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# Power Entry Modules

*The industry's most complete line of power entry modules are ideal for products that must conform to FCC Part 15 regulations. These metal cased miniature filters offer high performance.*



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# Power Entry Modules Bolt-in Rear Terminals

## 60-BPR & BPS Series

### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Solder lug and Fast-on tab terminals available
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF17)
- UL approved low leakage version also available

### Applications

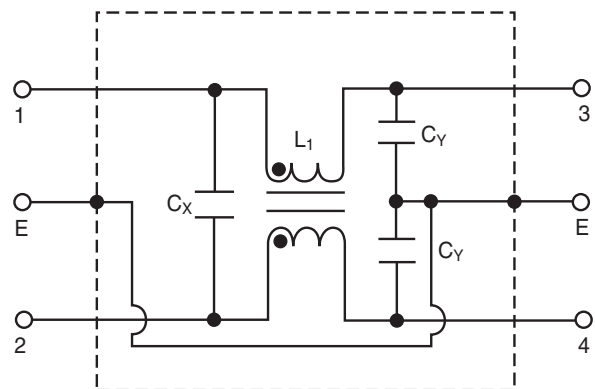
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units



Tested and found to be IAW VDE 0565 Part 3.



### Circuit Diagram



### Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>		
60-XXX-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	.022uF ± 20%	6.0mH	30°C
60-XXX-010-3-4					.047uF ± 20%		
60-XXX-010-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-010-5-4					.047uF ± 20%		
60-XXX-020-3-2	250VAC	2A	0.35mA	2200pF ± 20%	.022uF ± 20%	2.4mH	30°C
60-XXX-020-3-4					.047uF ± 20%		
60-XXX-020-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-020-5-4					.047uF ± 20%		
60-XXX-030-3-2	250VAC	3A	0.35mA	2200pF ± 20%	.022uF ± 20%	1.2mH	30°C
60-XXX-030-3-4					.047uF ± 20%		
60-XXX-030-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-030-5-4					.047uF ± 20%		
60-XXX-060-3-2	250VAC	6A	0.35mA	2200pF ± 20%	.022uF ± 20%	0.53mH	45°C
60-XXX-060-3-4					.047uF ± 20%		
60-XXX-060-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-060-5-4					.047uF ± 20%		
60-XXX-100-3-2	250VAC	10A	0.35mA	2200pF ± 20%	.022uF ± 20%	0.26mH	45°C
60-XXX-100-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPR-150-3-11	250VAC	15A	0.35mA	2200pF ± 20%	.1uF ± 20%	0.15mH	45°C

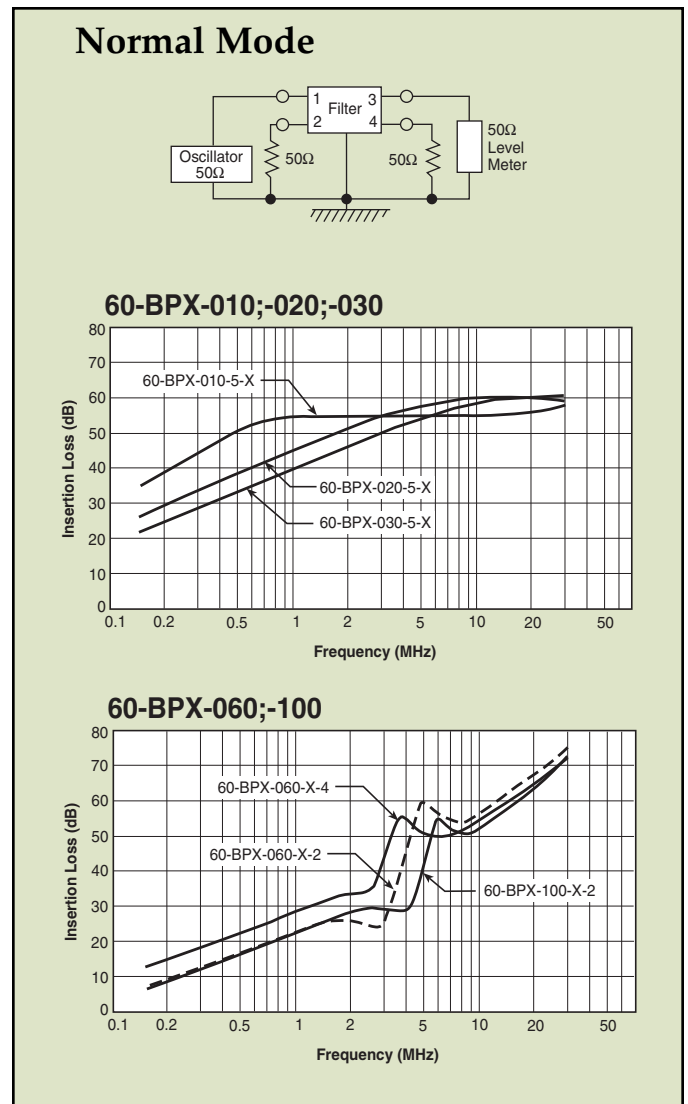
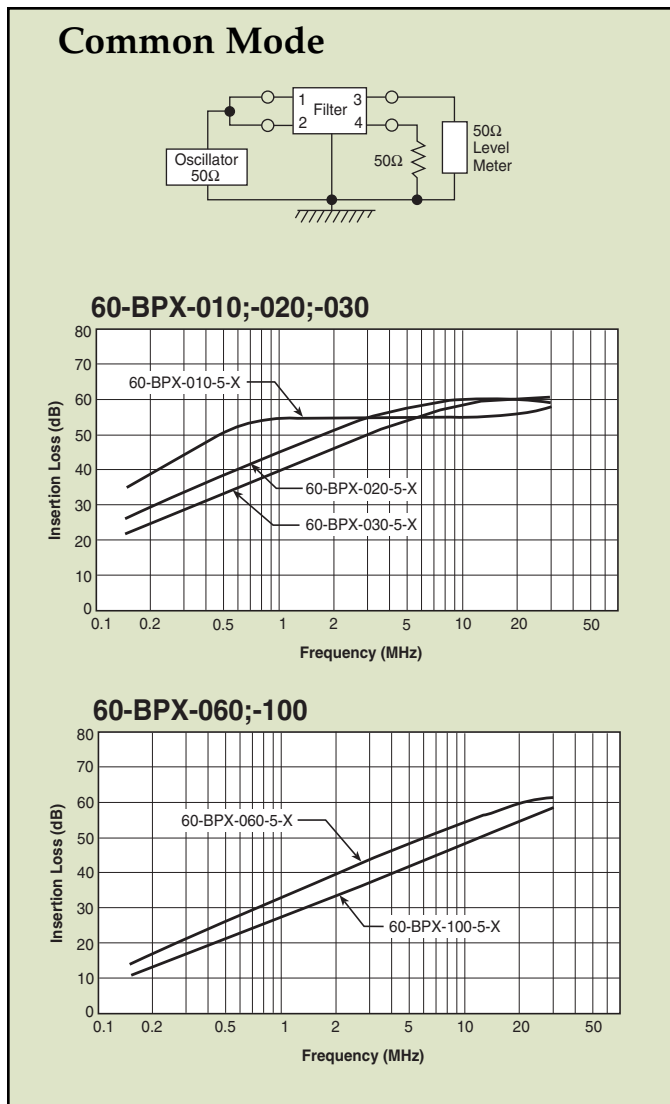
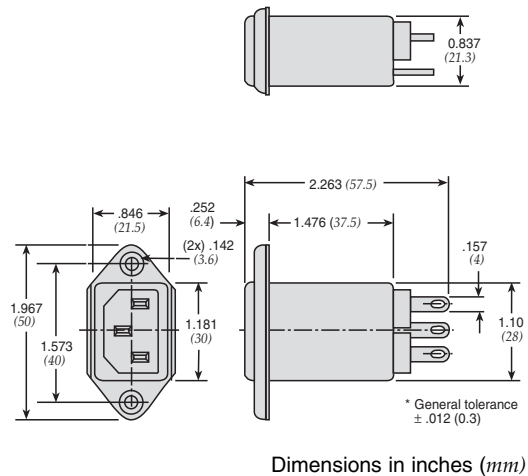
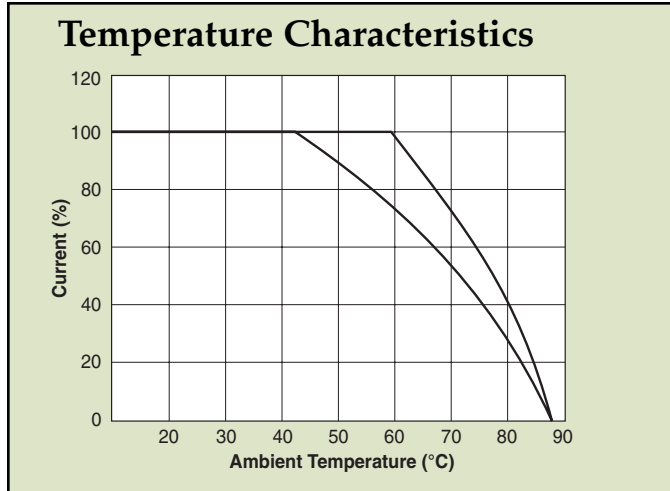
Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 45g  
 Input: Compatible with IEC-320

\* Substitute BPR or BPS for XXX

BPS - Solder lug terminals  
 BPR - Fast-on tab terminals

# Power Entry Modules Bolt-in Rear Terminals

## 60-BPR & BPS Series



# Power Entry Modules Bolt-in Right Angle Terminals



## 60-BPF Series

### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- PCB mounting types available (see page PF46)
- Length under tab is shortened for small spaces
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF19)
- UL approved low leakage version also available

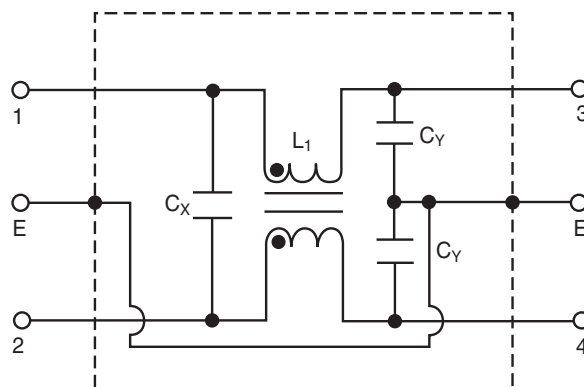


Tested and found to be IAW VDE 0565 Part 3.

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



### Specifications

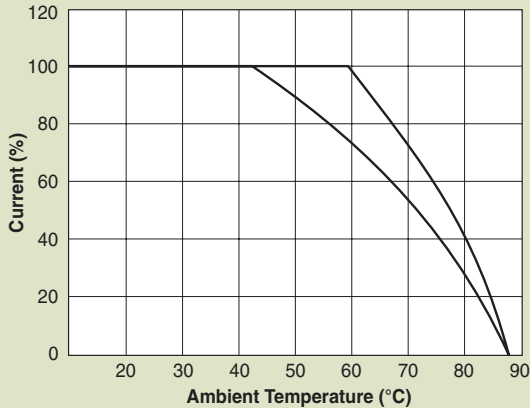
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>		
60-BPF-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	.022uF ± 20%	6.0mH	30°C
60-BPF-010-3-4					.047uF ± 20%		
60-BPF-010-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPF-010-5-4					.047uF ± 20%		
60-BPF-020-3-2	250VAC	2A	0.35mA	2200pF ± 20%	.022uF ± 20%	2.4mH	30°C
60-BPF-020-3-4					.047uF ± 20%		
60-BPF-020-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPF-020-5-4					.047uF ± 20%		
60-BPF-030-3-2	250VAC	3A	0.35mA	2200pF ± 20%	.022uF ± 20%	1.2mH	30°C
60-BPF-030-3-4					.047uF ± 20%		
60-BPF-030-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPF-030-5-4					.047uF ± 20%		
60-BPF-060-3-2	250VAC	6A	0.35mA	2200pF ± 20%	.022uF ± 20%	0.53mH	45°C
60-BPF-060-3-4					.047uF ± 20%		
60-BPF-060-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPF-060-5-4					.047uF ± 20%		

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 50g  
 Input: Compatible with IEC-320

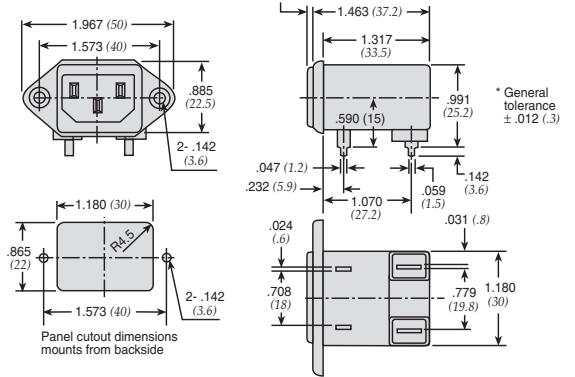
# Power Entry Modules Bolt-in Right Angle Terminals

## 60-BPF Series

### Temperature Characteristics

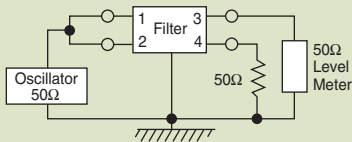


### 60-BPF Fast-on Terminals

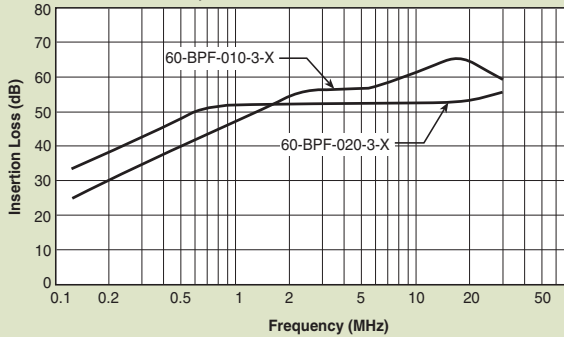


Dimensions in inches (mm)

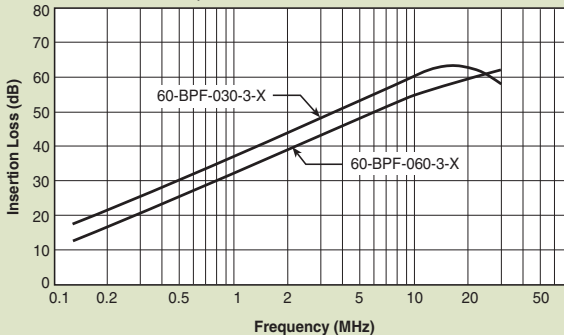
### Common Mode



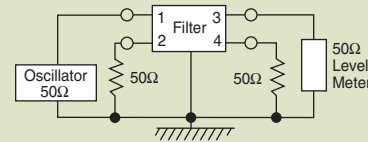
#### 60-BPF-010;-020



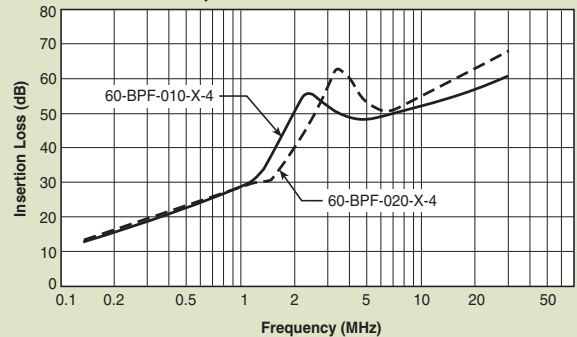
#### 60-BPF-030;-060



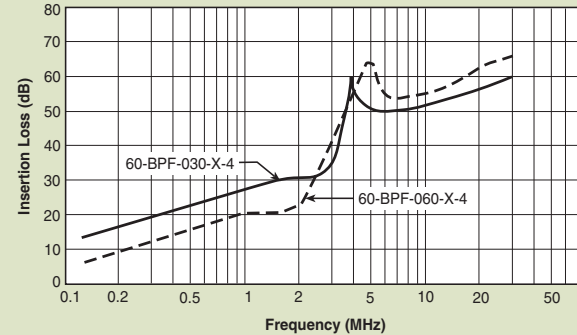
### Normal Mode



#### 60-BPF-010;-020



#### 60-BPF-030;-060



# Power Entry Modules High Frequency Attenuation



## 60-BHS Series



Tested and found to be  
IAW VDE 0565 Part 3.

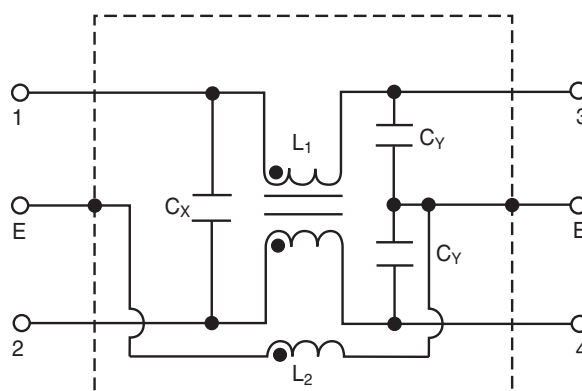
### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased miniature filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- PCB mounting types available (see page PF48)
- PCB mounting minimizes space and provides economical installation
- Excellent filtering characteristics for high frequencies
- Earth coil standard
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF21)

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



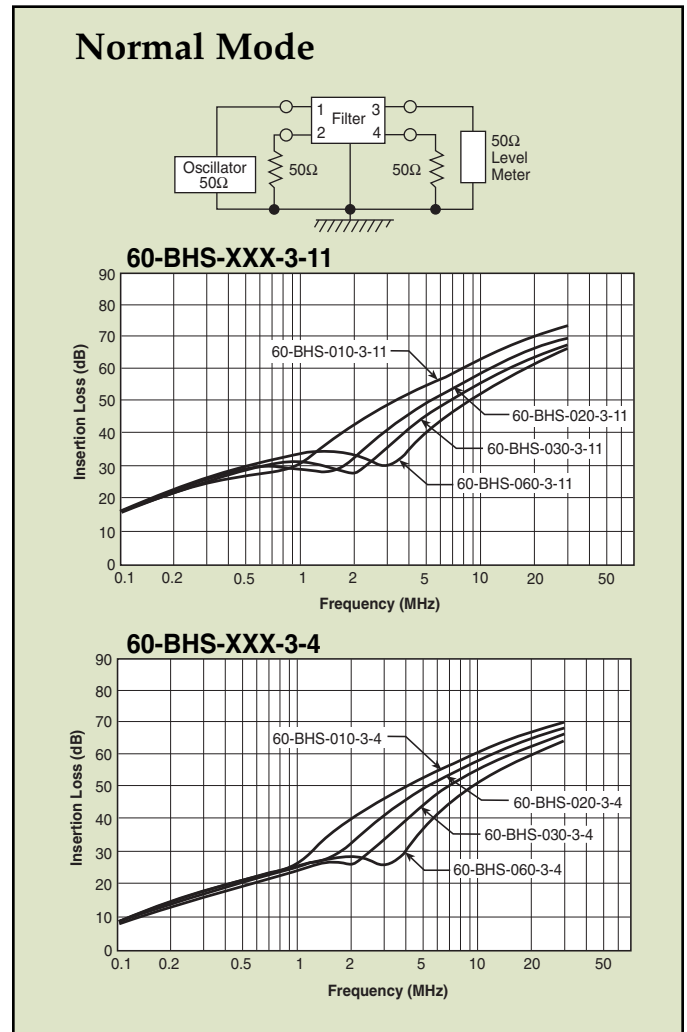
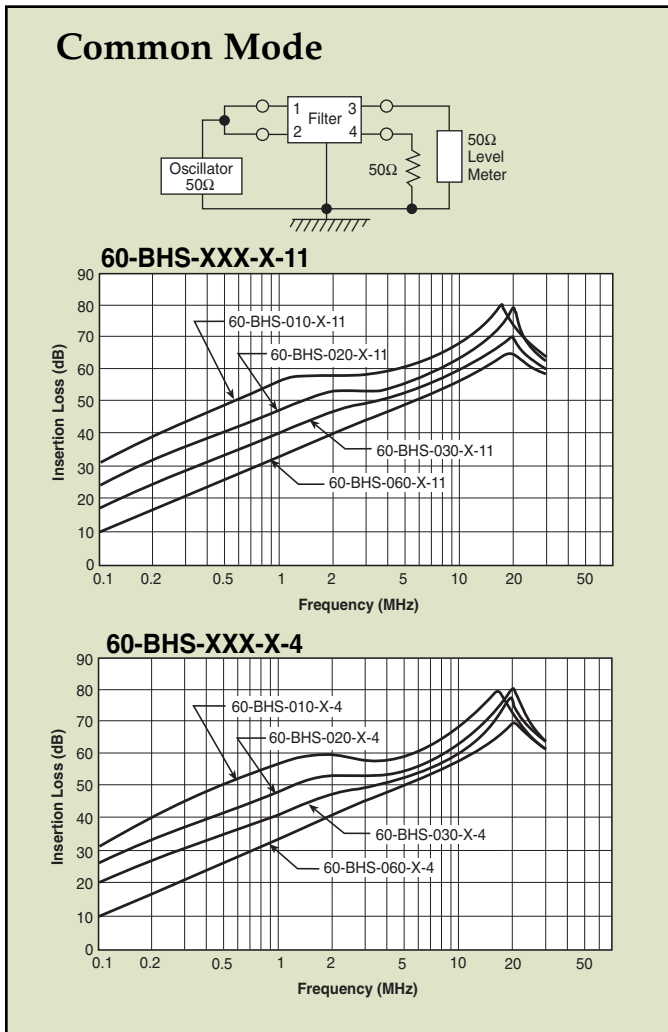
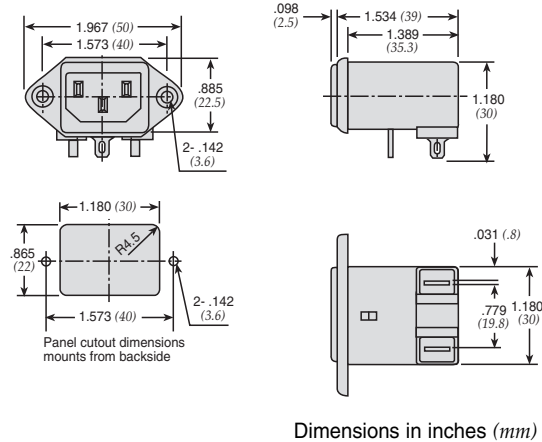
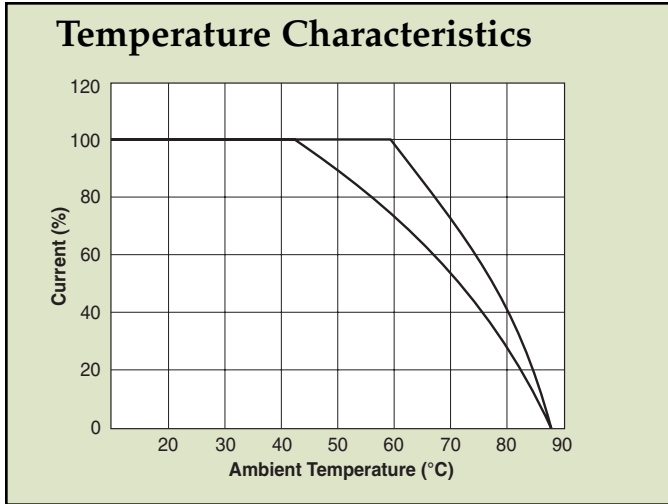
### Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub>   L <sub>2</sub> )		Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>	(L <sub>1</sub> )	(L <sub>2</sub> )	
60-BHS-010-3-11	250VAC	1A	0.35mA	2200pF ± 20%	0.1uF ± 20%	6mH	18.3uH	30°C
60-BHS-010-3-4					.047uF ± 20%			
60-BHS-010-5-11			0.50mA	3300pF ± 20%	0.1uF ± 20%			
60-BHS-010-5-4					.047uF ± 20%			
60-BHS-020-3-11	250VAC	2A	0.35mA	2200pF ± 20%	0.1uF ± 20%	2.4mH	18.3uH	30°C
60-BHS-020-3-4					.047uF ± 20%			
60-BHS-020-5-11			0.50mA	3300pF ± 20%	0.1uF ± 20%			
60-BHS-020-5-4					.047uF ± 20%			
60-BHS-030-3-11	250VAC	3A	0.35mA	2200pF ± 20%	0.1uF ± 20%	1.2mH	18.3uH	30°C
60-BHS-030-3-4					.047uF ± 20%			
60-BHS-030-5-11			0.50mA	3300pF ± 20%	0.1uF ± 20%			
60-BHS-030-5-4					.047uF ± 20%			
60-BHS-060-3-11	250VAC	6A	0.35mA	2200pF ± 20%	0.1uF ± 20%	.53mH	18.3uH	45°C
60-BHS-060-3-4					.047uF ± 20%			
60-BHS-060-5-11			0.50mA	3300pF ± 20%	0.1uF ± 20%			
60-BHS-060-5-4					.047uF ± 20%			

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 50g  
 Input: Compatible with IEC-320

# Power Entry Modules High Frequency Attenuation

## 60-BHS Series





# Power Entry Modules Bolt-in Rear Terminals

For General Purpose Applications



## 10-BPF Series



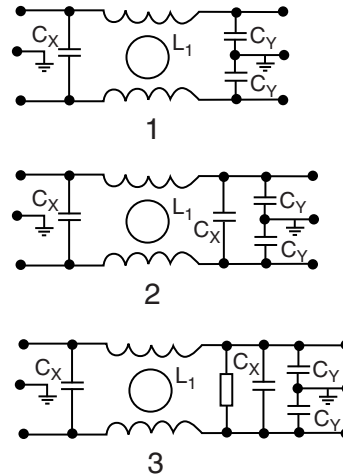
### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Operating temperature: -25°C to +70°C
- Compact configuration

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



### Specifications

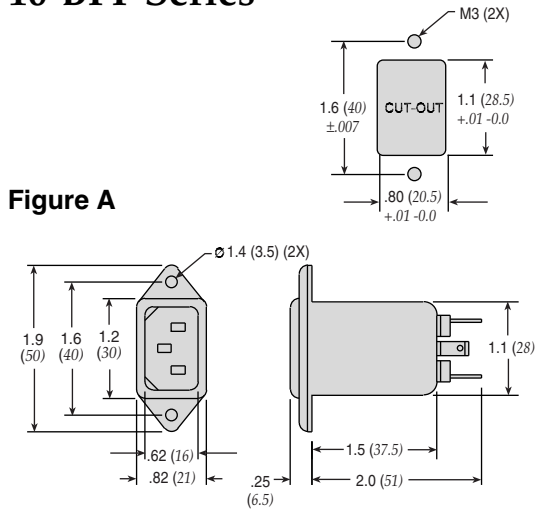
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Circuit Diagram	Figure	Temperature Rise (Max.)
				C <sub>y</sub>	C <sub>x</sub>				
10-BPF-001-5-A	120/250VAC	1A	0.50mA	3300pF	2200pF	3.0mH	1	A	30°C
10-BPF-001-5-C									
10-BPF-003-5-A		6A		3300pF	0.5mH	1	A		
10-BPF-003-5-C								10A	
10-BPF-003-5-D		3300pF		0.01uF	0.5mH	1	A		
10-BPF-006-5-A								3300pF & 0.01uF	
10-BPF-006-5-C		3300pF		0.01uF	0.5mH	1	A		
10-BPF-006-5-D								3300pF & 0.01uF	
10-BPF-010-5-A		3300pF		0.01uF	0.5mH	1	A		
10-BPF-010-5-D								3300pF & 0.01uF	

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 45g  
 Input: Compatible with IEC-320

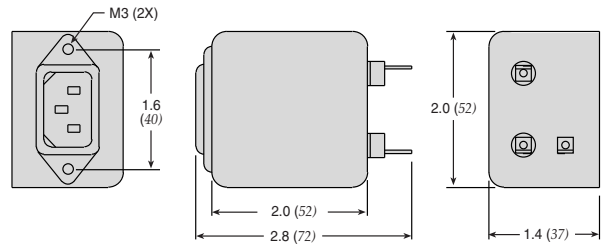
# Power Entry Modules Bolt-in Rear Terminals For General Purpose Applications

## 10-BPF Series

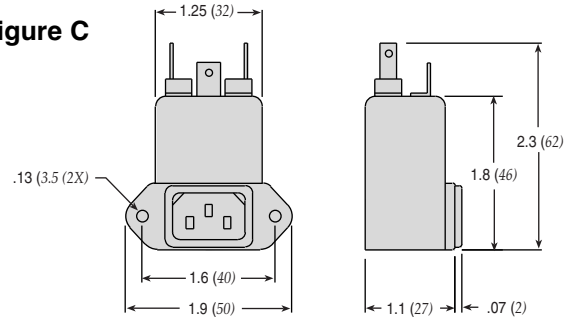
**Figure A**



**Figure B**

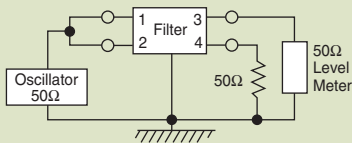


**Figure C**

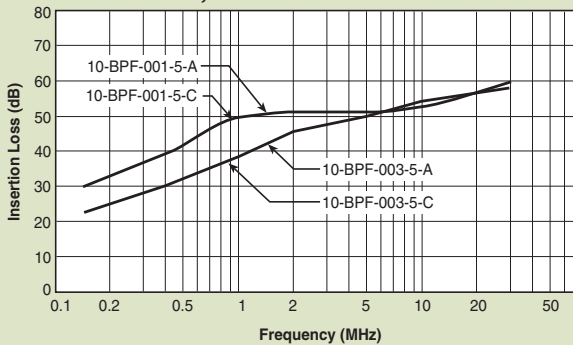


Dimensions in inches (mm)

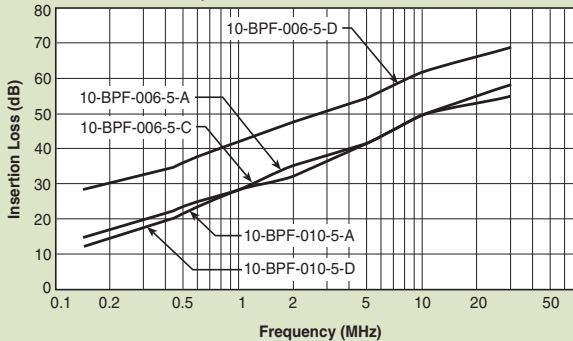
### Common Mode



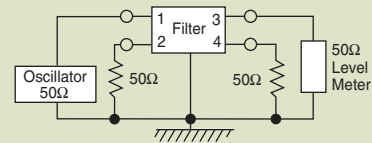
#### 10-BPF-001;-003



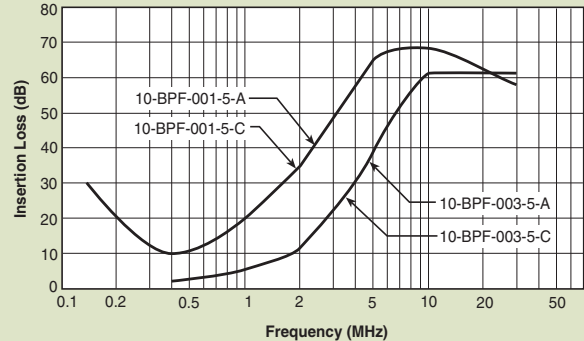
#### 10-BPF-006;-010



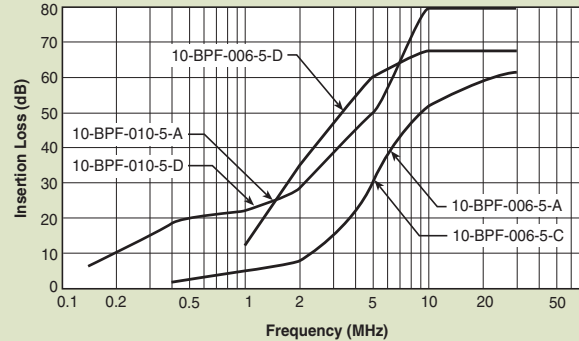
### Normal Mode



#### 10-BPF-001;-003



#### 10-BPF-006;-010



# Power Entry Modules Bolt-in Rear Terminals

For Medical Purpose Applications

## 10-BPF Series



### Features

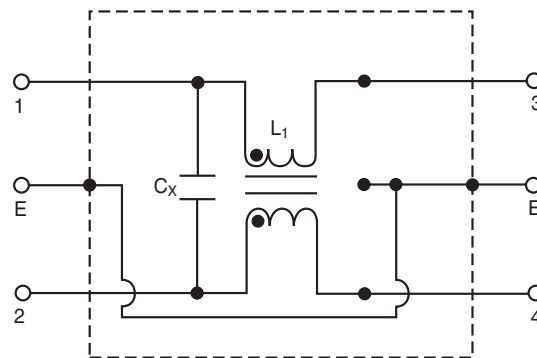
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Operating temperature: -25°C to +70°C
- Compact configuration
- Low leakage current

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units



### Circuit Diagram



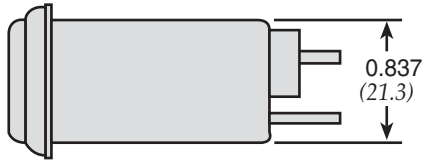
### Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance C <sub>x</sub>	Inductance (L <sub>1</sub> )	Circuit Diagram	Figure	Temperature Rise (Max.)
10-BPF-001-2-A	120/250VAC	1A	5uA	0.01uF	3.0mH	1	A	30°C
10-BPF-003-2-A		3A			1.5mH			
10-BPF-006-2-A		6A			0.5mH			

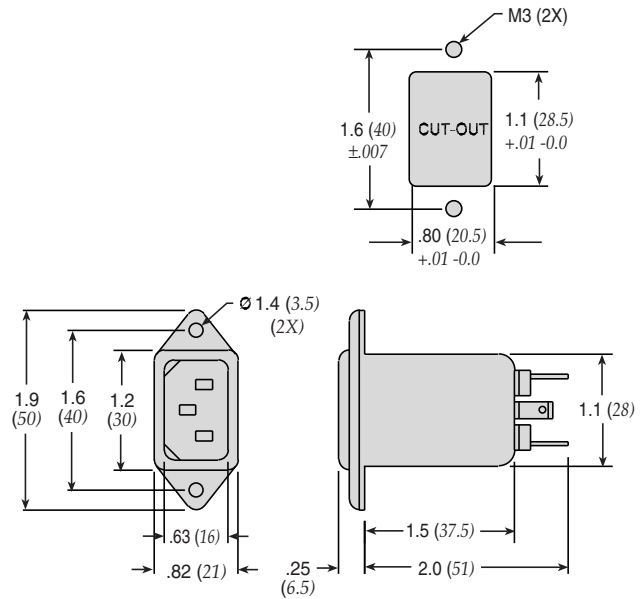
Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 45g  
 Input: Compatible with IEC-320

# Power Entry Modules Bolt-in Rear Terminals For Medical Purpose Applications

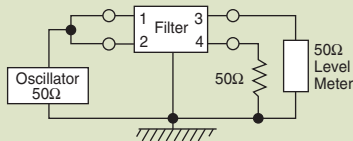
## 10-BPF Series



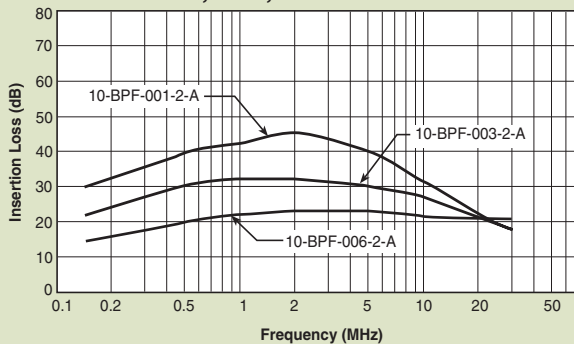
Dimensions in inches (mm)



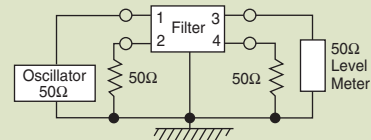
### Common Mode



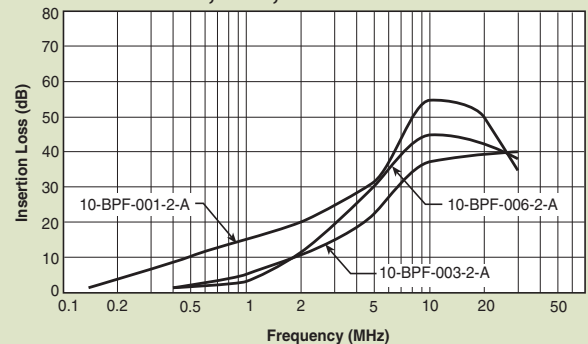
#### 10-BPF-001;-003;-006



### Normal Mode



#### 10-BPF-001;-003;-006



# Power Entry Modules Snap-in with Wire Leads



## 60-SPL Series

### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased miniature filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Snap-in style saves labor and hardware inventory
- Wire output minimizes space and provides economical installation
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF27)

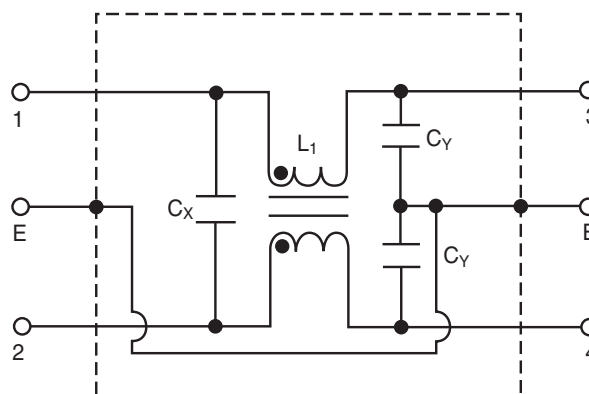


Tested and found to be IAW VDE 0565 Part 3.

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



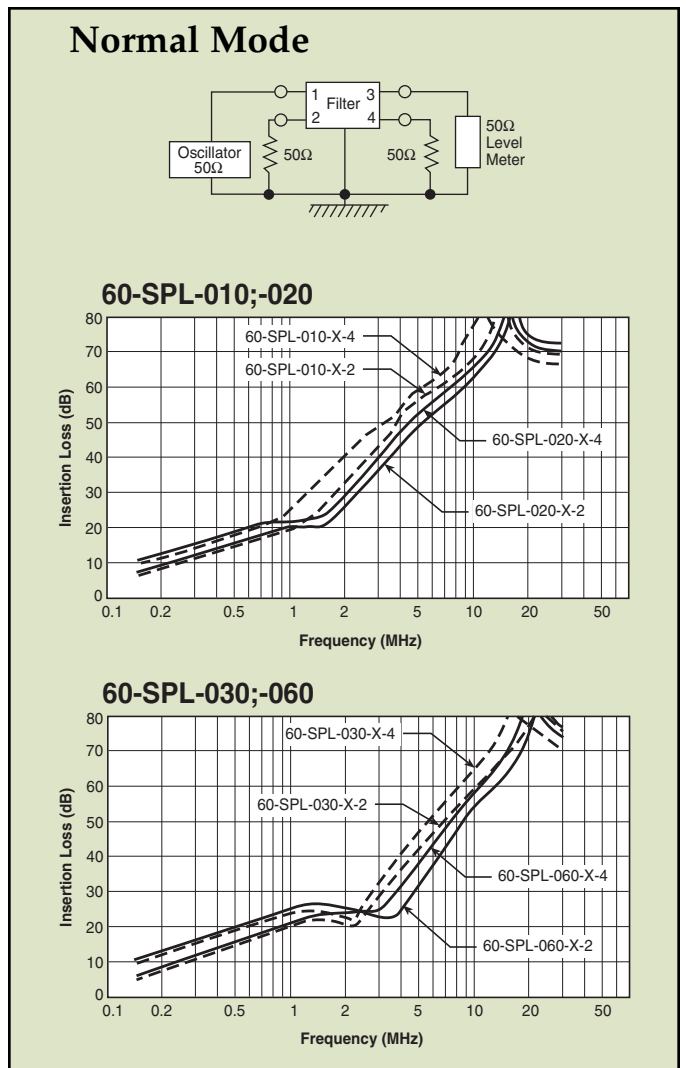
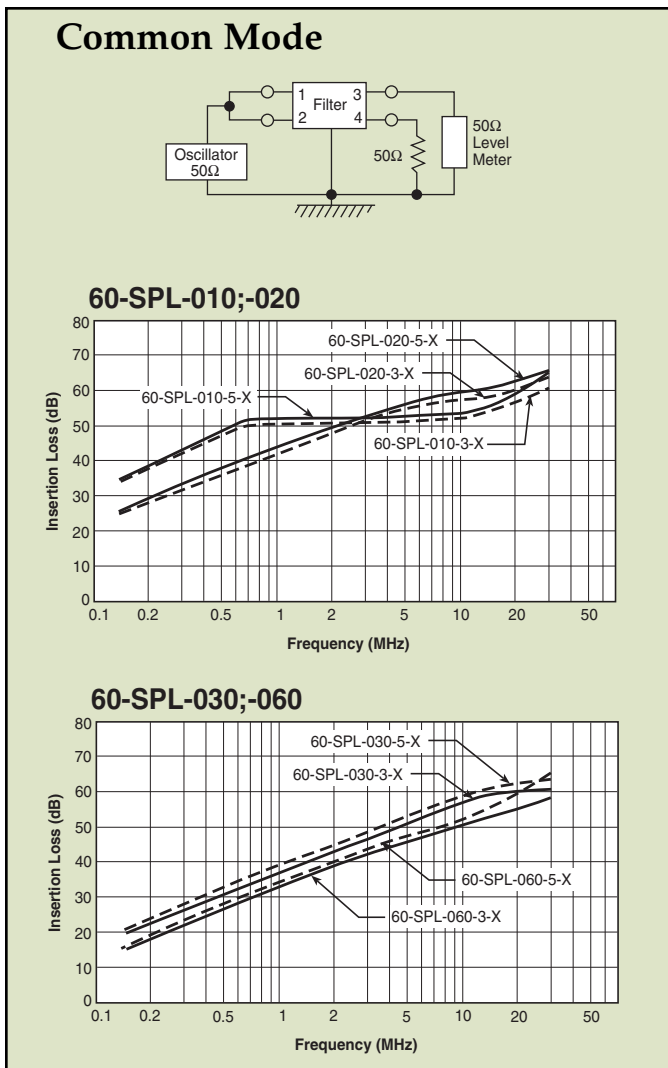
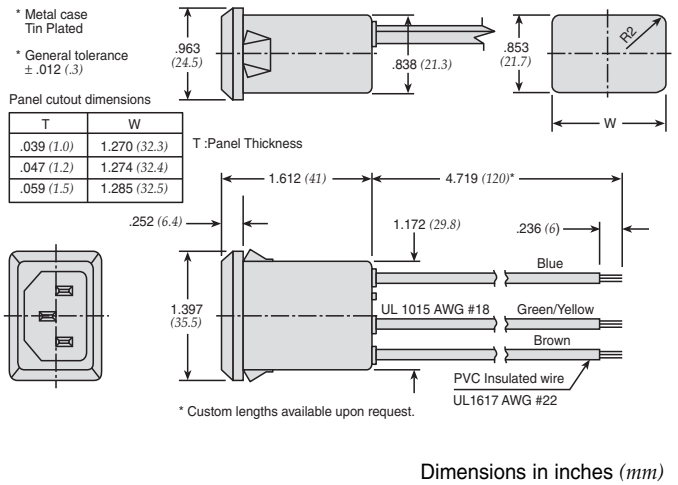
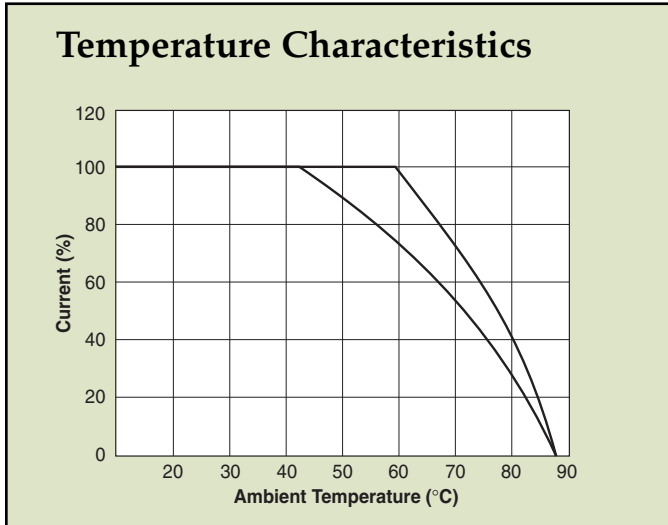
### Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)	
				C <sub>Y</sub>	C <sub>X</sub>			
60-SPL-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	22nF ± 20%	6.0mH	30°C	
60-SPL-010-3-3					33nF ± 20%			
60-SPL-010-5-2			0.50mA	3300pF ± 20%	22nF ± 20%			
60-SPL-010-5-3					33nF ± 20%			
60-SPL-020-3-2	250VAC	2A	0.35mA	2200pF ± 20%	22nF ± 20%	2.4mH	30°C	
60-SPL-020-3-3					33nF ± 20%			
60-SPL-020-5-2			0.50mA	3300pF ± 20%	22nF ± 20%			
60-SPL-020-5-3					33nF ± 20%			
60-SPL-030-3-2	250VAC	3A	0.35mA	2200pF ± 20%	.022uF ± 20%	1.2mH	30°C	
60-SPL-030-3-3				3300pF ± 20%				
60-SPL-030-5-2			0.50mA	3300pF ± 20%	2200pF ± 20%			.033uF ± 20%
60-SPL-030-5-3					3300pF ± 20%			
60-SPL-060-3-2	250VAC	6A	0.35mA	2200pF ± 20%	22nF ± 20%	0.53mH	45°C	
60-SPL-060-3-3					33nF ± 20%			
60-SPL-060-5-2			0.50mA	3300pF ± 20%	22nF ± 20%			
60-SPL-060-5-3					33nF ± 20%			

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 50g  
 Input: Compatible with IEC-320

# Power Entry Modules Snap-in with Wire Leads

## 60-SPL Series



# Power Entry Modules Bolt-in with Wire Leads



## 60-BPL Series

### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Wire output for minimizing space use and economical installation
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF28)

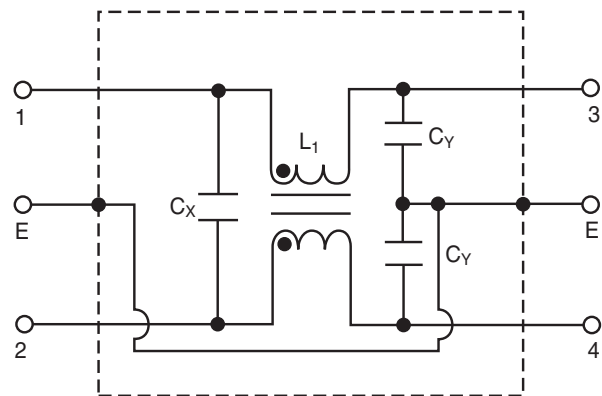


Tested and found to be IAW VDE 0565 Part 3.

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



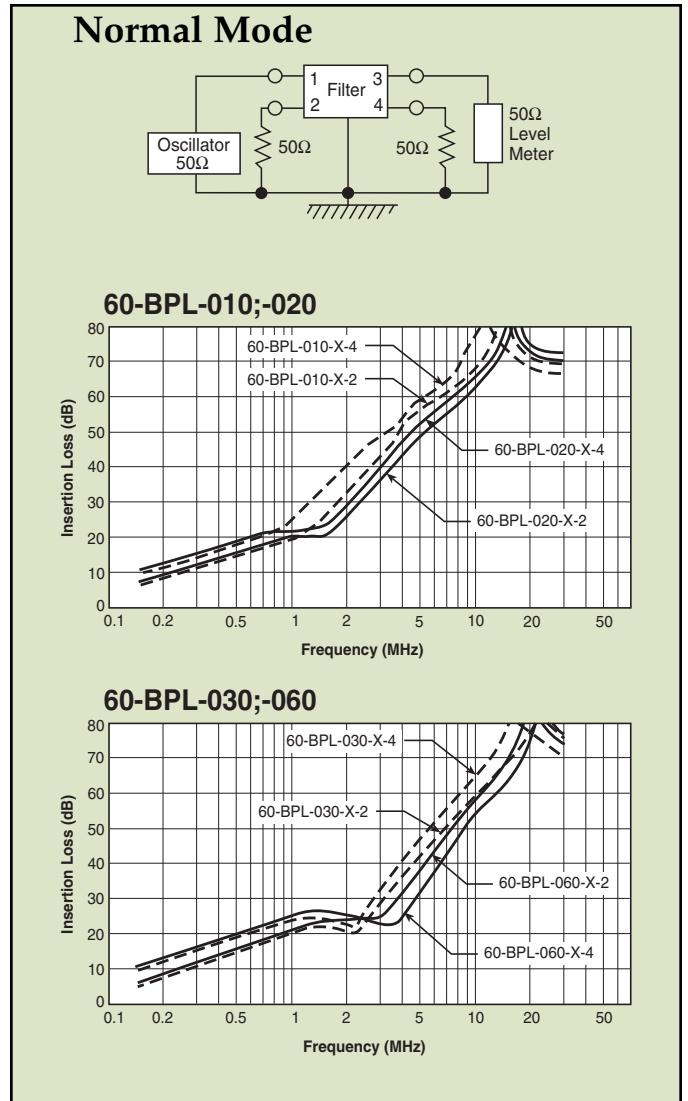
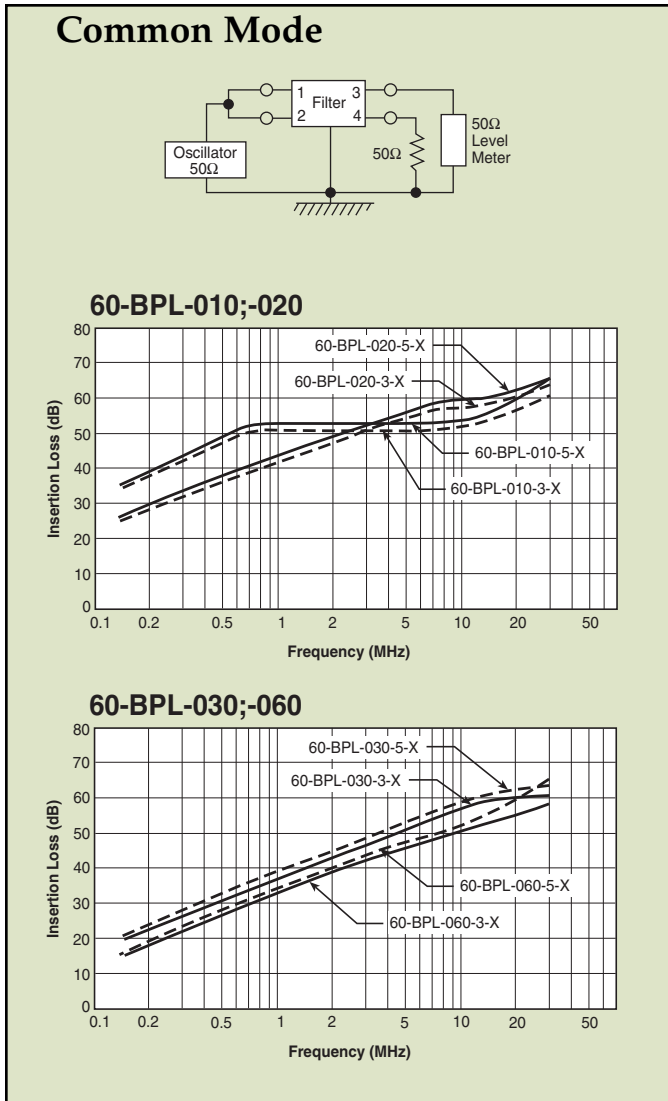
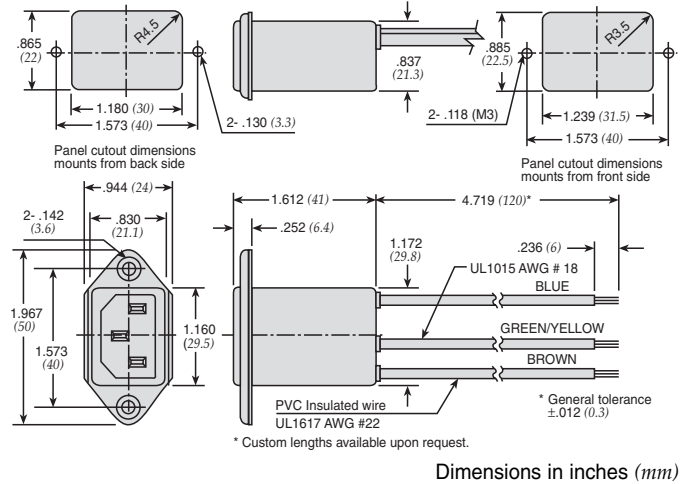
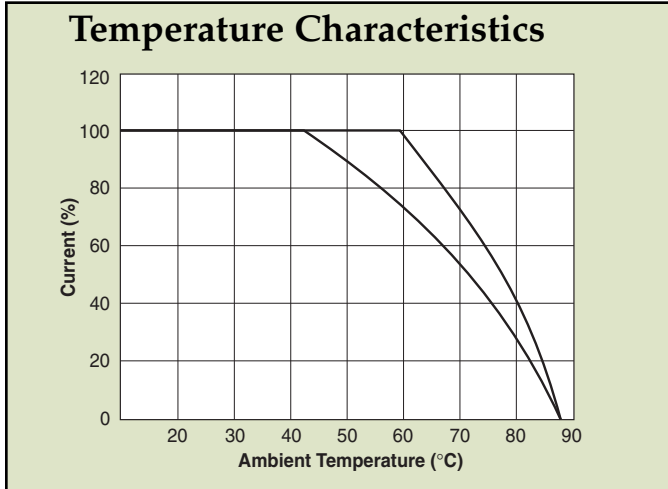
### Specifications

Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>		
60-BPL-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	22nF ± 20%	6.0mH	30°C
60-BPL-010-3-3					33nF ± 20%		
60-BPL-010-5-2			0.50mA	3300pF ± 20%	22nF ± 20%		
60-BPL-010-5-3					33nF ± 20%		
60-BPL-020-3-2	250VAC	2A	0.35mA	2200pF ± 20%	22nF ± 20%	2.4mH	30°C
60-BPL-020-3-3					33nF ± 20%		
60-BPL-020-5-2			0.50mA	3300pF ± 20%	22nF ± 20%		
60-BPL-020-5-3					33nF ± 20%		
60-BPL-030-3-2	250VAC	3A	0.35mA	2200pF ± 20%	.022uF ± 20%	1.2mH	30°C
60-BPL-030-3-3				3300pF ± 20%			
60-BPL-030-5-2			0.50mA	2200pF ± 20%	.033uF ± 20%		
60-BPL-030-5-3							
60-BPL-060-3-2	250VAC	6A	0.35mA	2200pF ± 20%	22nF ± 20%	0.53mH	45°C
60-BPL-060-3-3					33nF ± 20%		
60-BPL-060-5-2			0.50mA	3300pF ± 20%	22nF ± 20%		
60-BPL-060-5-3					33nF ± 20%		

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 50g  
 Input: Compatible with IEC-320

# Power Entry Modules Bolt-in with Wire Leads

## 60-BPL Series





# Power Entry Modules Bolt-in with Wire Leads



## 10-BPL Series



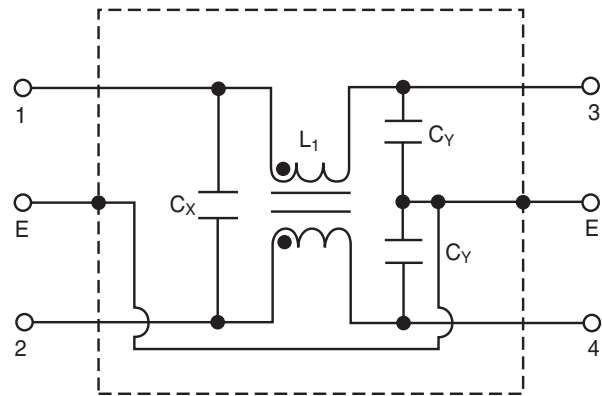
### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Wire output for minimizing space use and economical installation
- Operating temperature: -25°C to +70°C
- Compact configuration

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



### Specifications

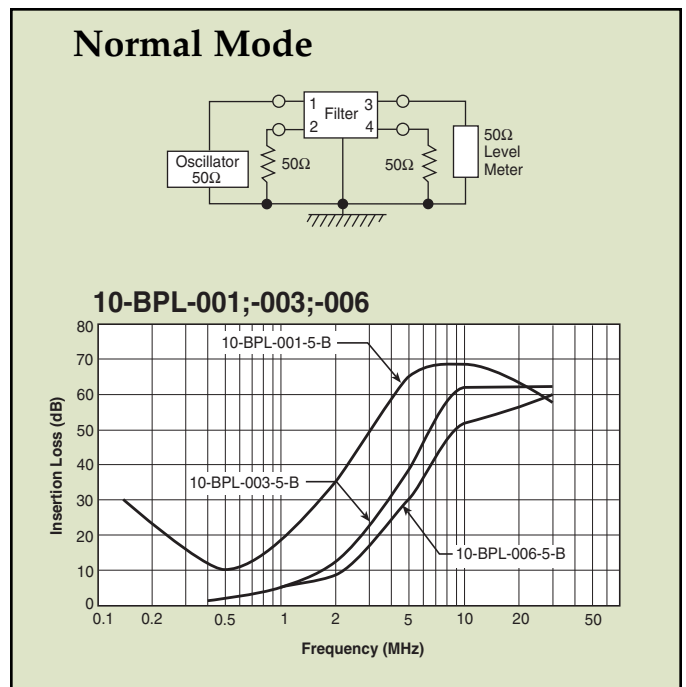
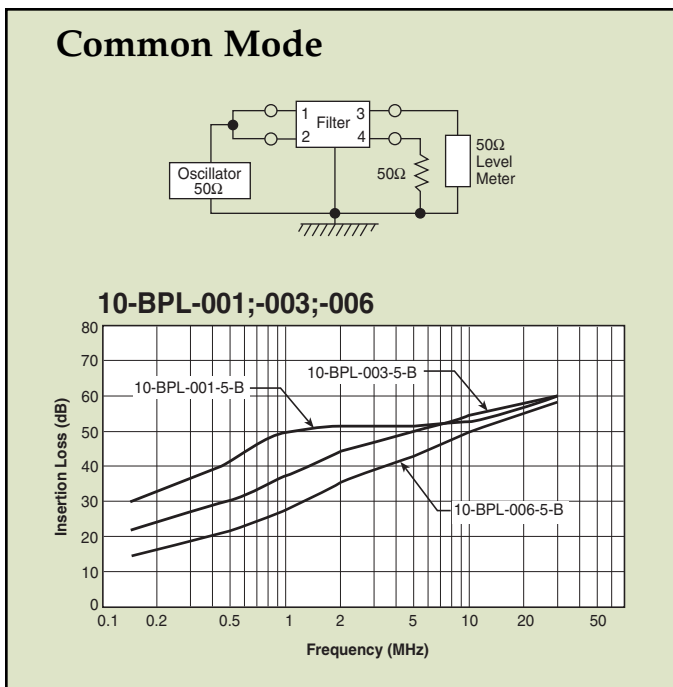
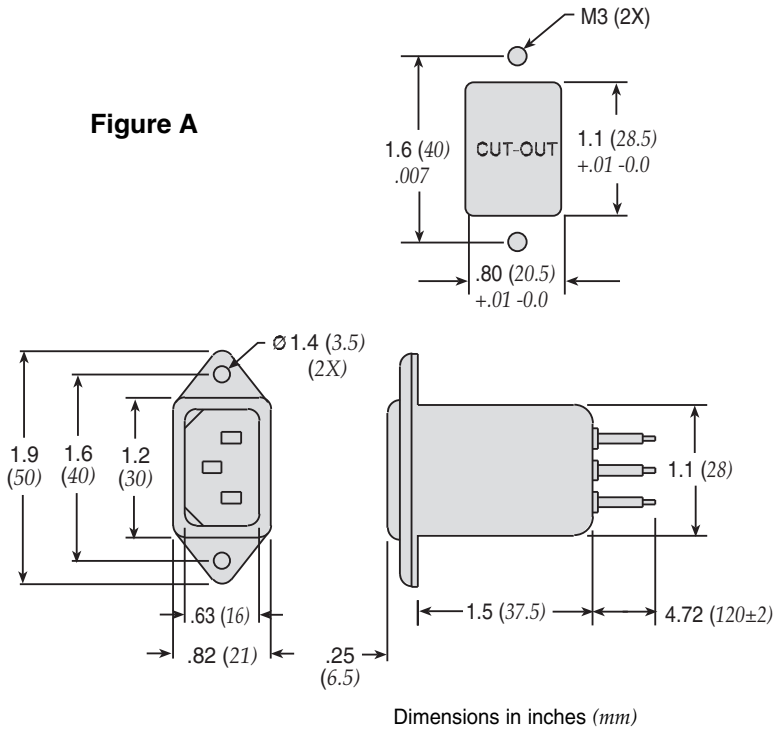
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Circuit Diagram	Figure	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>				
10-BPL-001-5-B	250VAC	1A	0.50mA	3300pF	0.01uF	3.0mH	1	A	30°C
10-BPL-003-5-B		3A				1.5mH			
10-BPL-006-5-B		6A				0.5mH			

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 50g  
 Input: Compatible with IEC-320

# Power Entry Modules Bolt-in with Wire Leads

## 10-BPL Series

**Figure A**



# Power Entry Modules Snap-in Mount



## 60-SPR & SPS Series

### Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased miniature filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Snap-in style saves labor and hardware inventory
- Solder lug and fast-on tab terminations available
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF33)
- UL approved low leakage version also available

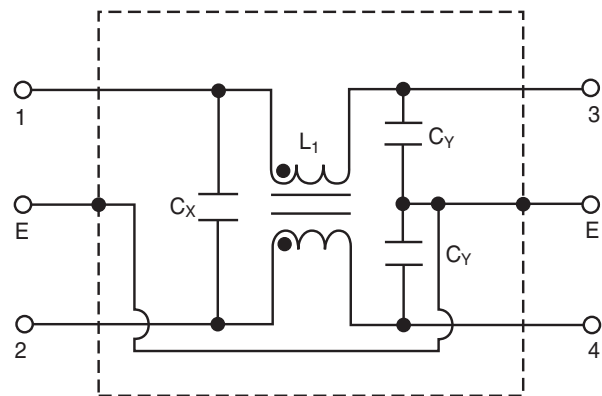


Tested and found to be IAW VDE 0565 Part 3.

### Applications

- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units

### Circuit Diagram



### Specifications

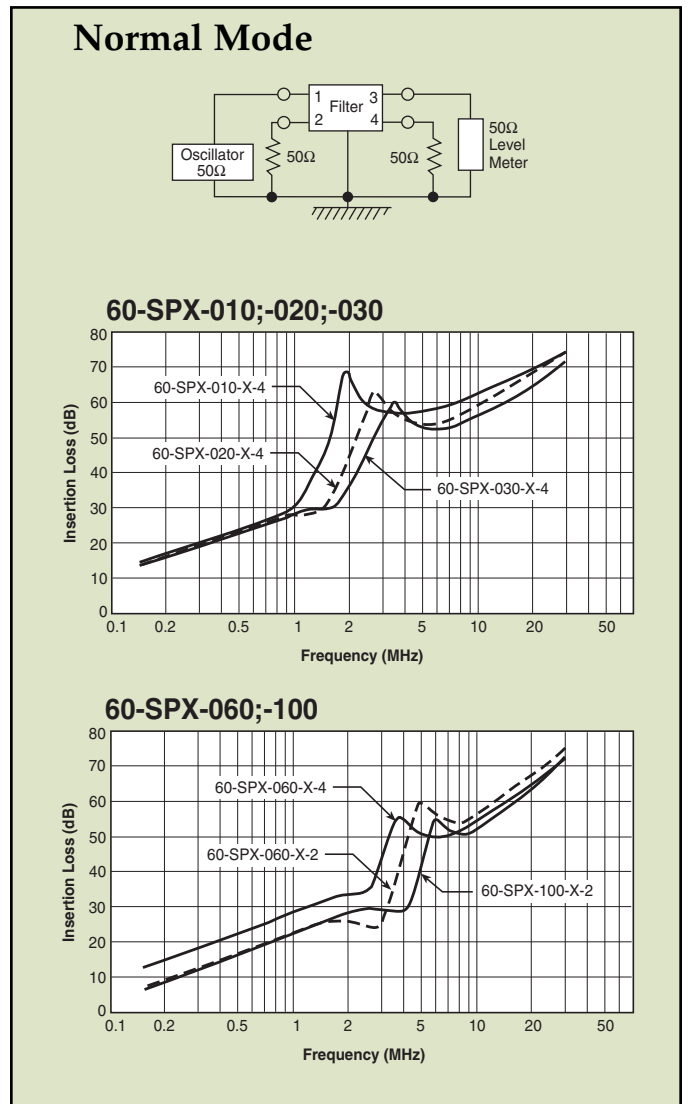
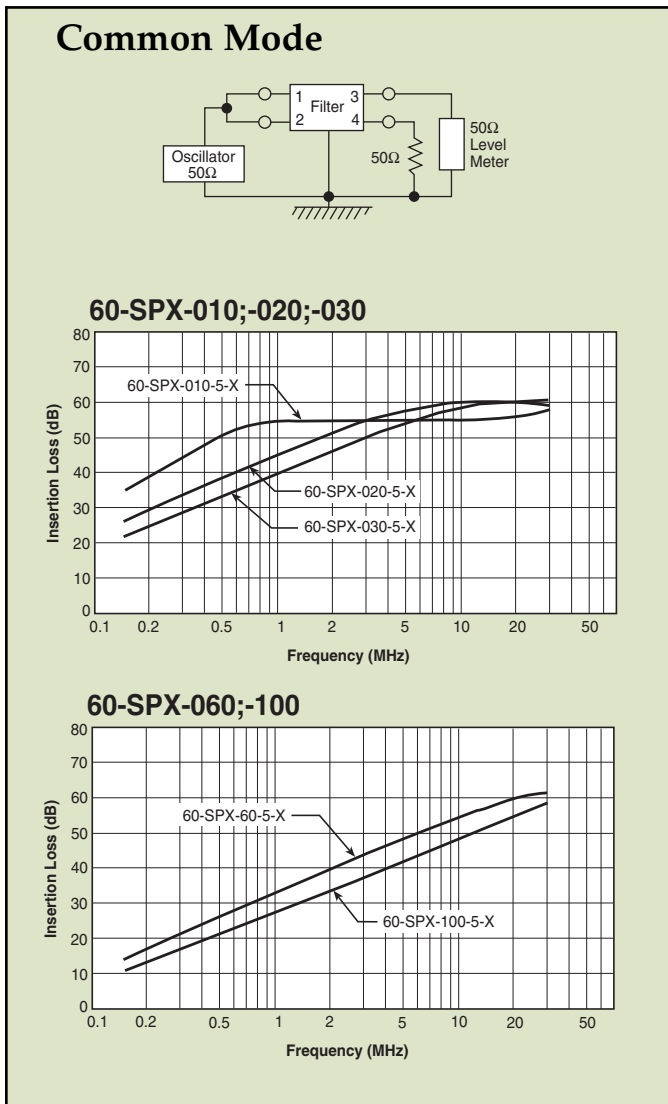
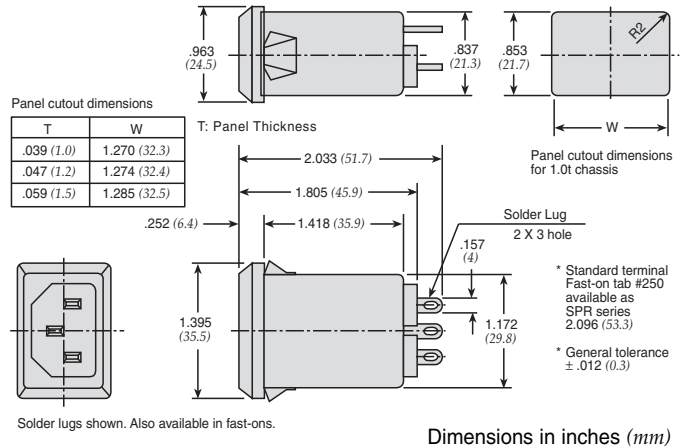
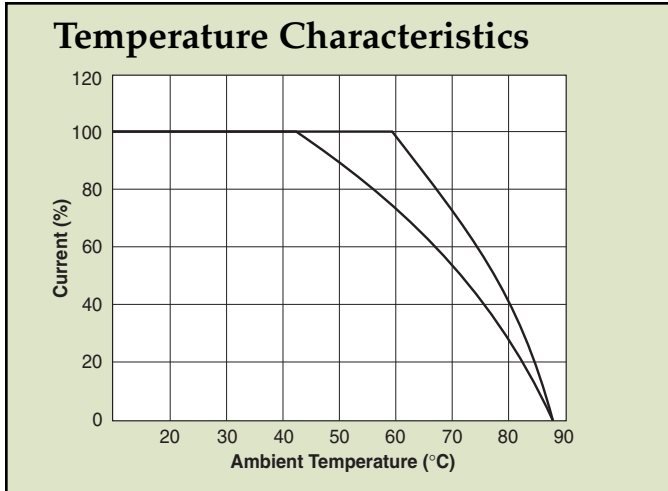
Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>		
60-XXX-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	.022uF ± 20%	6.0mH	30°C
60-XXX-010-3-4				.047uF ± 20%			
60-XXX-010-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-010-5-4				.047uF ± 20%			
60-XXX-020-3-2	250VAC	2A	0.35mA	2200pF ± 20%	.022uF ± 20%	2.4mH	30°C
60-XXX-020-3-4				.047uF ± 20%			
60-XXX-020-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-020-5-4				.047uF ± 20%			
60-XXX-030-3-2	250VAC	3A	0.35mA	2200pF ± 20%	.022uF ± 20%	1.2mH	30°C
60-XXX-030-3-4				.047uF ± 20%			
60-XXX-030-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-030-5-4				.047uF ± 20%			
60-XXX-060-3-2	250VAC	6A	0.35mA	2200pF ± 20%	.022uF ± 20%	0.53mH	45°C
60-XXX-060-3-4				.047uF ± 20%			
60-XXX-060-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-XXX-060-5-4				.047uF ± 20%			
60-XXX-100-3-2	250VAC	10A	0.35mA	2200pF ± 20%	.022uF ± 20%	0.26mH	45°C
60-XXX-100-5-2			0.50mA	3300pF ± 20%			
60-SPR-150-3-11	250VAC	15A	0.35mA	2200pF ± 20%	.1uF ± 20%	0.15mH	45°C

Note: Test voltage: 1500VAC one minute, line to ground  
 Insulation resistance: 300 Mohm min. at 500VDC  
 Voltage drop: 1V max. at rated current  
 Weight: 45g  
 Input: Compatible with IEC-320

\* Substitute SPR or SPS for XXX  
 60-SPR - Fast-on terminals  
 60-SPS - Solder lug terminals

# Power Entry Modules Snap-in Mount

## 60-SPR & SPS Series



# Fused Filtered Power Entry Modules

For General Purpose Applications

## 64-65-BFF/64-65-BFS Series



Tested and found to be IAW VDE 0565 Part 3.

### Features

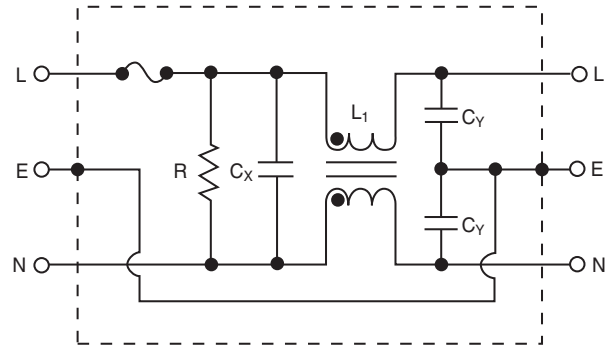
- North American and Metric fuse holders available
- Fuse holder provides effective EMI suppression of common and differential mode
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Fast-on terminals or solder lug terminals
- Metal case provides effective EMI shielding
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF35)

### Applications

- Computers and peripheral equipment
- Electronic equipment
- Digital equipment
- Measuring and testing instruments
- Telecommunications equipment



### Circuit Diagram



### Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X</sub>		
64-XXX-020-3-11	250VAC	2A	0.35mA	2200pF ± 20%	0.1uF	6.5mH	40°C
64-XXX-020-5-11			0.50mA	3300pF ± 20%			
64-XXX-020-3-12			0.35mA	2200pF ± 20%	0.22uF		
64-XXX-020-5-12			0.50mA	3300pF ± 20%			
64-XXX-040-3-11	250VAC	4A	0.35mA	2200pF ± 20%	0.1uF	4.2mH	45°C
64-XXX-040-5-11			0.50mA	3300pF ± 20%			
64-XXX-040-3-12			0.35mA	2200pF ± 20%	0.22uF		
64-XXX-040-5-12			0.50mA	3300pF ± 20%			
64-XXX-060-3-11	250VAC	6A	0.35mA	2200pF ± 20%	0.1uF	1.6mH	45°C
64-XXX-060-5-11			0.50mA	3300pF ± 20%			
64-XXX-060-3-12			0.35mA	2200pF ± 20%	0.22uF		
64-XXX-060-5-12			0.50mA	3300pF ± 20%			
65-XXX-020-3-11	125VAC	2A	0.20mA	2200pF ± 20%	0.1uF	6.5mH	40°C
65-XXX-020-5-11			0.25mA	3300pF ± 20%			
65-XXX-020-3-12			0.20mA	2200pF ± 20%	0.22uF		
65-XXX-020-5-12			0.25mA	3300pF ± 20%			
65-XXX-040-3-11	125VAC	4A	0.20mA	2200pF ± 20%	0.1uF	4.2mH	45°C
65-XXX-040-5-11			0.25mA	3300pF ± 20%			
65-XXX-040-3-12			0.20mA	2200pF ± 20%	0.22uF		
65-XXX-040-5-12			0.25mA	3300pF ± 20%			
65-XXX-060-3-11	125VAC	6A	0.20mA	2200pF ± 20%	0.1uF	1.6mH	45°C
65-XXX-060-5-11			0.25mA	3300pF ± 20%			
65-XXX-060-3-12			0.20mA	2200pF ± 20%	0.22uF		
65-XXX-060-5-12			0.25mA	3300pF ± 20%			

Note: Test Voltage 1500VAC one minute, line to ground  
Insulation Resistance: 300 MΩ min. at 500VDC  
F(S) = Fast-on or (Solder lug terminals)

Voltage Drop: 1V max. at rated current  
Weight: 78g  
Inlet: Compatible with IEC-320

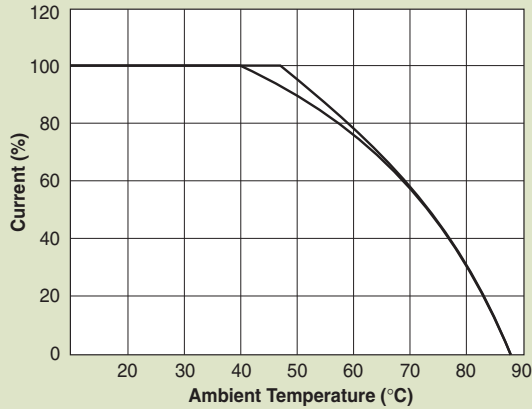
\* Substitute BFF or BFS for XXX  
BFF - Fast-on terminals  
BFS - Solder lug terminals

# Fused Filtered Power Entry Modules

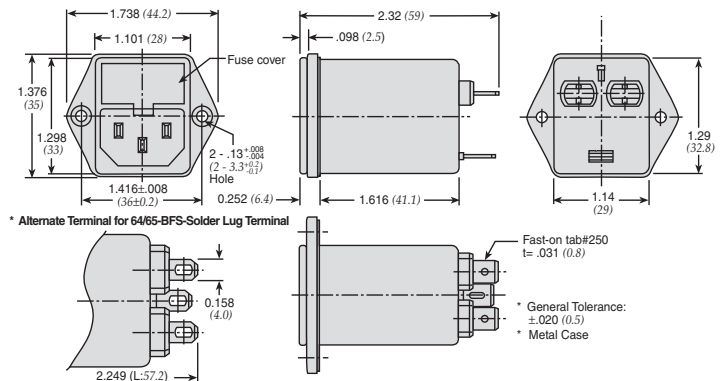
For General Purpose Applications

## 64-65-BFF/64-65-BFS Series

### Temperature Characteristics

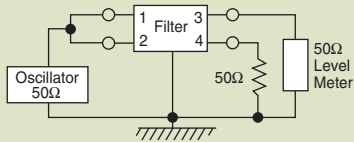


### Dimensions 64/65-BFF Series

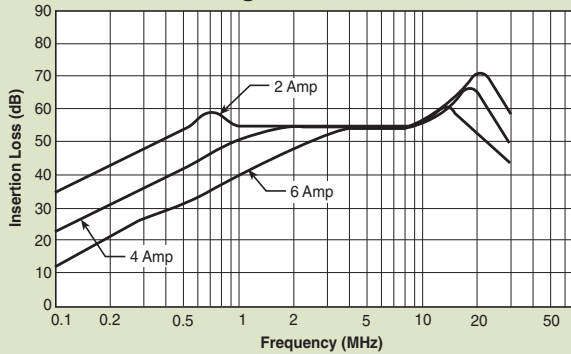


Dimensions in inches (mm)

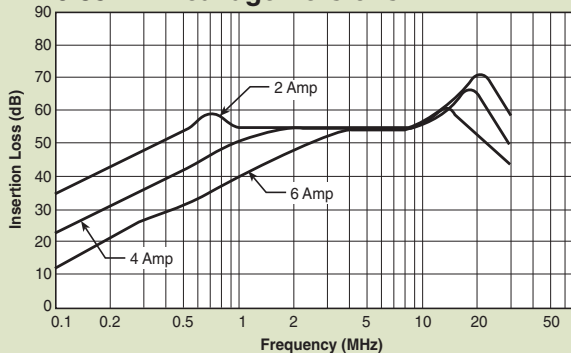
### Common Mode



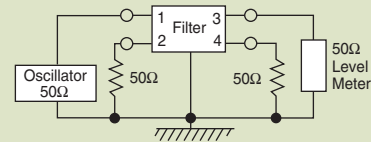
#### 0.50 mA Leakage Versions



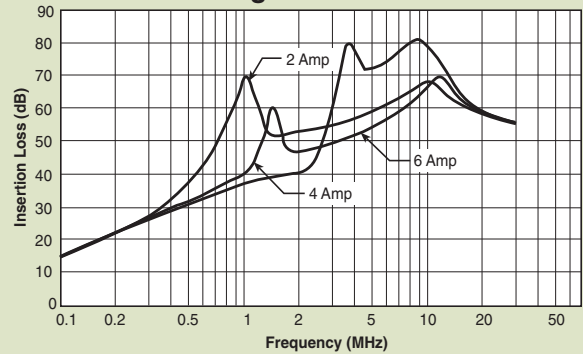
#### 0.35 mA Leakage Versions



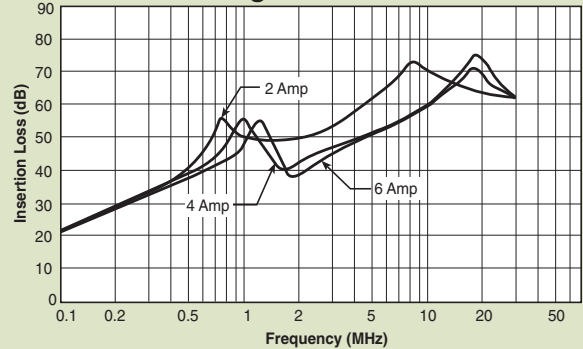
### Normal Mode



#### 0.50 mA Leakage Versions



#### 0.35 mA Leakage Versions



# Fused Filtered Power Entry Modules

For Medical or General Purpose Applications

## 66-67-BFF/66-67-BFS Series



Tested and found to be IAW VDE 0565 Part 3.

### Features

- Metric and North American fuse holders available
- Fuse holder provides effective EMI suppression of common and differential mode
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Fast-on terminations or solder lug terminations
- Metal case provides effective EMI shielding
- Provides susceptibility protection without the leakage current associated with line-to-ground capacitance
- Reduces the line to ground capacitance in order to meet patient care requirements
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF37)

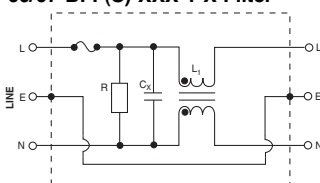


### Applications

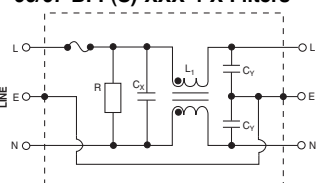
- Medical equipment
- Electronic equipment
- Digital equipment
- Industrial equipment
- Telecommunications equipment
- Measuring and testing instruments
- Personal computers and peripherals

### Circuit Diagrams

66/67-BFF(S)-XXX-1-X Filter



66/67-BFF(S)-XXX-0-X and 66/67-BFF(S)-XXX-4-X Filters



### Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L <sub>1</sub> )	Temperature Rise (Max.)		
				C <sub>V</sub>	C <sub>X</sub>				
66-XXX-020-1-11	250VAC	2A	0.01mA	none	0.1uF	6.5mH	40°C		
66-XXX-020-1-12					0.22uF				
66-XXX-020-0-11					0.075mA			330pF ± 20%	0.1uF
66-XXX-020-4-11					0.1mA			470pF ± 20%	
66-XXX-020-0-12					0.075mA			330pF ± 20%	0.22uF
66-XXX-020-4-12					0.1mA			470pF ± 20%	
66-XXX-040-1-11	250VAC	4A	0.01mA	none	0.1uF	2.4mH	45°C		
66-XXX-040-1-12					0.22uF				
66-XXX-040-0-11					0.075mA			330pF ± 20%	0.1uF
66-XXX-040-4-11					0.1mA			470pF ± 20%	
66-XXX-040-0-12					0.075mA			330pF ± 20%	0.22uF
66-XXX-040-4-12					0.1mA			470pF ± 20%	
66-XXX-060-1-11	250VAC	6A	0.01mA	none	0.1uF	1.6mH	45°C		
66-XXX-060-1-12					0.22uF				
66-XXX-060-0-11					0.075mA			330pF ± 20%	0.1uF
66-XXX-060-4-11					0.1mA			470pF ± 20%	
66-XXX-060-0-12					0.075mA			330pF ± 20%	0.22uF
66-XXX-060-4-12					0.1mA			470pF ± 20%	
67-XXX-020-1-11	125VAC	2A	0.005mA	none	0.1uF	6.5mH	40°C		
67-XXX-020-1-12					0.22uF				
67-XXX-020-0-11					0.035mA			330pF ± 20%	0.1uF
67-XXX-020-4-11					0.05mA			470pF ± 20%	
67-XXX-020-0-12					0.035mA			330pF ± 20%	0.22uF
67-XXX-020-4-12					0.05mA			470pF ± 20%	
67-XXX-040-1-11	125VAC	4A	0.005mA	none	0.1uF	2.4mH	45°C		
67-XXX-040-1-12					0.22uF				
67-XXX-040-0-11					0.035mA			330pF ± 20%	0.1uF
67-XXX-040-4-11					0.05mA			470pF ± 20%	
67-XXX-040-0-12					0.035mA			330pF ± 20%	0.22uF
67-XXX-040-4-12					0.05mA			470pF ± 20%	
67-XXX-060-1-11	125VAC	6A	0.005mA	none	0.1uF	1.6mH	45°C		
67-XXX-060-1-12					0.22uF				
67-XXX-060-0-11					0.035mA			330pF ± 20%	0.1uF
67-XXX-060-4-11					0.05mA			470pF ± 20%	
67-XXX-060-0-12					0.035mA			330pF ± 20%	0.22uF
67-XXX-060-4-12					0.05mA			470pF ± 20%	

Note: Test Voltage 1500VAC one minute, line to ground  
Insulation Resistance: 300 MΩ min. at 500VDC  
F(S) = Fast-on or (Solder lug terminals)

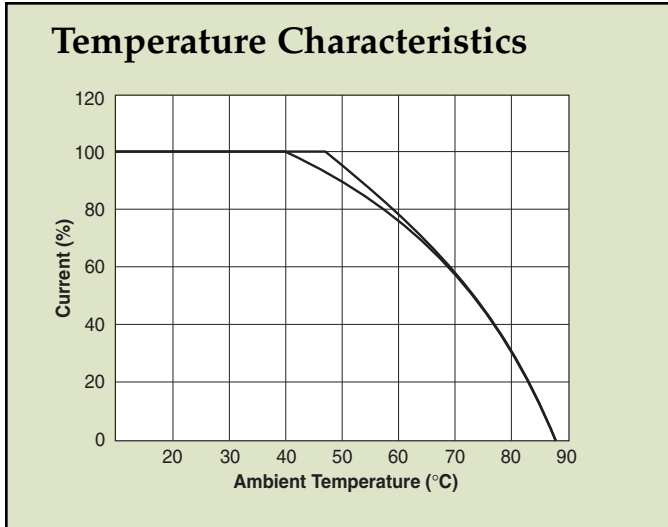
Voltage Drop: 1V max. at rated current  
Weight: 78g  
Inlet: Compatible with IEC-320

\* Substitute BFF or BFS for XXX  
BFF - Fast-on terminals  
BFS - Solder lug terminals

# Fused Filtered Power Entry Modules

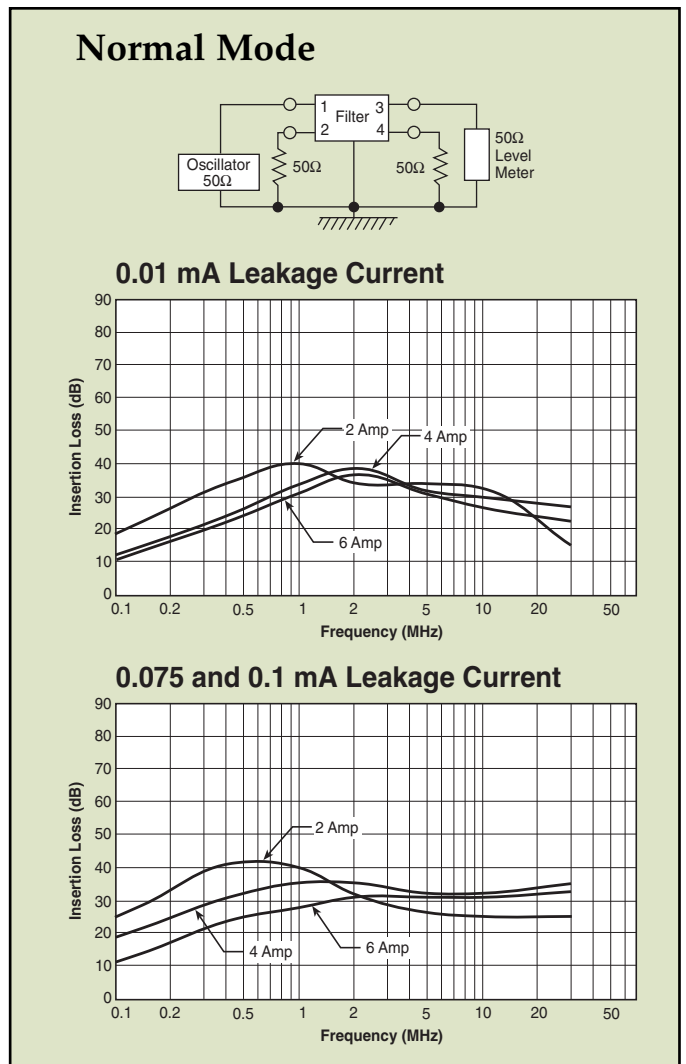
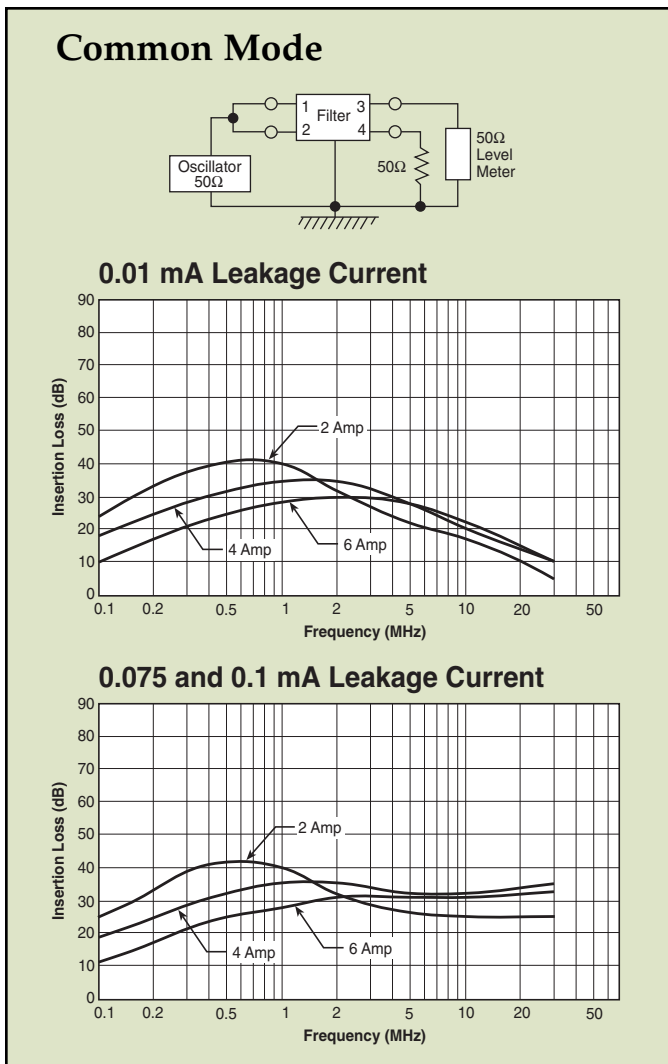
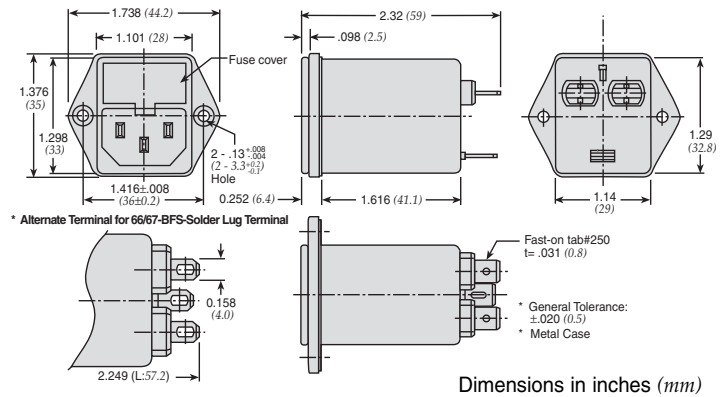
For Medical or General Purpose Applications

## 66-67-BFF/66-67-BFS Series



### Dimensions

#### 66-67-BFF/66-67-BFS Series





# Switched and Fused Filtered Power Entry Modules

For General Purpose Applications



## 64-65-BSF/64-65-SSF Series

### Features

- North American and Metric fuse holders available
- Fuse holder and double pole power ON/OFF switch provided in a convenient/compact package
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Metal case provides effective EMI shielding
- Easy access fuse drawer with space for spare fuse
- Flange-mounted or snap-in styles available for quick mounting
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF39)

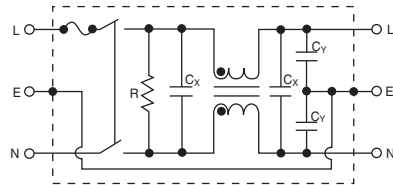


Tested and found to be IAW VDE 0565 Part 3.

### Applications

- Computers and peripheral equipment
- Digital equipment
- Electronic equipment
- Measuring and testing instruments
- Telecommunications equipment

### Circuit Diagram



### Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance			Inductance (L <sub>1</sub> )	Temperature Rise (Max.)
				C <sub>Y</sub>	C <sub>X1</sub>	C <sub>X2</sub>		
64-XXX-020-3-12	250VAC	2A	0.35mA	2200pF	0.22uF	NONE	10.5mH	45°C
64-XXX-020-3-04						0.22uF		
64-XXX-020-3-14						NONE		
64-XXX-020-3-06			0.22uF					
64-XXX-020-5-12			0.50mA	3300pF	0.22uF	NONE		
64-XXX-020-5-04						0.22uF		
64-XXX-020-5-14	NONE							
64-XXX-020-5-06	250VAC	4A	0.35mA	2200pF	0.22uF	NONE	4.2mH	45°C
64-XXX-040-3-04						0.22uF		
64-XXX-040-3-14						NONE		
64-XXX-040-3-06			0.22uF					
64-XXX-040-5-12			0.50mA	3300pF	0.22uF	NONE		
64-XXX-040-5-04						0.22uF		
64-XXX-040-5-14	NONE							
64-XXX-040-5-06	250VAC	6A	0.35mA	2200pF	0.22uF	NONE	1.6mH	45°C
64-XXX-060-3-04						0.22uF		
64-XXX-060-3-14						NONE		
64-XXX-060-3-06			0.22uF					
64-XXX-060-5-12			0.50mA	3300pF	0.22uF	NONE		
64-XXX-060-5-04						0.22uF		
64-XXX-060-5-14	NONE							
64-XXX-060-5-06	125VAC	2A	0.20mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-020-3-04						0.22uF		
65-XXX-020-3-14						NONE		
65-XXX-020-3-06			0.22uF					
65-XXX-020-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-020-5-04						0.22uF		
65-XXX-020-5-14	NONE							
65-XXX-020-5-06	125VAC	4A	0.20mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-040-3-04						0.22uF		
65-XXX-040-3-14						NONE		
65-XXX-040-3-06			0.22uF					
65-XXX-040-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-040-5-04						0.22uF		
65-XXX-040-5-14	NONE							
65-XXX-040-5-06	125VAC	6A	0.20mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	2A	0.20mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	4A	0.20mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	6A	0.20mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	2A	0.20mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	4A	0.20mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	6A	0.20mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	2A	0.20mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	4A	0.20mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							
65-XXX-060-5-06	125VAC	6A	0.20mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14						NONE		
65-XXX-060-3-06			0.22uF					
65-XXX-060-5-12			0.25mA	3300pF	0.22uF	NONE		
65-XXX-060-5-04						0.22uF		
65-XXX-060-5-14	NONE							

Note: Test Voltage 1500VAC one minute, line to ground  
Insulation Resistance: 300 MΩ min. at 500VDC  
B(S) = Bolt-in terminals or (Snap-in terminals)

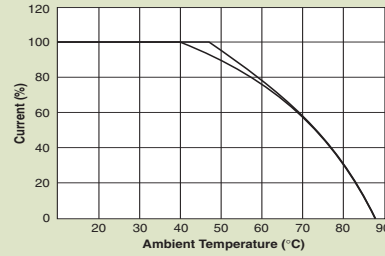
Voltage Drop: 1V max. at rated current  
Weight: 130g  
Inlet: Compatible with IEC-320

\* Substitute BSF or SSF for XXX  
BSF - Bolt-in switched and fused  
SSF - Snap-in switched and fused

# Switched and Fused Filtered Power Entry Modules

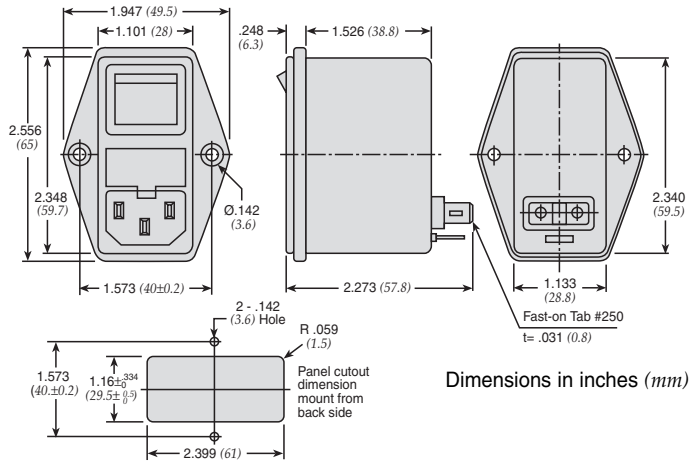
For General Purpose Applications

## Temperature Characteristics

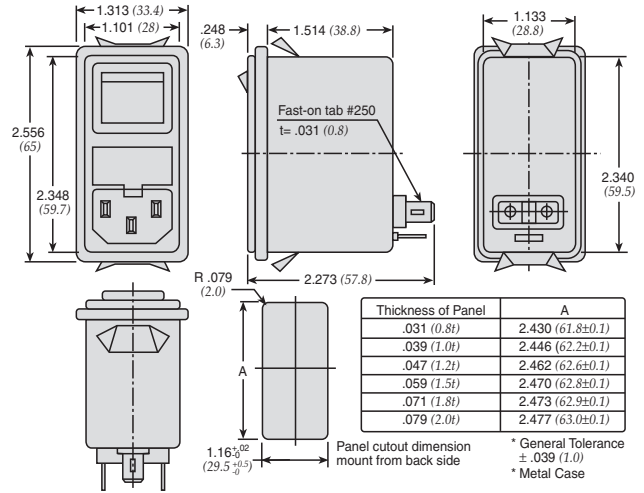


## Dimensions

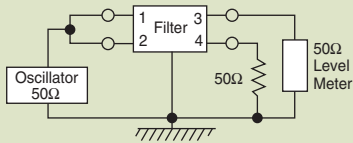
### 64/65-BSF Series



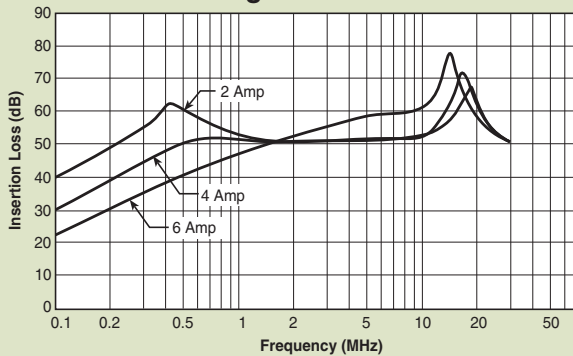
### 64/65-SSF Series



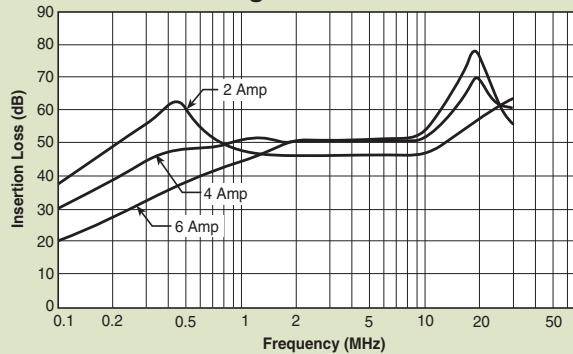
## Common Mode



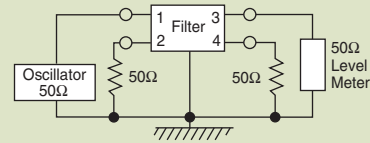
### 0.35 mA Leakage Versions



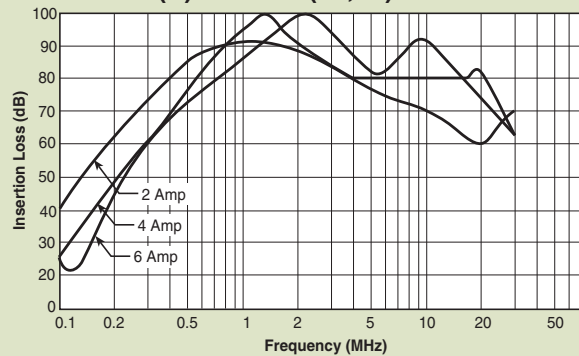
### 0.50 mA Leakage Versions



## Normal Mode



### 64/65-B(S)SF-\*-02(04,06)



### 64/65-B(S)SF-\*-11(12,14)

