

IEC Inlet Filters F.MH-F.MK-F.ML-F.MM-F.MP-F.MQ-F.MR-F.MS series

With fuse holder, bipolar switch and voltage selector

This series gives a high level of suppression within a compact enclosure. The IEC 60320 inlet power entry module combines 1 or 2 fuse holders for US and IEC fuses, with a bipolar rocker switch, earth choke and input voltage selector.

Designed for use in business, consumer, test and medical equipment for international markets.

- Current ratings from 1A to 6A
- Comprehensive range of filter performance options
- Integral single or twin fuse holder
- Optional voltage selector
- Optional earth line choke
- Horizontal or vertical mounting
- Medical versions available

Mechanical Specifications

Manufacture: metal case with built-in power line connector according to IEC 60320, fuse holder for 1 fuse (F.MH. - F.ML. - F.MP. - F.MR) or 2 fuses (F.MK. - F.MM. - F.MQ. - F.MS) 5 x 20mm (IEC) or 6.3 x 32mm (US), bipolar rocker switch, voltage selector 110/220Vac (F.MH - F.MK - F.ML - F.MM only); internal components sealed with self-extinguishing resin.

Connections: IEC 60320 - Standard plug (INPUT); faston 6.3 x 0.8mm (OUTPUT); ground terminal connected to case.

Mounting: F.MH, F.MK, FML, FMM versions now available in vertical mounting version - (F.**.***.**.***.010) with no approvals.

Electrical Specifications

Rated voltage (V_R): max 250V, 50/60Hz

Rated current (I_R): referred to room temperature = 40°C

Leakage current (I_L): at 220V, 50Hz, max value

Voltage test ($2s$): line to ground 3000Vdc or 1800Vac
line to line 1700Vdc

Climatic category: HPF (25/085/21);

Temperature range: -25°C to +85°C

Bipolar rocker 10(4)A / 250Vac (Rated current),

Switches: 50000 on-off operations;
values in () relate to the inductive current;
inrush current test according to UL 1054 (35A).

Voltage selector: 110-220Vac (F.MH - F.MK - F.ML - F.MM only).



Filter Range

(example pt no. - F.MH.01A.20.25)

Code		I_R (A)	L_1 (mH)	L_2 (mH)	C_{X1} (μ F)	C_{X2} (μ F)	C_Y (pF)	I_L (mA)	R (M Ω)
F.MH. F.MK. ■ F.MQ. ▲ F.MS.	01A	20.-	2 x 10				2 x 4700	2 x 0.43	
		24.-	1 2 x 10		0.22	0.1		2 x 0.003	0.33
		30.-	2 x 22				2 x 4700	2 x 0.43	
		34.-	2 x 22					2 x 0.003	
	2A5	21.-	2 x 2				2 x 4700	2 x 0.43	
		25.-	2.5 2 x 2		0.22	0.1		2 x 0.003	0.33
		31.-	2 x 8				2 x 4700	2 x 0.43	
		35.-	2 x 8					2 x 0.003	
	04A	22.-	2 x 1				2 x 4700	2 x 0.43	
		26.-	4 2 x 1		0.22	0.1		2 x 0.003	0.33
		32.-	2 x 8				2 x 4700	2 x 0.43	
		36.-	2 x 8					2 x 0.003	
	06A	23.-	2 x 1				2 x 4700	2 x 0.43	
		27.-	6 2 x 1		0.22	0.1		2 x 0.003	0.33
		33.-	2 x 2.5				2 x 4700	2 x 0.43	
		37.-	2 x 2.5					2 x 0.003	
	01A	20.-	2 x 10	●			2 x 4700	2 x 0.43	
		24.-	1 2 x 10	0.65	0.22	0.1		2 x 0.003	0.33
		30.-	2 x 22				2 x 4700	2 x 0.43	
		34.-	2 x 22					2 x 0.003	
	2A5	21.-	2 x 2	●			2 x 4700	2 x 0.43	
		25.-	2.5 2 x 2	0.65	0.22	0.1		2 x 0.003	0.33
		31.-	2 x 8				2 x 4700	2 x 0.43	
		35.-	2 x 8					2 x 0.003	
	04A	22.-	2 x 1	●			2 x 4700	2 x 0.43	
		26.-	4 2 x 1	0.65	0.22	0.1		2 x 0.003	0.33
		32.-	2 x 8				2 x 4700	2 x 0.43	
		36.-	2 x 8					2 x 0.003	
	06A	23.-	2 x 1	●			2 x 4700	2 x 0.43	
		27.-	6 2 x 1	0.65	0.22	0.1		2 x 0.003	0.33
		33.-	2 x 2.5				2 x 4700	2 x 0.43	
		37.-	2 x 2.5					2 x 0.003	

■ No approvals, Circuit Diagram D

▲ No approvals, Circuit Diagram C

● Not applicable to FMP, FMR

.010 = Vertical mounting option (addition to standard pt no.)

25 = Rocker switch

26 = Illuminated rocker switch

Circuit Diagram:

- H = 1 fuse
 - K = 2 fuses
 - L = 1 fuse + earth choke
 - M = 2 fuses + earth choke
 - P = 1 fuse, single pole switch (no voltage selector)
 - Q = 2 fuses, single pole switch (no voltage selector)
 - R = 1 fuse, double pole switch (no voltage selector)
 - S = 2 fuses, double pole switch (no voltage selector)
- A
- B
- D
- C

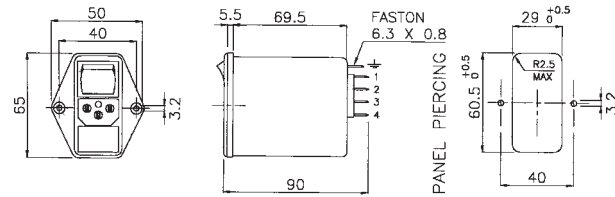
Approvals



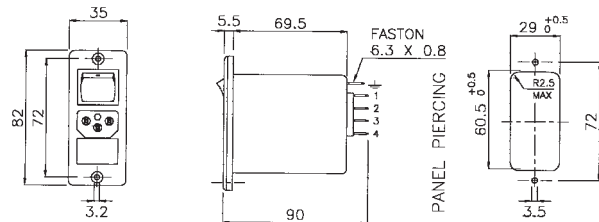
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Dimensions (mm) and connections

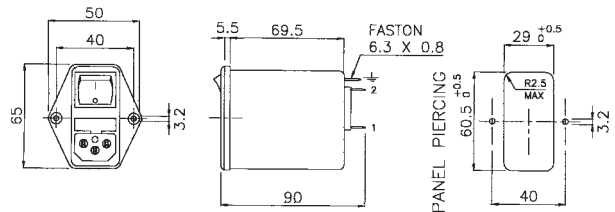
F.MH, F.MK, F.ML, F.MM



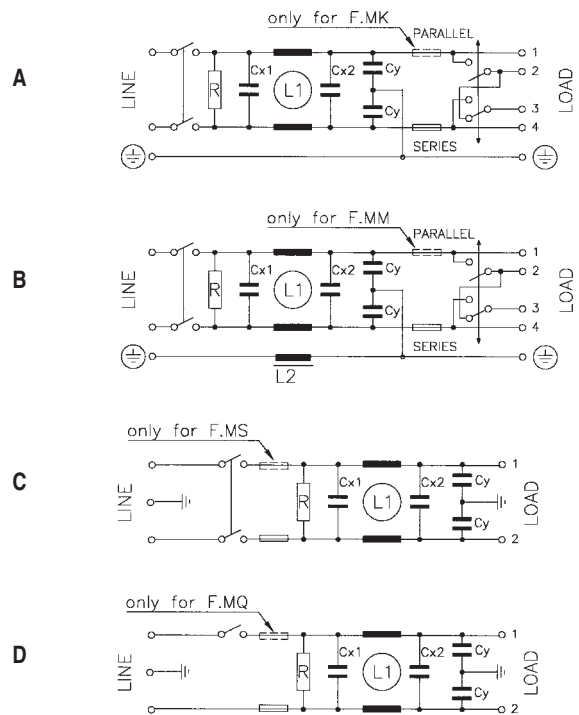
F.**.*.**.*.010



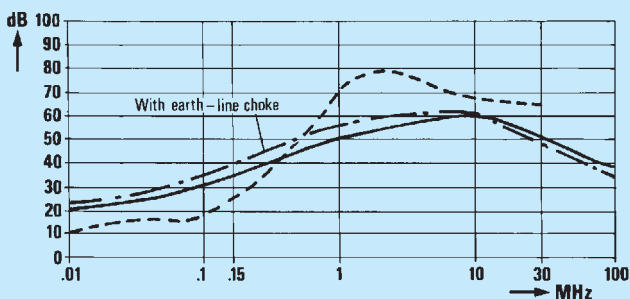
F.MP, F.MQ, F.MR, F.MS



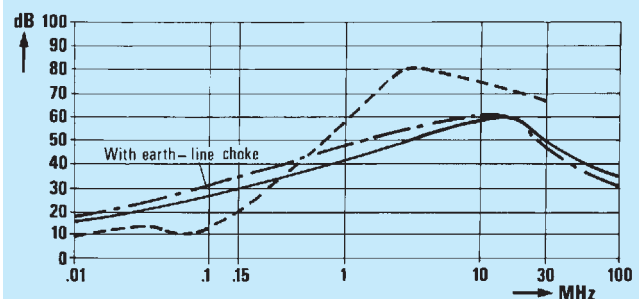
Circuit diagram



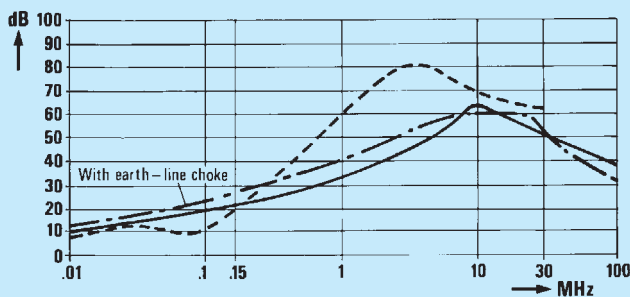
Insertion loss (typical): — Asymmetrical (line to ground) with Cy - - - Asymmetrical (with earth inductor) - - - Symmetrical (line to line)



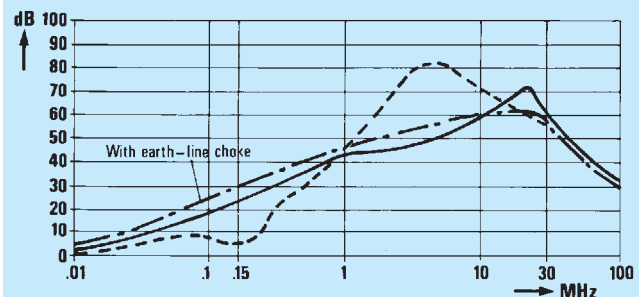
— F.MH, F.MK, F.MQ, F.MS, F.MP, F.MR.01A...
 - - - F.M-.01A...
 . . . F.ML, F.MM, .01A...



— F.MH, F.MK, F.MQ, F.MS, F.MP, F.MR.2A5...
 - - - F.M-.2A5...
 . . . F.ML, F.MM.2A5...



— F.MH, F.MK, F.MQ, F.MS, F.MP, F.MR.04A...
 - - - F.M-.04A...
 . . . F.ML, F.MM.04A...



— F.MH, F.MK, F.MQ, F.MS, F.MP, F.MR.06A...
 - - - F.M-.06A...
 . . . F.ML, F.MM.06A...