

ASD15H

ISOLATED AND REGULATED 15-WATT OPEN FRAME DC/DC CONVERTER

The ASD15H series of 15-watt open frame DC/DC converters is a groundbreaking solution for isolation and regulation needs. With an impressive input range of 9 to 36V or 18 to 75V, these converters deliver exceptional efficiency and precise regulation of outputs. Boasting 1500VDC isolation and equipped with an integrated finned heatsink, these converters offer a robust and dependable power solution for a wide range of applications. Whether in industrial settings, telecommunications, or beyond, the ASD1 SH series ensures reliable and efficient power delivery.





HOW TO ORDER

ASO15H-12S3

- OUTPUT VOLTAGE
  - 3 = 3.75 VDC
  - 5 = 3 VDC
  - 12 = 1.25 VDC
  - 15 = 1 VDC
- NUMBER OF OUTPUTS
  - S = SINGLE OUTPUT
  - D = DOUBLE OUTPUT
- INPUT RANGE VOLTAGE
  - 12 = 9–18 VDC
  - 48 = 20–75 VDC
- OUTPUT POWER: 15W
- H: OPEN FRAME
- FAMILY: ASD SERIES

FEATURES

DC INPUT Wide 4:1

Nominal:	12VDC	48VDC
Range:	9-18VDC	20-75VDC

OUTPUT RANGE
15 Watts Output

OPERATING TEMPERATURE
-25 to +71°C(FL)

SAFETY APPROVALS
UL60950-1 2nd ed.

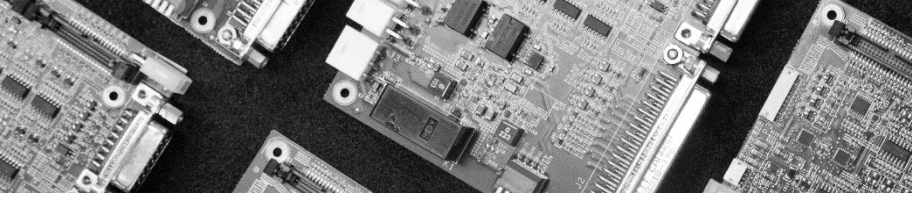
SHOCK/VIBRATION
MIL-STD 810

HIGH EFFICIENCY

ISOLATION
1500VDC (48V)

FULL EMI SHIELDING

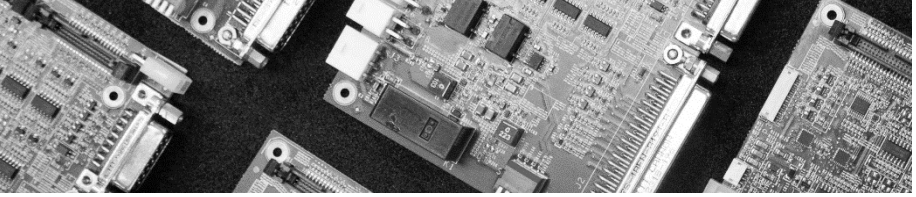
STANDARD PINOUTS



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PARAMETERS	ASD15H
INPUT SPECIFICATIONS	
Input Voltage, Nominal	12VDC 48VDC
Input Voltage Ranges	9-18 20-75 VDC
Input Surge Voltage	50V (12V Models), * 100V (48V Models), * 10 mS duration, min.
OUTPUT SPECIFICATIONS	
Voltage and Current	See Selection Chart
Load Regulation	Single: +/-0.5%
20%- FL	Duals: +/-1%, +/-3% (5V mod)
Preset Accuracy	singles: +/- 3% max. Duals: +/- 4% max.
Line Regulation	singles: +/- 0.5% duals: +/- 1%
Trim Range	0.5V min, 0.65V typ
Temperature Coefficient	+/-0.01%/°C
Ripple/Noise (Note 1)	100mV Pk-Pk, typ.
Overvoltage Protection	Clamp, 130-150%*
Voltage Stability	+/-0.5%, max.
Transient Response	12V: +/-4%, max. 15V: +/-3%, max. All others: +/-2%, max.
Short Circuit Protection	Clamp, need to release load*
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted * These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long-term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.	
GENERAL SPECIFICATIONS	
On/Off Control	(Ref to - Input pin) Logic "1"/Open=ON Logic "0"/GND=OFF
Shutdown Idle Current	15mA
Input-Out Isolation	1500VDC (48V) 500 VDC (12V)
In/Out Capacitance	1000 pF
Efficiency at nom. Input	12V: 72%-80%, typ. 48V: 80%-86%, typ.
Switching Frequency	450Khz
Safety	UL60950-1 2nd ed.



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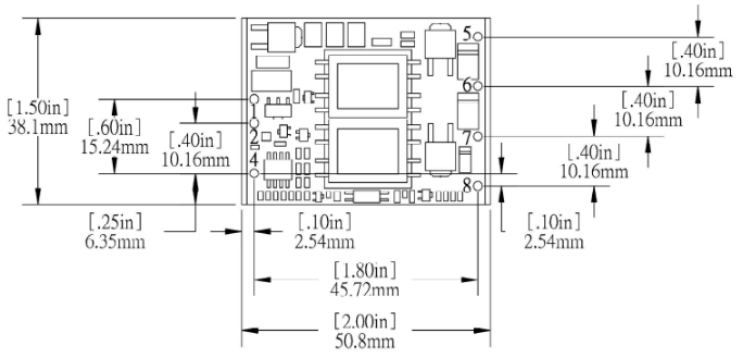
ISOLATED AND REGULATED 15-WATT OPEN FRAME DC/DC CONVERTER

PARAMETERS	ASD10H
ENVIRONMENTAL SPECIFICATIONS	
Oper. Temperature	-25 to +71°C(FL)
Storage Temperature	-40 to +125°C *
Maximum Case Temp	110°C *
Input Fusing	12V: 4A, 48V: 2A
MTBF	1,000,000 Hrs Mil Std 217, 25°C
Shock/Vibration	To MIL-STD 810°C
PHYSICAL SPECIFICATIONS	
Heatsink Material	Aluminum
Construction	Open Frame
Weight	0.93 oz, (26g)

NOTES

1. Ripple & Noise are measured by using a 20MHz bandwidth oscilloscope and terminating the output with a 47uF electrolytic capacitor paralleled with a 0.1uF ceramic capacitor

MECHANICAL DIMENSION

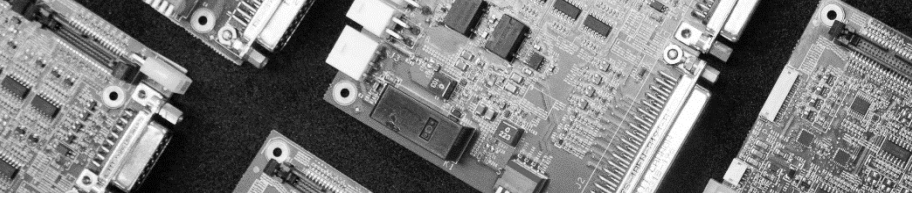


Tolerance : . XX 0.5mm [0.02in]
. XXX 0.25mm [0.01in]

PIN #	Single Outputs	Dual Outputs
1	+ Input	+ Input
2	- Input	- Input
3	No Pin	No Pin
4	Control	Control
5	No Pin	+ Output
6	+ Output	Out.Ret.
7	Out.Ret.	- Output
8	Trim	Trim

Trim Connections





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MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT AMPS	INPUT RANGE
Single Output			
ASD15H-12S3	3.3 VDC	3.75	9-18 VDC
ASD15H-48S3	3.3 VDC	3.75	20-75 VDC
ASD15H-12S5	5 VDC	3	9-18 VDC
ASD15H-48S5	5 VDC	3	20-75 VDC
ASD15H-12S12	12 VDC	1.25	9-18 VDC
ASD15H-48S12	12 VDC	1.25	20-75 VDC
ASD15H-12S15	15 VDC	1	9-18 VDC
ASD15H-48S15	15 VDC	1	20-75 VDC
Dual Output			
ASD15H-12D5	+/-5 VDC	+/-1.5	9-18 VDC
ASD15H-48D5	+/-5 VDC	+/-1.5	20-75 VDC
ASD15H-12D12	+/-12 VDC	+/-0.62	9-18 VDC
ASD15H-48D12	+/-12 VDC	+/-0.62	20-75 VDC
ASD15H-12D15	+/-15 VDC	+/-0.5	9-18 VDC
ASD15H-48D15	+/-15 VDC	+/-0.5	20-75 VDC

OUTPUT DERATING CURVE

