

- Wide 2 : 1 Input Range
- High Efficiency
- Regulated Outputs
- 1600V Isolation
- Full EMI Shielding
- PI Input Filter

FDC20 Series



Unit measures 1.6"W x 2"L x 0.4"H

MODEL SELECTIONS

Output Voltage	Output Amps	Input Range	Model Number	Price 1	Price 25
SINGLE OUTPUT					
3.3 VDC	4	9-18 VDC	FDC20-12S33	\$72	\$68
	4	18-36 VDC	FDC20-24S33	\$72	\$68
	4	36-72 VDC	FDC20-48S33	\$72	\$68
5 VDC	4	9-18 VDC	FDC20-12S05	\$72	\$68
	4	18-36 VDC	FDC20-24S05	\$72	\$68
	4	36-72 VDC	FDC20-48S05	\$72	\$68
12 VDC	1.67	9-18 VDC	FDC20-12S12	\$72	\$68
	1.67	18-36 VDC	FDC20-24S12	\$72	\$68
	1.67	36-72 VDC	FDC20-48S12	\$72	\$68
15 VDC	1.33	9-18 VDC	FDC20-12S15	\$72	\$68
	1.33	18-36 VDC	FDC20-24S15	\$72	\$68
	1.33	36-72 VDC	FDC20-48S15	\$72	\$68
DUAL OUTPUT					
+/-5 VDC	+/-2	9-18 VDC	FDC20-12D05	\$75	\$70
	+/-2	18-36 VDC	FDC20-24D05	\$75	\$70
	+/-2	36-72 VDC	FDC20-48D05	\$75	\$70
+/-12 VDC	+/-0.833	9-18 VDC	FDC20-12D12	\$75	\$70
	+/-0.833	18-36 VDC	FDC20-24D12	\$75	\$70
	+/-0.833	36-72 VDC	FDC20-48D12	\$75	\$70
+/-15 VDC	+/-0.666	9-18 VDC	FDC20-12D15	\$75	\$70
	+/-0.666	18-36 VDC	FDC20-24D15	\$75	\$70
	+/-0.666	36-72 VDC	FDC20-48D15	\$75	\$70

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for
High Volume
Pricing**

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FDC20 Series Continued

MODEL SELECTIONS

Output Voltage	Output Amps	Input Range	Model Number	Price 1	Price 25
TRIPLE OUTPUT					
3.3, +/-12 VDC	3, +/-0.3	9-18 VDC	FDC20-12T3312	\$79	\$75
	3, +/-0.3	18-36 VDC	FDC20-24T3312	\$79	\$75
	3, +/-0.3	36-72 VDC	FDC20-48T3312	\$79	\$75
3.3, +/-15 VDC	3, +/-0.25	9-18 VDC	FDC20-12T3315	\$79	\$75
	3, +/-0.25	18-36 VDC	FDC20-24T3315	\$79	\$75
	3, +/-0.25	36-72 VDC	FDC20-48T3315	\$79	\$75
5, +/-12 VDC	2, +/-0.3	9-18 VDC	FDC20-12T0512	\$79	\$75
	2, +/-0.3	18-36 VDC	FDC20-24T0512	\$79	\$75
	2, +/-0.3	36-72 VDC	FDC20-48T0512	\$79	\$75
5, +/-15 VDC	2, +/-0.25	9-18 VDC	FDC20-12T0515	\$79	\$75
	2, +/-0.25	18-36 VDC	FDC20-24T0515	\$79	\$75
	2, +/-0.25	36-72 VDC	FDC20-48T0515	\$79	\$75

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ASTRODYNE *CostCutter* Isolated and Regulated 20 Watt Modular DC/DC Converters

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

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	singles: +/-1%
25% - FL (single/dual)	duals: +/-2%
10%-FL (triple)	3.3/5 V: +/-2%, 12/15 V: +/-5%
Line Regulation (Single/Dual)	+/-0.2%
(triple)	3.3/5V: +/-1%, 12/15V: +/-5%
Temperature Coefficient	+/-0.02%/DegC
Ripple/Noise(Single/Dual/Triple)	(75 / 100 / 1%) mV Pk-Pk, typ
Voltage Stability (+/-12,+/-15)	+/- 2%, (+/-5%)
Transient Response Recovery	
25% Load Step Change	500 microSeconds
Short Circuit Protection	Continuous, self-recovering
Overvoltage Protection Threshold:	
3.3V Output	3.9Volts
5V Output	6.2Volts
12V Output	15Volts
15V Output	18Volts

GENERAL SPECIFICATIONS

On/Off Control	(Ref to - Input pin) Logic "1"/Open=ON Logic "0"/GND=OFF
Input-Out Isolation	1600VDC
In/Out Capacitance	1000 pF
Isolation Resistance	10000 M Ohms
Efficiency	81%, typ
Switching Frequency	300Khz, Single typ

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-25 to +70 DegC(see derate)
Storage Temperature	-55 to +125 DegC *
Maximum Case Temp	112 DegC *
MTBF	436.9 kHrs MIL-HDBK-217F TA=25C FL

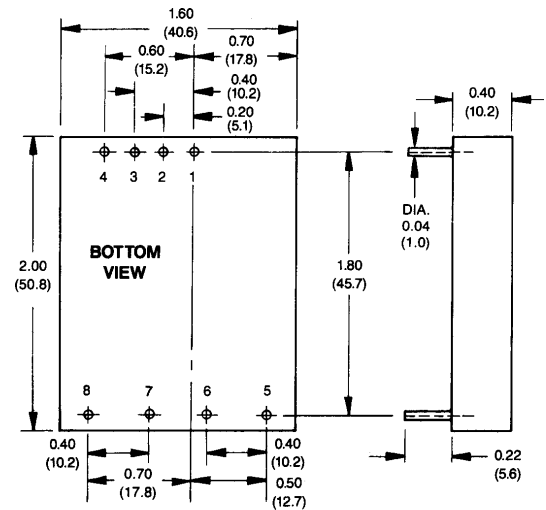
PHYSICAL SPECIFICATIONS

Case Material	Nickel-Coated Copper
Construction	Non-Conductive Base
Weight	Fully Encapsulated 1.86 oz, (52g)

* 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.

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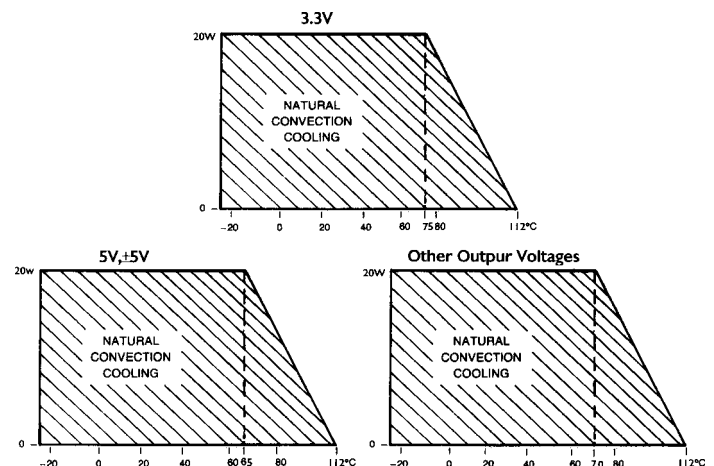
MECHANICAL DIMENSIONS



ALL DIMENSIONS IN INCHES(mm)
PIN PITCH TOLERANCE $\pm 0.5\text{mm}$

Pin #	Single	Dual	Triple
1	+ Input	+ Input	+ Input
2	- Input	- Input	- Input
3	No Pin	No Pin	No Pin
4	Control	Control	Control
5	No Pin	+ Output	+ Aux Out
6	+ Output	Common	+5V, +3.3V
7	- Output	- Output	Common
8	Trim	Trim	- Aux Out

OUTPUT DERATING CURVE



Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.