.63)	3.3VDC	6mA	300mA	45mA	390mA	1W	15%	77%
DCMAPU01-033S05H		5VDC	4mA	200mA		394mA		12%	77%
DCMAPU01-033S09H		9VDC	2.2mA	110mA		385mA		12%	78%
DCMAPU01-033S12H		12VDC	1.68mA	84mA		382mA		10%	80%
DCMAPU01-033S15H		15VDC	1.34mA	67mA		386mA		10%	79%
DCMAPU01-05S033H	5VDC (4.5~5.5)	3.3VDC	6mA	300mA	30mA	261mA	1W	12%	76%
DCMAPU01-05S05H		5VDC	4mA	200mA		256mA		10%	78%
DCMAPU01-05S09H		9VDC	2.2mA	110mA		247mA		8%	81%
DCMAPU01-05S12H		12VDC	1.68mA	84mA		246mA		8%	82%
DCMAPU01-05S15H		15VDC	1.34mA	67mA		241mA		8%	83%
DCMAPU01-12S033H	12VDC (10.8~13.2)	3.3VDC	6mA	300mA	17mA	104mA	1W	10%	79%
DCMAPU01-12S05H		5VDC	4mA	200mA		104mA		8%	80%
DCMAPU01-12S09H		9VDC	2.2mA	110mA		101mA		7%	82%
DCMAPU01-12S12H		12VDC	1.68mA	84mA		99mA		7%	84%
DCMAPU01-12S15H		15VDC	1.34mA	67mA		100mA		7%	83%
DCMAPU01-24S033H	24VDC (21.6~26.4)	3.3VDC	6mA	300mA	10mA	54mA	1W	10%	76%
DCMAPU01-24S05H		5VDC	4mA	200mA		51mA		8%	81%
DCMAPU01-24S09H		9VDC	2.2mA	110mA		52mA		8%	79%
DCMAPU01-24S12H		12VDC	1.68mA	84mA		51mA		8%	82%
DCMAPU01-24S15H		15VDC	1.34mA	67mA		51mA		9%	82%

MODEL SELECTION TABLE

Dual Output Models

Model Number	Input Voltage Range	Output Voltage	Output Current		Input Current		Output Power	Load Regulation (Max.)	Efficiency (@Max.Load)
			Min Load	Max Load	@No Load	@Max Load			
DCMAPU01-033D05H	3.3VDC (2.97~3.63)	±5VDC	±2mA	±100mA	45mA	394mA	1W	11%	77%
DCMAPU01-033D12H		±12VDC	±0.84mA	±45mA		387mA		9%	79%
DCMAPU01-033D15H		±15VDC	±0.66mA	±33mA		380mA		9%	79%
DCMAPU01-05D05H	5VDC (4.5~5.5)	±5VDC	±2mA	±100mA	30mA	247mA	1W	10%	81%
DCMAPU01-05D12H		±12VDC	±0.84mA	±45mA		249mA		8%	81%
DCMAPU01-05D15H		±15VDC	±0.66mA	±33mA		244mA		9%	81%
DCMAPU01-12D05H	12VDC (10.8~13.2)	±5VDC	±2mA	±100mA	17mA	103mA	1W	7%	81%
DCMAPU01-12D12H		±12VDC	±0.84mA	±45mA		102mA		6%	82%
DCMAPU01-12D15H		±15VDC	±0.66mA	±33mA		102mA		6%	82%
DCMAPU01-24D05H	24VDC (21.6~26.4)	±5VDC	±2mA	±100mA	10mA	52mA	1W	8%	80%
DCMAPU01-24D12H		±12VDC	±0.84mA	±45mA		52mA		8%	81%
DCMAPU01-24D15H		±15VDC	±0.66mA	±33mA		52mA		8%	80%

SPECIFICATIONS					
All specifications are based on 25°C, Nominal Input Voltage, Resistive Load, and Rated Output Current unless otherwise noted. We reserve the right to change specifications based on technological advances.					
SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range	3.3V Input Models	2.97	3.3	3.63	VDC
	5V Input Models	4.5	5	5.5	
	12V Input Models	10.8	12	13.2	
	24V Input Models	21.6	24	26.4	
Input Surge Voltage	3.3V Input Models	-0.7		6	VDC
	5V Input Models	0.7		9	
	12V Input Models	0.7		18	
	24V Input Models	0.7		30	
Input Filter	All Models	Internal Capacitor			
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Accuracy			±1.0	±3.0	%
Line Regulation	For Vin Change of 1%		±1.2	±1.5	%
Load Regulation		See Table			
Voltage Balance	Dual Output, Balanced Loads		±0.1	±1.0	%
Output Power		See Table			
Output Current		See Table			
Maximum Capacitive Load	Single Output Models		220		µF
	Dual Output Models		100		
Ripple & Noise (20MHz bandwidth)	0-20MHz Bandwidth		65	100	mVp-p
Temperature Coefficient			±0.01	±0.02	%/°C
PROTECTION					
Short Circuit Protection		Continuous, Automatic Recovery			
Over Load Protection	Normal Vin at 25°C		160		%
ENVIRONMENTAL SPECIFICATIONS					
Operating Ambient Temperature	Natural Convection	-40		+90	°C
Case Temperature				+95	°C
Storage Temperature		-50		+125	°C
Humidity	Non-Condensing			+95	%RH
Cooling		Natural Convection			
Lead Temperature	1.5mm from case for 10 sec.			260	°C
MTBF (calculated)	MIL-HDBK-217F @25°C, Ground Benign	3,711,000			Hours
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Switching Frequency		40	75	110	KHz
Isolation Voltage	60 Seconds	3000			VDC
Isolation Resistance	500VDC	10			GΩ
Isolation Capacitance	100KHz, 1V		20		pF
PHYSICAL SPECIFICATIONS					
Weight		0.11oz (3.1g)			
Dimensions (L x W x H)		0.77in x 0.40in x 0.28in (19.5mm x 10.2mm x 7.1mm)			
Case Material		Non Conductive Black Plastic (Flammability to UL 94V-0 rated)			
Pin Material		Tinned Copper			
SAFETY CHARACTERISTICS					
Safety Approvals (Pending) ⁽⁷⁾	UL/cUL 60905-1 recognition (UL certificate), IEC/EN 60950-1 (CB-report) UL/cUL 62368-1 recognition (UL certificate), IEC/EN 62368-1 (CB report)				
EMI ⁽⁴⁾	Conduction	EN55022, FCC part 15		Class A	
EMS	EN55024				
	ESD	EN61000-4-2 Air ±8kV, Contact ±6kV		A	
	Radiated Immunity	EN61000-4-3 10V/m		A	
	Fast Transient ⁽⁵⁾	EN61000-4-4 ±2kV		A	
	Surge ⁽⁶⁾	EN61000-4-5 ±1kV		A	
	Conducted Immunity	EN61000-4-6 10Vrms		A	
	PfMF	EN61000-4-8 3A/m		A	

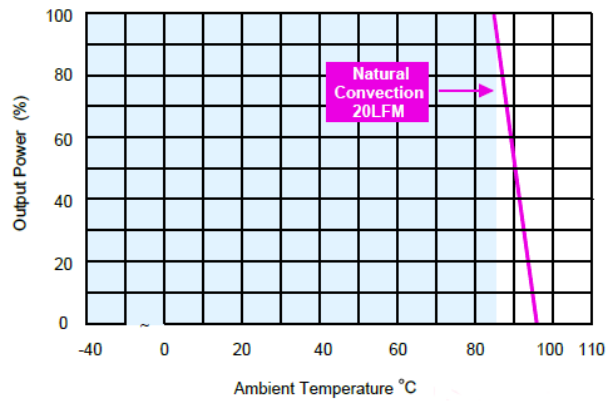
NOTES

1. These power converters require a minimum output loading to maintain specified regulation, operation under no-load conditions will not damage these modules, however they may not meet all specifications listed.
2. We recommend protecting the converter by a slow blow fuse in the input supply line.
3. Other inputs and voltages may be available, please contact factory.
4. To meet EN55022 Class A, an external filter is needed. Please contact factory.
5. To meet EN61000-4-4 & EN61000-4-5 an external capacitor across the input pins is required. Suggested capacitor is 680 μ F/50V KY Al-E Cap.
6. "Natural Convection" is about 20LFM but is not equal to still air (0 LFM)
7. This product is Listed to applicable standards and requirements by UL.

**Due to advances in technology, specifications subject to change without notice.*

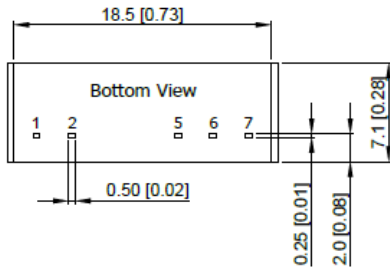
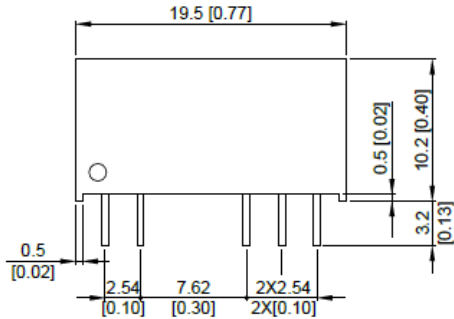
DERATING CURVES

Power Derating Curve



MECHANICAL DRAWINGS

Standard Package

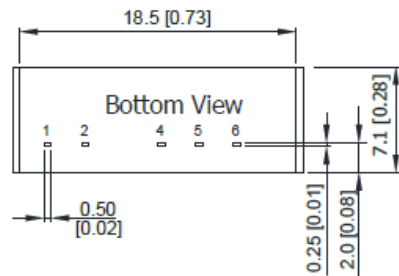
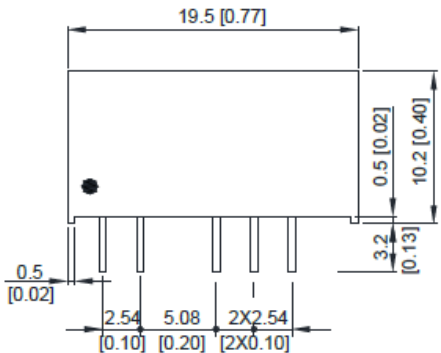


PIN CONNECTIONS

Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

All dimensions in mm (inches)
Tolerance: x.x±0.5 (x.xx±0.02)
 x.xx±0.25 (x.xxx±0.01)
Pins: ±0.05(±0.002)

"A" Pinning ("A" Suffix)



PIN CONNECTIONS

Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

All dimensions in mm (inches)
Tolerance: x.x±0.5 (x.xx±0.02)
 x.xx±0.25 (x.xxx±0.01)
Pin Diameter Ø1.0±0.05(0.04±0.002)

COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

Contact **Wall Industries** for further information:

Phone: ☎ (603)778-2300
Toll Free: ☎ (888)597-9255
Fax: ☎ (603)778-9797
E-mail: sales@wallindustries.com
Web: www.wallindustries.com
Address: 37 Industrial Drive
Exeter, NH 03833

©2019 Wall Industries, Inc. Specifications subject to change without notice. Wall Industries is not responsible for typographical errors. The information contained herein is for informational purposes only. This information is provided by Wall Industries and we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the information contained in this document for any purpose. All product and manufacturer names are trademarks or registered trademarks of their respective companies.