

FDD12 SERIES

DC-DC CONVERTER 10 ~ 12W



FDD12 - 03 S 4

WATTAGE

03 : 3.3V OUT

05 : 5V OUT

12 : 12V OUT

15 : 15V OUT

4: 10~36V IN

5: 18~72V IN

S : SINGLE OUTPUT

D : DUAL OUTPUT

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (MIN.)	CASE
Single Output Models						
FDD12 - 03S4	10~36 VDC	10 WATTS	+3.3 VDC	3000 mA	75%	FB
FDD12 - 05S4	10~36 VDC	12 WATTS	+ 5 VDC	2400 mA	77%	FB
FDD12 - 12S4	10~36 VDC	12 WATTS	+ 12 VDC	1000 mA	77%	FB
FDD12 - 15S4	10~36 VDC	12 WATTS	+ 15 VDC	800 mA	77%	FB
FDD12 - 03S5	18~72 VDC	10 WATTS	+3.3 VDC	3000 mA	77%	FB
FDD12 - 05S5	18~72 VDC	12 WATTS	+ 5 VDC	2400 mA	77%	FB
FDD12 - 12S5	18~72 VDC	12 WATTS	+ 12 VDC	1000 mA	77%	FB
FDD12 - 15S5	18~72 VDC	12 WATTS	+ 15 VDC	800 mA	77%	FB
Dual Output Models						
FDD12 - 05D4	10~36 VDC	12 WATTS	± 5 VDC	± 1200 mA	77%	FB
FDD12 - 12D4	10~36 VDC	12 WATTS	± 12 VDC	± 500 mA	77%	FB
FDD12 - 15D4	10~36 VDC	12 WATTS	± 15 VDC	± 400 mA	77%	FB
FDD12 - 05D5	18~72 VDC	12 WATTS	± 5 VDC	± 1200 mA	77%	FB
FDD12 - 12D5	18~72 VDC	12 WATTS	± 12 VDC	± 500 mA	77%	FB
FDD12 - 15D5	18~72 VDC	12 WATTS	± 15 VDC	± 400 mA	77%	FB

FEATURES

- * LOW COST
- * 4:1 WIDE INPUT RANGE
- * I/O ISOLATION
- * INPUT Pi FILTER
- * SHORT CIRCUIT PROTECTION
- * HIGH PERFORMANCE
- * 2 YEARS WARRANTY

DESCRIPTION

THE FDD12 SERIES ARE 12 WATTS SINGLE & DUAL OUTPUT DC/DC CONVERTERS. 4:1 WIDE INPUT RANGE WITH I/O ISOLATION, GOOD EFFICIENCY WITH EXCELLENT LINE / LOAD REGULATION WITH SHORT CIRCUIT PROTECTION FEATURES. MAKE FDD12 ARE SUITABLE TO POWERING COMMERCIAL & INDUSTRIAL TYPES OF ELECTRONIC CIRCUITS WITH VERY LOW COST. ALL FDD12 MODELS ARE PACKAGED IN L x W x H = 2" x 2" x 0.47" BLACK COATED METAL CASE WITH NON-CONDUCTIVE PLASTIC BASE. CONFIGURATION, AND PCB MOUNTABLE DIRECTLY.



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SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL SPECIFICATION

- * Switching frequency: 200KHz (typ.)
- * Isolation voltage: 1,500VDC
- * Isolation resistance: 100M Ω (min.)
- * Operating ambient temperature: -25 to +71°C
- * Storage temperature: -40 to +100°C
- * Max. Case temperature: 100°C
- * M.T.B.F.: 661,000Hrs at @ GF40, according to MIL-HDBK-217F
- * Cooling: Free air convection
- * Transient recovery time: 500 μ S, 25% load step change
- * Temperature coefficient: $\pm 0.02\%$ / °C
- * Dimension: 50.8 x 50.8 x 12mm

INPUT SPECIFICATIONS

- * Input voltage range : 10 ~ 36VDC for 24V
..... 18 ~ 72VDC for 48V
- * Input filter: Pi type
- * No load input current: 20mA for 24V in
..... 15mA for 48V in
- * Max. Input voltage: 40VDC for 24V in
..... 75VDC for 48V in

OUTPUT SPECIFICATIONS

- * Output voltage accuracy: $\pm 2\%$ at Vo_nom
- * Minimum load: No load for single output models
..... $\pm 20\%$ at Vo_nom for dual output models
- * Line regulation: $\pm 1\%$ at Vo_nom
- * Load regulation: $\pm 2\%$ at Vo_nom for single output models
..... $\pm 5\%$ at Vo_nom for dual output models
- * Ripple & noise: $\pm 1\%$ Vout
..... 100mV (max.) for 3.3 Vout
- * Efficiency: Up to 77%, see model list
- * Derating: See table 1
- * Case material: Metal

CONTROL AND PROTECTION

- * Input reversed: Shunt diode use external fuse
- * Output short circuit: Continuous

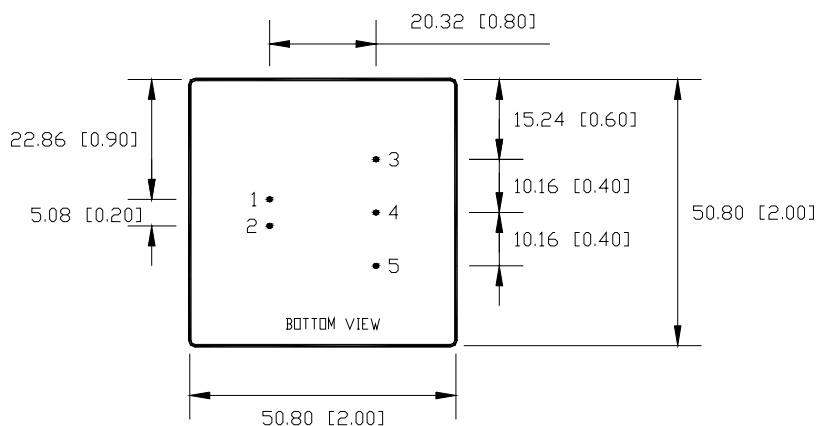
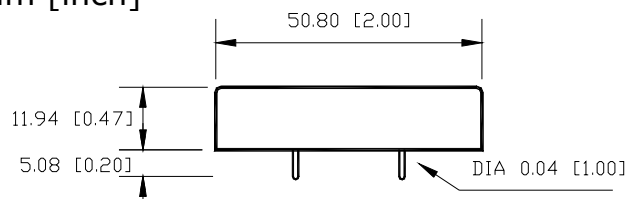


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DC-DC CONVERTER 10 ~ 12W

MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

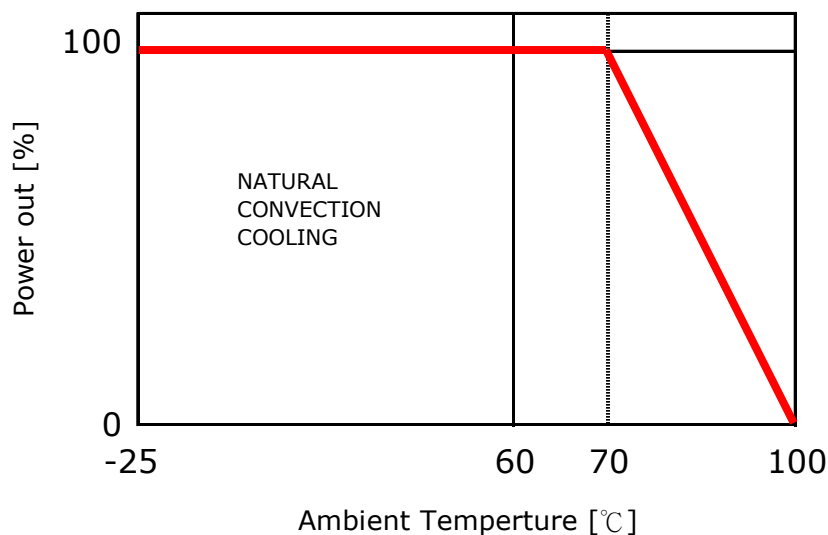
CASE SIZE	50.8 x 50.8 x 12mm 2 x 2 x 0.47inches
CASE MATERIAL	Metal
WEIGHT	65 g (typ.)

PIN ASSIGNMENT

PIN NO.	1	2	3	4	5
SINGLE	Vi+	Vi-	Vo+	NO PIN	Vo-
DUAL	Vi+	Vi-	Vo+	com	Vo-

Derating:

[TABLE 1]



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