



CORCOM



EMI Filters for Medical Application - Product Overview








WHAT'S INSIDE


TE Connectivity's (TE) Corcom brand of EMI filters has over 80 different product series to resolve EMI noise issues helping companies comply with local compliance emission standards. Corcom filters are available in a wide-range of single and three phase designs as well as IEC inlet and power entry modules which can combine to save cost, space and labor. The medical filters are designed to minimize leakage current and help meet system level leakage current standards.

SERIES	MV	HZ
		
ATTENUATION PERFORMANCE	GOOD	BETTER
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Multi-purpose medical filter • Improved Line to Ground performance • A good solution to emission or immunity problems • Meets leakage current requirements of UL2601 for health care equipment • Operating Temperature Range: -10 to +40C 	<ul style="list-style-type: none"> • Designed to provide good attenuation to RFI noise in the frequency range from 10kHz to 30MHz • Size and cost-effective • Low leakage current • New versions up to 30A • Operating Temperature Range: -10 to +40C
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	3, 6, 10 or 20A	3, 4, 6, 10, 15, 20 or 30A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	0.07mA / 0.13mA	0.002mA / 0.005mA
Electrical Setup	Single Stage	Single Stage
MECHANICAL PARAMETERS		
Mounting Features	Screw Mounting	Screw Mounting
Termination Inputs	0.250 (6.3mm) spade terminals	0.250 (6.3mm) spade terminals 8-32 terminal bolt & nut
Termination Outputs	0.250 (6.3mm) spade terminals	0.250 (6.3mm) spade terminals 8-32 terminal bolt & nut
TYPICAL APPLICATIONS		
	<ul style="list-style-type: none"> • Dental Lighting • Medical Imaging Equipment • Therapeutic Equipment 	<ul style="list-style-type: none"> • Medical X-Ray Equipment • Medical Imaging Systems • Ultrasound Equipment

SERIES	HT	HQ
		
ATTENUATION PERFORMANCE	BETTER	BEST
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Designed to provide significant attenuation of RFI noise in the frequency range from 10kHz to 30MHz • Size and cost-effective • Operating Temperature Range: -10 to +40C 	<ul style="list-style-type: none"> • Designed to provide the highest available attenuation of RFI noise in the frequency range from 10kHz to 30MHz for low leakage current applications • Size and cost-effective • Operating Temperature Range: -10 to +40C
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	3, 6, 10 or 15A	3 or 6A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	0.002mA / 0.005mA	0.002mA / 0.005mA
Electrical Setup	Single Stage	Single Stage
MECHANICAL PARAMETERS		
Mounting Features	Screw Mounting	Screw Mounting
Termination Inputs	0.250 (6.3mm) spade terminals 8-32 terminal bolt & nut Wire Leads IEC inlet 0.250 (6.3mm) spade terminal	IEC Inlet 0.250 (6.3mm) spade terminals Wire Leads
Termination Outputs	0.250 (6.3mm) spade terminals 8-32 terminal bolt & nut Wire Leads 0.250 (6.3mm) spade terminals	0.250 (6.3mm) spade terminals Wire Leads
TYPICAL APPLICATIONS		
	<ul style="list-style-type: none"> • Radiopharmaceuticals for medical imaging applications • Dental Laser Equipment • Modular Instrument Panels 	<ul style="list-style-type: none"> • Patient Monitors • Visual electrophysiology systems • Florescent Imagers

FILTER TYPE
In-Line 3 Phase

SERIES	
BCFXR	
	
ATTENUATION PERFORMANCE	
GOOD	
Approvals	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Designed for universal applications • Compact book-form design • Insulated, high quality safety terminals for input and output terminals • Good common and differential mode performance below 100kHz • Operating Temperature Range -10°C to +50°C
ELECTRICAL PARAMETERS	
Max. Voltage	480VAC
Current Rating	7, 16, 30, 42, 55, 75, 100, 130, and 180
Leakage Current each Line to Ground @480VAC 50/60Hz	8.7mA
Electrical Setup	Single Stage
MECHANICAL PARAMETERS	
Mounting Features	Screw Mounting
Termination Inputs	Touchsafe Terminal Blocks or Threaded Stud Terminals
Termination Outputs	Touchsafe Terminal Blocks or Threaded Stud Terminals
TYPICAL APPLICATIONS	
<ul style="list-style-type: none"> • The BCFxR eliminate nuisance tripping of Residual Circuit Breakers and GFCI's. • 3Phase Inverters and Converters • Variable Speed Motor Drives • Elevators and Escalators 	

SERIES	H	IH
		
ATTENUATION	GOOD	BETTER
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> Minimal leakage current suitable for medical equipment Two element circuit provides basic EMI attenuation above 1 MHz Available with an internal ground circuit inductor (C suffix versions) to isolate equipment chassis from power line ground at radio frequencies Operating Temperature Range: -10 to +40C 	<ul style="list-style-type: none"> General Performance EMI Filter V-Lock cord Compatible Shielded Filter Assembly Small, Compact Size Quick Disconnects Compliant to IEC 60601
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	3, 6, 10, or 15A	1 to 15A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	0.002mA / 0.005mA	0.002mA
Electrical Setup		Single Stage
MECHANICAL PARAMETERS		
Mounting Features	Flange or Snap-In	Screw and snap-in mounting
Line Inlet	IEC 60320-1 C14 0.250 (6.3) Spade Terminals Wire Leads	IEC 60320-1 C18
Backplate Terminals	0.250 (6.3) Spade Terminals 4 Wire Leads	0.25 (6.3) spade terminals
TYPICAL APPLICATIONS		
	<ul style="list-style-type: none"> TBD TBD TBD 	Wide band RFI suppression for applications with limited space including: <ul style="list-style-type: none"> Medical Equipment Laboratory Equipment Test and Measurement
TYPICAL ACCESSORIES		
	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord FA601: Insulating Shroud	

FILTER TYPE
IEC Inlets

SERIES	EJH	EJM
ATTENUATION	BETTER	BEST
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Minimal leakage current suitable for patient contact medical applications • Flanged mounting the same as the EEJ Series • Also available in snap-in versions (EJHS) • Two element circuit provides modest EMI attenuation above 1MHz • Capacitive input (refer to the H Series for capacitive output) • EJHS models feature snap-in mounting 	<ul style="list-style-type: none"> • Low leakage current, suitable for most medical applications • Improved EMI attenuation up to 200MHz • Mechanically the same as the EEJ Series with flange or snap-in mounting • EJMS models feature snap-in mounting • Operating Temperature Range: -10 to +40C
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	1 to 20A	1 to 20A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	EEJ/EJS Models: .22 mA / .38 mA EJH Models: 2µA / 5µA EJM Models: .01 mA / .017 mA	EEJ/EJS Models: .22 mA / .38 mA EJH Models: 2µA / 5µA EJM Models: .01 mA / .017 mA
Electrical Setup	Single Stage	Single Stage
MECHANICAL PARAMETERS		
Mounting Features	Screw and snap-in mounting	Screw and snap-in mounting
Line Inlet	IEC 60320-1 C14 or C20	IEC 60320-1 C14 or C20
Backplate Terminals	.25 [6.3] spade terminals, wire leads or PC board pins	.25 [6.3] spade terminals, wire leads or PC board pins
TYPICAL APPLICATIONS		
	Wide band RFI suppression for a wide range of applications including: <ul style="list-style-type: none"> • TV / Audio / Video • Computing & accessories • Home appliances • Medical equipment 	Wide band RFI suppression for applications with limited space including: <ul style="list-style-type: none"> • TV / Audio / Video • Computing & PC powers supplies • Network & cabling systems • Medical equipment
TYPICAL ACCESSORIES		
	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord FA601: Insulating Shroud	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord FA601: Insulating Shroud

Power Entry Module - Multi-Function Inlet Filters

SERIES	C	HG
		
VERSATILITY	GOOD	GOOD
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Two function power entry module combining a DPST switch and an IEC 60320-1 inlet • Snap-in or flange mounting • Available with or without a shielded general purpose or medical grade filter • Two element circuit provides enhanced EMI attenuation • Reduce OEM wiring time with optional pre-connected line and switch terminals • Operating Temperature Range: -10 to +40C 	<ul style="list-style-type: none"> • Power entry module with enhanced EMI filter • Single or dual fusing • Two element circuit provides basic attenuation • Available with an internal ground-circuit inductor (C versions) to isolate equipment chassis from power line ground at radio frequencies • Multiple termination and mounting styles • Operating Temperature Range: -10 to +40C
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	1, 3, 6, 10 or 15A*	1, 3, 6 & 10A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	F models: .25 mA / .40 mA H & non-filtered models: 2µA / 5µA	HG Models: 2µA / 5µA
Electrical Setup	Single stage & unfiltered	Single stage (medical versions without y-capacitors)
Fusing	N/A	Dual Fusing -5 x 20mm
Switch	DPST - 10K Cycles @ 51A Max Inrush	N/A
MECHANICAL PARAMETERS		
Mounting Features	Screw and snap-in mounting	Screw and snap-in mounting
Line Inlet	IEC 60320-1 C14	IEC 60320-1 C14
Backplate Terminals	.187 [4.8] spade terminals (non-filtered) or .25 [6.3] spade terminals (Filtered) Available with or without pre-connected switch terminals	.25 [6.3] spade terminals or wire leads
TYPICAL APPLICATIONS		
	Wide band RFI suppression for applications with limited space including: <ul style="list-style-type: none"> • TV / Audio / Video • Computing & PC powers supplies • Network & cabling systems • Medical equipment 	Wide band RFI suppression for applications with limited space including: <ul style="list-style-type: none"> • TV / Audio / Video • Computing & PC powers supplies • Network & cabling systems • Medical equipment
TYPICAL ACCESSORIES		
	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord

Power Entry Module - Multi-Function Inlet Filters

SERIES	L	M
		
VERSATILITY	BETTER	
Approvals	UL/CSA/VDE	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Power entry module with switch or fuse • Two element circuit provides extended EMI attenuation similar to EAB inlet filter • North American or metric fuse holders • Available with minimal leakage current for medical applications (HL models) • 4 Position Voltage Selector • Operating Temperature Range: -10 to +40C 	<ul style="list-style-type: none"> • Family of slim power entry modules that consume minimal depth behind panel • Four compact modules each provide a different option combination • Available non-filtered or with one of four filter circuits designed to meet a wide variety of applications • Optional voltage selector configured for either 2 or 4 voltage selection • Optional DPST on/off switch • Included fuseholder accepts either single 3AG fuse or dual metric fuses
ELECTRICAL PARAMETERS		
Max. Voltage	250VAC	250VAC
Current Rating	2, 4, or 6A	3, 5, or 6A
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	0.002mA / 0.005mA	H Model: 0.002mA / 0.005mA
Electrical Setup		
Fusing	North American or Metric Fuses	North American or Metric Fuses
Switch	DPST - 10K Cycles @51A Max Inrush	DPST - 100K Cycles @70A Max Inrush
MECHANICAL PARAMETERS		
Mounting Features	Flange or Snap-In	Flange or Snap-In
Line Inlet	IEC 60320-1 C14	IEC 60320-1 C14
Backplate Terminals	0.188 (2.8)	0.110 (2.79)
TYPICAL APPLICATIONS		
	<ul style="list-style-type: none"> • Very good common and differential mode performance at higher frequencies • 3D C-Arms • Medical X-Ray Equipment 	<ul style="list-style-type: none"> • H Models provide a basic performance dual element circuit EMI filter with minimal leakage current • Rehabilitative Medical Products • RF Nerve Ablation Machines
TYPICAL ACCESSORIES		
	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord LA303: Voltage Select Wheel, 3 Position LA304: Voltage Select Wheel, 4 Position LA601: Insulating Boot	GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord MA100: Power Interconnect Assembly MA101: Plug Only MA102: Strip of 100 Pins for use with MA101 MA104: Individual Pins for use with MA101

Power Entry Module - Multi-Function Inlet Filters

SERIES	P
	
VERSATILITY	BEST
Approvals	UL/CSA/VDE
Features	<ul style="list-style-type: none"> • Compact Design and Versatility allows User to Choose Feature Set They Need • H models provide susceptibility protection with minimal leakage current • L models feature a high performance medical filter designed to bring in digital equipment into compliance with EN55022, Level B conducted emissions limits. • Two voltage selection options • Optional DPST on/off switch • Operating Temperature Range: -10 - +40C
ELECTRICAL PARAMETERS	
Max. Voltage	250VAC
Current Rating	3, 6 & 10A Filtered, 10A non-filtered
Leakage Current each Line to Ground @ 120VAC 60Hz/250 VAC 50 Hz	H & L Models: 2µA / 5µA
Electrical Setup	Single stage
Fusing	North American or Metric Fuses
Switch	DPST - 10K Cycles @51A Max Inrush
MECHANICAL PARAMETERS	
Mounting Features	Screw and snap-in mounting
Line Inlet	IEC 60320-1 C14
Backplate Terminals	.187 [4.8] spade terminals(standard) or .25 [6.3] spade terminals (L & Z) Available with or without interconnection block for unfiltered versions
TYPICAL APPLICATIONS	
	<p>Wide band RFI suppression in over 8000 configurations for a wide range of applications including:</p> <ul style="list-style-type: none"> • TV / Audio / Video • Computing & accessories • Home appliances • Medical equipment
TYPICAL ACCESSORIES	
	<p>GA 400: NEMA 5-15P to IEC 60320-1 C13 Line Cord PA100: Power Interconnect Assembly PA101: Plug Only PA102: Pins only for use with PA101 PA105: Same as PA100 but with two wires for units with no voltage selection</p>

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