

# FM Series



## DC/DC

### 50 Watts

Single/Triple Outputs

- UL 1950 recognized
- Remote shutdown
- 300kHz switching frequency
- Continuous short circuit protection
- Six-sided shielding

## Specifications

### INPUT

Voltage Range	20-72Vdc
Filtering	All Models
Reverse Polarity Protected	To Nominal Input Current External Fuse Required
Remote On/Off Control	All Models

### OUTPUT

Voltage Tolerance	± 1% Main ± 3% Auxiliary
Ripple and Noise	50mV pk-pk
Short Circuit Protection	Continuous Power Cycle
Temperature Coefficient	0.02% / °C

### GENERAL

Regulation:	Main	Aux
Line	0.5%	1.0%
Load	1.0%	5.0%
Efficiency	80 to 84%	
I/O Isolation	1500 Vdc	
Switching Frequency	300khz (typ)	

### ENVIRONMENTAL

Operating Temperature	-40°C to +60°C No Derating
Max Baseplate Temp	+105°C
Storage Temperature	-40°C to +105°C

All specifications are typical at nominal line and full load at 25°C unless otherwise noted and are subject to change without notice.

The 50-Watt FM series offer single and triple outputs, high efficiency and low cost. These converters were designed for rugged environments. Internal filtering is provided to reduce the magnitude of the reflected ripple current. Single output models can be used in parallel for higher power applications. The FM series is packaged in a 4.0" x 2.6" x 0.5" six-sided shielded case.

### Applications

These units are ideally suited for telecommunications and applications having a widely varying input voltage such as automotive test equipment, process control, minicomputers and geosurvey equipment.



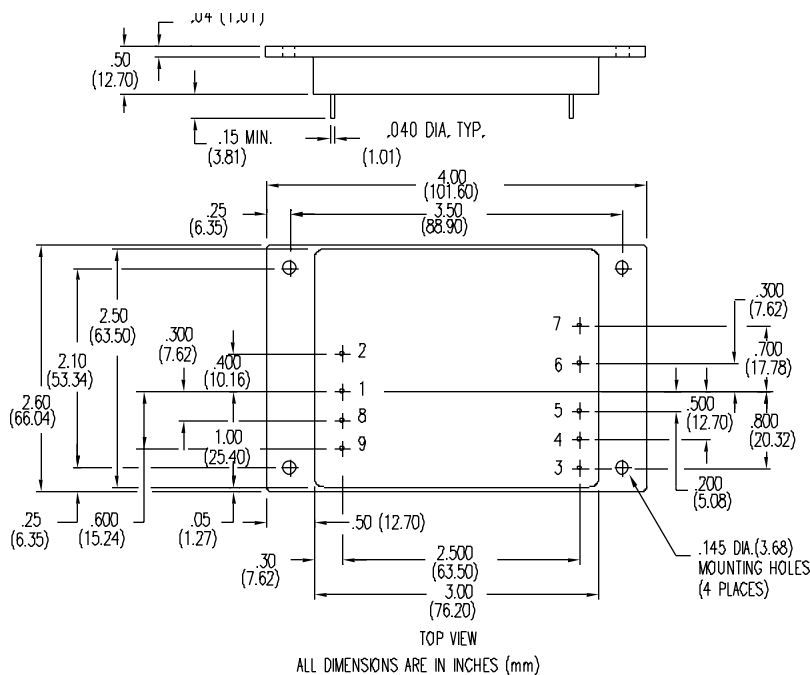
**SEMICONDUCTOR  
CIRCUITS, INC.**

888.438.3232 888.GET.DCDC

# FM Series Ordering Information

Input Voltage Range	Output Voltage	Output Current	Model Number
20-72 Vdc	3.3 Vdc	12000 mA	FM17-1200-48
20-72 Vdc	5 Vdc	10000 mA	FM11-1000-48
20-72 Vdc	12 Vdc	4200 mA	FM12-420-48
20-72 Vdc	15 Vdc	3400mA	FM13-340-48
20-72 Vdc	+5 / ±12Vdc	6000 / ±750mA	FM34-750-48
20-72 Vdc	+5 / ±15Vdc	6000 / ±650mA	FM35-730-48

## Dimensions and Connections



### PIN CONNECTIONS

#### Single Output

1. +Input
2. -Input
3. No Pin
4. No Pin
5. No Pin
6. +Output
7. Common-Output
8. Remote On/Off
9. Parallel Operation

### PIN CONNECTIONS

#### Triple Outputs

1. +Input
2. -Input
3. +12 or 15 Output
4. Common
5. -12 or 15 Output
6. +5 Output
7. Common
8. Remote On/Off
9. No Connect

### NOTES:

1. Ripple measured with a 3.3 mf tantalum capacitor across each output.
2. Load regulation from full load to minimum load with all other outputs at rated load.
3. Minimum current required on 5V out only.
4. Maximum total power from all outputs is 50 Watts and no output is to exceed its maximum rated current.

Remote ON/Off Control (pin 8) common referenced to Minus input (pin 2).  
On greater than 4 Vdc or open circuit  
Off less than 1.2 Vdc

11/01/2001