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.

Bolt-in Rear Terminals PF16-PF17
For General Purpose Applications PF22-PF23
For Medical Applications PF24-PF25

Bolt-in Right Angle Terminals PF18-PF19
For PCB Applications PF46-PF47

High Frequency Attenuation PF20-PF21
Bolt-in for PCB Applications PF48-PF49

Snap-in with Wire Leads PF26-PF27

Bolt-in with Wire Leads PF28-PF31

Snap-in Mount PF32-PF33

Fused Filtered PF34-PF37
For General Purpose Applications PF34-PF35
For Medical or General Purpose Applications PF36-PF37

Switched and Fused Filtered PF38-PF43

PCB Power Filters PF44-PF45

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Power Entry Modules
Bolt-in Rear Terminals

60-BPR & BPS Series

Tested and found to be IAW VDE 0565 Part 3.

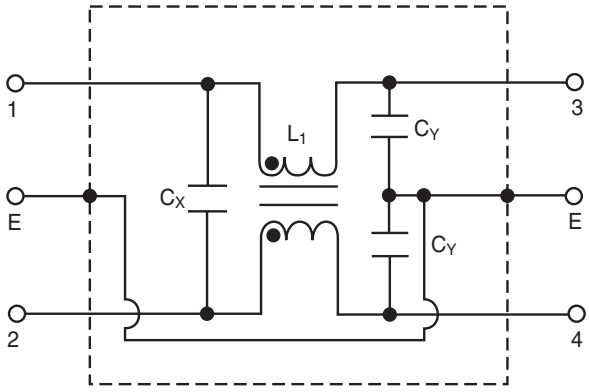
Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal 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

Circuit Diagram



Specifications

Model*	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance C_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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-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

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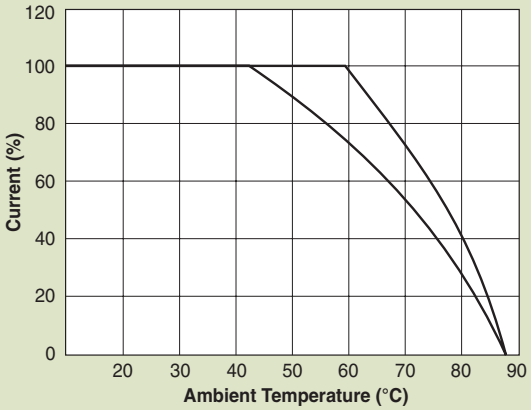
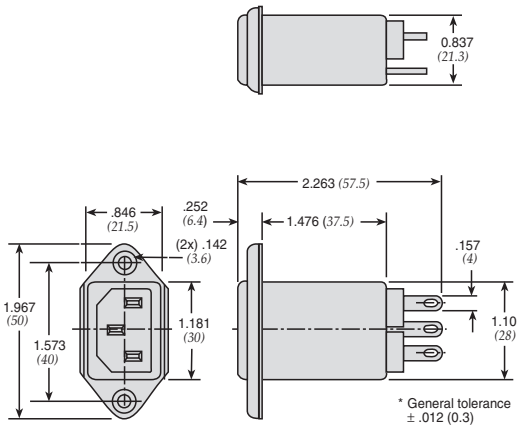
Power Entry Modules
Bolt-in Rear Terminals

60-BPR & BPS Series

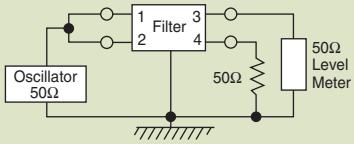
Temperature Characteristics



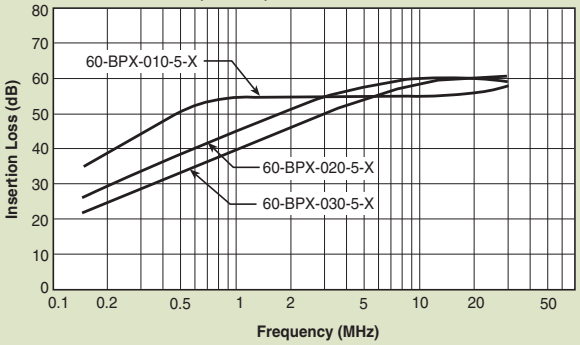


Dimensions in inches (*mm*)

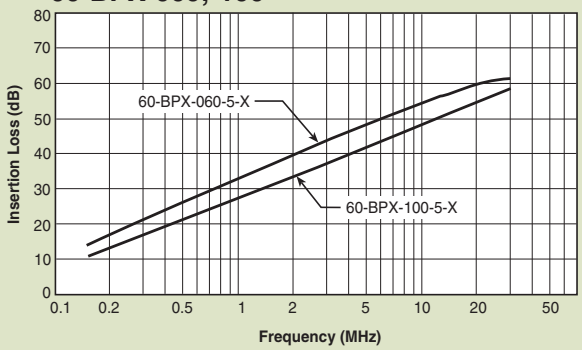
Common Mode



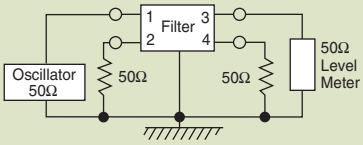
60-BPX-010;-020;-030



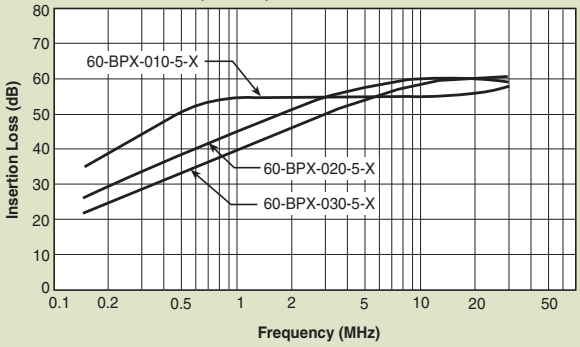
60-BPX-060;-100



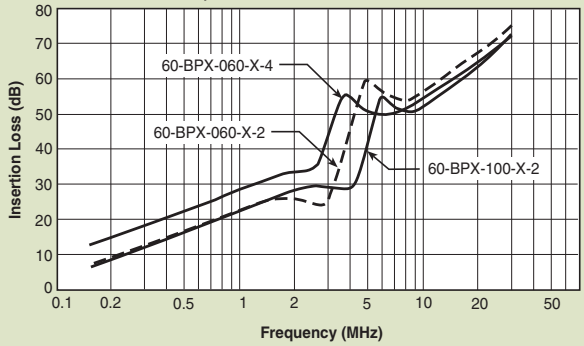
Normal Mode



60-BPX-010;-020;-030



60-BPX-060;-100



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Spectrum Control

Power Entry Modules
Bolt-in Right Angle Terminals

60-BPF Series

Tested and found to be IAW VDE 0565 Part 3.

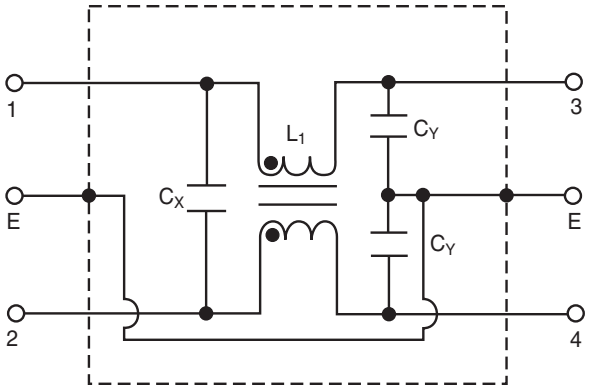
Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal 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

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_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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

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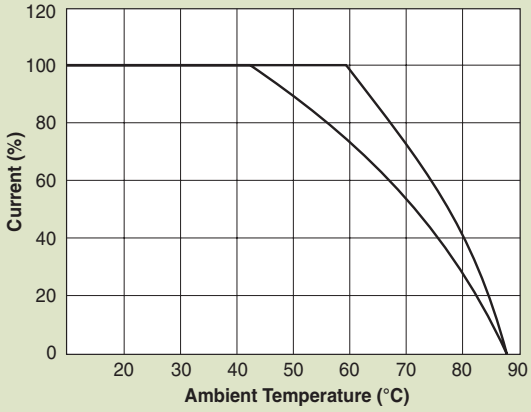
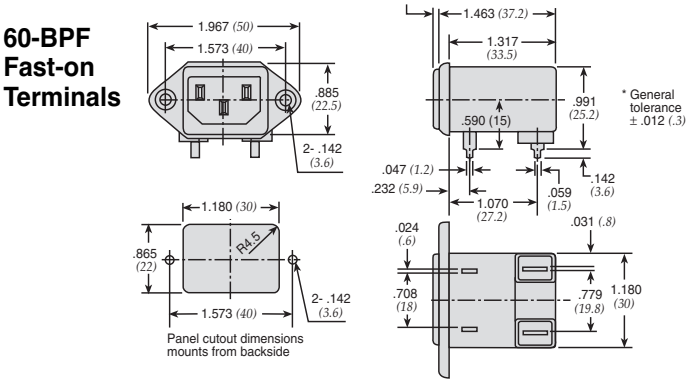
Power Entry Modules
Bolt-in Right Angle Terminals

60-BPF Series

Temperature Characteristics

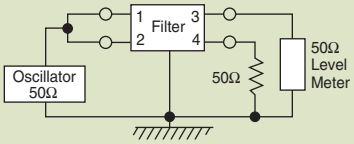


60-BPF Fast-on Terminals

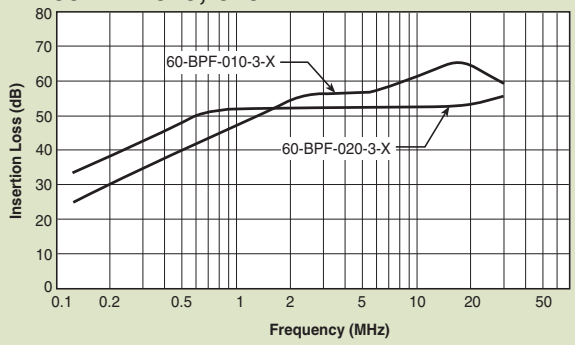


Dimensions in inches *(mm)*

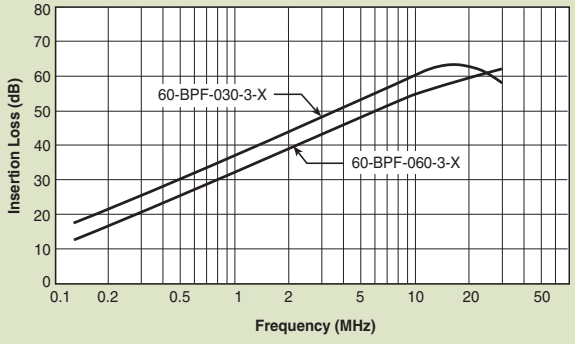
Common Mode



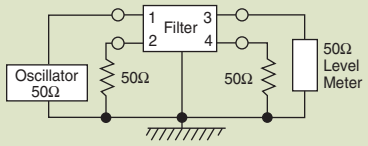
60-BPF-010;-020



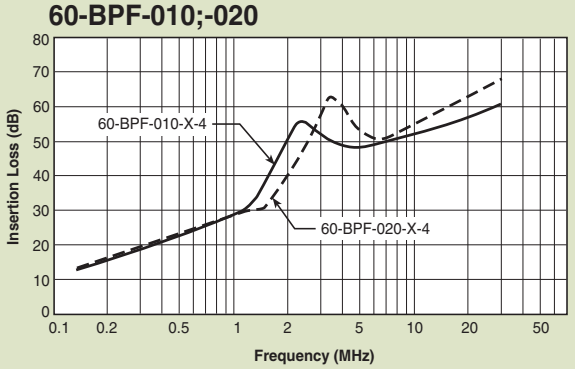
60-BPF-030;-060



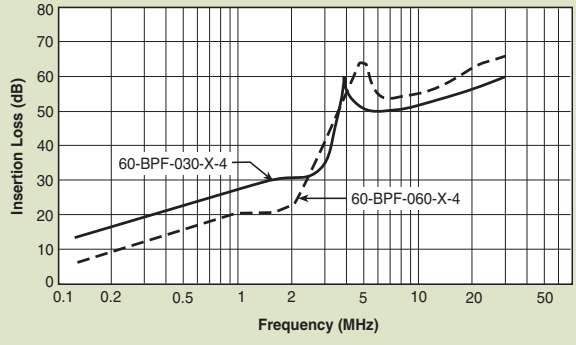
Normal Mode



60-BPF-010;-020



60-BPF-030;-060



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Spectrum Control

Power Entry Modules
High Frequency Attenuation

60-BHS Series

Tested and found to be IAW VDE 0565 Part 3.

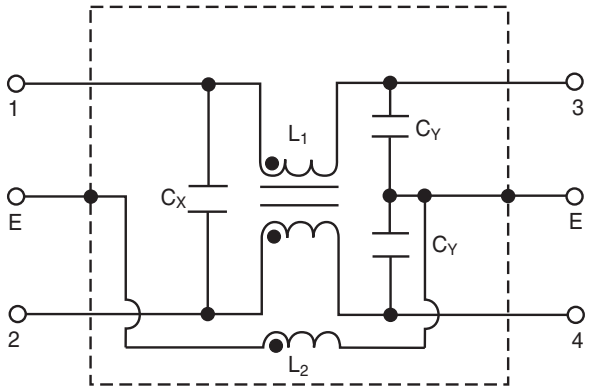
Features

- 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 C_Y	Capacitance C_X	Inductance (L_1)	Inductance (L_2)	Temperature Rise (Max.)
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

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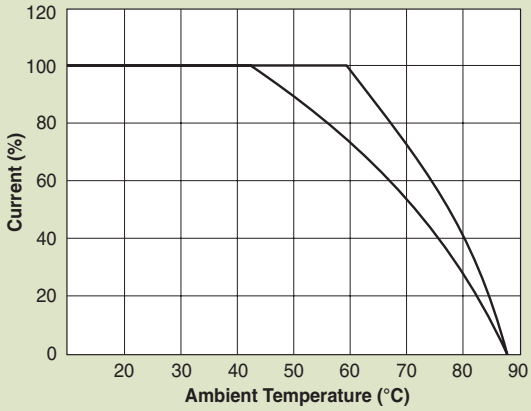
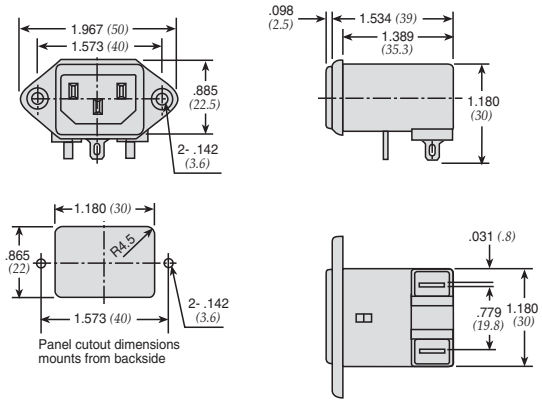
Power Entry Modules
High Frequency Attenuation

60-BHS Series

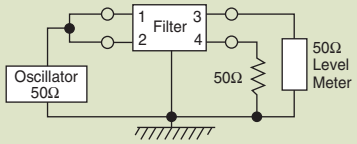
Temperature Characteristics



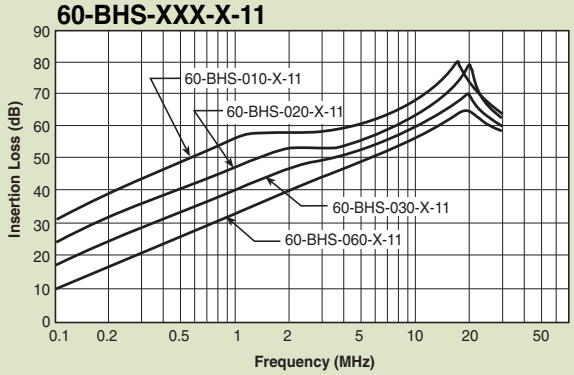


Dimensions in inches *(mm)*

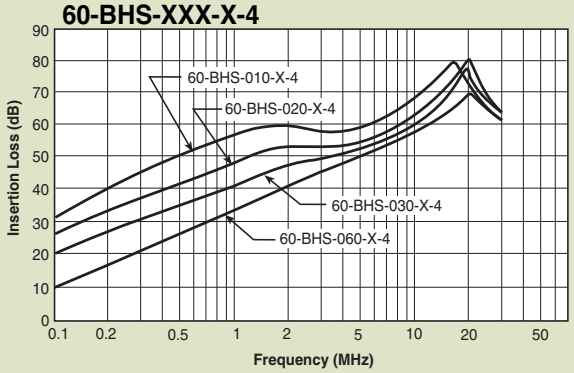
Common Mode



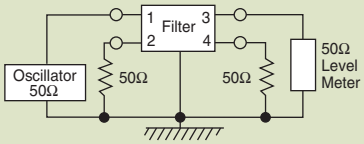
60-BHS-XXX-X-11



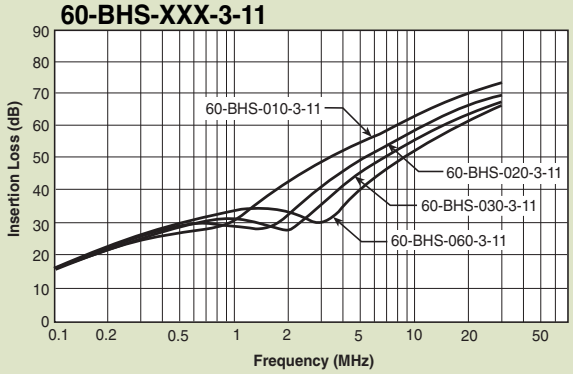
60-BHS-XXX-X-4



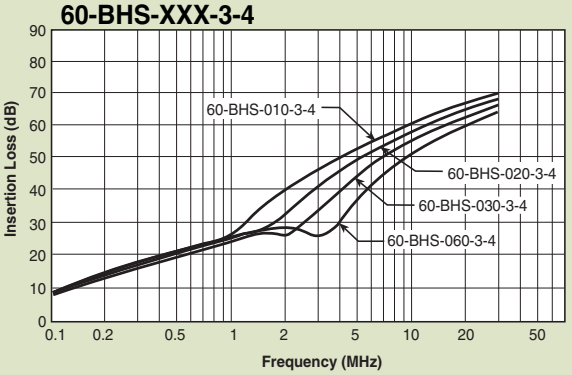
Normal Mode



60-BHS-XXX-3-11



60-BHS-XXX-3-4



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Spectrum Control

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

10-BPF Series

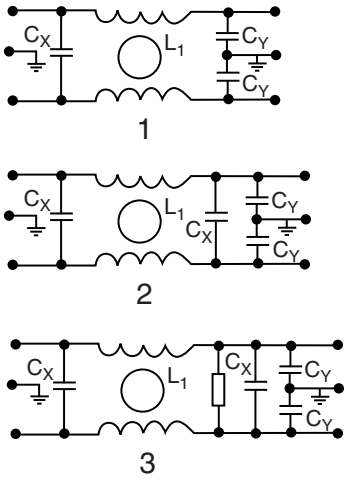
Features

- 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 C_Y	Capacitance C_X	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			0.01uF	1.5mH		A	
10-BPF-003-5-C								C	
10-BPF-003-5-D				4700pF			2	B	
10-BPF-006-5-A		6A		3300pF		0.5mH	1	A	
10-BPF-006-5-C								C	
10-BPF-006-5-D				3300pF & 0.01uF	3300pF & 0.01uF	1.5mH	2	B	
10-BPF-010-5-A		10A		3300pF	0.01uF	0.5mH	1	A	
10-BPF-010-5-D				3300pF & 0.01uF	3300pF & 0.01uF	1.5mH	3	B	

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

api technologies corp.
Spectrum Control

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

10-BPF Series

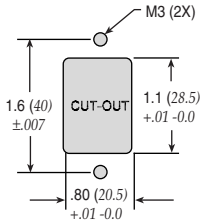


Figure A

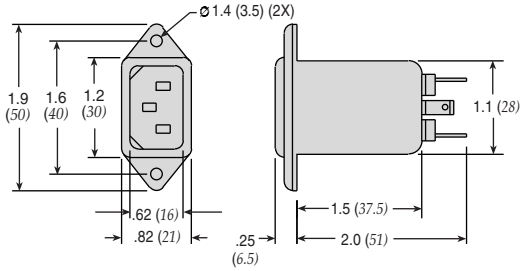


Figure B

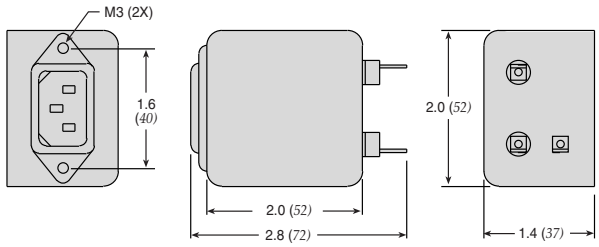
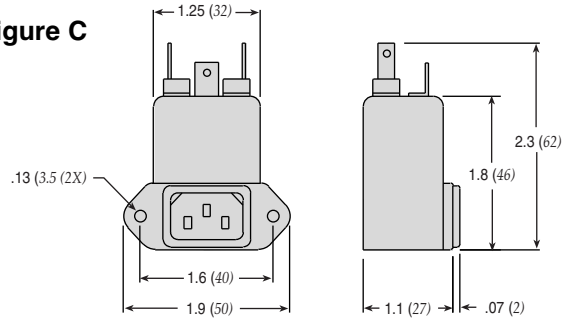
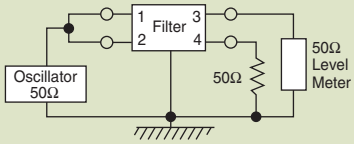


Figure C

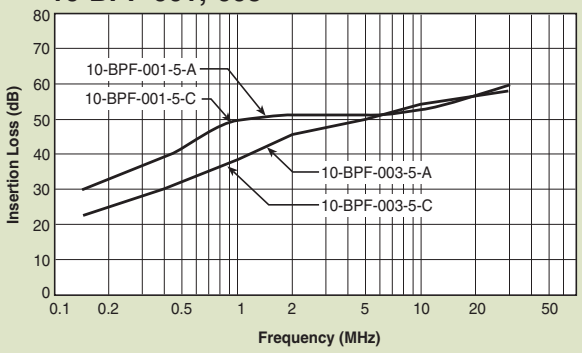


Dimensions in inches (*mm*)

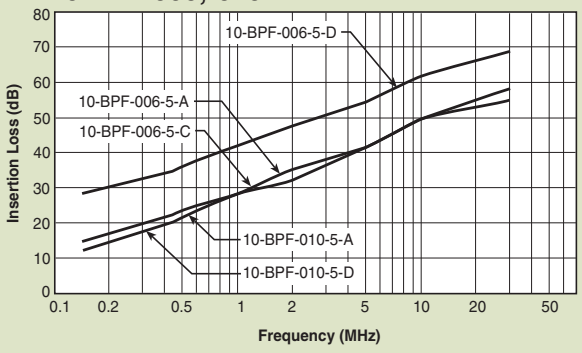
Common Mode



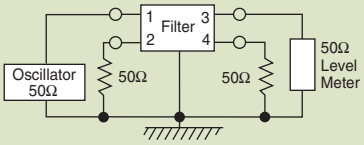
10-BPF-001;-003



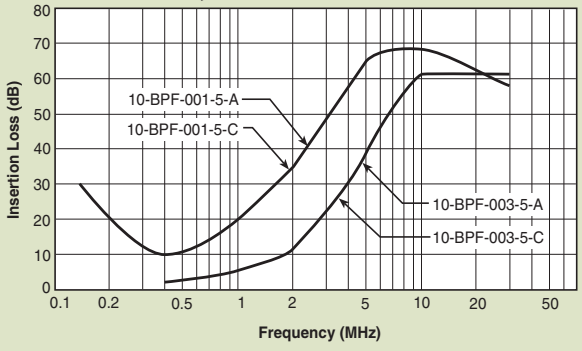
10-BPF-006;-010



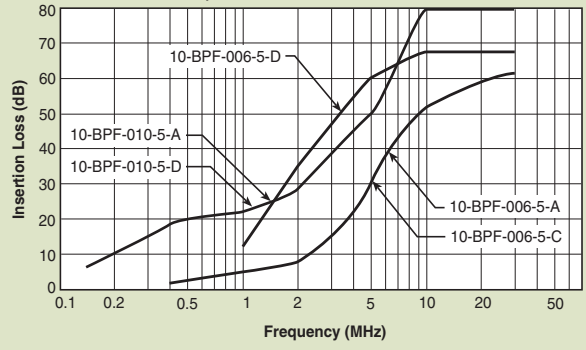
Normal Mode



10-BPF-001;-003



10-BPF-006;-010



api technologies corp.
Spectrum Control

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

10-BPF Series

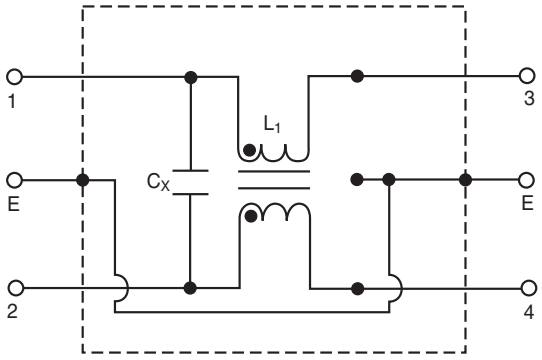
Features

- 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

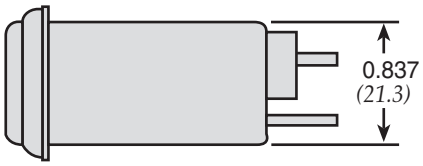
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance C_X	Inductance (L_1)	Circuit Diagram	Figure	Temperature Rise (Max.)
10-BPF-001-2-A	120/250VAC	1A	5uA	0.01uF	3.0mH	1	A	30°C
10-BPF-003-2-A		3A			1.5mH			
10-BPF-006-2-A		6A			0.5mH			

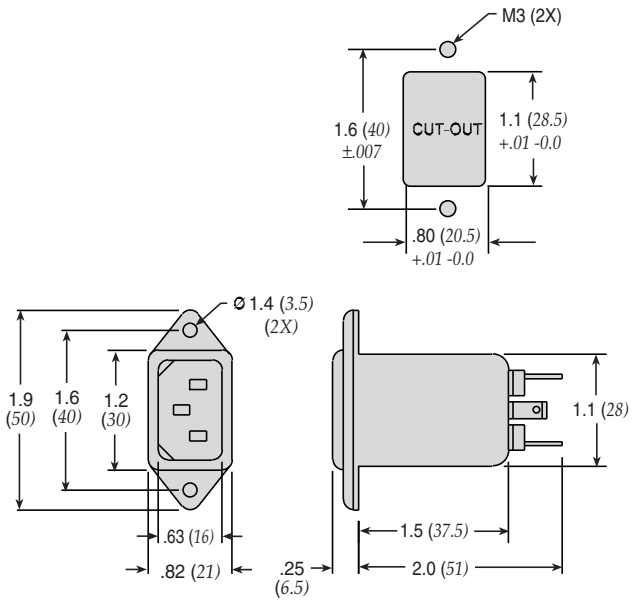
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 45g
Input: Compatible with IEC-320

api technologies corp.
Spectrum Control

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

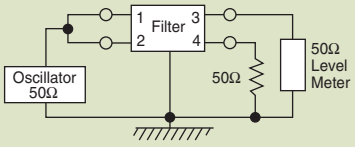
10-BPF Series



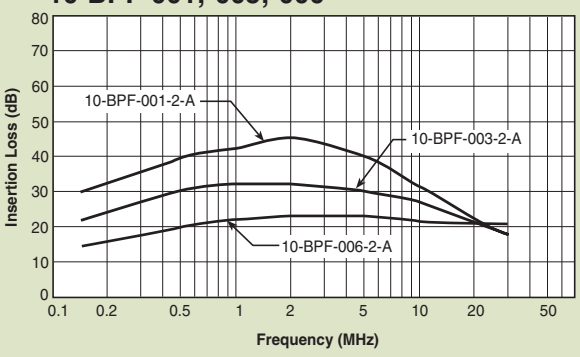


Dimensions in inches (*mm*)

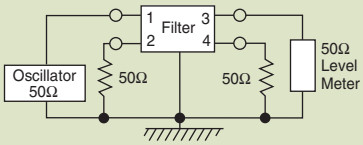
Common Mode



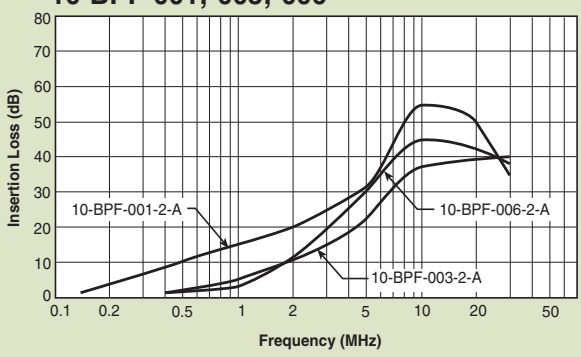
10-BPF-001;-003;-006



Normal Mode



10-BPF-001;-003;-006



api technologies corp.
Spectrum Control

Power Entry Modules
Snap-in with Wire Leads

60-SPL Series

Tested and found to be IAW VDE 0565 Part 3.

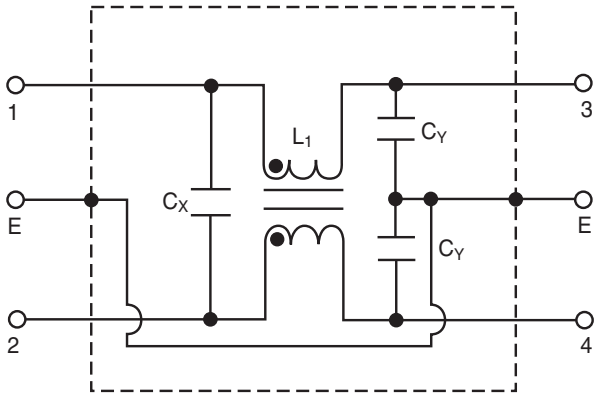
Features

- 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
- 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)

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_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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%		

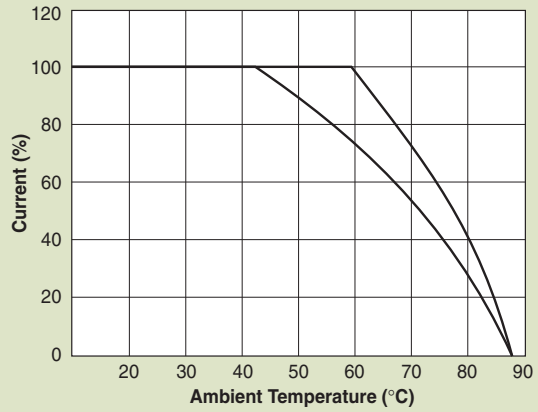
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 50g
Input: Compatible with IEC-320

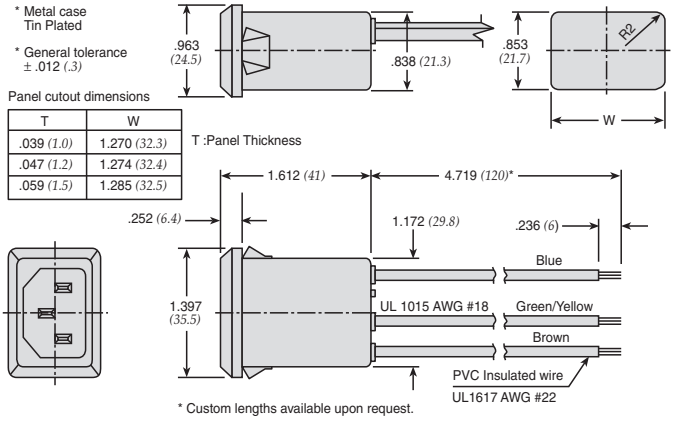
api technologies corp.
Spectrum Control

Power Entry Modules
Snap-in with Wire Leads

60-SPL Series

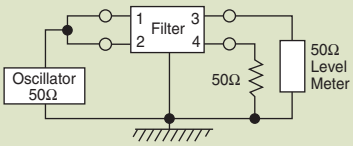
Temperature Characteristics



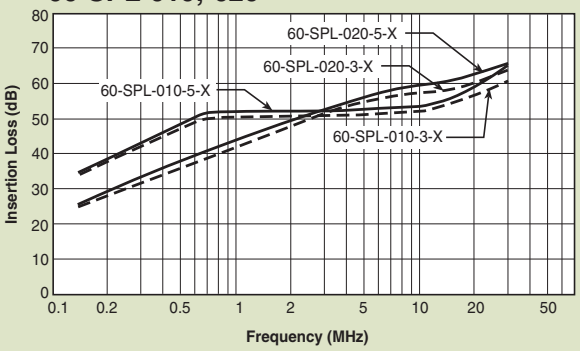


Dimensions in inches *(mm)*

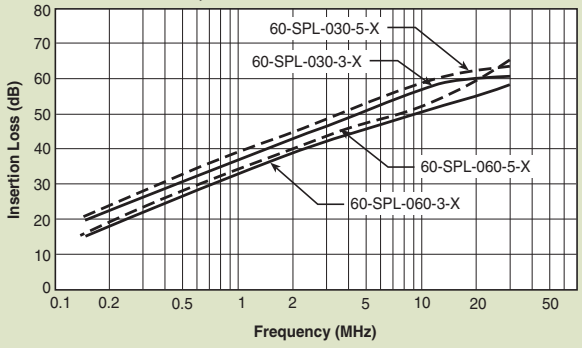
Common Mode



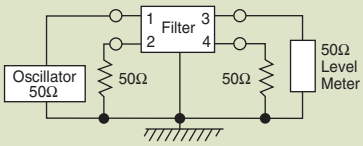
60-SPL-010;-020



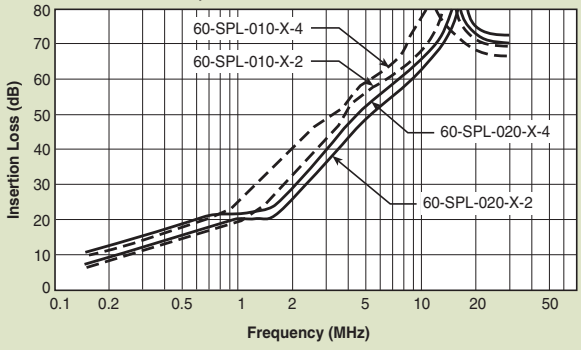
60-SPL-030;-060



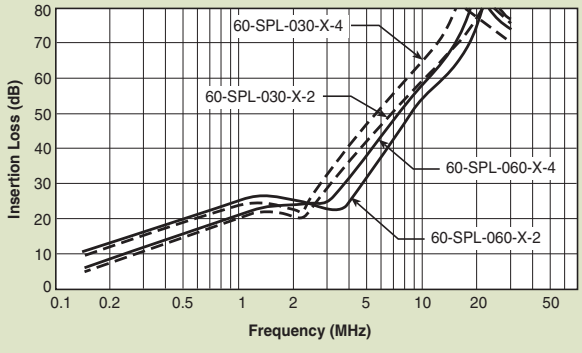
Normal Mode



60-SPL-010;-020



60-SPL-030;-060



api technologies corp.
Spectrum Control

Power Entry Modules
Bolt-in with Wire Leads

60-BPL Series

Tested and found to be IAW VDE 0565 Part 3.

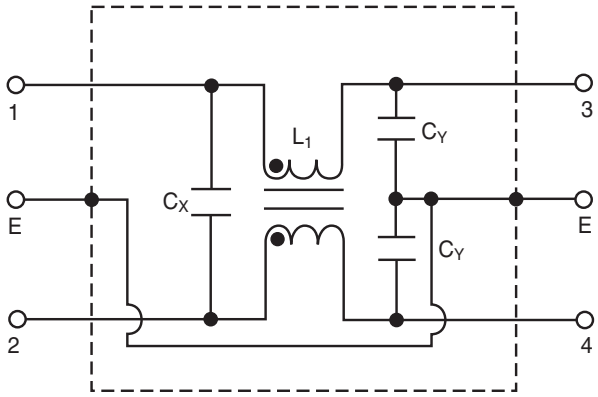
Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal 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)

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_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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%		

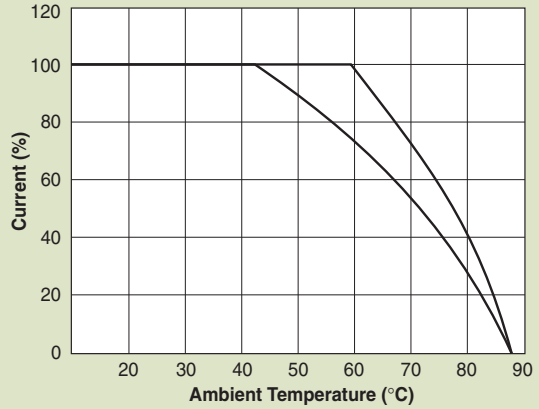
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 50g
Input: Compatible with IEC-320

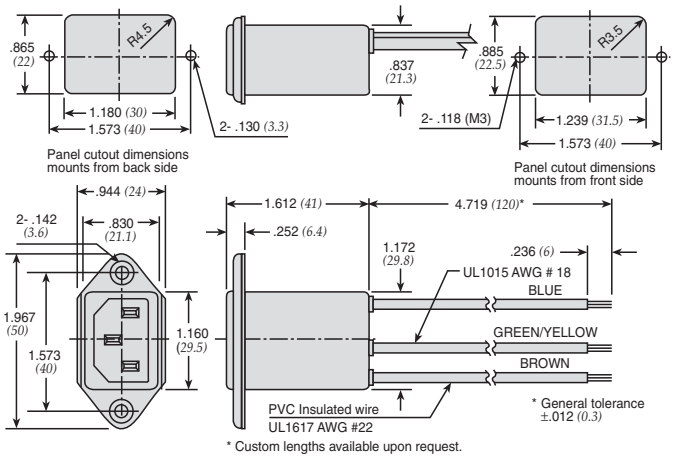
api technologies corp.
Spectrum Control

Power Entry Modules
Bolt-in with Wire Leads

60-BPL Series

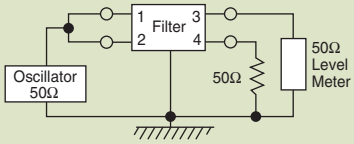
Temperature Characteristics



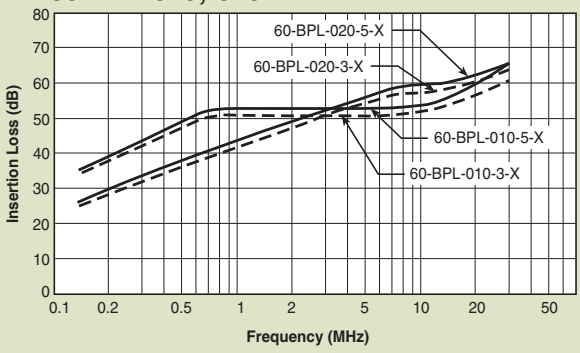


Dimensions in inches *(mm)*

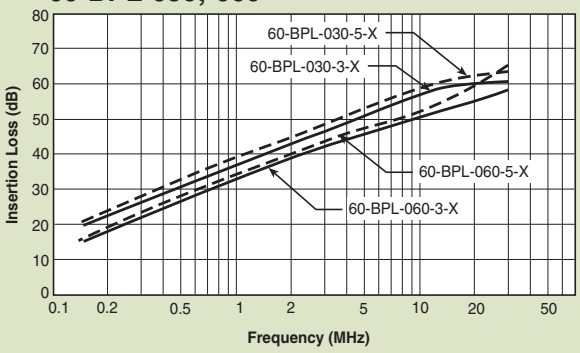
Common Mode



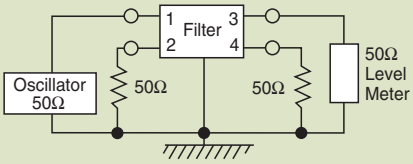
60-BPL-010;-020



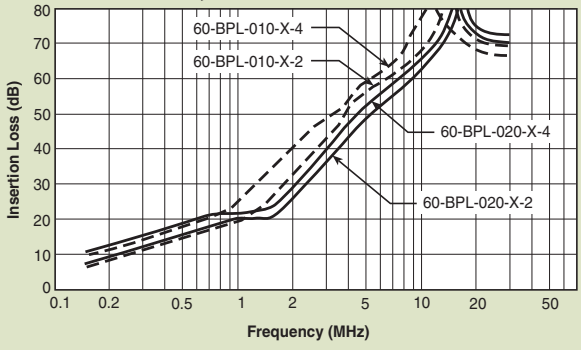
60-BPL-030;-060



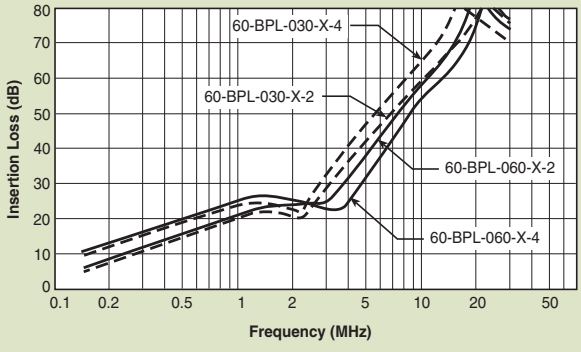
Normal Mode



60-BPL-010;-020



60-BPL-030;-060



api technologies corp.
Spectrum Control

Power Entry Modules
Bolt-in with Wire Leads

10-BPL Series

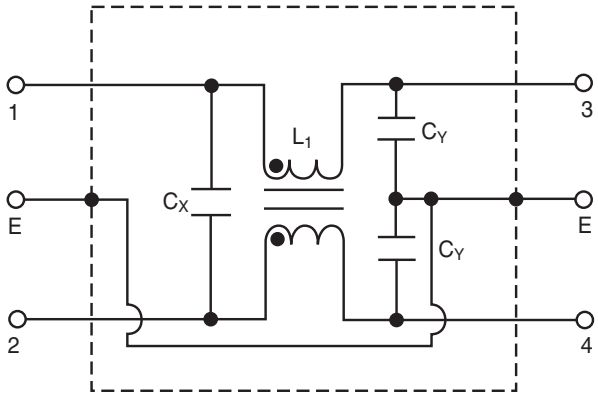
Features

- 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 C_Y	Capacitance C_X	Inductance (L_1)	Circuit Diagram	Figure	Temperature Rise (Max.)
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			

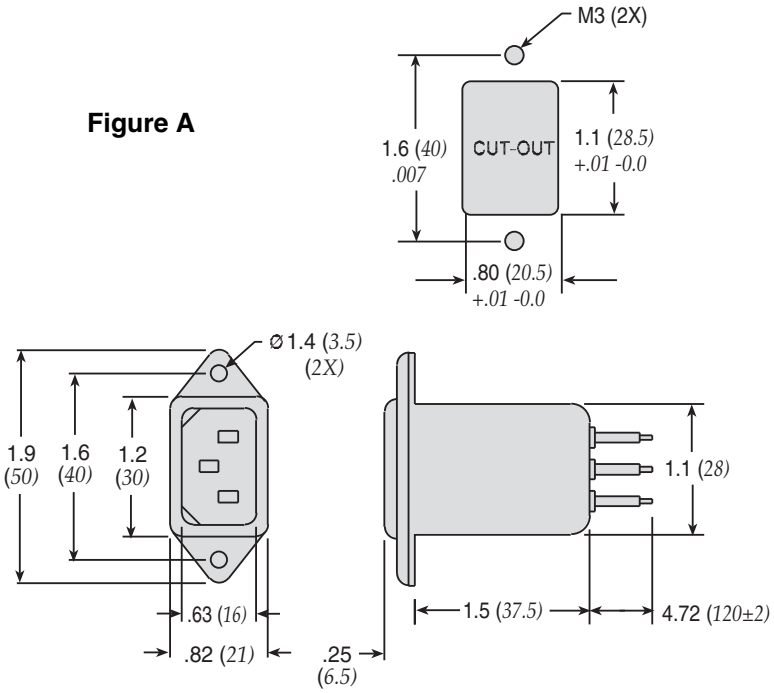
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 50g
Input: Compatible with IEC-320

api technologies corp.
Spectrum Control

Power Entry Modules
Bolt-in with Wire Leads

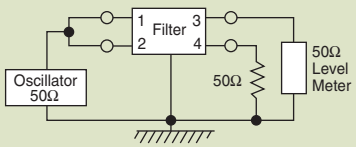
10-BPL Series

Figure A

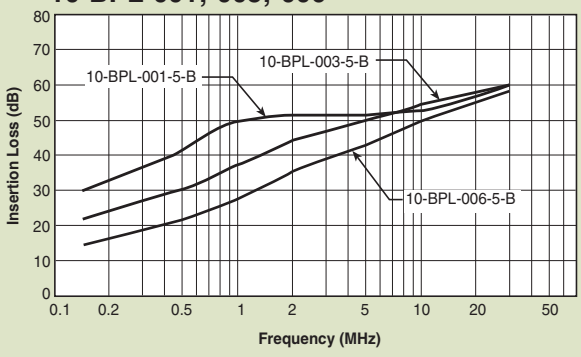


Dimensions in inches *(mm)*

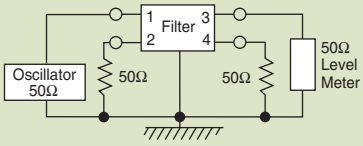
Common Mode



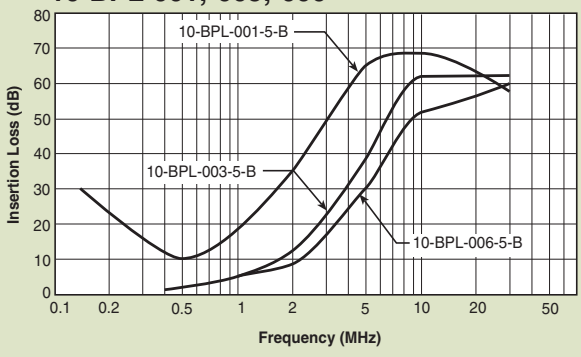
10-BPL-001;-003;-006



Normal Mode



10-BPL-001;-003;-006



api technologies corp.
Spectrum Control

Power Entry Modules
Snap-in Mount

60-SPR & SPS Series

Tested and found to be IAW VDE 0565 Part 3.

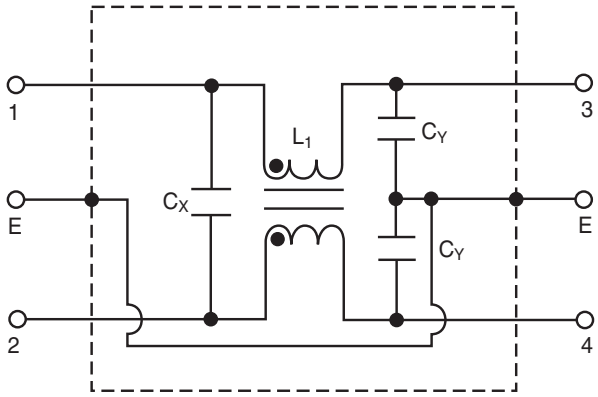
Features

- 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
- 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

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_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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

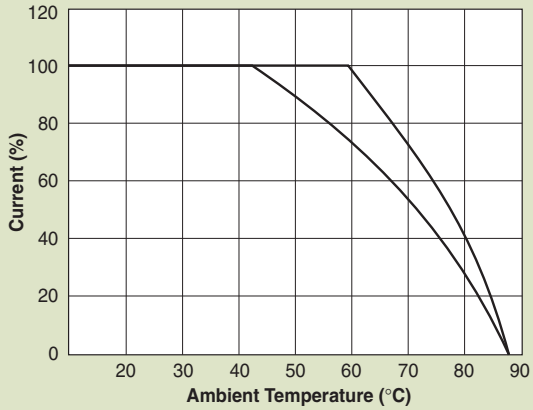
*** Substitute SPR or SPS for XXX**
60-SPR - Fast-on terminals
60-SPS - Solder lug terminals

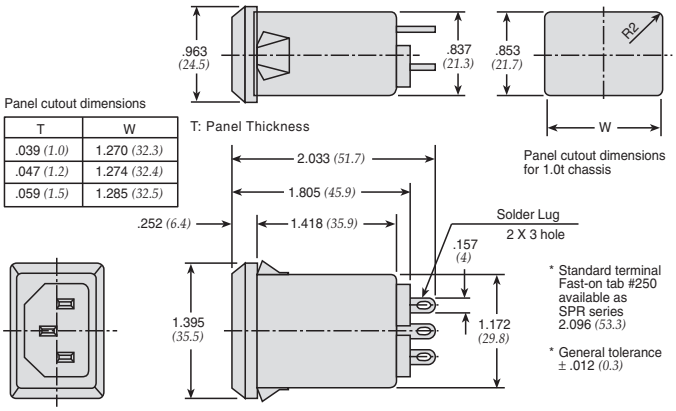
api technologies corp.
Spectrum Control

Power Entry Modules
Snap-in Mount

60-SPR & SPS Series

Temperature Characteristics

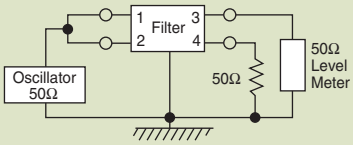




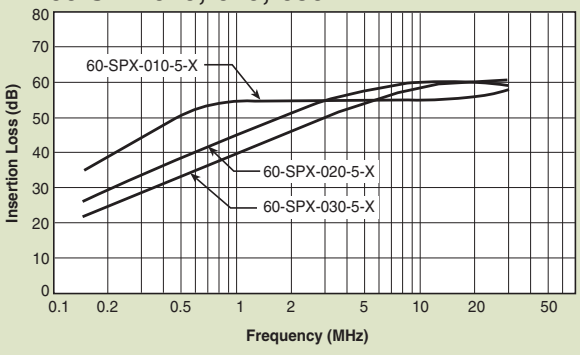
T	W
.039 (1.0)	1.270 (32.3)
.047 (1.2)	1.274 (32.4)
.059 (1.5)	1.285 (32.5)

Dimensions in inches *(mm)*

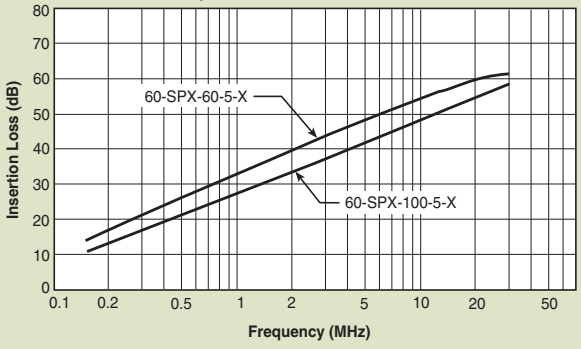
Common Mode



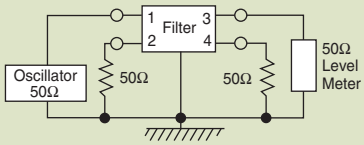
60-SPX-010;-020;-030



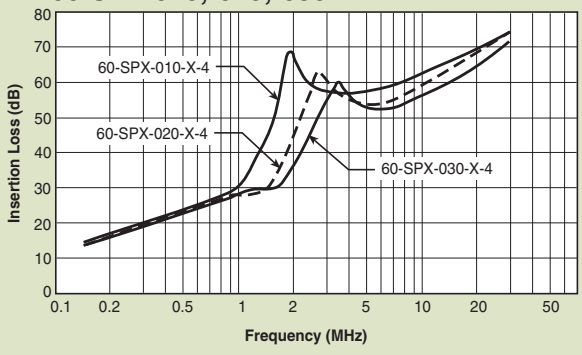
60-SPX-060;-100



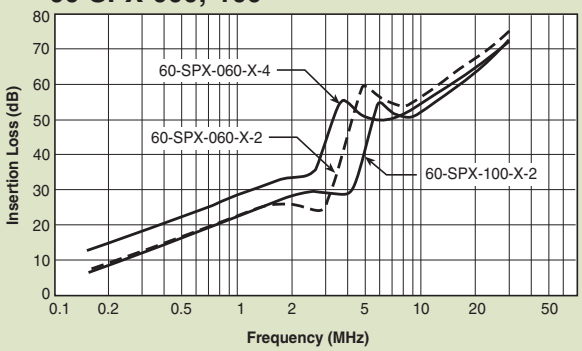
Normal Mode



60-SPX-010;-020;-030



60-SPX-060;-100



api technologies corp.
Spectrum Control

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.

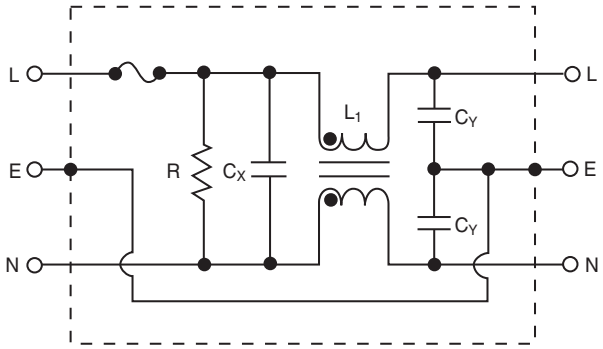
Features

- 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 C_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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

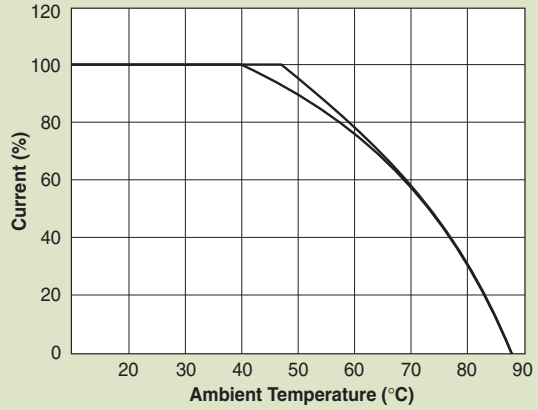
API TECHNOLOGIES • 8061 Avonia Rd. • Fairview, PA 16415 • Ph: 814-474-1571 • Fax: 814-474-3110 • eis.apitech.com
API TECHNOLOGIES' SPECTRUM CONTROL GmbH • Hansastrasse 6 • 91126 Schwabach, Germany • Phone: (49)-9122-795-0 • Fax: (49)-9122-795-58

api technologies corp.
Spectrum Control

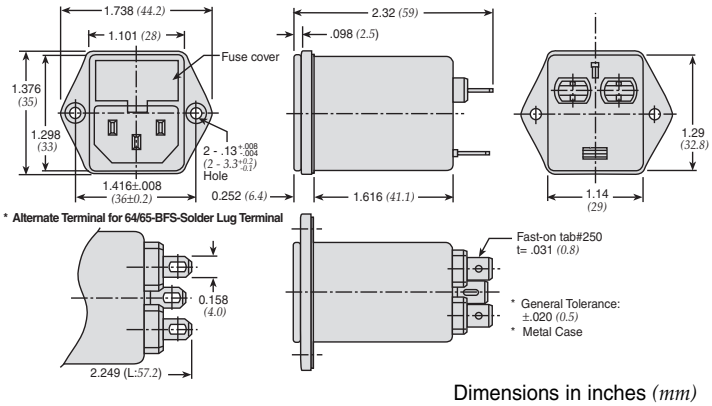
Fused Filtered Power Entry Modules
For General Purpose Applications

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

Temperature Characteristics

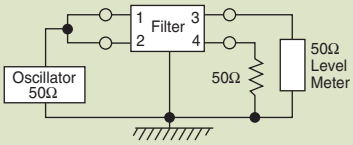


Dimensions
64/65-BFF Series

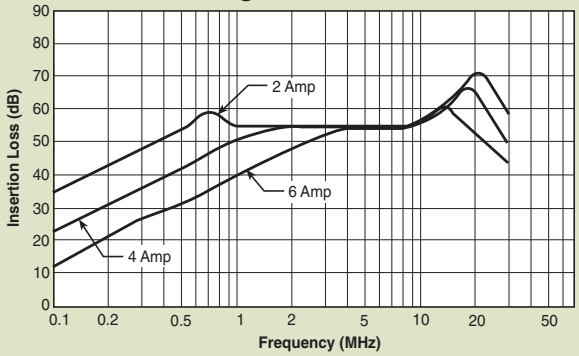


Dimensions in inches *(mm)*

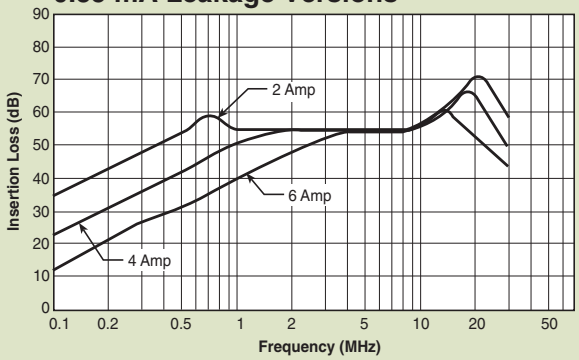
Common Mode



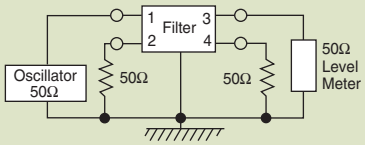
0.50 mA Leakage Versions



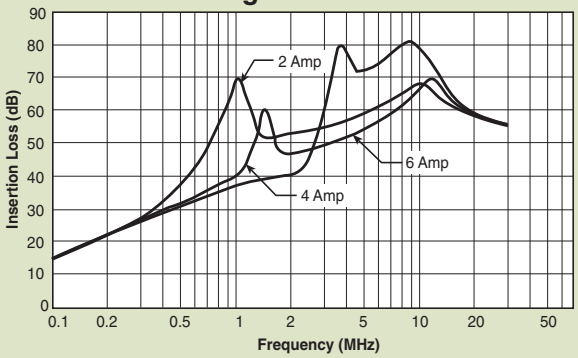
0.35 mA Leakage Versions



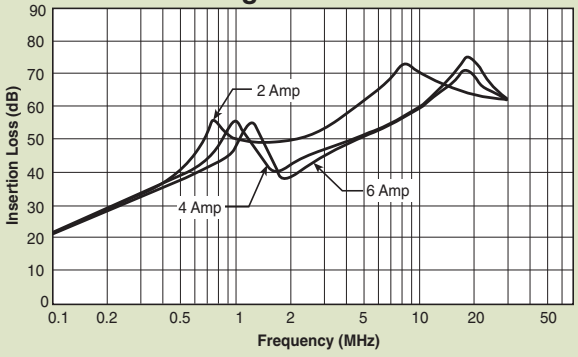
Normal Mode



0.50 mA Leakage Versions



0.35 mA Leakage Versions



api technologies corp.
Spectrum Control

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

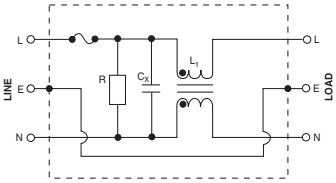
- Metric and North American fuse holders available
- Fuse holder provides effective EMI suppression of common and differential mode
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Fast-on terminations or solder 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

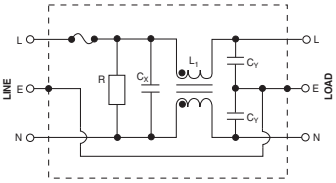
- Medical equipment
- Electronic equipment
- Digital equipment
- Industrial equipment
- Telecommunications equipment
- Measuring and testing instruments
- Personal computers and peripherals

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 C_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
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

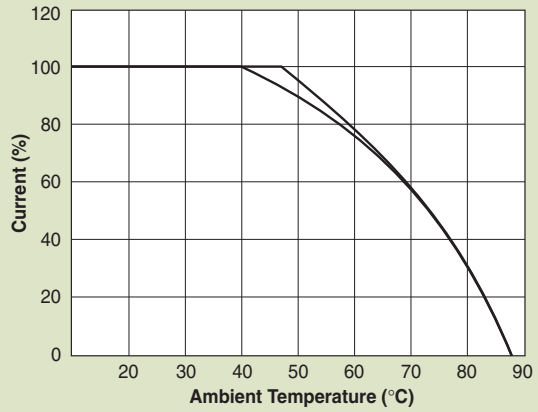
*** Substitute BFF or BFS for XXX**
BFF - Fast-on terminals
BFS - Solder lug terminals

api technologies corp.
Spectrum Control

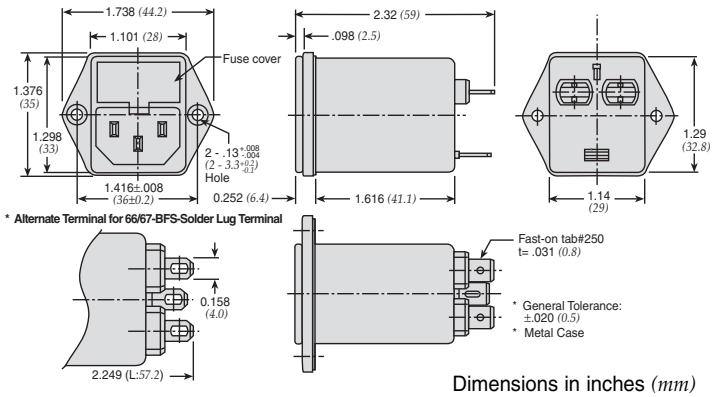
Fused Filtered Power Entry Modules
For Medical or General Purpose Applications

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

Temperature Characteristics

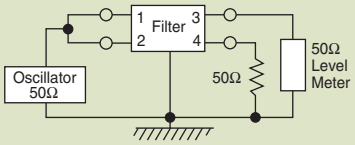


Dimensions
66-67-BFF/66-67-BFS Series

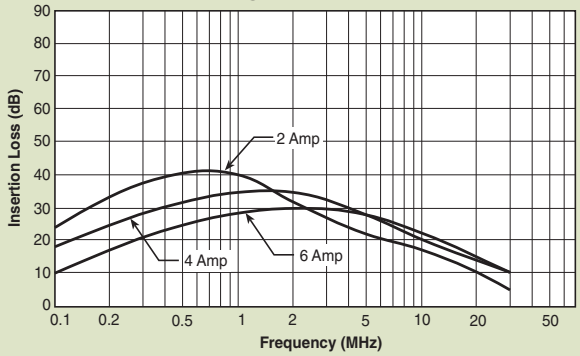


Dimensions in inches *(mm)*

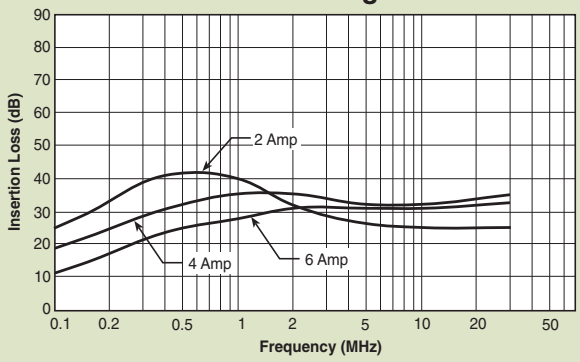
Common Mode



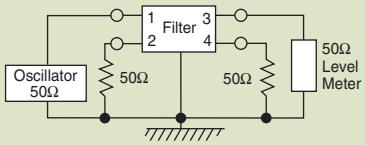
0.01 mA Leakage Current



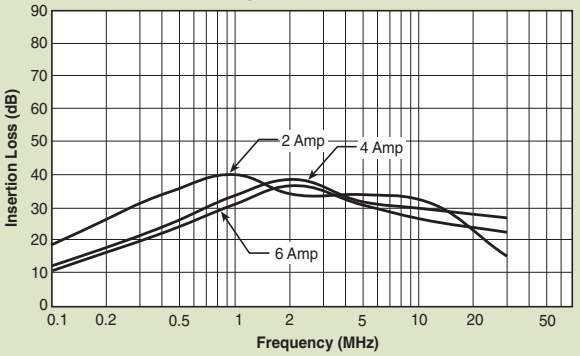
0.075 and 0.1 mA Leakage Current



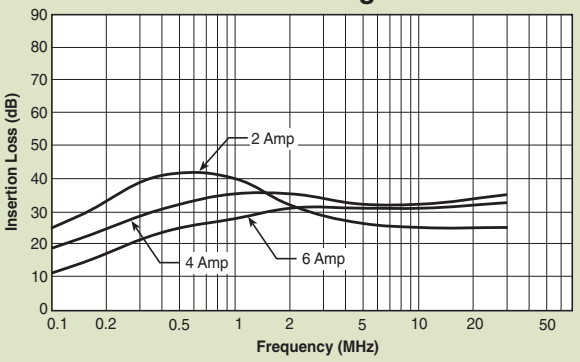
Normal Mode



0.01 mA Leakage Current



0.075 and 0.1 mA Leakage Current



api technologies corp.
Spectrum Control

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.

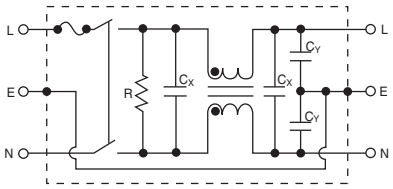
Features

- 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 PF39)

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 C_Y	Capacitance C_{X1}	Capacitance C_{X2}	Inductance (L_1)	Temperature Rise (Max.)
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					0.47uF	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					0.47uF	NONE		
64-XXX-020-5-06						0.22uF		
64-XXX-040-3-12	250VAC	4A	0.35mA	2200pF	0.22uF	NONE	4.2mH	45°C
64-XXX-040-3-04						0.22uF		
64-XXX-040-3-14					0.47uF	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					0.47uF	NONE		
64-XXX-040-5-06						0.22uF		
64-XXX-060-3-12	250VAC	6A	0.35mA	2200pF	0.22uF	NONE	1.6mH	45°C
64-XXX-060-3-04						0.22uF		
64-XXX-060-3-14					0.47uF	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					0.47uF	NONE		
64-XXX-060-5-06						0.22uF		
65-XXX-020-3-12	125VAC	2A	0.20mA	2200pF	0.22uF	NONE	10.5mH	45°C
65-XXX-020-3-04						0.22uF		
65-XXX-020-3-14					0.47uF	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					0.47uF	NONE		
65-XXX-020-5-06						0.22uF		
65-XXX-040-3-12	125VAC	4A	0.20mA	2200pF	0.22uF	NONE	4.2mH	45°C
65-XXX-040-3-04						0.22uF		
65-XXX-040-3-14					0.47uF	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					0.47uF	NONE		
65-XXX-040-5-06						0.22uF		
65-XXX-060-3-12	125VAC	6A	0.20mA	2200pF	0.22uF	NONE	1.6mH	45°C
65-XXX-060-3-04						0.22uF		
65-XXX-060-3-14					0.47uF	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					0.47uF	NONE		
65-XXX-060-5-06						0.22uF		

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)

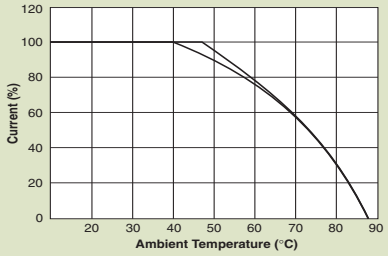
Voltage Drop: 1V max. at rated current
Weight: 130g
Inlet: Compatible with IEC-320

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

api technologies corp.
Spectrum Control

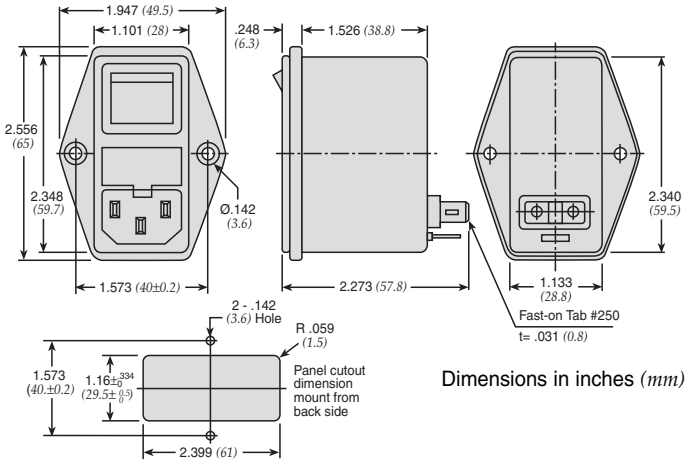
Switched and Fused Filtered Power Entry Modules
For General Purpose Applications

Temperature Characteristics



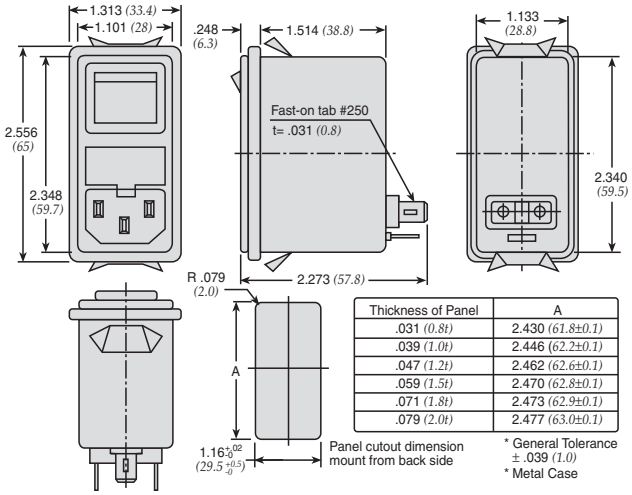
Dimensions

64/65-BSF Series



Dimensions in inches *(mm)*

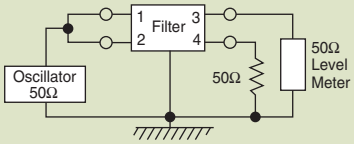
64/65-SSF Series



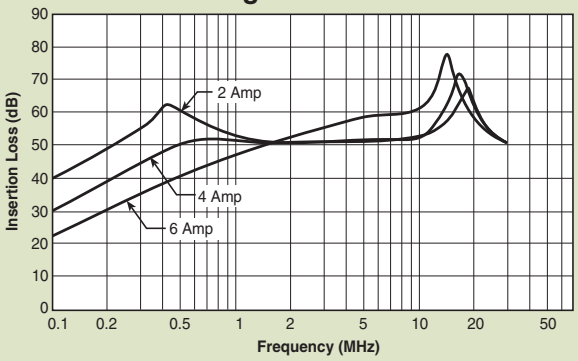
Thickness of Panel	A
.031 (0.8t)	2.430 (61.8±0.1)
.039 (1.0t)	2.446 (62.2±0.1)
.047 (1.2t)	2.462 (62.6±0.1)
.059 (1.5t)	2.470 (62.8±0.1)
.071 (1.8t)	2.473 (62.9±0.1)
.079 (2.0t)	2.477 (63.0±0.1)

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

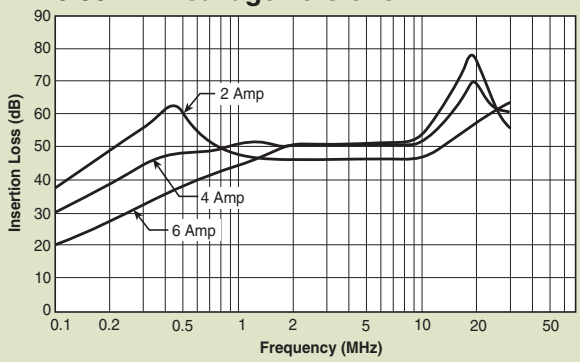
Common Mode



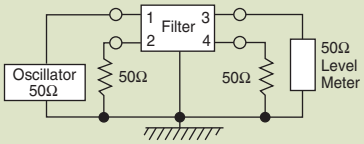
0.35 mA Leakage Versions



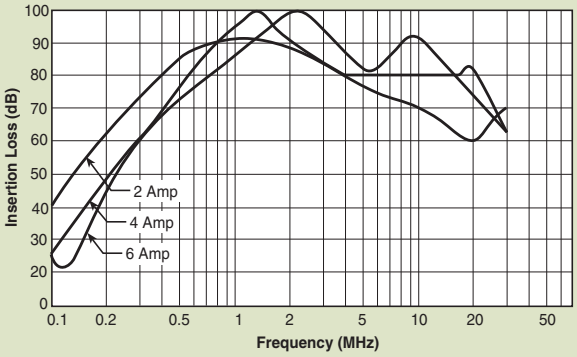
0.50 mA Leakage Versions



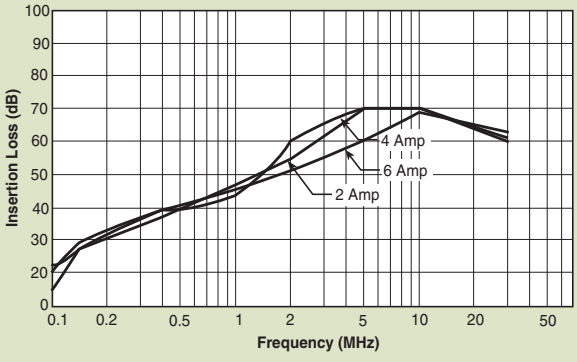
Normal Mode



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



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



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api technologies corp.
Spectrum Control

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

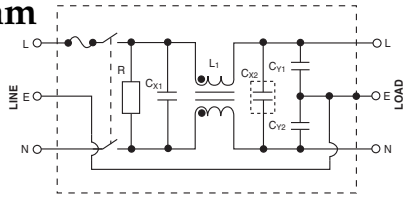
- Metric and North American fuse holders available
- Fuse holder and a double pole power ON/OFF switch provides a convenient/compact package
- Suitable for products that must conform to FCC and FTZ requirements
- Meets over voltage category II of IEC 664 and complies with IEC 950
- Provides susceptibility 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 PF41)

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



Specifications

Model*	Rated Voltage 50/60Hz	Rated Current	Leakage Current (Max.)	Capacitance C_Y	Capacitance C_{X1}	Capacitance C_{X2}	Temp. Induct. (L_1)	Rise (Max.)
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					0.47uF	NONE		
66-XXX-020-0-06						0.22uF		
66-XXX-020-1-12			.01mA	NONE	0.22uF	NONE		
66-XXX-020-1-04						0.22uF		
66-XXX-020-1-14					0.47uF	NONE		
66-XXX-020-1-06						0.22uF		
66-XXX-020-4-12			0.1mA	470pF	0.22uF	NONE		
66-XXX-020-4-04						0.22uF		
66-XXX-020-4-14					0.47uF	NONE		
66-XXX-020-4-06						0.22uF		
66-XXX-040-0-12		4A	.075mA	330pF	0.22uF	NONE	4.2mH	45°C
66-XXX-040-0-04						0.22uF		
66-XXX-040-0-14					0.47uF	NONE		
66-XXX-040-0-06						0.22uF		
66-XXX-040-1-12			.01mA	NONE	0.22uF	NONE		
66-XXX-040-1-04						0.22uF		
66-XXX-040-1-14					0.47uF	NONE		
66-XXX-040-1-06						0.22uF		
66-XXX-040-4-12			.01mA	470pF	0.22uF	NONE		
66-XXX-040-4-04						0.22uF		
66-XXX-040-4-14					0.47uF	NONE		
66-XXX-040-4-06						0.22uF		
66-XXX-060-0-12		6A	.075mA	330pF	0.22uF	NONE	1.6mH	
66-XXX-060-0-04						0.22uF		
66-XXX-060-0-14					0.47uF	NONE		
66-XXX-060-0-06						0.22uF		
66-XXX-060-1-12			.01mA	NONE	0.22uF	NONE		
66-XXX-060-1-04						0.22uF		
66-XXX-060-1-14					0.47uF	NONE		
66-XXX-060-1-06						0.22uF		
66-XXX-060-4-12			0.1mA	470pF	0.22uF	NONE		
66-XXX-060-4-04						0.22uF		
66-XXX-060-4-14					0.47uF	NONE		
66-XXX-060-4-06						0.22uF		

Model*	Rated Voltage 50/60Hz	Rated Current	Leakage Current (Max.)	Capacitance C_Y	Capacitance C_{X1}	Capacitance 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					0.47uF	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					0.47uF	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					0.47uF	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					0.47uF	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					0.47uF	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					0.47uF	NONE		
67-XXX-040-4-06						0.22uF		
67-XXX-060-0-12		6A	0.04mA	330pF	0.22uF	NONE	1.6mH	
67-XXX-060-0-04						0.22uF		
67-XXX-060-0-14					0.47uF	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					0.47uF	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					0.47uF	NONE		
67-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

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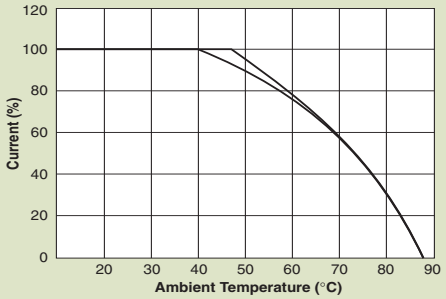
api technologies corp.
Spectrum Control

Switched and Fused Filtered Power Entry Modules

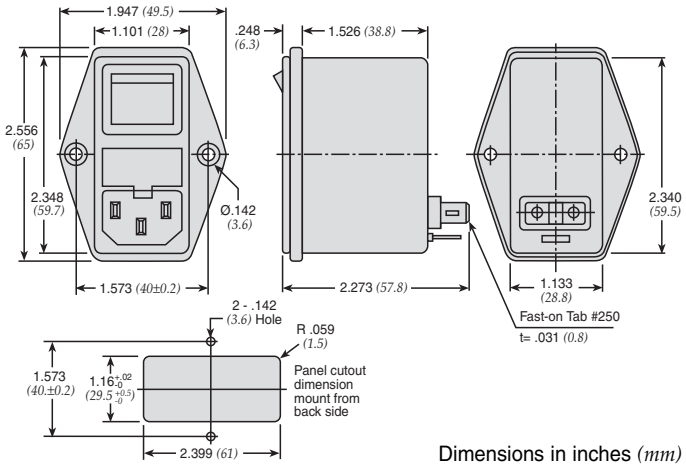
For Medical or General Purpose Applications

Temperature Characteristics



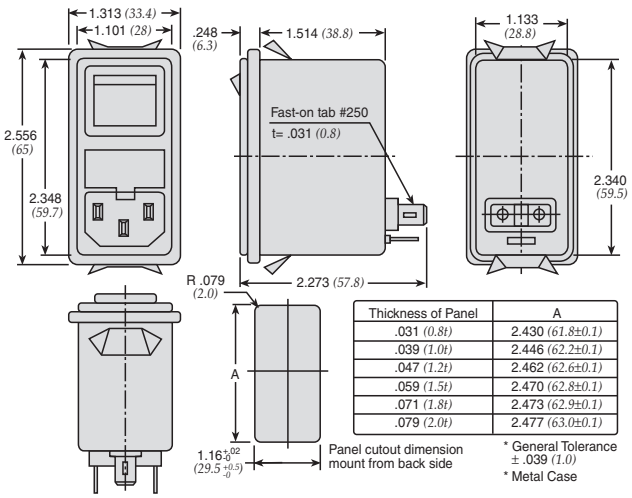
Dimensions

66/67-BSF Series



Dimensions in inches *(mm)*

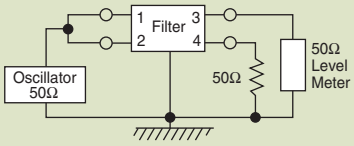
66/67-SSF Series



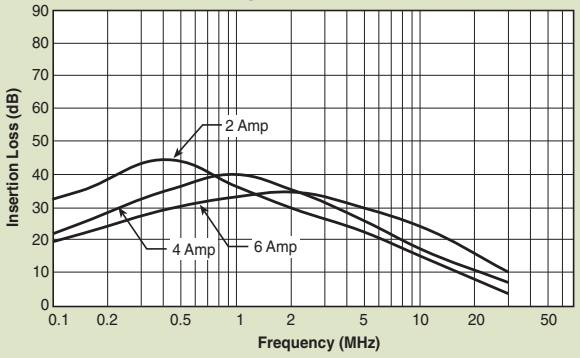
Thickness of Panel	A
.031 (0.8t)	2.430 (61.8±0.1)
.039 (1.0t)	2.446 (62.2±0.1)
.047 (1.2t)	2.462 (62.6±0.1)
.059 (1.5t)	2.470 (62.8±0.1)
.071 (1.8t)	2.473 (62.9±0.1)
.079 (2.0t)	2.477 (63.0±0.1)

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

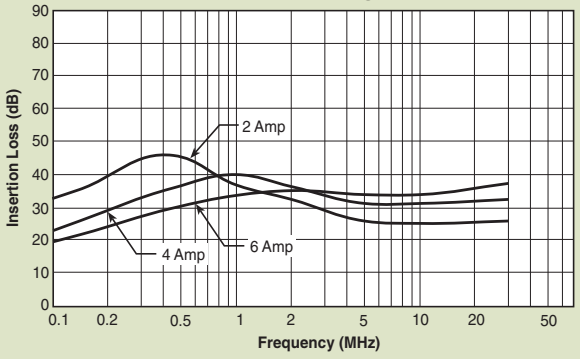
Common Mode



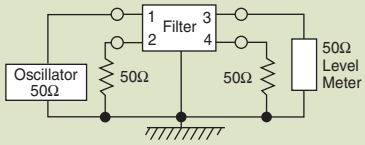
0.01 mA Leakage Current



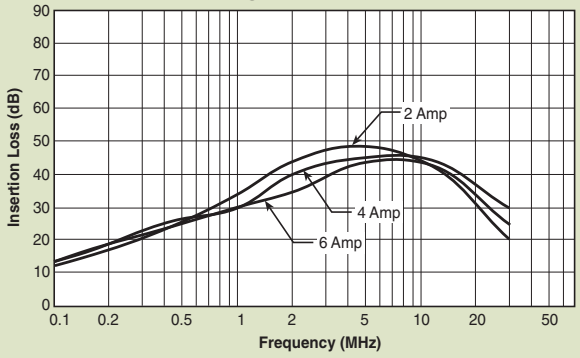
0.075 and 0.1 mA Leakage Current



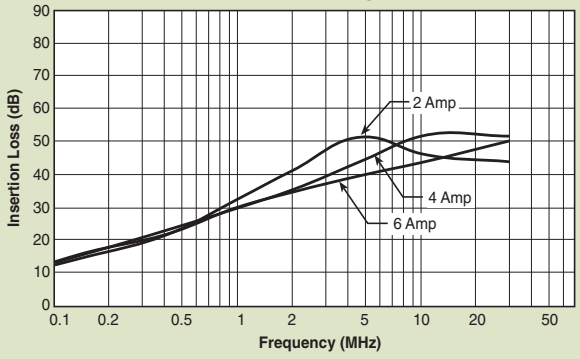
Normal Mode



0.01 mA Leakage Current



0.075 and 0.1 mA Leakage Current



API TECHNOLOGIES • 8061 Avonia Rd. • Fairview, PA 16415 • Ph: 814-474-1571 • Fax: 814-474-3110 • eis.apitech.com
API TECHNOLOGIES' SPECTRUM CONTROL GmbH • Hansastrasse 6 • 91126 Schwabach, Germany • Phone: (49)-9122-795-0 • Fax: (49)-9122-795-58

api technologies corp.
Spectrum Control

Switched and Fused Filtered Power Entry Modules

Dual Fuse for European Applications

68-BSF Series

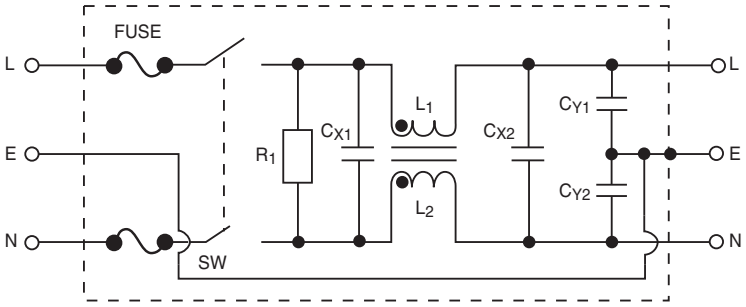
Features

- 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 PF43)

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 C_{Y1}	Capacitance C_{Y2}	Capacitance C_{X1}	Capacitance C_{X2}	Inductance (L_1)	Temperature Rise (Max.)
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

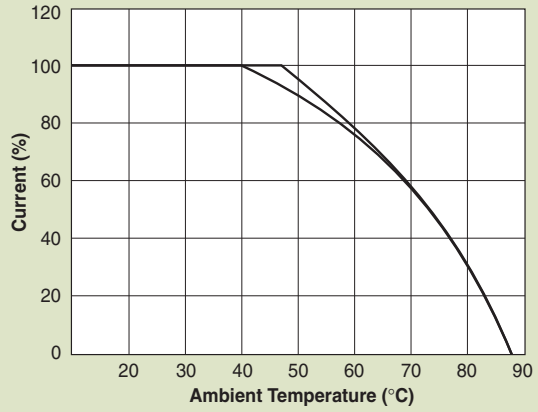
api technologies corp.
Spectrum Control

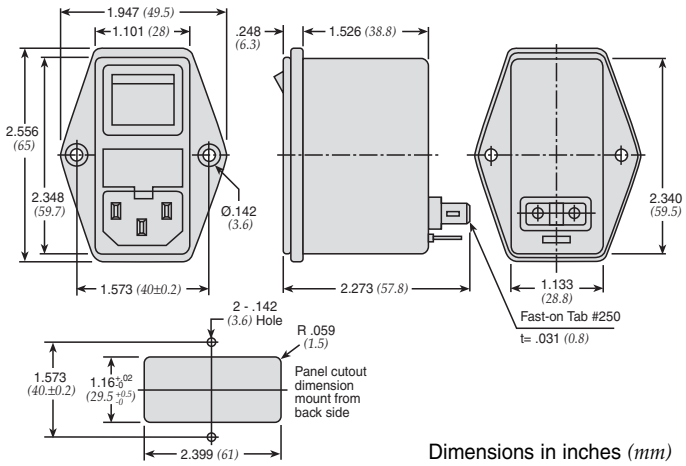
Switched and Fused Filtered Power Entry Modules

Dual Fuse for European Applications

68-BSF Series

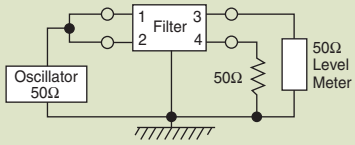
Temperature Characteristics

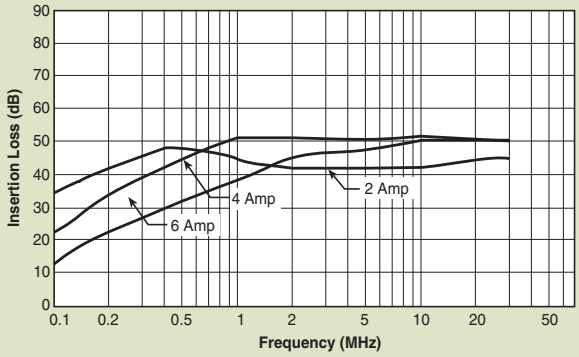




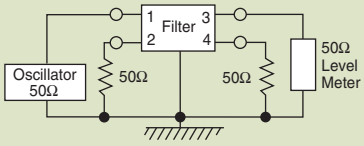
Dimensions in inches *(mm)*

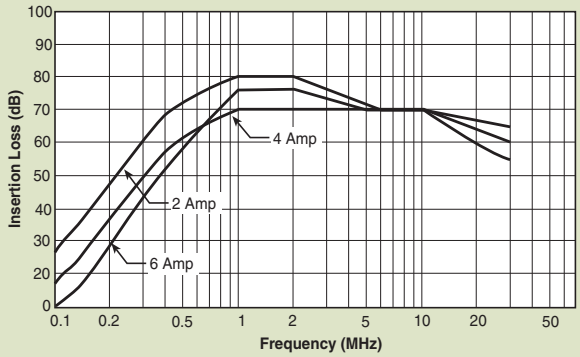
Common Mode





Normal Mode





api technologies corp.
Spectrum Control

PCB Power Filters
Miniature Printed Circuit Board

61-MPC Series

Tested and found to be
IAW VDE 0565 Part 3

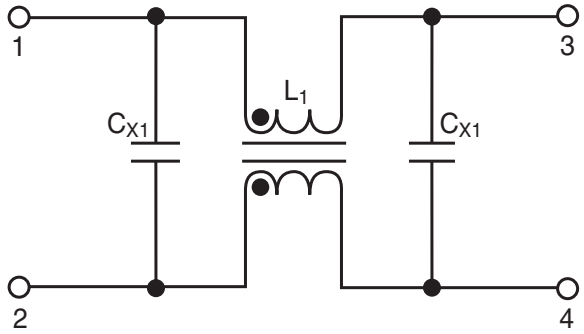
Features

- Miniature general purpose PCB mounted filter
- Requires minimal PCB real estate space
- Low cost
- Designed for two wire cord systems
- For three wire cord systems, Y capacitors can be attached externally
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF45)

Applications

- Personal computers and peripherals
- Digital equipment
- Measuring instruments and medical equipment
- TV & VCR monitors and display units
- Home appliances

Circuit Diagram



Specifications

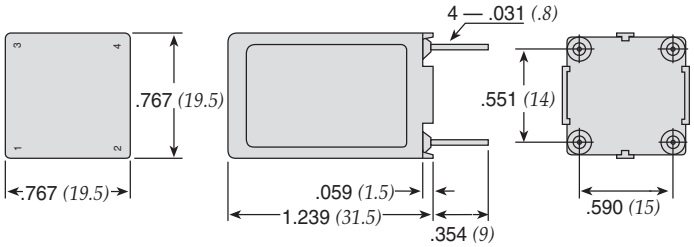
Model	Rated Voltage (@ 50/60Hz)	Rated Current	Leakage Current (Max.)	Capacitance C_{X1}	Capacitance C_{X2}	Inductance (L_1)	Temperature Rise (Max.)
61-MPC-010-1-11	250VAC	1A	0.1mA	0.1uF	0.1uF	11mH	40°C
61-MPC-016-1-11		1.6A				6.0mH	
61-MPC-025-1-11		2.5A				2.4mH	
61-MPC-036-1-11		3.6A				1.2mH	

Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 17.5g

api technologies corp.
Spectrum Control

PCB Power Filters
Miniature Printed Circuit Board

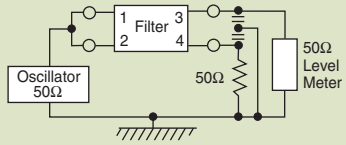
61-MPC Series



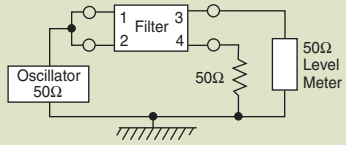
Dimensions in inches *(mm)*

Common Mode

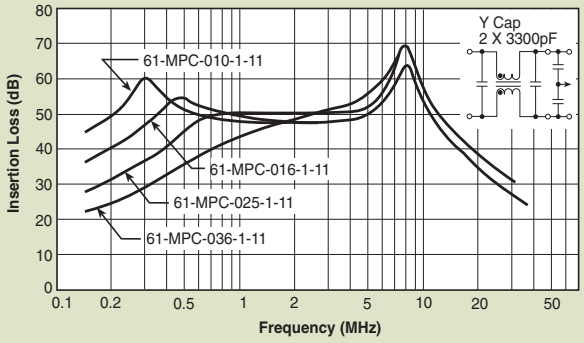
Common mode with Y cap. (Test circuit 1)



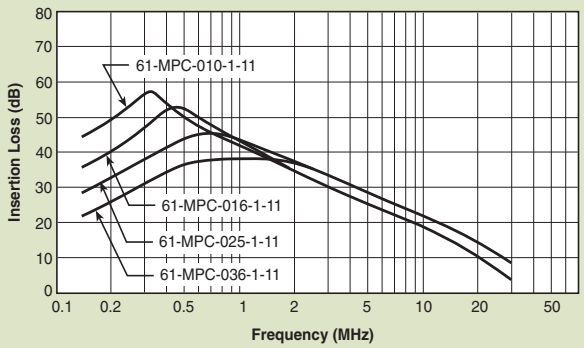
(Test circuit 2)



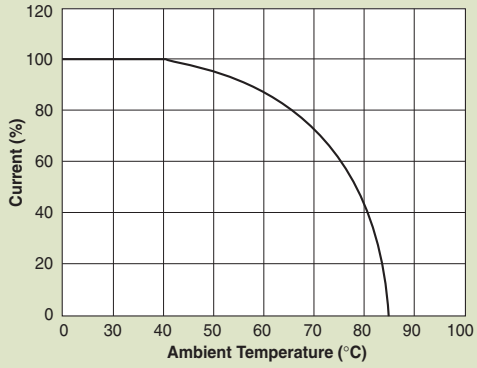
61-MPC



61-MPC

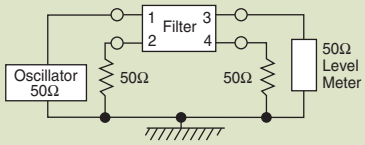


Temperature Characteristics

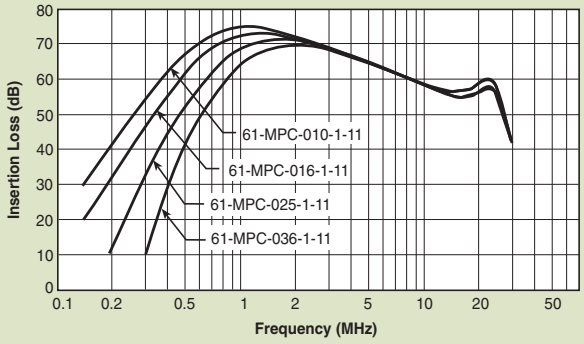


Normal Mode

(Test circuit 3)



61-MPC



api technologies corp.
Spectrum Control

Power Entry Modules
Bolt-in Right Angle Terminals
for PCB Applications

60-BPP Series

Tested and found to be IAW VDE 0565 Part 3

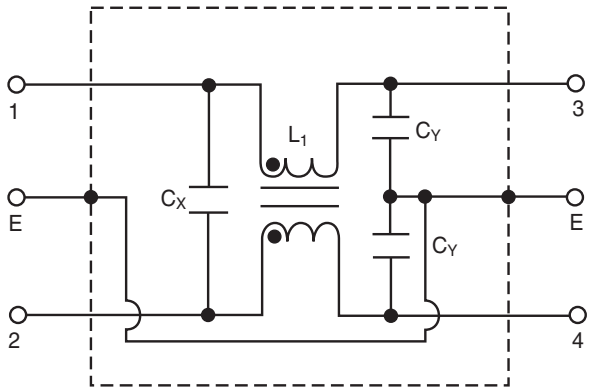
Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal 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, Fast-on tab styles available (see page PF18)
- PCB mounting style minimizes space and provides economical installation
- Operating temperature: -25°C to +85°C (including temperature rise, see graph on page PF47)
- UL approved low leakage version also available

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_Y	Capacitance C_X	Inductance (L_1)	Temperature Rise (Max.)
60-BPP-010-3-2	250VAC	1A	0.35mA	2200pF	0.022uF	6.0mH	30°C
60-BPP-010-3-4					0.047uF		
60-BPP-010-5-2			0.50mA	3300pF	0.022uF		
60-BPP-010-5-4					0.047uF		
60-BPP-020-3-2		2A	0.35mA	2200pF	0.022uF	2.4mH	
60-BPP-020-3-4					0.047uF		
60-BPP-020-5-2			0.50mA	3300pF	0.022uF		
60-BPP-020-5-4					0.047uF		
60-BPP-030-3-2		3A	0.35mA	2200pF	0.022uF	1.2mH	
60-BPP-030-3-4					0.047uF		
60-BPP-030-5-2			0.50mA	3300pF	0.022uF		
60-BPP-030-5-4					0.047uF		
60-BPP-060-3-2		6A	0.35mA	2200pF	0.022uF	0.53mH	45°C
60-BPP-060-3-4					0.047uF		
60-BPP-060-5-2			0.50mA	3300pF	0.022uF		
60-BPP-060-5-4					0.047uF		

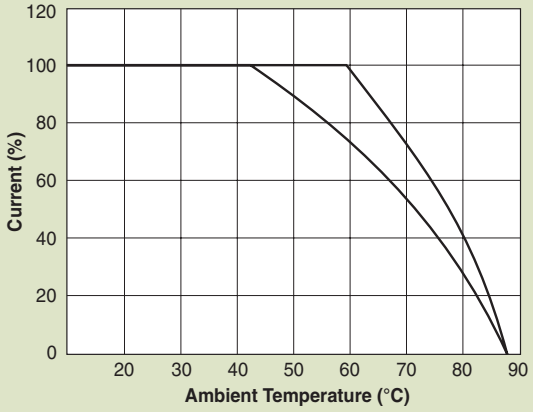
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 50g
Input: Compatible with IEC-320

api technologies corp.
Spectrum Control

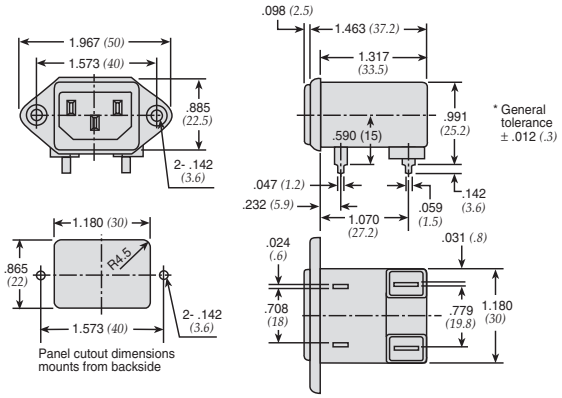
Power Entry Modules
Bolt-in Right Angle Terminals
for PCB Applications

60-BPP Series

Temperature Characteristics

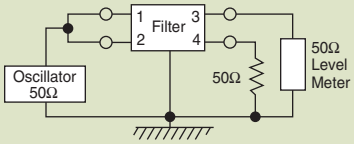


60-BPP PCB Mounting Type

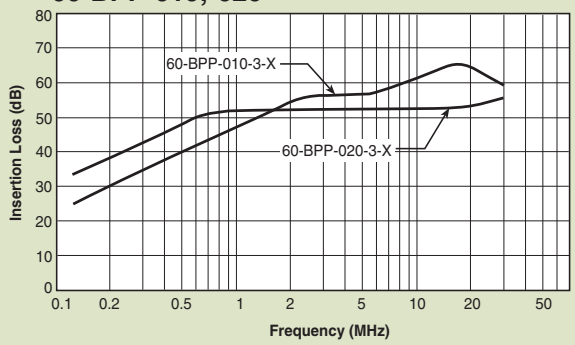


Dimensions in inches *(mm)*

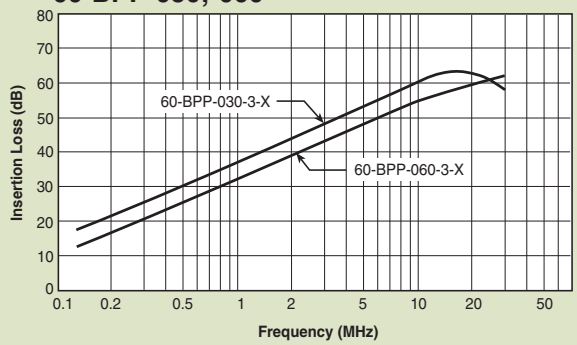
Common Mode



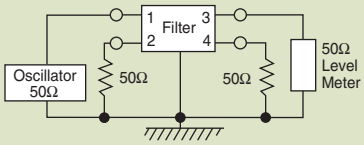
60-BPP-010;-020



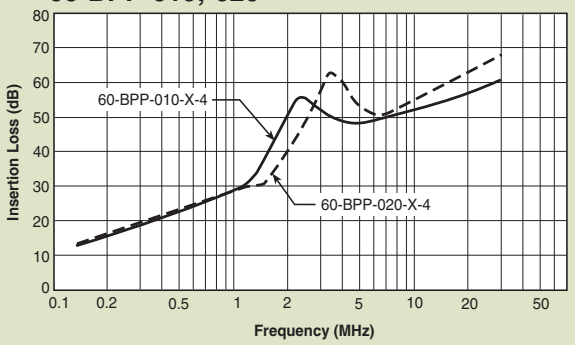
60-BPP-030;-060



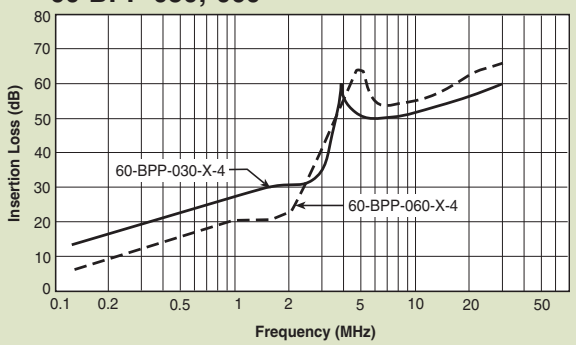
Normal Mode



60-BPP-010;-020



60-BPP-030;-060



api technologies corp.
Spectrum Control

Power Entry Modules
High Frequency Attenuation

Bolt-in for PCB Applications

60-BHP Series

Tested and found to be IAW VDE 0565 Part 3

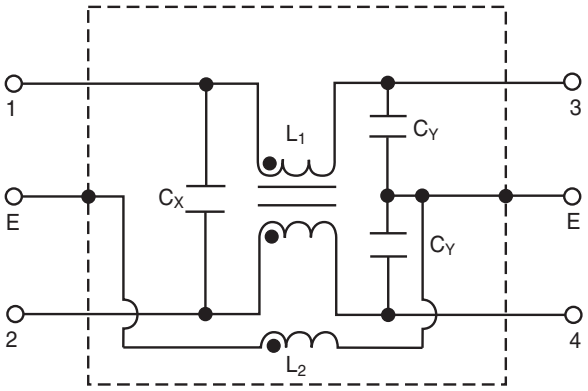
Features

- Ideally suited for products that must conform to FCC part 15 regulations
- Metal cased filter offers high performance
- Meets over voltage of IEC 664 category II and complies with IEC 950
- Solder lug, Fast-on tab styles available (see page PF20)
- 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 PF49)

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_Y	Capacitance C_X	Inductance (L_1)	Inductance (L_2)	Temperature Rise (Max.)
60-BHP-010-3-11	250VAC	1A	0.35mA	2200pF±20%	0.1uF±20%	6mH	18.3 uH	30°C
60-BHP-010-3-4					.047uF±20%			
60-BHP-010-5-11			0.50mA	3300pF±20%	0.1uF±20%			
60-BHP-010-5-4					.047uF±20%			
60-BHP-020-3-11		2A	0.35mA	2200pF±20%	0.1uF±20%	2.4mH		
60-BHP-020-3-4					.047uF±20%			
60-BHP-020-5-11			0.50mA	3300pF±20%	0.1uF±20%			
60-BHP-020-5-4					.047uF±20%			
60-BHP-030-3-11		3A	0.35mA	2200pF±20%	0.1uF±20%	1.2mH		
60-BHP-030-3-4					.047uF±20%			
60-BHP-030-5-11			0.50mA	3300pF±20%	0.1uF±20%			
60-BHP-030-5-4					.047uF±20%			
60-BHP-060-3-11		6A	0.35mA	2200pF±20%	0.1uF±20%	0.53mH		45°C
60-BHP-060-3-4					.047uF±20%			
60-BHP-060-5-11			0.50mA	3300pF±20%	0.1uF±20%			
60-BHP-060-5-4					.047uF±20%			

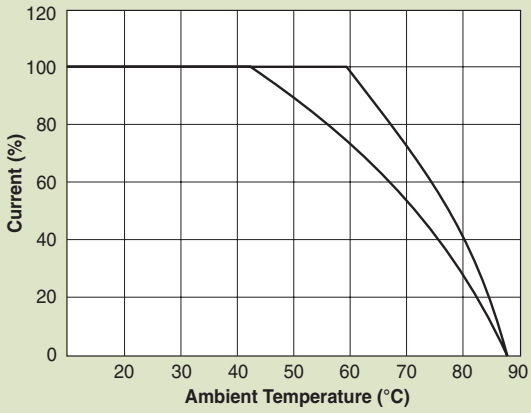
Note: Test voltage: 1500VAC one minute, line to ground
Insulation resistance: 300 Mohm min. at 500VDC
Voltage drop: 1V max. at rated current
Weight: 50g
Input: Compatible with IEC-320

api technologies corp.
Spectrum Control

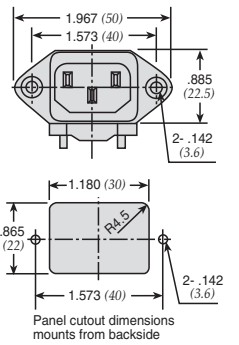
Power Entry Modules
High Frequency Attenuation
Bolt-in for PCB Applications

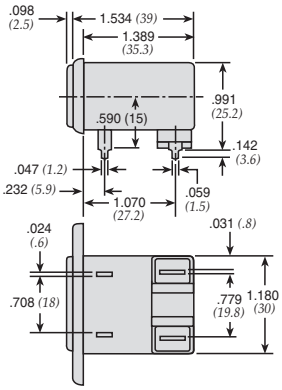
60-BHP Series

Temperature Characteristics



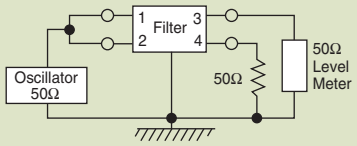
60-BHP PCB Mounting Type



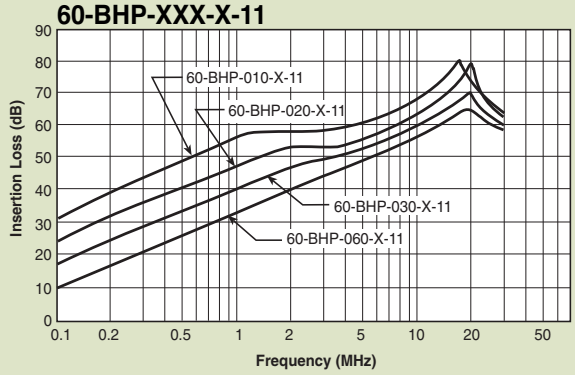


Dimensions in inches *(mm)*

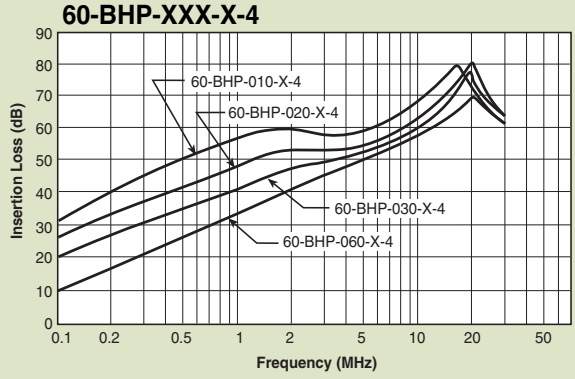
Common Mode



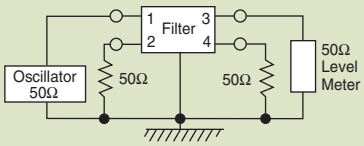
60-BHP-XXX-X-11



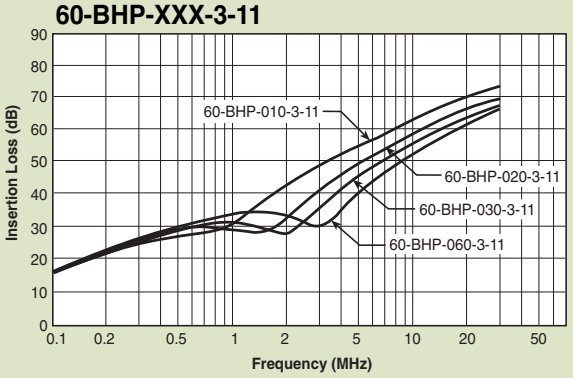
60-BHP-XXX-X-4



Normal Mode



60-BHP-XXX-3-11



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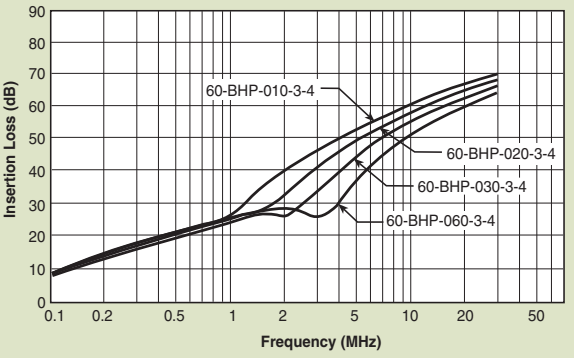

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «**JONHON**», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «**FORSTAR**».

AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

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Телефон: 8 (812) 309-75-97 (многоканальный)
Факс: 8 (812) 320-03-32
Электронная почта: ocean@oceanchips.ru
Web: http://oceanchips.ru/
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А