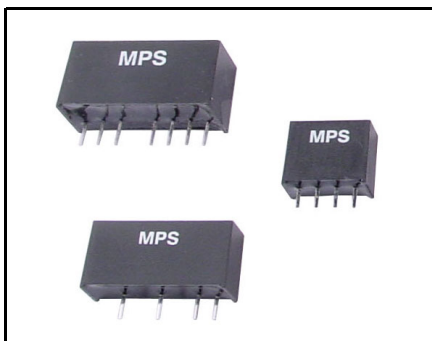


ADC400 SERIES

1W, Ultra-High Isolation SIP, Single & Dual Output DC/DC Converters



Key Features

- Efficiency up to 75%
- 6000VDC Isolation
- MTBF > 2,000,000 Hours
- Low Cost
- Input 5 and 12VDC
- Output 5, 12, 15, ± 5 , ± 12 and ± 15 VDC
- Temperature Performance -25°C to +70°C
- UL 94V-0 Package Material
- Internal SMD Construction
- Industry Standard Pin-out

MPS Industries ADC400 1W DC/DC's are specially designed to provide ultra-high levels of isolation 6000VDC in a miniature SIP package.

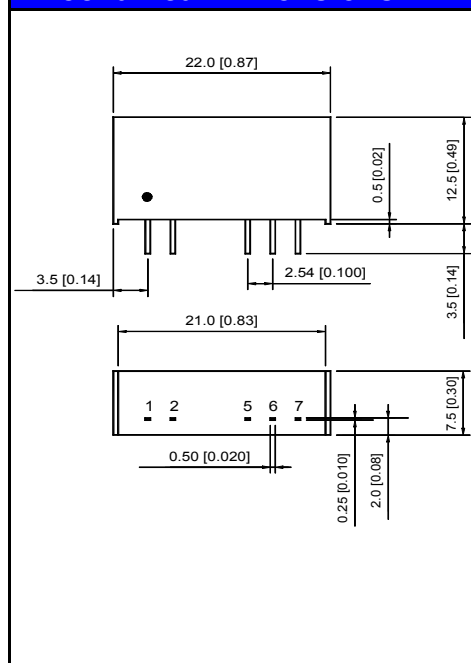
The series consists of 12 models with input voltages of 5V and 12VDC which offers standard output voltages of 5V, 12V, 15VDC in both single and dual output configurations.

The ADC400 series is an excellent selection for a variety of applications including distributed power systems, mixed analog/digital subsystems, portable test equipments, local power networks and battery backed systems.

Selection Guide

Model Number	Input Voltage	Output Voltage	Output Current	Efficiency	Load Regulation
	VDC	VDC	mA	% Typ.	% Max.
ADC401	5 (4.5 - 5.5)	5	200	66	10
ADC402		12	80	66	8
ADC403		15	65	66	8
ADC404		± 5	± 100	66	10
ADC405		± 12	± 40	72	8
ADC406		± 15	± 35	73	8
ADC411	12 (10.8 - 13.2)	5	200	66	10
ADC412		12	80	66	8
ADC413		15	65	66	8
ADC414		± 5	± 100	66	10
ADC415		± 12	± 40	74	8
ADC416		± 15	± 35	75	8

Mechanical Dimensions



Pin Connections

Pin	Singles	Duals
1	+Vin	+Vin
2	-Vin	-Vin
5	-Vout	-Vout
6	No Pin	Common
7	+Vout	+Vout

Case Size –

22.0x7.5x12.5mm (0.87x0.30x0.49inch)

Case Material –

Non-Conductive Black Plastic

Weight –

3.9g (0.14Oz)

Tolerance	Millimeters	Inches
	X.X $\pm$ 0.25	X.XX $\pm$ 0.01
	X.XX $\pm$ 0.13	X.XXX $\pm$ 0.005
Pin	$\pm$ 0.05	$\pm$ 0.002

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Absolute Maximum Ratings

Parameter		Min.	Max.	Units
Input Surge Voltage (1000mS)	5VDC Input Models	-0.7	9	VDC
	12VDC Input Models	-0.7	18	VDC
Lead Temperature (1.5mm from case for 10sec.)		---	260	°C
Internal Power Dissipation		---	650	mW

Exceeding the unit absolute maximum ratings could cause damage.
These are not continuous operating ratings.

General Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	60 Seconds	6000	---	---	VDC
Isolation Resistance	500VDC	10	---	---	GΩ
Isolation Capacitance	100kHz, 1V	---	15	20	pF
Switching Frequency		50	80	100	kHz
MTBF	MIL-HDBK-217F @25°C Ground Benign	2	---	---	MHrs

Environmental Characteristics

Parameter	Conditions	Min.	Max.	Units
Operating Temperature	Ambient	-25	70	°C
Operating Temperature	Case	-25	90	°C
Storage Temperature		-40	125	°C
Humidity		---	95	%
Cooling	Free-Air Convection			

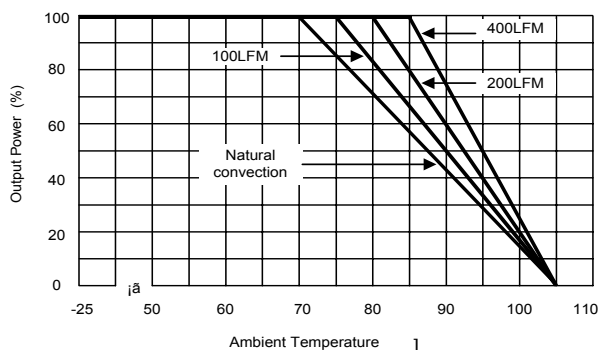
Output Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Line Regulation	For Vin Change of 1%	---	±1.2	±1.5	%
Load Regulation	Io = 20% to 100%	See Selection Guide			%
Ripple & Noise	20MHz BW	---	100	150	mV P-P
Short Circuit	0.5 Second Max.				

Maximum Capacitive Load

Models by Output Voltage (Each Output on Duals)	Singles	Duals	Units
	680	220	uF

Derating Curve



Notes:

1. Specifications typical at Ta=+25°C, resistive load, nominal input voltage, rated output current unless otherwise noted.
2. These power converters require a minimum output load to maintain specified regulation.
3. Operation under no-load conditions will not damage these modules; however, they may not meet all specifications listed.
4. All DC/DC converters should be externally fused at the front end for protection.
5. Other input and output voltage may be available, please contact factory.
6. All specifications subject to change without notice.
7. For detailed data sheet, please visit our website.