Astrodyne TDI
Now you have power.

Isolated and Regulated 30 WATT Modular DC/DC Converter — ASD30 series



Unit measures 2.0"W x 2.0"L x 0.4"H

- Wide 2:1 Input Range
- Remote ON/OFF Control
- High Efficiency
- Input PI Filter
- Six-Sided Shield

Model Number	Output Voltage	Output mAmps	Input Range	Efficiency
SINGLE OUTPUT				
ASD30-12S3	3.3 VDC	5000	9-18 VDC	74%
ASD30-24S3		5000	18-36 VDC	75%
ASD30-48S3		5000	36-72 VDC	75%
ASD30-12S5	5 VDC	5000	9-18 VDC	78%
ASD30-24S5		5000	18-36 VDC	79%
ASD30-48S5		5000	36-72 VDC	79%
ASD30-12S12	12 VDC	2500	9-18 VDC	82%
ASD30-24S12		2500	18-36 VDC	82%
ASD30-48S12		2500	36-72 VDC	82%
ASD30-12S15	15 VDC	2000	9-18 VDC	82%
ASD30-24S15		2000	18-36 VDC	82%
ASD30-48S15		2000	36-72 VDC	82%
DUAL OUTPUT				
ASD30-12D5	+/-5 VDC	+/-2500	9-18 VDC	78%
ASD30-24D5		+/-2500	18-36 VDC	79%
ASD30-48D5		+/-2500	36-72 VDC	79%
ASD30-12D12	+/-12 VDC	+/-1250	9-18 VDC	82%
ASD30-24D12		+/-1250	18-36 VDC	85%
ASD30-48D12		+/-1250	36-72 VDC	85%
ASD30-12D15	+/-15 VDC	+/-1000	9-18 VDC	82%
ASD30-24D15		+/-1000	18-36 VDC	85%
ASD30-48D15		+/-1000	36-72 VDC	85%
TRIPLE OUTPUT				
ASD30-12T512	5, +/-12 VDC	3500, +/-300	9-18 VDC	79%
ASD30-24T512		3500, +/-300	18-36 VDC	80%
ASD30-48T512		3500, +/-300	36-72 VDC	85%
ASD30-12T515	5, +/-15 VDC	3500, +/-200	9-18 VDC	79%
ASD30-24T515		3500, +/-200	18-36 VDC	80%
ASD30-48D515		3500, +/-200	36-72 VDC	80%

Astrodyne TDI
Now you have power.

Isolated and Regulated 30 WATT Modular DC/DC Converter **ASD30 series**

INPUT SPECIFICATIONS

Input Voltage Ranges:	12 VDC Nominal	9-18 VDC
	24 VDC Nominal	18-36 VDC
	48 VDC Nominal	36-72 VDC
Input Filter	PI Type	

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart	
Load Regulation (25% to FL)	Single/Dual	+/-0.5%
	Triple	+/-1%
Line Regulation (HL-LL)	Single/Dual	+/-0.5%
	Triple	+/-1%
Temperature Coefficient	+/-0.02%/°C	
Ripple/Noise	10 mV RMS, max.	
	75mVp-p max.	
Voltage Accuracy	Single Ouput	+/-2%, max.
	Dual + Output	+/-2%, max.
	Dual - Output	+/-3%, max.
	Triple 5V	+/- 2%, max.
	Triple 12V/15V	+/-5%, max
Voltage Balance (Dual)	+/-1%	
Transient Response	Single, 25% Change	<500uS
	Dual FL to 1/2L	<500uS
Trim Adjustment Range	+/-10%	
Short Circuit Protection	Continuous	
Efficiency	See Selection Chart	

PHYSICAL SPECIFICATIONS

Case Material	Black coated Copper
	w. Non-conductive base
Construction	Fully Encapsulated
Weight	2.4 oz, (68g)
Dimensions	2.0"x2.0"x0.4"

GENERAL SPECIFICATIONS

Input-Output Isolation	500VDC	
Isolation Resistance	10-9nth Ohm min.	
Switching Frequency	300Khz	
Case Grounding	Connected to O/P Common	
Safety	UL60950	
EMI/RFI	Six Sided Continuous Shield	
MTBF	Single O/P	891,000 Hrs.
	Dual O/P	870,000 Hrs.
	Triple O/P	790,000 Hrs.
	MIL-HDBK-217F	
	Ground Benign, 25°C	

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-25 to +71°C w. Derate
	See Curve
Case Temperature	100°C max.
Storage Temperature	-55 to +105°C *
Cooling	Free Air Convection

REMOTE ON/OFF CONTROL

Logic Compatibility	CMOS or Open
	Collector TTL
EC-On	>+5.5VDC or Open
	Circuit
EC-Off	<1.8VDC
Shutdown Idle Current	10mA
Control Common	Referenced to - Input

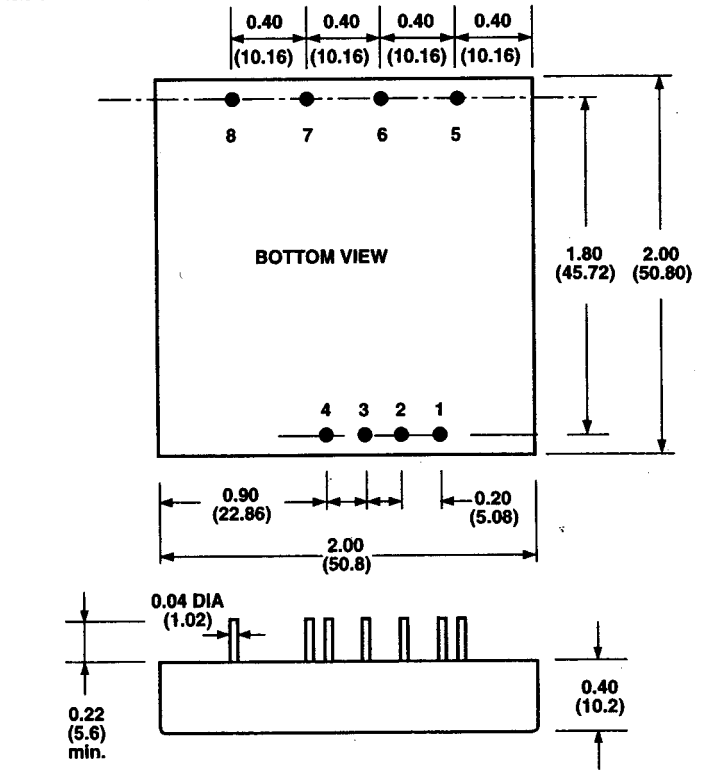
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

* 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 warranteed nor implied.

Isolated and Regulated 30 WATT Modular DC/DC Converter **ASD30 series**

MECHANICAL DIMENSIONS

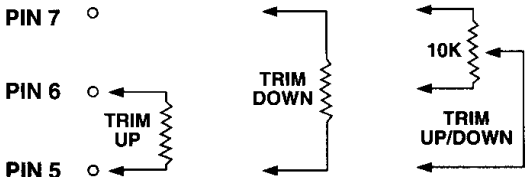
All Dimensions In Inches (mm)
Tolerance .xx= ±.04, .xxx= ±.010



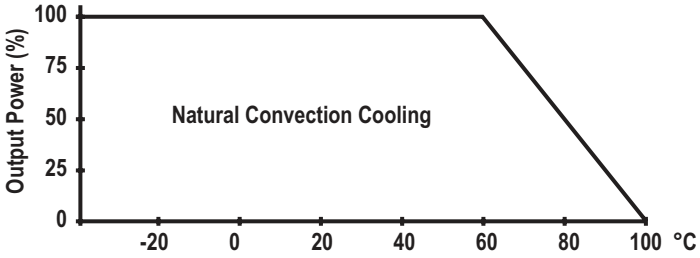
Pin #	Single Outputs	Dual Outputs	Triple Ouputs
1	Remote On/Off	Remote On/Off	Remote On/Off
2	No Pin	No Pin	No Pin
3	- Input	- Input	- Input
4	+ Input	+ Input	+ Input
5	Trim	Trim	- Aux. Out
6	- Output	- Output	Common
7	+ Output	Common	+ 5Vout
8	No Pin	+ Output	+ Aux. Out

EXTERNAL OUPUT TRIMMING

Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.



DERATE CURVE



TRIPLE OUTPUT LOADING TABLE (1)			
Output (Pin No.)	Voltage	Amperes	
		Min.(2)	Nom.
7	+5	0.50	3.5
8 & 5	+12 or -12	0.10	0.31
8 & 5	+15 or -15	0.10	0.25

NOTE:
1. Maximum total power from all outputs is limited to 25 watts but no output should be allowed to exceed its maximum current.
2. Minimum current on each output is required to maintain specified regulation.