

**Volgen**

# FDC15 Series

## 15 WATT DC/DC CONVERTER, SINGLE & DUAL OUTPUTS



### FEATURES

- ✔ 15 WATT OUTPUT POWER
- ✔ 4 : 1 INPUT VOLTAGE RANGE
- ✔ EXTREMELY RELIABLE
- ✔ SIX SIDED CONTINUOUS SHIELD
- ✔ HIGH EFFICIENCY UP TO 82%
- ✔ SHORT CIRCUIT PROTECTION
- ✔ DIRECT PCB-SOLDERING
- ✔ INDUSTRY STANDARD 2 X 1.6 X.04 PACKAGE
- ✔ INTERNATIONAL SAFETY STANDARD

### APPROVALS

#### SAFETIES/APPROVALS

UL, TUV, CE  
UL1950  
EN60950

#### ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load

#### INPUT SPECIFICATIONS

Input Voltage Range..... 4 : 1  
Input Filter..... PI-Network

#### OUTPUT SPECIFICATIONS

Output Voltage Accuracy..... ±2  
Voltage Adjustability..... ±10%  
Minimum Load..... ±10%  
Efficiency..... Up to 82%  
Over-Current Protection..... 150% max  
Ripple ..... 75Vp-p (20Mhz  
Bandwidth)  
Line Regulation..... ±0.5%  
Line Filter..... Built-in  
Load Regulation..... **Single output:** ±1%  
**Dual output:** ±5%  
(Load Rate 10% ~ 100%)

#### GENERAL SPECIFICATIONS

Isolation Voltage..... 1600VDC min  
MTBF..... >2.041 x 10<sup>6</sup> hours  
Isolation Resistance..... 10<sup>9</sup> ohms min  
Isolation Capacitance..... 300pF  
Switching Frequency..... 270Khz typical

#### GENERAL SPECIFICATIONS

Operating Temperature ..... -40°C ~ +85°C  
Temperature Coefficient..... ±0.05%/ °C  
Humidity..... 5%~95% RH  
Storage Temperature..... -55°C ~ +105°C

#### PHYSICAL SPECIFICATIONS

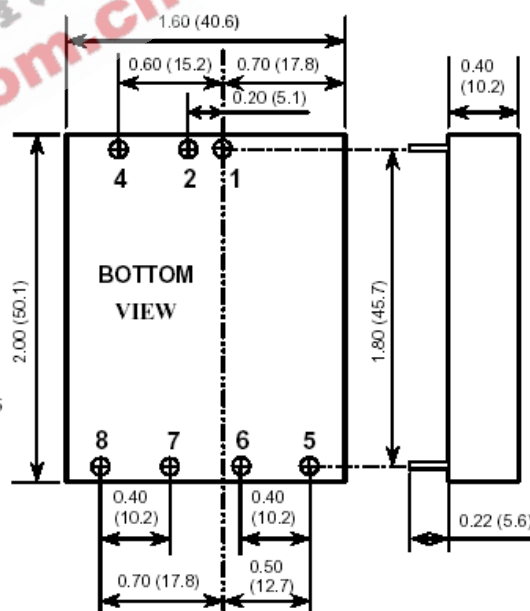
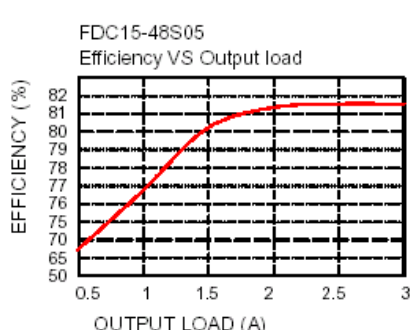
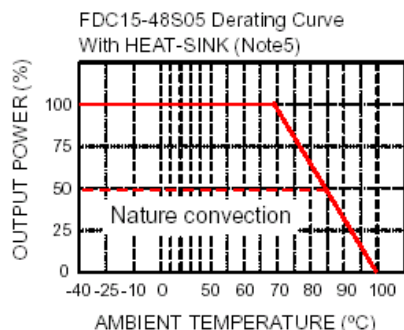
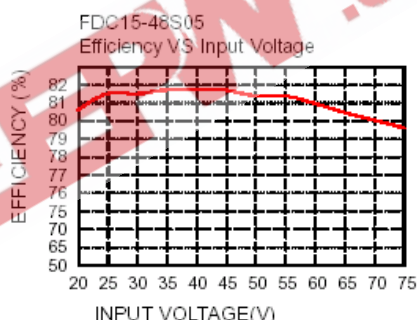
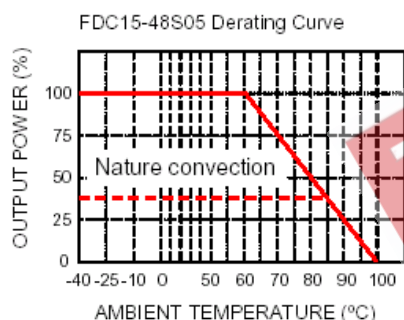
Case Material..... Nickel-Coated Copper  
Base Material..... Non-Conductive  
Black Plastic

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT
FDC15-24S05	24VDC (9 – 36V)	5VDC	3000mA
FDC15-24S12		12VDC	1250mA
FDC15-24S15		48VDC	1000mA
FDC15-24D05		±5VDC	±1500mA
FDC15-24D12		±12VDC	±625mA
FDC15-24D15		±15VDC	±500mA
FDC15-48S05	48VDC (18 - 75)	5VDC	3000mA
FDC15-48S12		12VDC	1250mA
FDC15-48S15		48VDC	1000mA
FDC15-48D05		±5VDC	±1500mA
FDC15-48D12		±12VDC	±625mA
FDC15-48D15		±15VDC	±500mA

**Note**

- The FDC15 series required a minimum 10% loading on the output to maintain specified regulation. Operation under no-load condition will not damage these devices, however they may not meet all listed specification.
- Simulated source impedance of 12uH. 12uH inductor in series with +Vin.
- The ON/OFF control voltage is reference to negative input.
- BELLCORE TR-NWT-000332. Case I: 50% Stress, Temperature at 40°C. (Ground fixed and controlled environment).
- Heat-sink option, Thermal impedance is 8.24°C/Watt for natural convection and the P/N is 7G-0011A.
- Maximum value at nominal input voltage and full load.
- Typical value at nominal input voltage and full load.
- Test by minimum Vin and constant resistor load.

PIN CONNECTION		
PIN	SINGLE OUTPUT	DUAL OUTPUT
1	+ INPUT	+ INPUT
2	- INPUT	- INPUT
4	CTRL	CTRL
5	NO PIN	+ OUTPUT
6	+ OUTPUT	COMMON
7	- OUTPUT	- OUTPUT
8	TRIM	TRIM



- All dimensions in Inches (mm)
- Pin pitch tolerance ±0.014(0.35)

