

Power Entry Modules Bolt-in Rear Terminals

60-BPR & BPS Series

Features

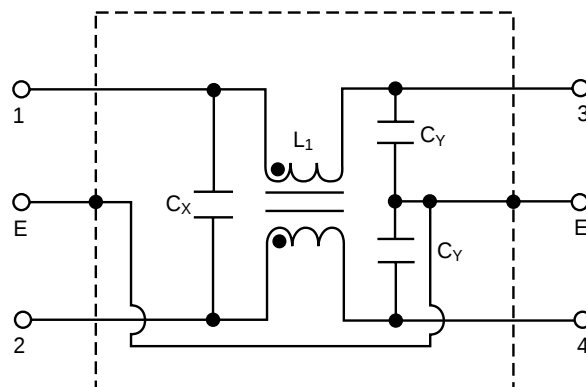
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Solder lug and Fast-on tab terminals available
- Operating temperature: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



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Applications

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

Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
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%	.01uF ± 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

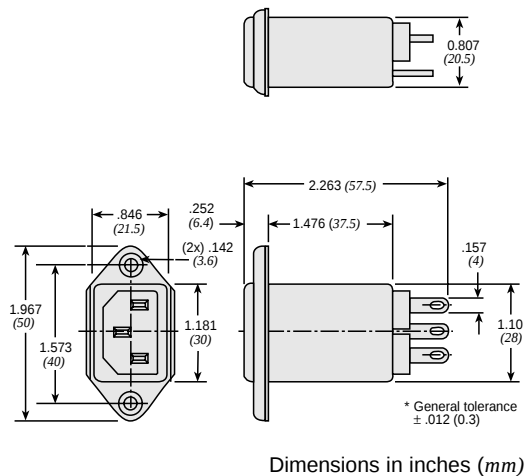
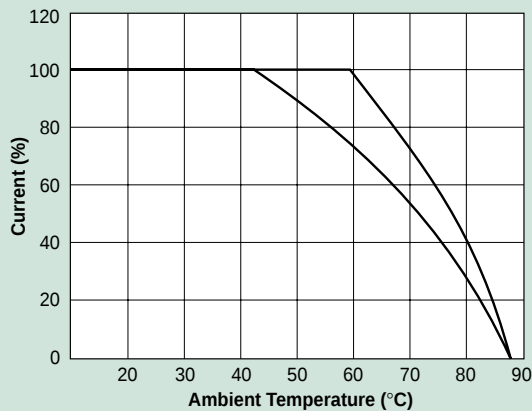
BPS - Solder lug terminals

BPR - Fast-on tab terminals

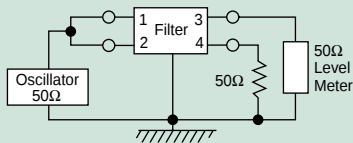
Power Entry Modules Bolt-in Rear Terminals

60-BPR & BPS Series

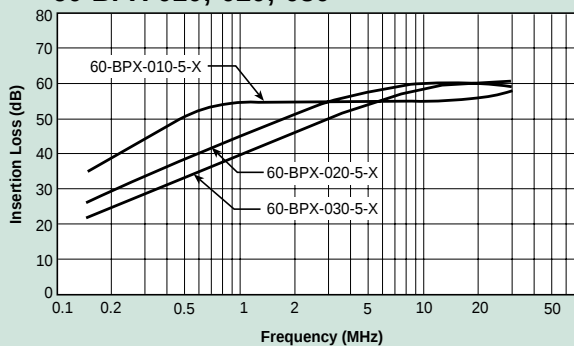
Temperature Characteristics



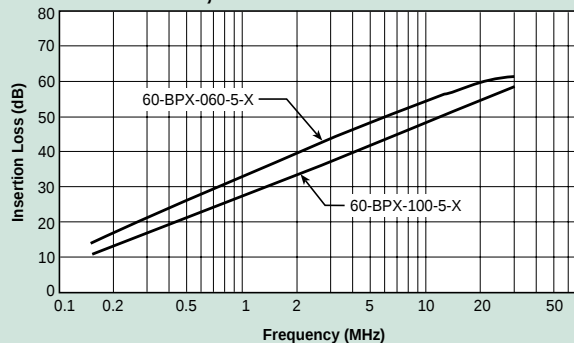
Common Mode



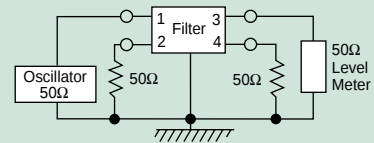
60-BPX-010;-020;-030



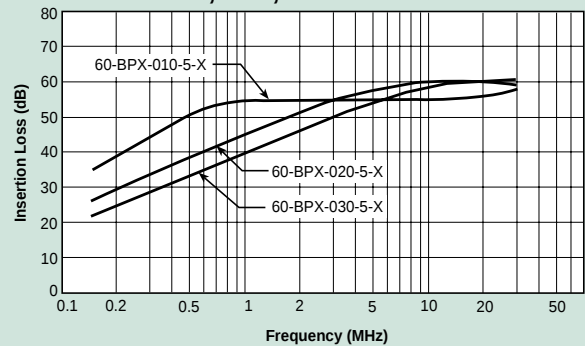
60-BPX-060;-100



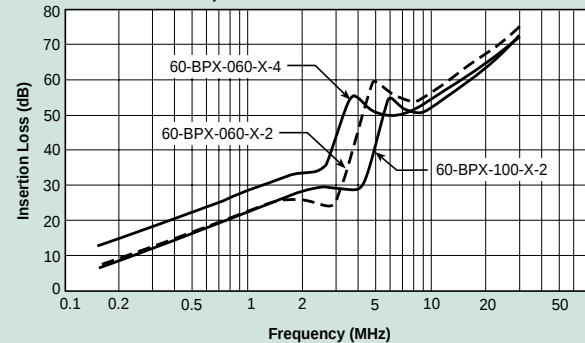
Normal Mode



60-BPX-010;-020;-030



60-BPX-060;-100



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 54)
- Length under tab is shortened for small spaces
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 27)
- UL approved low leakage version also available

Applications

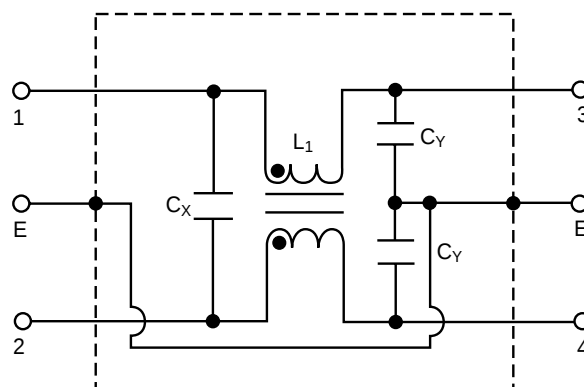
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Specifications

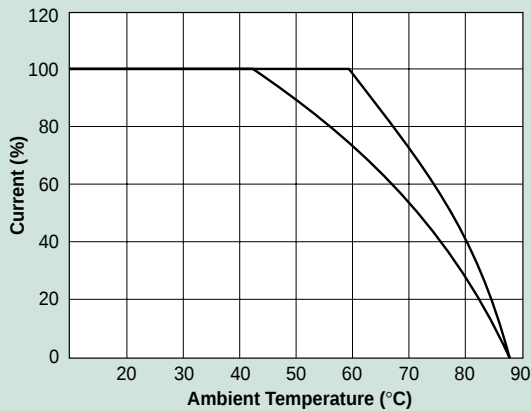
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
60-BPF-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	.022uF ± 20%	6.0mH	30°C
60-BPF-010-3-4					.047uF ± 20%		
60-BPF-010-5-2			0.50mA	3300pF ± 20%	.022uF ± 20%		
60-BPF-010-5-4					.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

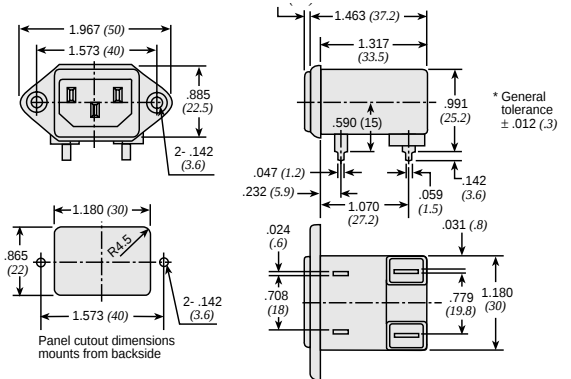
Power Entry Modules Bolt-in Right Angle Terminals

60-BPF Series

Temperature Characteristics

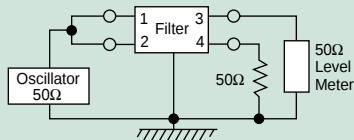


60-BPF Fast-on Terminals

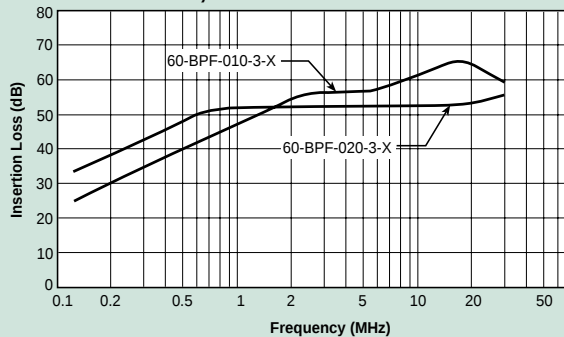


Dimensions in inches (mm)

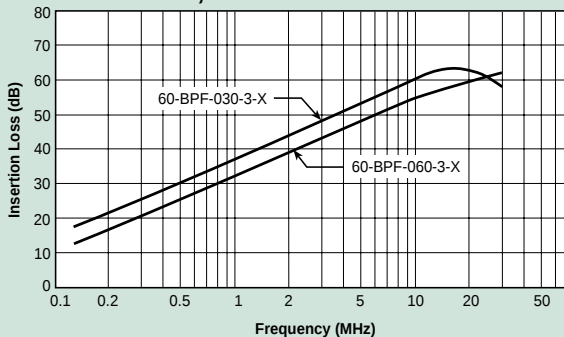
Common Mode



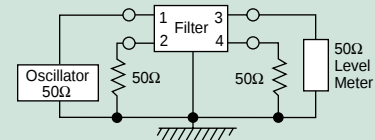
60-BPF-010;-020



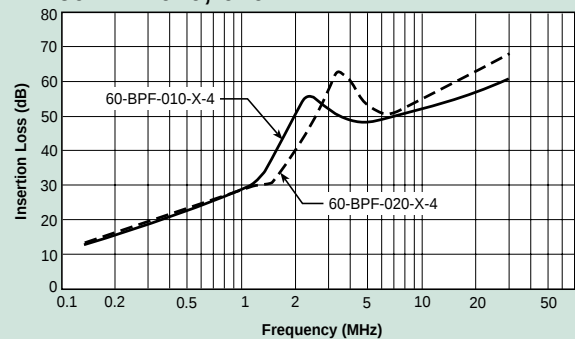
60-BPF-030;-060



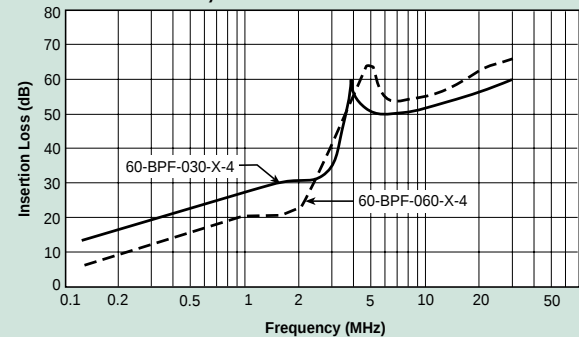
Normal Mode



60-BPF-010;-020



60-BPF-030;-060



Power Entry Modules High Frequency Attenuation

60-BHS Series

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 56)
- 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 29)

Applications

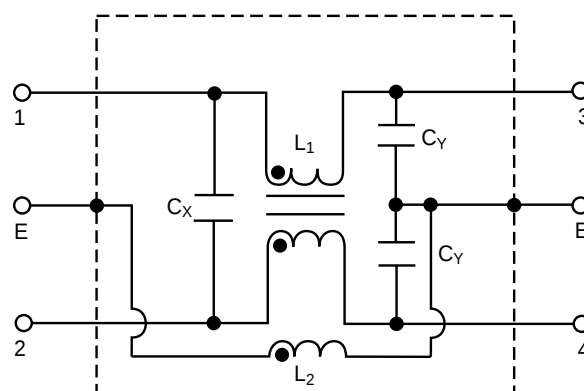
- Digital equipment
- Personal computers and peripherals
- Measuring instruments
- Monitor and display units



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Specifications

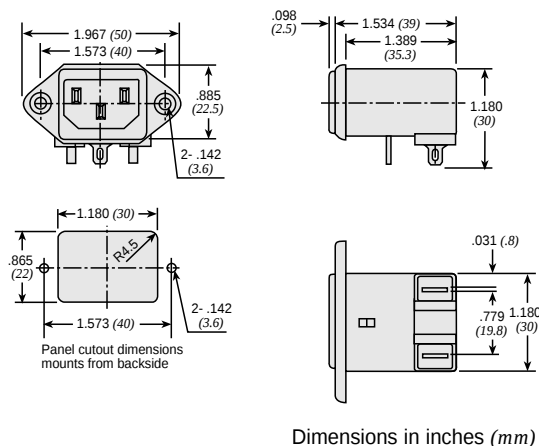
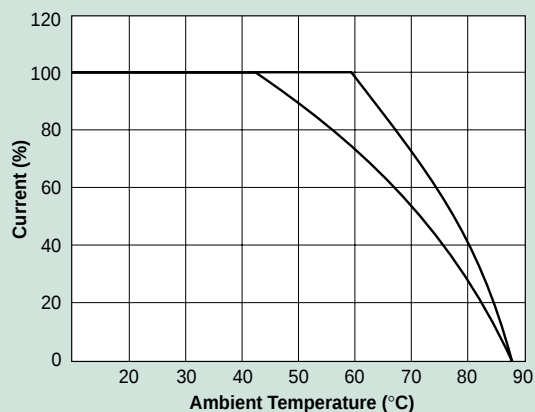
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁) (L ₂)		Temperature Rise (Max.)
				C _Y	C _X			
60-BHS-010-3-11	250VAC	1A	0.35mA	2200pF ± 20%	0.1uF ± 20%	6mH	18.3uH	30°C
60-BHS-010-3-4					.047uF ± 20%			
60-BHS-010-5-11			0.50mA	3300pF ± 20%	0.1uF ± 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

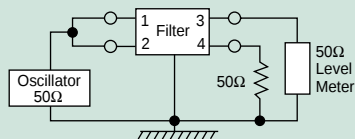
Power Entry Modules High Frequency Attenuation

60-BHS Series

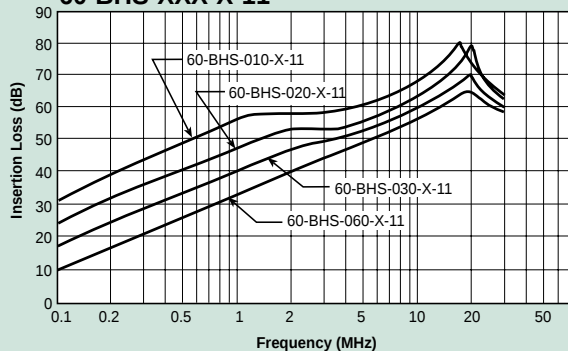
Temperature Characteristics



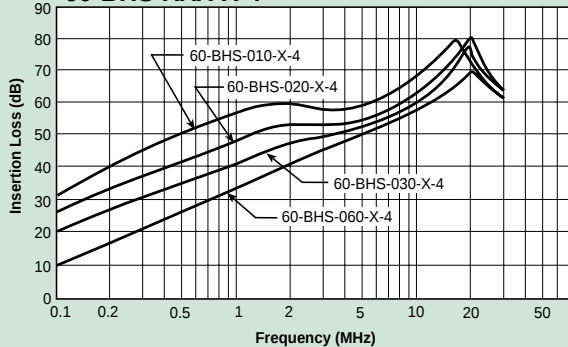
Common Mode



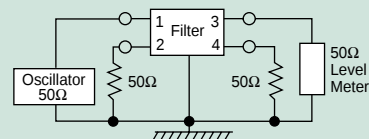
60-BHS-XXX-X-11



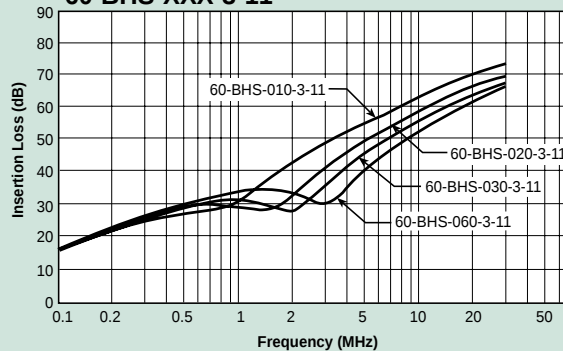
60-BHS-XXX-X-4



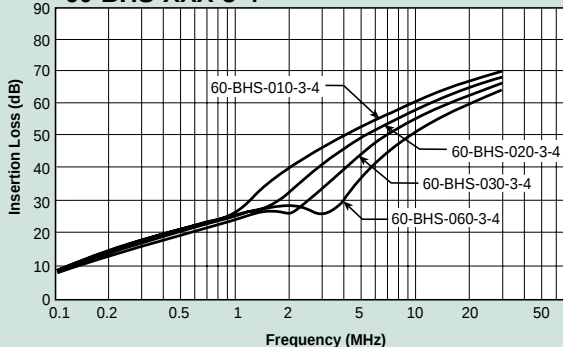
Normal Mode



60-BHS-XXX-3-11



60-BHS-XXX-3-4



Power Entry Modules

Bolt-in Rear Terminals

For General Purpose Applications

10-BPF Series



Features

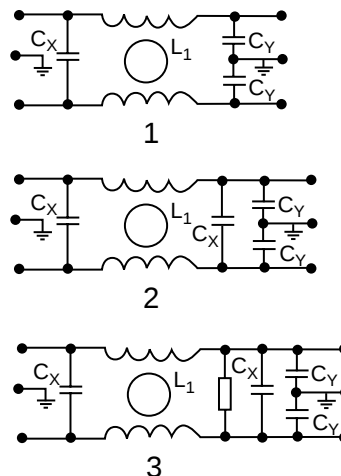
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Operating temperature: -25°C to +70°C
- Compact configuration

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 ₁)	Circuit Diagram	Figure	Temperature Rise (Max.)
10-BPF-001-5-A	120/250VAC	1A	0.50mA	3300pF	2200pF	3.0mH	1	A	30°C
10-BPF-001-5-C								C	
10-BPF-003-5-A		3A		4700pF	0.01uF	1.5mH	2	A	
10-BPF-003-5-C								C	
10-BPF-003-5-D		6A		3300pF	0.01uF	0.5mH	1	A	
10-BPF-006-5-A								C	
10-BPF-006-5-C		10A		3300pF & 0.01uF	3300pF & 0.01uF	1.5mH	2	B	
10-BPF-006-5-D				3300pF	0.01uF	0.5mH	1	A	
10-BPF-010-5-A				3300pF & 0.01uF	3300pF & 0.01uF	1.5mH	3	B	
10-BPF-010-5-D									

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

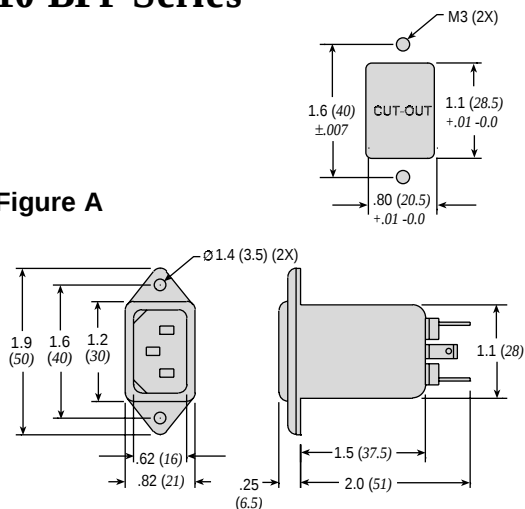


Figure B

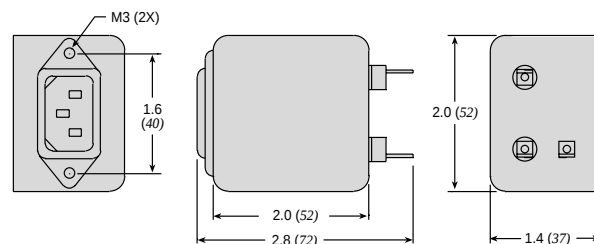
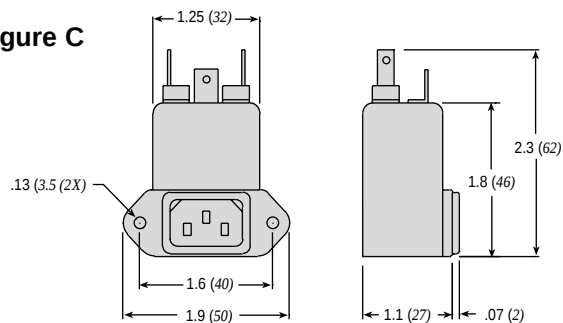
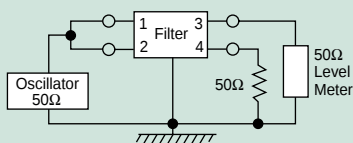


Figure C

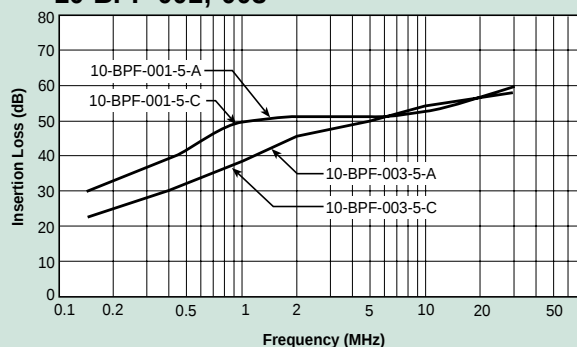


Dimensions in inches (mm)

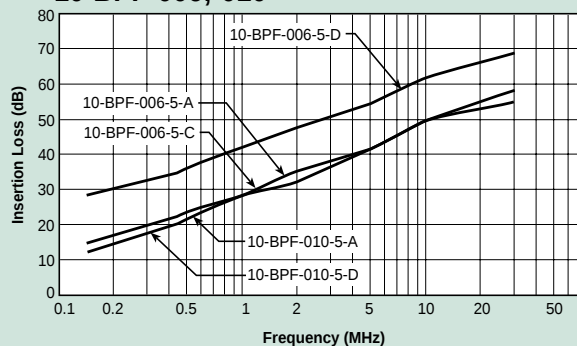
Common Mode



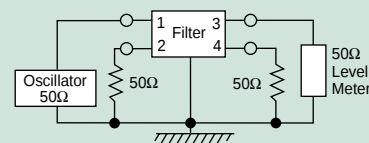
10-BPF-001;-003



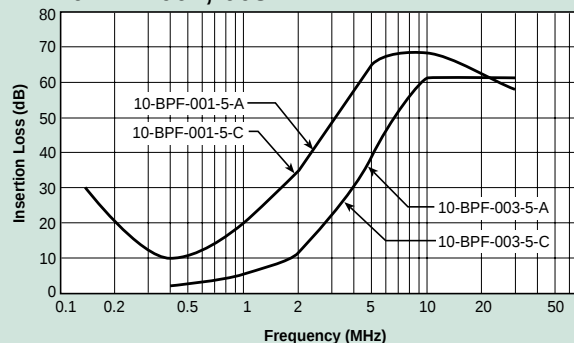
10-BPF-006;-010



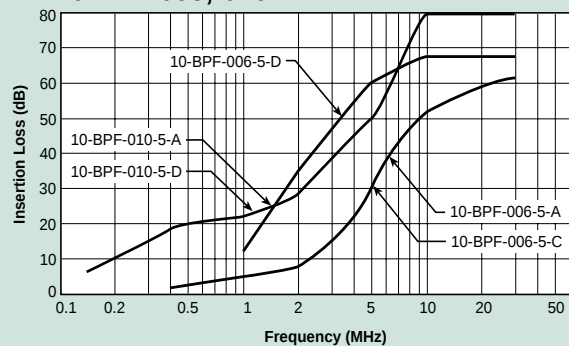
Normal Mode



10-BPF-001;-003



10-BPF-006;-010



Power Entry Modules

Bolt-in Rear Terminals

For Medical Purpose Applications

10-BPF Series



Features

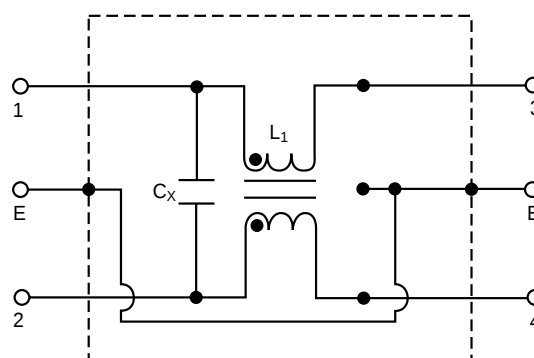
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Operating temperature: -25°C to +70°C
- Compact configuration
-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

Applications

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



Circuit Diagram



Specifications

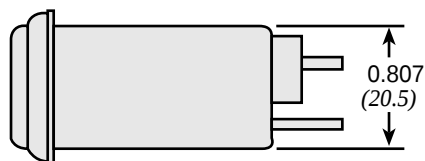
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance C_x	Inductance (L_1)	Circuit Diagram	Figure	Temperature Rise (Max.)
10-BPF-001-2-A	120/250VAC	1A	5uA	0.01uF	3.0mH	1	A	30°C
10-BPF-003-2-A					1.5mH			
10-BPF-006-2-A		10A			0.5mH			

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

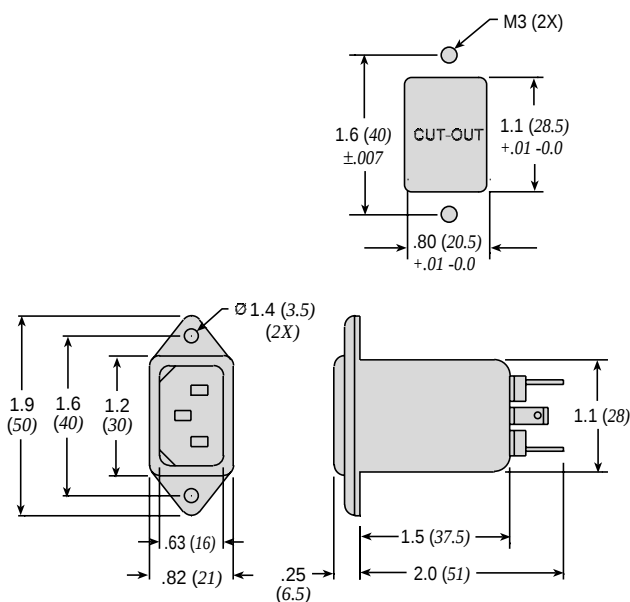
Power Entry Modules Bolt-in Rear Terminals

For Medical Purpose Applications

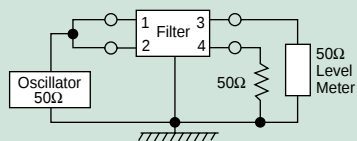
10-BPF Series



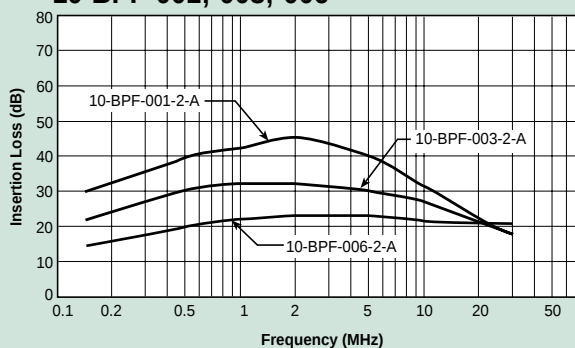
Dimensions in inches (mm)



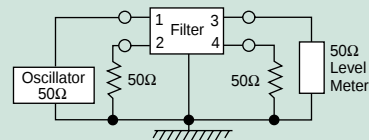
Common Mode



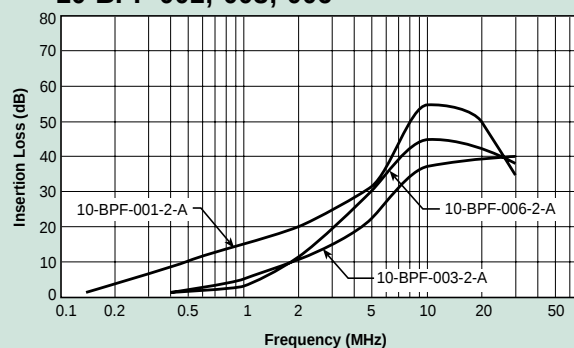
10-BPF-001;-003;-006



Normal Mode



10-BPF-001;-003;-006



Power Entry Modules Snap-in with Wire Leads

60-SPL Series

Features

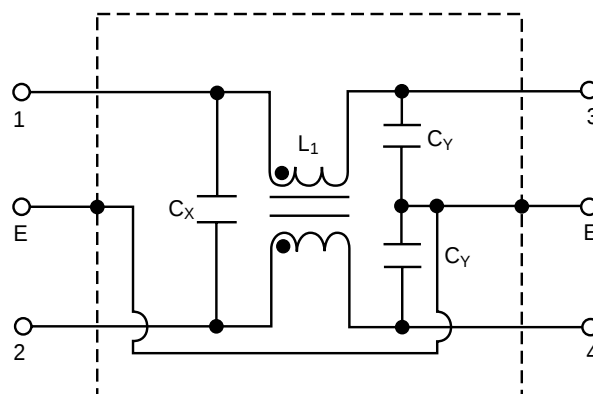
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased miniature filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Snap-in style saves labor and hardware inventory
- Wire output minimizes space and provides economical installation
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 35)



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Applications

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

Specifications

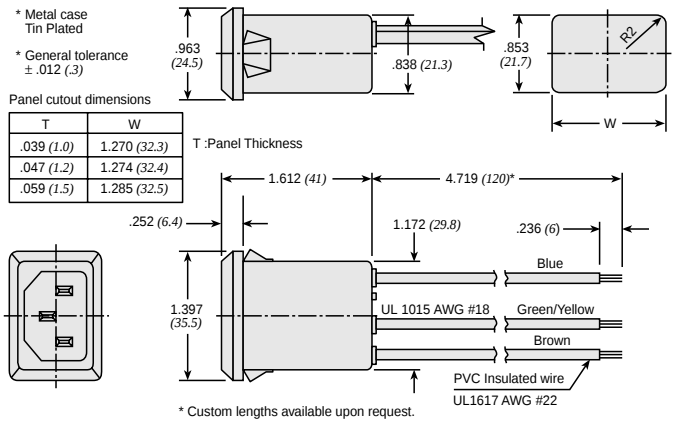
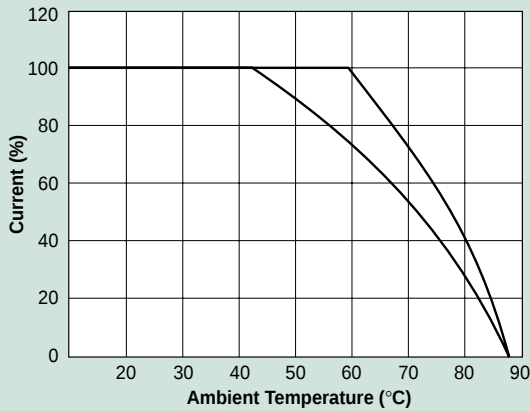
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
60-SPL-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	22nF ± 20%	6.0mH	30°C
60-SPL-010-3-3					33nF ± 20%		
60-SPL-010-5-2			0.50mA	3300pF ± 20%	22nF ± 20%		
60-SPL-010-5-3					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	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

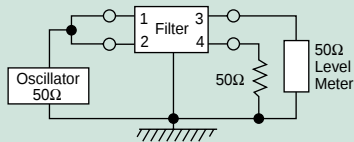
60-SPL Series

Temperature Characteristics

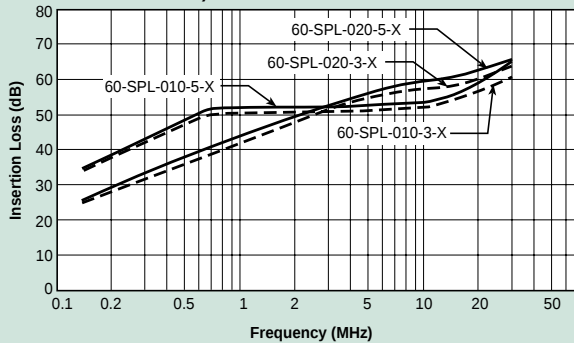


Dimensions in inches (mm)

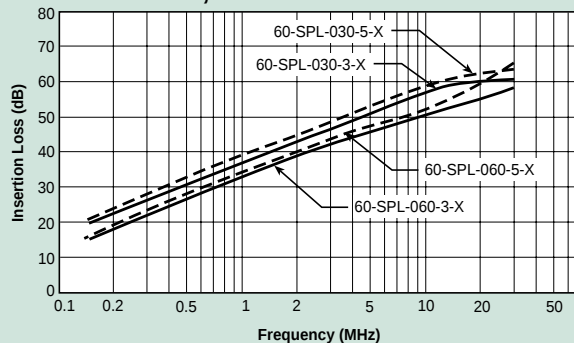
Common Mode



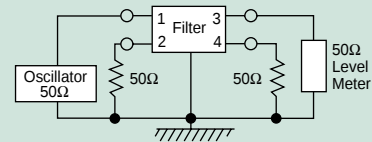
60-SPL-010;-020



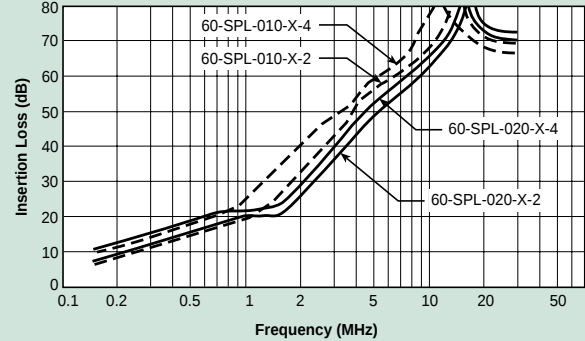
60-SPL-030;-060



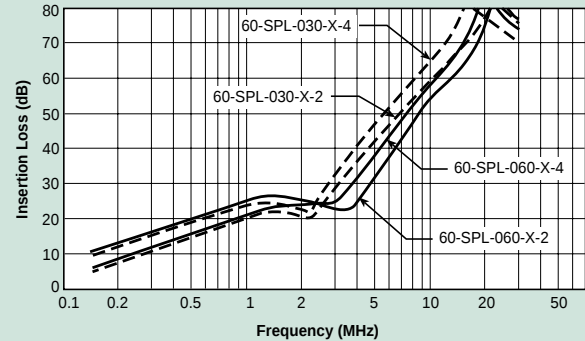
Normal Mode



60-SPL-010;-020



60-SPL-030;-060



Power Entry Modules Bolt-in with Wire Leads

60-BPL Series

Features

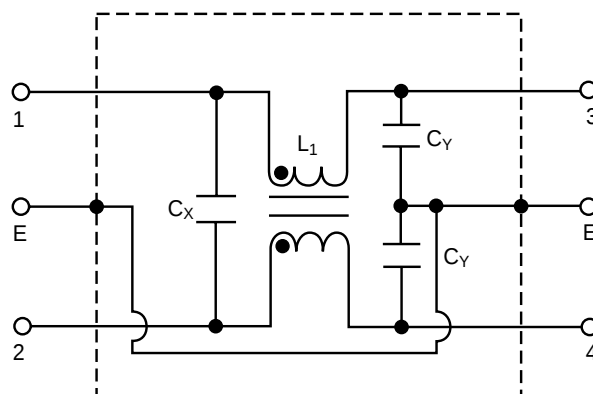
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Wire output for minimizing space use and economical installation
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 37)



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Applications

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

Specifications

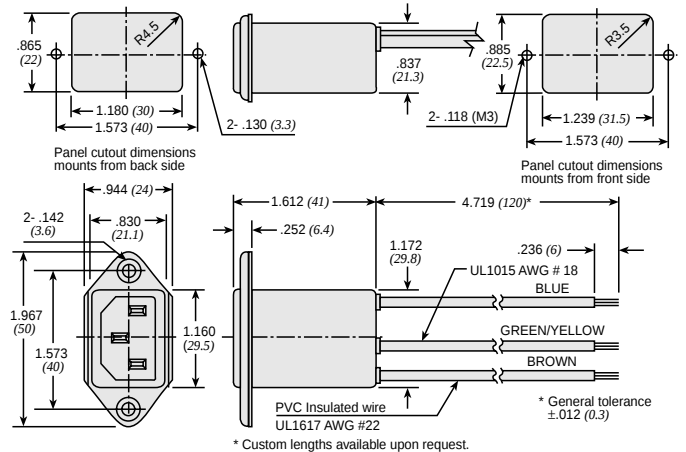
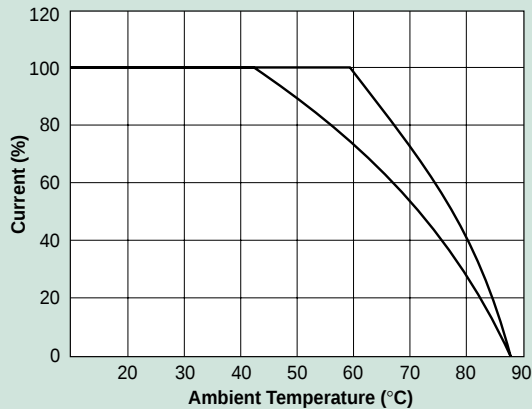
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
60-BPL-010-3-2	250VAC	1A	0.35mA	2200pF ± 20%	22nF ± 20%	6.0mH	30°C
60-BPL-010-3-3					33nF ± 20%		
60-BPL-010-5-2			0.50mA	3300pF ± 20%	22nF ± 20%		
60-BPL-010-5-3					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				3300pF ± 20%			
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

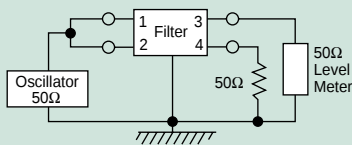
Temperature Characteristics



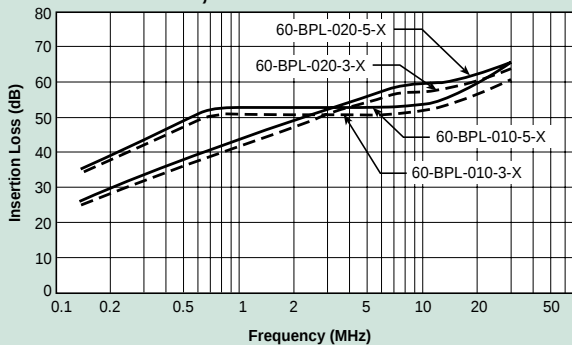
Dimensions in inches (mm)

Power Entry Modules

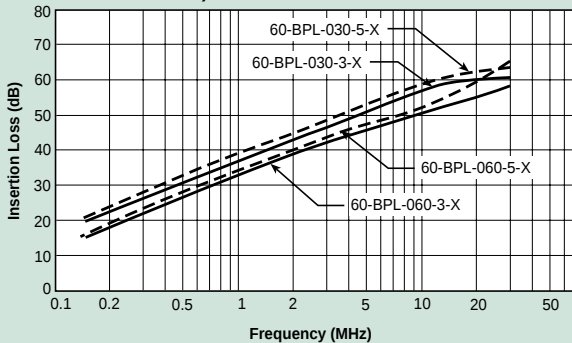
Common Mode



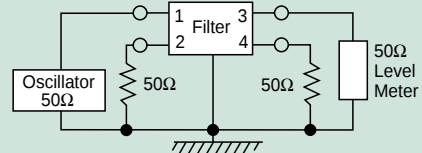
60-BPL-010;-020



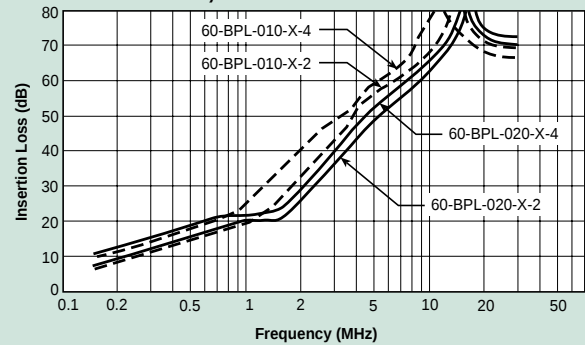
60-BPL-030;-060



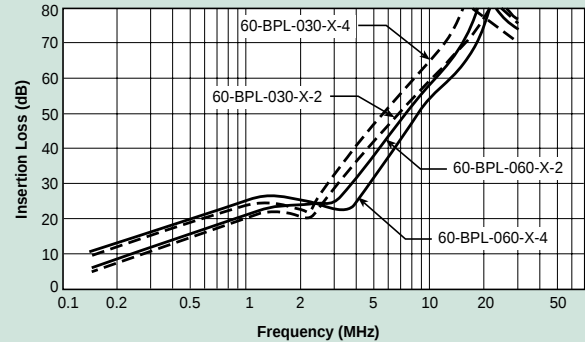
Normal Mode



60-BPL-010;-020



60-BPL-030;-060



Power Entry Modules Bolt-in with Wire Leads

10-BPL Series



Features

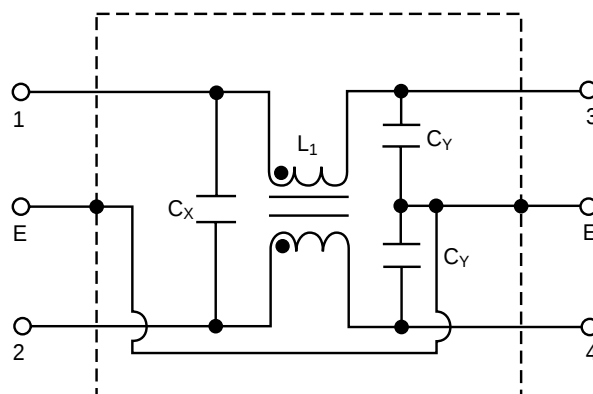
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal case filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Wire output for minimizing space use and economical installation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

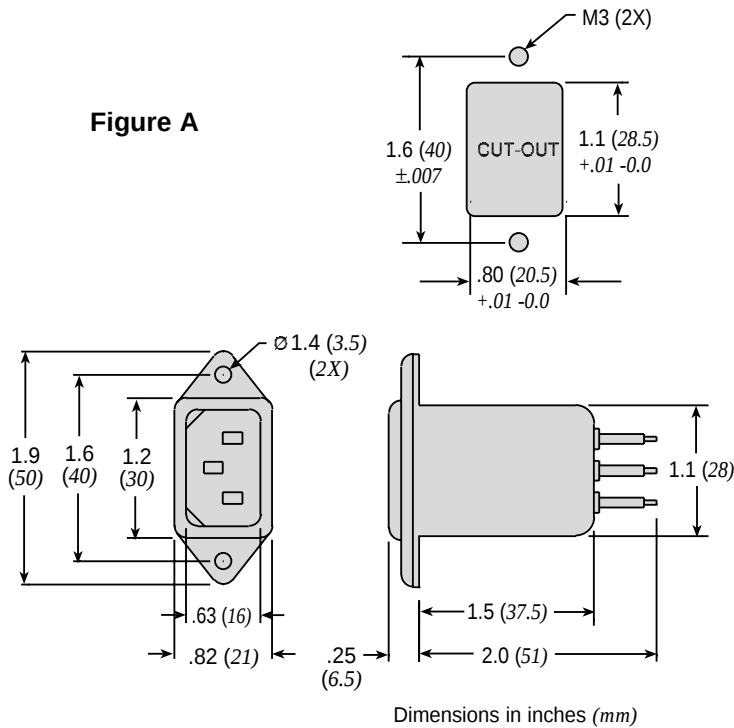
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Circuit Diagram	Figure	Temperature Rise (Max.)
				C _Y	C _X				
10-BPL-001-5-B	250VAC	1A	0.50mA	3300pF	0.01uF	3.0mH	1	A	30°C
10-BPL-003-5-B		3A				1.5mH			
10-BPL-006-5-B		6A				0.5mH			

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

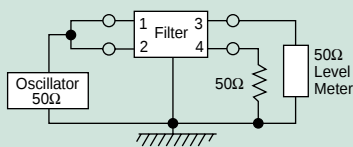
Power Entry Modules Bolt-in with Wire Leads

10-BPL Series

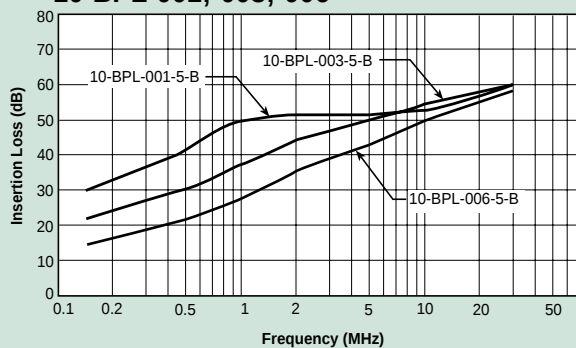
Figure A



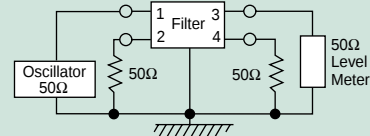
Common Mode



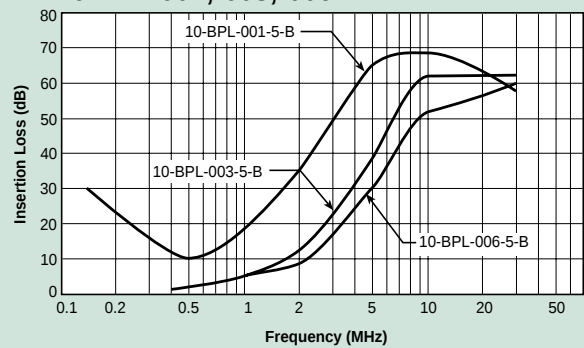
10-BPL-001;-003;-006



Normal Mode



10-BPL-001;-003;-006



Power Entry Modules Snap-in Mount

60-SPR & SPS Series

Features

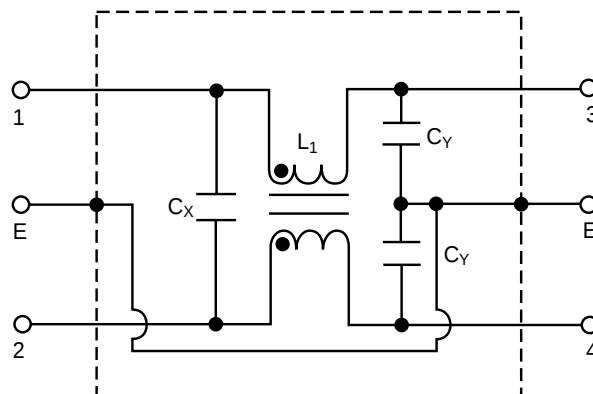
- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased miniature filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Uses IEC connector that meets most safety standards
- Snap-in style saves labor and hardware inventory
- Solder lug and fast-on tab terminations available
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 41)
- UL approved low leakage version also available



Tested and found to be
IAW VDE 0565 Part 3.



Circuit Diagram



Applications

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

Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance		Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _X		
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-SPR-150-3-11	250VAC	15A	0.35mA	2200pF ± 20%	.01uF ± 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

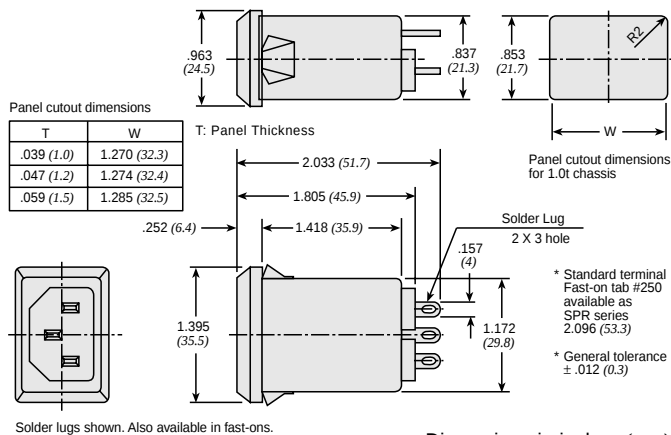
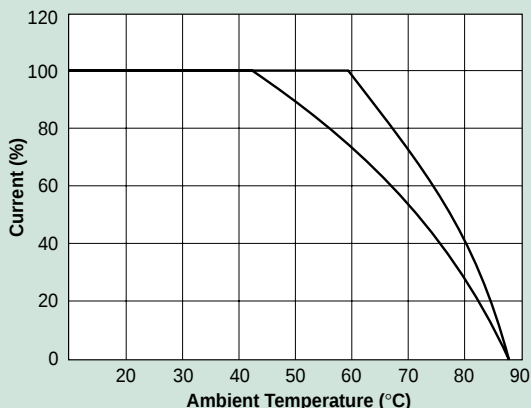
60-SPR - Fast-on terminals

60-SPS - Solder lug terminals

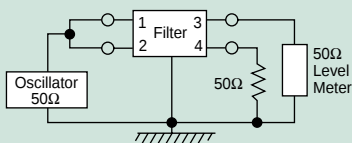
Power Entry Modules Snap-in Mount

60-SPR & SPS Series

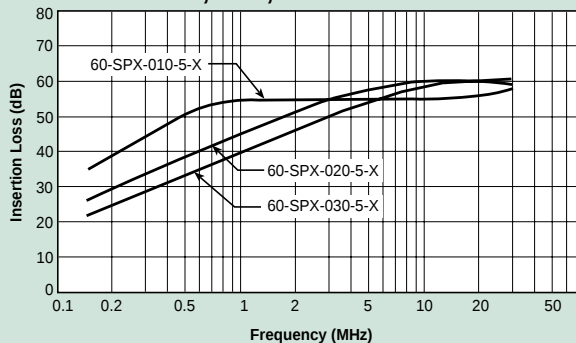
Temperature Characteristics



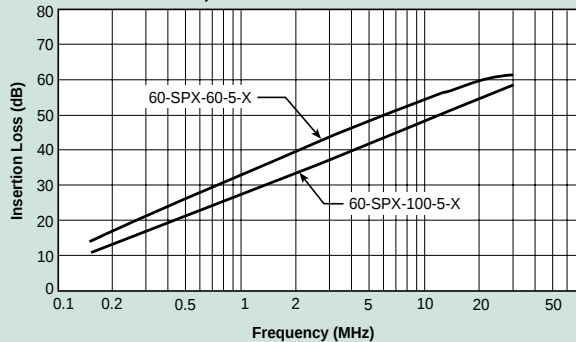
Common Mode



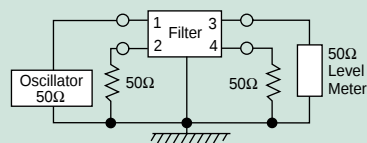
60-SPX-010;-020;-030



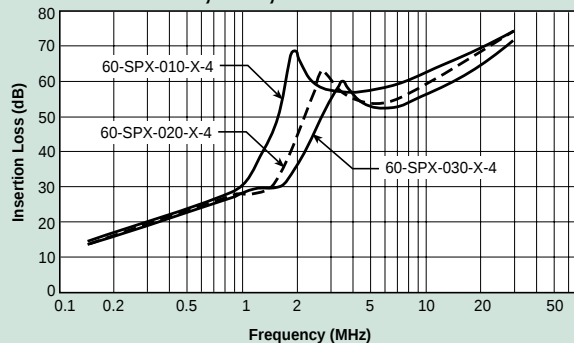
60-SPX-060;-100



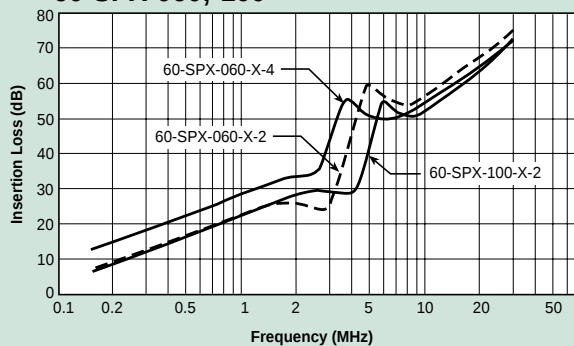
Normal Mode



60-SPX-010;-020;-030



60-SPX-060;-100



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

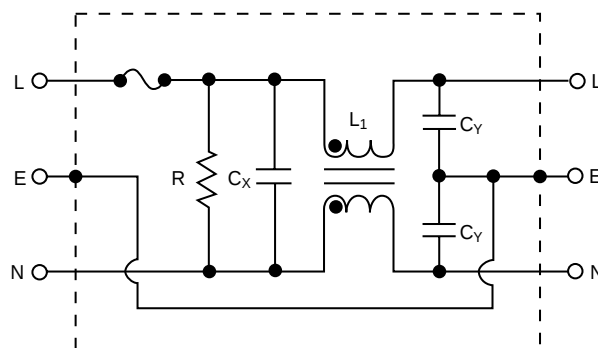
- North American and Metric fuse holders available
- Fuse holder provides effective EMI suppression of common and differential mode
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Fast-on terminals or solder lug terminals
- Metal case provides effective EMI shielding
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 43)

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 ₁)	Temperature Rise (Max.)
				C _Y	C _X		
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

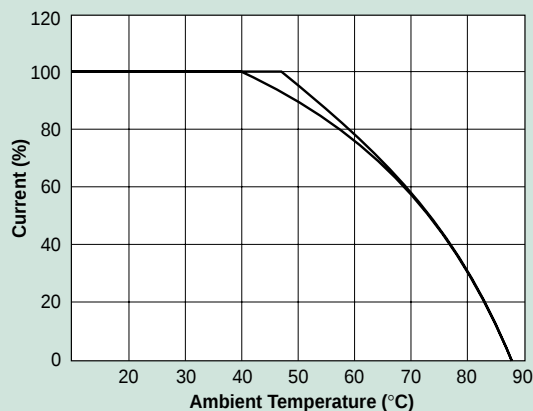
* Substitute BFF or BFS for XXX
BFF - Fast-on terminals
BFS - Solder lug terminals

Fused Filtered Power Entry Modules

For General Purpose Applications

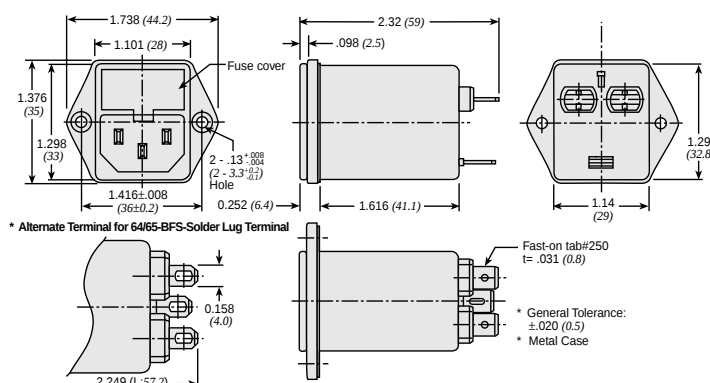
64-65-BFF/64-65-BFS Series

Temperature Characteristics



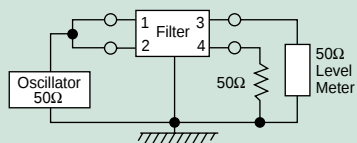
Dimensions

64/65-BFF Series

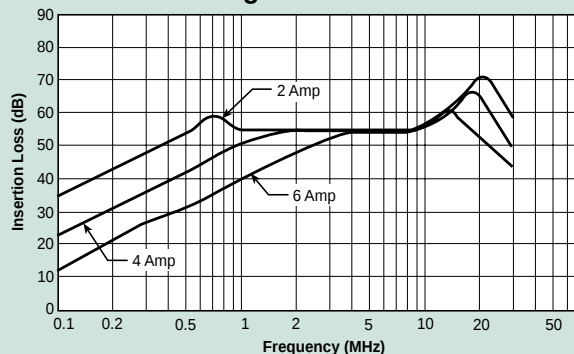


Fused Filtered
Power Entry Modules

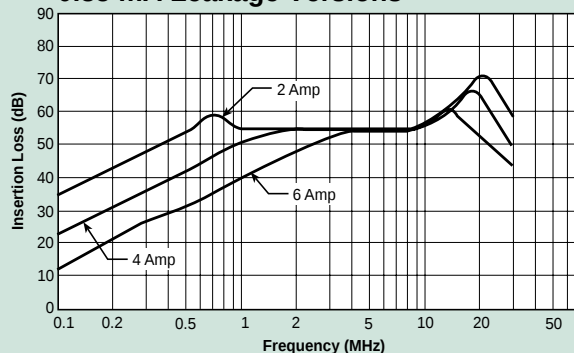
Common Mode



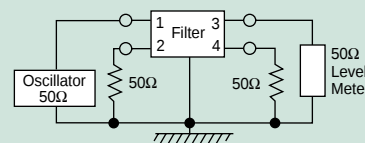
0.50 mA Leakage Versions



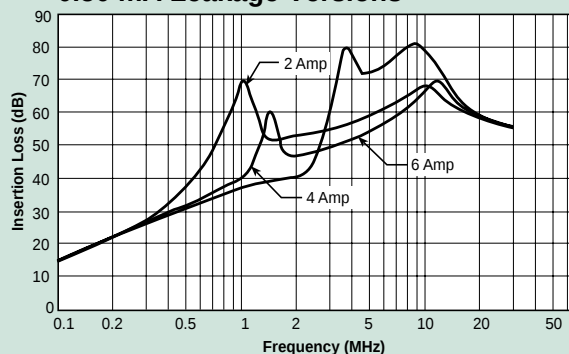
0.35 mA Leakage Versions



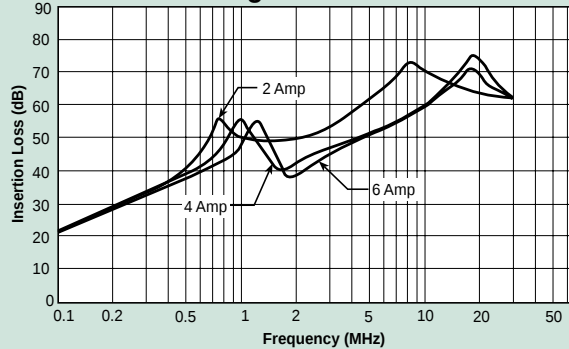
Normal Mode



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 45)

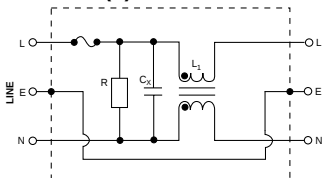


Applications

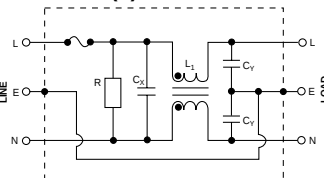
- Medical equipment
- Electronic equipment
- Digital equipment
- Industrial equipment
- Telecommunications equipment
- Measuring and testing instruments
- Personal computers and peripherals

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 ₁)	Temperature Rise (Max.)
				C _V	C _X		
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					0.1uF		
66-XXX-020-4-11					330pF ± 20%		
66-XXX-020-0-12					470pF ± 20%		
66-XXX-020-4-12					330pF ± 20%		
66-XXX-020-4-12					470pF ± 20%		
66-XXX-040-1-11	250VAC	4A	0.01mA	none	0.1uF	4.2mH	45°C
66-XXX-040-1-12					0.22uF		
66-XXX-040-0-11					0.1uF		
66-XXX-040-4-11					330pF ± 20%		
66-XXX-040-0-12					470pF ± 20%		
66-XXX-040-4-12					330pF ± 20%		
66-XXX-040-4-12					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					0.1uF		
66-XXX-060-4-11					330pF ± 20%		
66-XXX-060-0-12					470pF ± 20%		
66-XXX-060-4-12					330pF ± 20%		
66-XXX-060-4-12					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					0.1uF		
67-XXX-020-4-11					330pF ± 20%		
67-XXX-020-0-12					470pF ± 20%		
67-XXX-020-4-12					330pF ± 20%		
67-XXX-020-4-12					470pF ± 20%		
67-XXX-040-1-11	125VAC	4A	0.005mA	none	0.1uF	4.2mH	45°C
67-XXX-040-1-12					0.22uF		
67-XXX-040-0-11					0.1uF		
67-XXX-040-4-11					330pF ± 20%		
67-XXX-040-0-12					470pF ± 20%		
67-XXX-040-4-12					330pF ± 20%		
67-XXX-040-4-12					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					0.1uF		
67-XXX-060-4-11					330pF ± 20%		
67-XXX-060-0-12					470pF ± 20%		
67-XXX-060-4-12					330pF ± 20%		
67-XXX-060-4-12					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

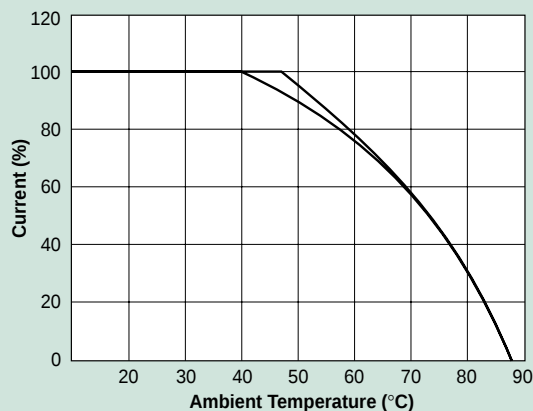
* **Substitute BFF or BFS for XXX**
BFF - Fast-on terminals
BFS - Solder lug terminals

Fused Filtered Power Entry Modules

For Medical or General Purpose Applications

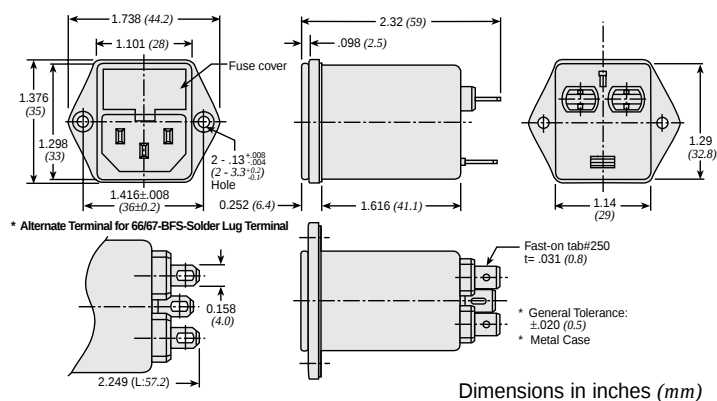
66-67-BFF/66-67-BFS Series

Temperature Characteristics



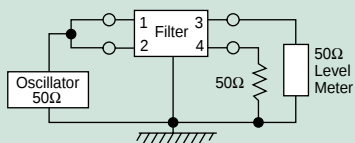
Dimensions

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

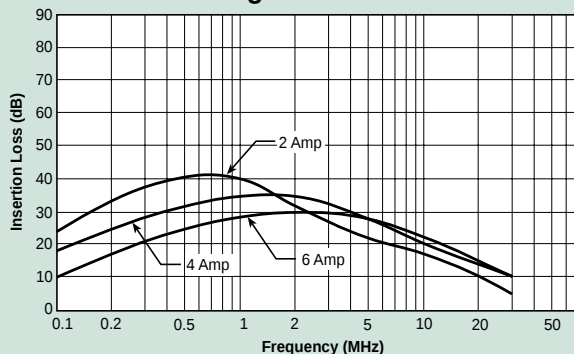


Fused Filtered
Power Entry Modules

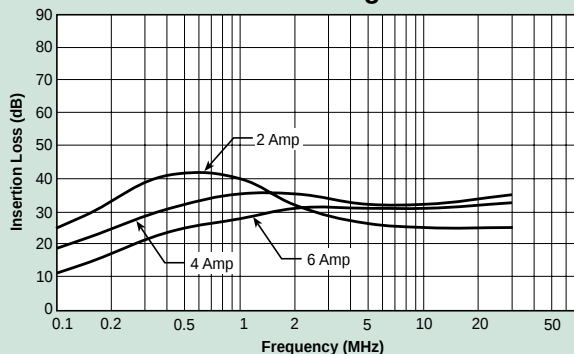
Common Mode



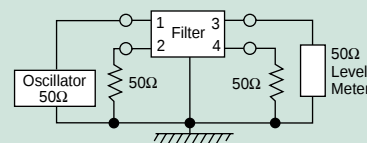
0.01 mA Leakage Current



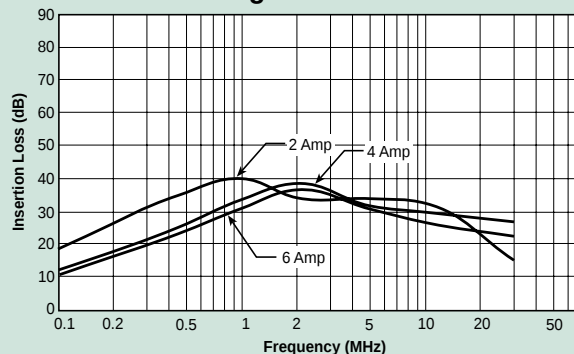
0.075 and 0.1 mA Leakage Current



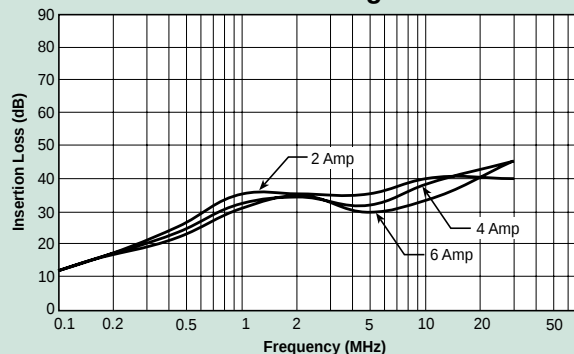
Normal Mode



0.01 mA Leakage Current



0.075 and 0.1 mA Leakage Current



Switched and Fused Filtered Power Entry Modules

For General Purpose Applications

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



Tested and found to be
IAW VDE 0565 Part 3.

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 47)

Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance			Inductance (L ₁)	Temperature Rise (Max.)
				C _Y	C _{X1}	C _{X2}		
64-XXX-020-3-12	250VAC	2A	0.35mA	2200pF	0.22uF	NONE	10.5mH	45°C
64-XXX-020-3-04					0.47uF	NONE		
64-XXX-020-3-14					0.47uF	NONE		
64-XXX-020-3-06			0.50mA	3300pF	0.22uF	NONE		
64-XXX-020-5-12					0.22uF	0.22uF		
64-XXX-020-5-04					0.47uF	NONE		
64-XXX-040-3-12	250VAC	4A	0.35mA	2200pF	0.22uF	NONE	4.2mH	45°C
64-XXX-040-3-04					0.47uF	NONE		
64-XXX-040-3-14					0.47uF	NONE		
64-XXX-040-3-06			0.50mA	3300pF	0.22uF	NONE		
64-XXX-040-5-12					0.22uF	0.22uF		
64-XXX-040-5-04					0.47uF	NONE		
64-XXX-060-3-12	250VAC	6A	0.35mA	2200pF	0.22uF	NONE	1.6mH	45°C
64-XXX-060-3-04					0.47uF	NONE		
64-XXX-060-3-14					0.47uF	NONE		
64-XXX-060-3-06			0.50mA	3300pF	0.22uF	NONE		
64-XXX-060-5-12					0.22uF	0.22uF		
64-XXX-060-5-04					0.47uF	NONE		
65-XXX-020-3-12	125VAC	2A	0.35mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-020-3-04					0.47uF	NONE		
65-XXX-020-3-14					0.47uF	NONE		
65-XXX-020-3-06			0.50mA	3300pF	0.22uF	NONE		
65-XXX-020-5-12					0.22uF	0.22uF		
65-XXX-020-5-04					0.47uF	NONE		
65-XXX-040-3-12	125VAC	4A	0.35mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-040-3-04					0.47uF	NONE		
65-XXX-040-3-14					0.47uF	NONE		
65-XXX-040-3-06			0.50mA	3300pF	0.22uF	NONE		
65-XXX-040-5-12					0.22uF	0.22uF		
65-XXX-040-5-04					0.47uF	NONE		
65-XXX-060-3-12	125VAC	6A	0.35mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04					0.47uF	NONE		
65-XXX-060-3-14					0.47uF	NONE		
65-XXX-060-3-06			0.50mA	3300pF	0.22uF	NONE		
65-XXX-060-5-12					0.22uF	0.22uF		
65-XXX-060-5-04					0.47uF	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

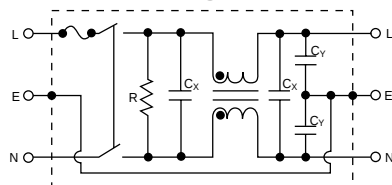
* **Substitute BSF or SSF for XXX**
BSF = Bolt-in switched and fused
SSF = Snap-in switched and fused



Applications

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

Circuit Diagram

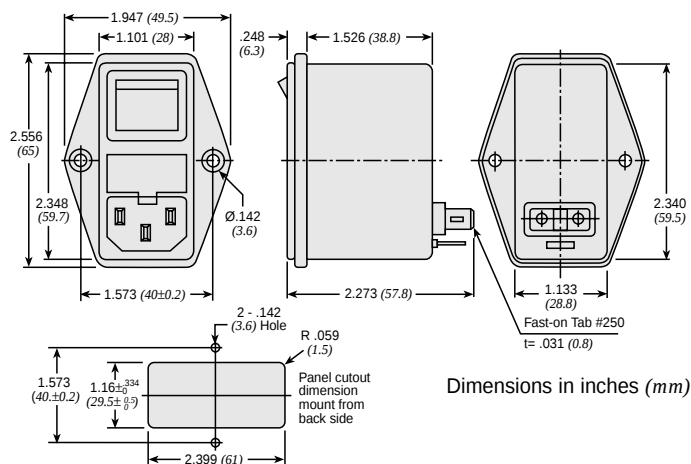


Switched and Fused Filtered Power Entry Modules

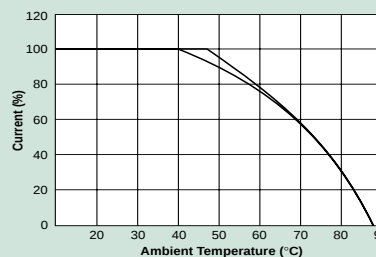
For General Purpose Applications

Dimensions

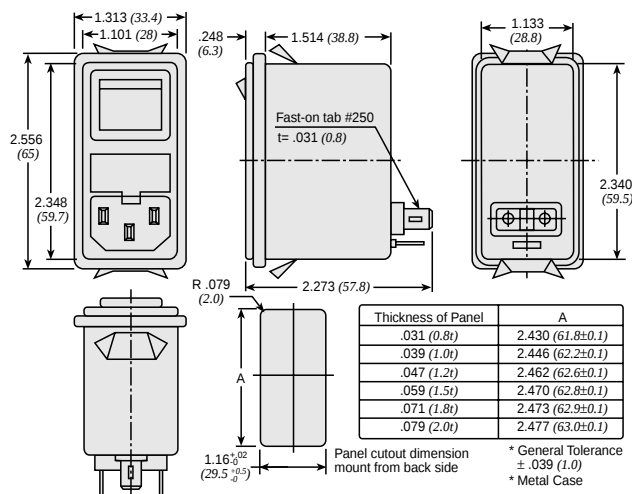
64/65-BSF Series



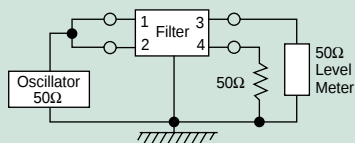
Temperature Characteristics



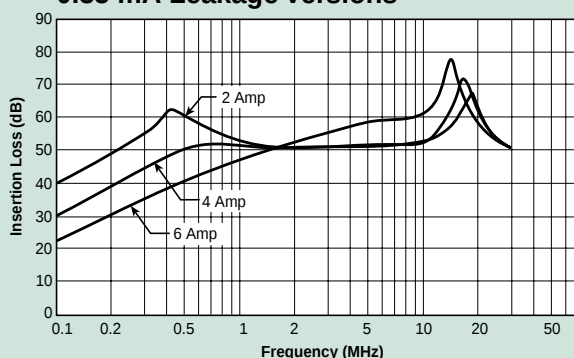
64/65-SSF Series



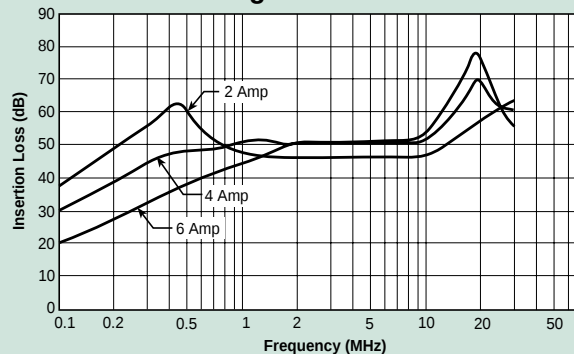
Common Mode



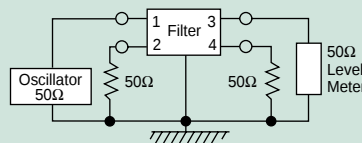
0.35 mA Leakage Versions



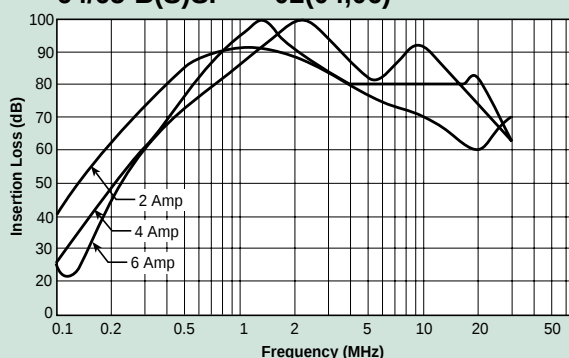
0.50 mA Leakage Versions



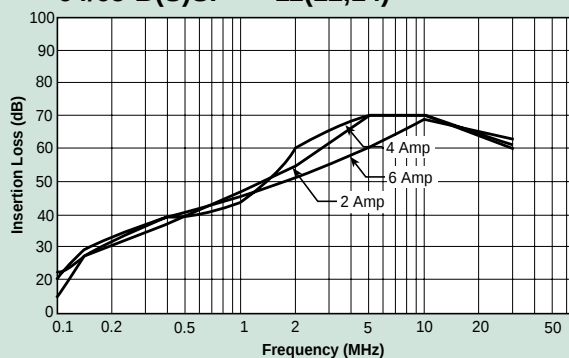
Normal Mode



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



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



Switched and Fused Filtered Power Entry Modules

For Medical or General Purpose Applications

66-67-BSF/66-67-SSF Series



Tested and found to be
IAW VDE 0565 Part 3

Features

- Metric and North American fuse holders available
- Fuse holder and a double pole power ON/OFF switch provides 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
- Provides susceptibility protection without the leakage current associated with line-to-ground capacitors
- Designed to meet requirements for non-patient and patient care equipment
- Metal case provides effective EMI shielding
- Easy access fuse drawer - 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 49)

Specifications

Model*	Rated Voltage 50/60Hz	Rated Current	Leakage Current (Max.)	Capacitance			Temp. Induct. (L ₁)	Rise (Max.)		
				C _Y	C _{X1}	C _{X2}				
66-XXX-020-0-12	250 VAC	2A	.075mA	330pF	0.22uF	NONE	10.5mH	40°C		
66-XXX-020-0-04					0.22uF					
66-XXX-020-0-14					NONE					
66-XXX-020-0-06					0.22uF					
66-XXX-020-1-12					NONE					
66-XXX-020-1-04					0.22uF					
66-XXX-020-1-14			.01mA	NONE	0.47uF	NONE			10.5mH	40°C
66-XXX-020-1-06					0.22uF					
66-XXX-020-4-12					NONE					
66-XXX-020-4-04					0.22uF					
66-XXX-020-4-14			0.1mA	470pF	0.47uF	NONE			10.5mH	40°C
66-XXX-020-4-06					0.22uF					
66-XXX-040-0-12		0.22uF			NONE					
66-XXX-040-0-04		0.22uF			NONE					
66-XXX-040-0-14		.075mA	330pF	0.47uF	NONE	4.2mH	45°C			
66-XXX-040-0-06				0.22uF						
66-XXX-040-1-12				NONE						
66-XXX-040-1-04				0.22uF	NONE					
66-XXX-040-1-14		.01mA	NONE	0.47uF	NONE	4.2mH	45°C			
66-XXX-040-1-06				0.22uF						
66-XXX-040-4-12				NONE						
66-XXX-040-4-04				0.22uF	NONE					
66-XXX-040-4-14		.01mA	470pF	0.47uF	NONE	4.2mH	45°C			
66-XXX-040-4-06				0.22uF						
66-XXX-060-0-12				0.22uF	NONE					
66-XXX-060-0-04				0.22uF	NONE					
66-XXX-060-0-14		.075mA	330pF	0.47uF	NONE	1.6mH	45°C			
66-XXX-060-0-06				0.22uF						
66-XXX-060-1-12				NONE						
66-XXX-060-1-04				0.22uF	NONE					
66-XXX-060-1-14		.01mA	NONE	0.47uF	NONE	1.6mH	45°C			
66-XXX-060-1-06				0.22uF						
66-XXX-060-4-12				NONE						
66-XXX-060-4-04				0.22uF	NONE					
66-XXX-060-4-14		0.1mA	470pF	0.47uF	NONE	1.6mH	45°C			
66-XXX-060-4-06				0.22uF						

Note: Test Voltage: 1500VAC one minute, line to ground
Insulation Resistance: 300 MΩ min. at 500VDC
Voltage Drop: 1V max. at rated current

Weight: 130g
Inlet: Compatible with IEC-320
B(S) = Bolt-in terminals or (Snap-in terminals)

* Substitute BSF or SSF for XXX
BSF - Bolt-In Switched and Fused
SSF - Snap-In Switched and Fused

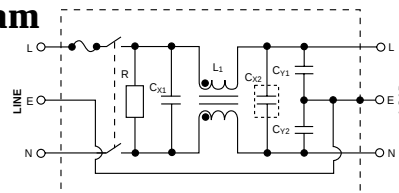


Applications

- Medical equipment
- Industrial equipment
- Telecommunications equipment
- Measuring and testing instruments
- Digital equipment (including switching power supplies)
- General purpose filter for susceptibility or high frequency "clean up" applications

Circuit Diagram

Note: C_{Y1} and C_{Y2} capacitors omitted on 66/67
B(S)F-XXX-1-X Filters

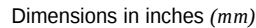


Model*	Rated Voltage 50/60Hz	Rated Current	Leakage Current (Max.)	Capacitance C _Y C _{X1} C _{X2}			Temp. Induct. (L ₁)	Rise (Max.)
67-XXX-020-0-12	125 VAC	2A	0.04mA	330pF	0.22uF	NONE	10.5mH	40°C
67-XXX-020-0-04						0.22uF		
67-XXX-020-0-14						NONE		
67-XXX-020-0-06						0.22uF		
67-XXX-020-1-12			.005mA	NONE	0.22uF	NONE		
67-XXX-020-1-04						0.22uF		
67-XXX-020-1-14						NONE		
67-XXX-020-1-06						0.22uF		
67-XXX-020-4-12			0.05mA	470pF	0.22uF	NONE		
67-XXX-020-4-04						0.22uF		
67-XXX-020-4-14						NONE		
67-XXX-020-4-06						0.22uF		
67-XXX-040-0-12		4A	0.04mA	330pF	0.22uF	NONE	4.2mH	45°C
67-XXX-040-0-04						0.22uF		
67-XXX-040-0-14						NONE		
67-XXX-040-0-06						0.22uF		
67-XXX-040-1-12			.005mA	NONE	0.22uF	NONE		
67-XXX-040-1-04						0.22uF		
67-XXX-040-1-14						NONE		
67-XXX-040-1-06						0.22uF		
67-XXX-040-4-12			0.05mA	470pF	0.22uF	NONE		
67-XXX-040-4-04						0.22uF		
67-XXX-040-4-14						NONE		
67-XXX-040-4-06						0.22uF		
67-XXX-060-0-12		6A	0.04mA	330pF	0.22uF	NONE	1.6mH	45°C
67-XXX-060-0-04						0.22uF		
67-XXX-060-0-14						NONE		
67-XXX-060-0-06						0.22uF		
67-XXX-060-1-12			.005mA	NONE	0.22uF	NONE		
67-XXX-060-1-04						0.22uF		
67-XXX-060-1-14						NONE		
67-XXX-060-1-06						0.22uF		
67-XXX-060-4-12			0.05mA	470pF	0.22uF	NONE		
67-XXX-060-4-04						0.22uF		
67-XXX-060-4-14						NONE		
67-XXX-060-4-06						0.22uF		



For Medical or General Purpose Applications

66/67-BSF Series



A line graph showing the relationship between Ambient Temperature (°C) on the x-axis and Current (%) on the y-axis for a 100W LED. The x-axis ranges from 0 to 90°C with major grid lines every 10 units. The y-axis ranges from 0 to 120% with major grid lines every 20 units. The graph shows a constant current of 100% from 0°C to 40°C. Above 40°C, the current decreases linearly, reaching 0% at 90°C.

Ambient Temperature (°C)	Current (%)
0	100
10	100
20	100
30	100
40	100
50	90
60	80
70	60
80	30
90	0

Technical drawings of the R-079 panel showing front, side, and rear views with dimensions in inches and millimeters.

Front View Dimensions:

- Overall Width: 1.313 (33.4)
- Mounting Hole Spacing: 1.101 (28)
- Overall Height: 2.556 (65)
- Mounting Hole Spacing (Vertical): 2.348 (59.7)

Side View Dimensions:

- Panel Thickness: .248 (6.3)
- Fast-on tab #250 width: 1.514 (38.8)
- Fast-on tab thickness: $t = .031 (0.8)$
- Panel Width: 2.273 (57.8)

Rear View Dimensions:

- Overall Width: 1.133 (28.8)
- Overall Height: 2.340 (59.5)

Panel Cutout Dimensions:

- Panel Width: 2.079 (52.9)
- Panel Height: A
- Panel Thickness: 1.16^{±.02} (29.5^{±.5})

Panel Thickness Options and Dimensions:

Thickness of Panel	A
.031 (0.8t)	2.430 (61.8±0.1)
.039 (1.0t)	2.446 (62.2±0.1)
.047 (1.2t)	2.462 (62.6±0.1)
.059 (1.5t)	2.470 (62.8±0.1)
.071 (1.8t)	2.473 (62.9±0.1)
.079 (2.0t)	2.477 (63.0±0.1)

Panel cutout dimension mount from back side

*** General Tolerance ± .039 (1.0)**

*** Metal Case**

Thickness of Panel	A
.031 (0.8t)	2.430 (61.8±0.1)
.039 (1.0t)	2.446 (62.2±0.1)
.047 (1.2t)	2.462 (62.6±0.1)
.059 (1.5t)	2.470 (62.8±0.1)
.071 (1.8t)	2.473 (62.9±0.1)
.079 (2.0t)	2.477 (63.0±0.1)

* General Tolerance
± .039 (1.0)
* Metal Case

The graph illustrates the frequency response of a 100 ohm resistor under different current loads. The x-axis represents Frequency in MHz on a logarithmic scale from 0.1 to 50. The y-axis represents Insertion Loss in dB on a linear scale from 0 to 90. Three curves are plotted: 2 Amp (top), 4 Amp (middle), and 6 Amp (bottom). All curves show a peak in insertion loss at approximately 0.5 MHz, with the peak value decreasing as the current increases.

Frequency (MHz)	2 Amp (dB)	4 Amp (dB)	6 Amp (dB)
0.1	32	20	18
0.2	40	28	25
0.5	45	38	32
1	42	35	30
2	38	32	28
5	30	25	22
10	25	20	18
20	18	15	13
50	10	8	6

The graph shows the insertion loss of a 100 ohm resistor as a function of frequency and current. The y-axis represents Insertion Loss in dB, ranging from 0 to 90. The x-axis represents Frequency in MHz on a logarithmic scale, with major ticks at 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, and 50. Three curves are plotted for different current levels: 2 Amp, 4 Amp, and 6 Amp. The 2 Amp curve starts at approximately 32 dB at 0.1 MHz, peaks at about 45 dB around 0.5 MHz, and then gradually decreases to about 35 dB at 50 MHz. The 4 Amp curve starts at approximately 22 dB at 0.1 MHz, rises to about 38 dB at 1 MHz, and then slightly decreases to about 35 dB at 50 MHz. The 6 Amp curve starts at approximately 20 dB at 0.1 MHz, rises to about 32 dB at 1 MHz, and then slightly decreases to about 30 dB at 50 MHz.

Frequency (MHz)	2 Amp (dB)	4 Amp (dB)	6 Amp (dB)
0.1	32	22	20
0.2	40	28	25
0.5	45	35	30
1	42	38	32
2	38	36	31
5	35	35	30
10	35	35	30
20	35	35	30
50	35	35	30

The diagram shows a circuit for measuring the insertion loss of a filter. An oscillator is connected to the input of a filter through a 50 ohm resistor. The filter has ports 1, 2, 3, and 4. Port 2 is grounded. Port 3 is connected to a 50 ohm resistor, which is then connected to a 50 ohm level meter. Port 4 is also grounded.

The graph shows the insertion loss of a 100 ohm resistor as a function of frequency and current. The x-axis represents Frequency in MHz on a logarithmic scale from 0.1 to 50. The y-axis represents Insertion Loss in dB on a linear scale from 0 to 90. Three curves are plotted for different current levels: 2 Amp, 4 Amp, and 6 Amp. All curves show a similar trend, with insertion loss increasing from approximately 12 dB at 0.1 MHz to a peak of about 45-50 dB between 5 MHz and 10 MHz, and then decreasing to around 20-30 dB at 50 MHz. Higher currents result in higher insertion loss across the entire frequency range.

Frequency (MHz)	2 Amp (dB)	4 Amp (dB)	6 Amp (dB)
0.1	12	12	12
0.2	15	15	15
0.5	22	22	22
1	28	28	28
2	38	35	32
5	48	45	42
10	45	42	38
20	35	32	28
50	25	22	18

The graph shows the insertion loss of a 100 pF capacitor across a frequency range from 0.1 MHz to 50 MHz. The y-axis represents Insertion Loss in dB, ranging from 0 to 90. The x-axis represents Frequency in MHz on a logarithmic scale. Three curves are plotted for different current levels: 2 Amp, 4 Amp, and 6 Amp. All curves start at approximately 12 dB at 0.1 MHz. The 2 Amp curve rises to about 50 dB at 5 MHz and then levels off. The 4 Amp curve rises to about 45 dB at 5 MHz and then levels off. The 6 Amp curve rises to about 40 dB at 5 MHz and then levels off. The curves are very close to each other, indicating that the insertion loss is relatively independent of the current level for this capacitor.

Frequency (MHz)	2 Amp (dB)	4 Amp (dB)	6 Amp (dB)
0.1	12	12	12
0.2	15	15	15
0.5	22	22	22
1	30	30	30
2	40	38	35
5	50	45	40
10	50	45	40
20	50	45	40
50	50	45	40

Switched and Fused Filtered Power Entry Modules

Dual Fuse for European Applications

68-BSF Series

Features

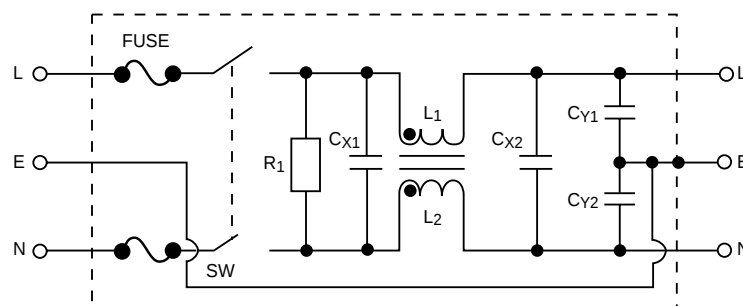
- Dual fuse for European applications
- Fuse holder and double pole power ON/OFF switch provides a convenient/compact package
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Metal case provides effective EMI shielding
- IEC connector meets the safety standards of most certifying agencies
- Easy access fuse drawer
- Flange-mounted
- UL, CSA, and SEMKO approved
- Designed to be in accordance with VDE 0565, part 3
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page 51)

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 ₁)		Temperature Rise (Max.)	
				C _{Y1}	C _{Y2}	C _{X1}	C _{X2}		
68-BSF-020-3-01	250VAC	2A	0.35mA	2200pF	2200pF	0.1uF	0.1uF	10.5mH	45°C
68-BSF-020-3-04						0.22uF	0.22uF		
68-BSF-040-3-01		4A				0.1uF	0.1uF	4.2mH	
68-BSF-040-3-04						0.22uF	0.22uF		
68-BSF-060-3-01		6A				0.1uF	0.1uF	1.6mH	
68-BSF-060-3-04						0.22uF	0.22uF		

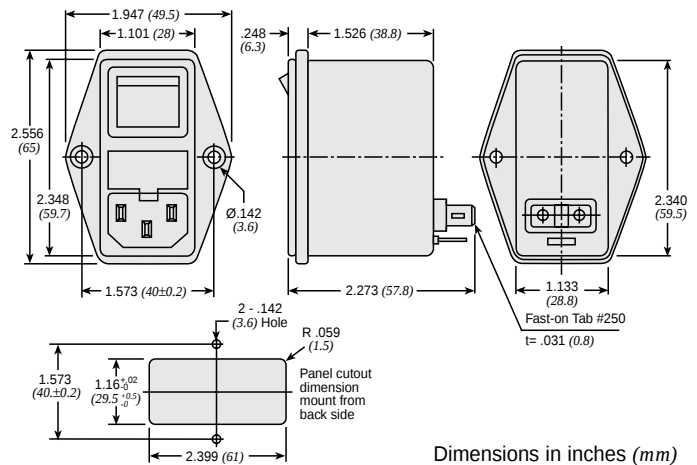
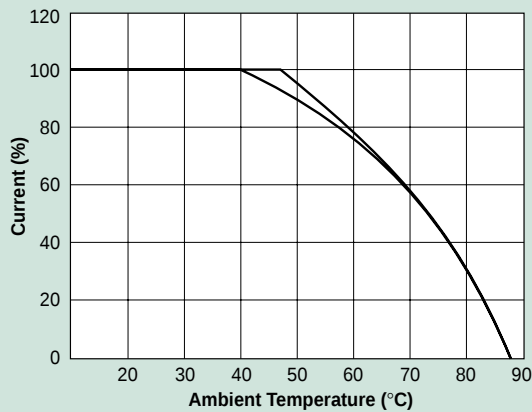
Note: Test Voltage 1500VAC one minute, line to ground
Insulation Resistance: 300 MΩ min. at 500VDC
Voltage Drop: 1V max. at rated current
Weight: 130g
Inlet: Compatible with IEC-320
B(S) = Bolt-in terminals or (Snap-in terminals)

Switched and Fused Filtered Power Entry Modules

Dual Fuse for European Applications

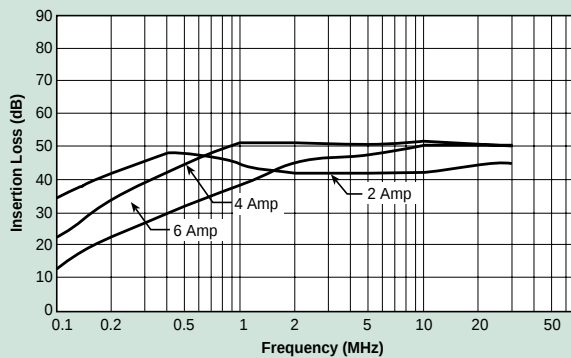
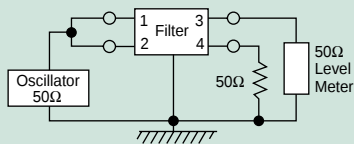
68-BSF Series

Temperature Characteristics



Switched and Fused Filtered
Power Entry Modules

Common Mode



Normal Mode

