KOLLMORGEN

Multi-stage general purpose AC/DC EMC/RFI Filter

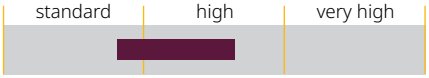
KED-1MF-xx



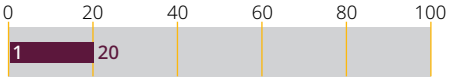
Performance Indicators

Attenuation Performance

» High differential and common-mode attenuation



Rated Current [A]



Approvals and Compliances

Technical Specifications

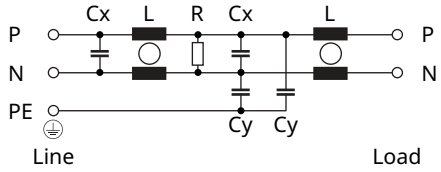
Maximum continuous operating voltage*	250 VAC, 50/60 Hz 250 VDC
Nominal operating voltage	230 VAC
Rated currents	1 to 20 A @ 40°C
Operating frequency	DC to 400 Hz
High potential test voltage	P –> PE 2000 VAC for 2 sec P –> PE 2500 VAC for 2 sec (B types) P –> N 1100 VDC for 2 sec
Overvoltage category	II acc. IEC 60664-1
Pollution degree	2 acc. IEC 60664-1
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)**
Altitude	2000m (above derating applies)**
Flammability corresponding to	Laces for -07 version: UL 94 VW-1 Terminal plastic for -06/-08 version: UL 94 V-0 Grommet for -07 version: UL 94 V-0
Certified to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 (applies to AC and DC applications)
Design corresponding to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
MTBF (Mil-HB-217F)	>950,000 h @ 40°C/230 V 1,650,000 h (B types) @ 40°C/230 V

* maximum RMS operating voltage at rated frequency or the maximum DC operating voltage
**For dedicated requests exceeding this specification (e.g. -40 °C or higher altitude) please contact your local Kollmorgen Customer Service Representitive

Typical Applications

- » Electrical and electronic equipment
- » Consumer goods
- » Household equipment
- » Building automation
- » Industrial applications
- » Machinery
- » Medical equipment
- » Electronic data processing equipment
- » Office automation and datacom equipment
- » Various noisy applications requiering good filter performance

Typical Single-Phase Electrical Diagram



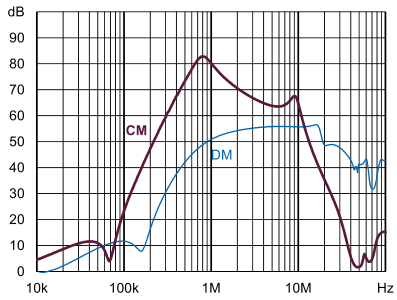
Filter Selection Table

Parameter		Units	KED-1MF-06 6 Amp	KED-1MF-10 10 Amp	KED-1MF-20 20 Amp
Rated current @ 40°C (25°C)		A	6 (6.9)	10 (11.5)	20 (23)
Leakage current* @ 250 VAC/50 Hz (@ 120 VAC/60 Hz)		mA	0.66 (0.38)		
Power Loss @25°C/DC		W	3.2	4.3	5.3
Inductance L**		mH	0.97	0.8	0.6
Capacitance**	Cx	µF	0.22	0.47	1
	Cy	nF	4.7		
Resistance R**		kΩ	1000	470	220
Input/Output Connections			-06	-06	-06
			-07	-07	–
			–	-08	-08
Weight		g	120	190	480

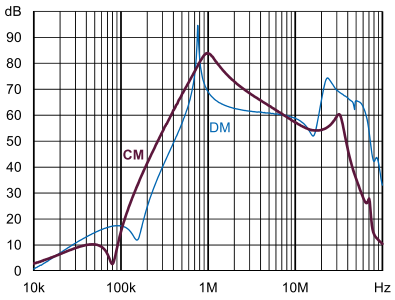
* Maximum leakage under usual AC operating conditions (acc. IEC60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.
** Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%

Typical Filter Attenuation

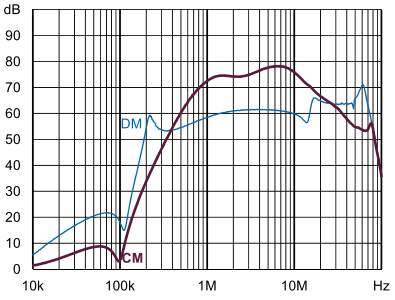
Per CISPR 17: symmetrical 50 Ω/50 Ω -> Differential Mode (DM); asymmetrical 50 Ω/50 Ω -> Common Mode (CM)



KED-1MF-06



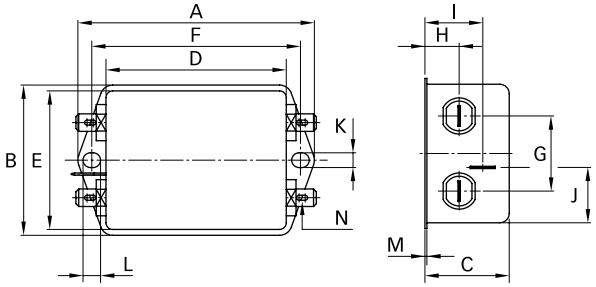
KED-1MF-10



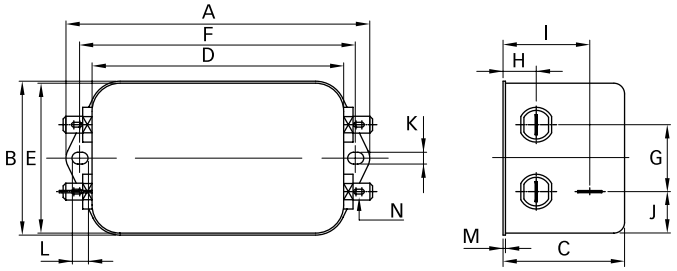
KED-1MF-20

Dimensional Drawings and Data

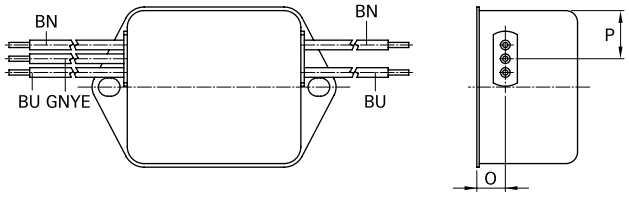
Connection Style -06 for 6 and 10 A types



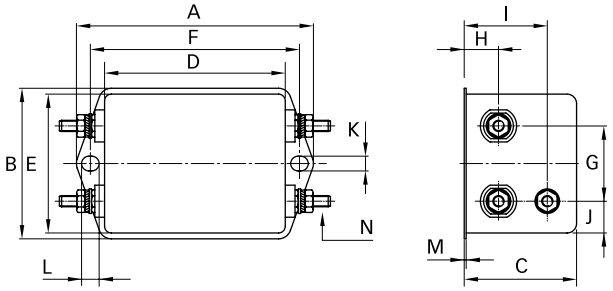
Connection Style -06 for 20 A types



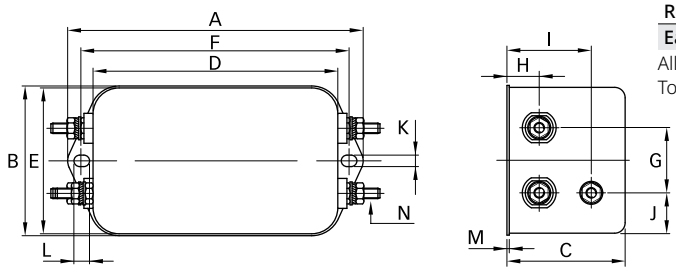
Connection Style -07 for 6 and 10 A types



Connection Style -08 for 10 A types



Connection Style -08 for 20 A types



Dimensions

	KED-1MF-06 6 Amp	KED-1MF-10 10 Amp	KED-1MF-20 20 Amp
A	71	85	113.5 ±1
B	46.6	54	57.5 ±1
C	29.3	30.3	45.4 ±1
D	50.5	64.8	94 ±1
E	44.5	49.8	56
F	61	75	103
G	21	27	25
H	10.8	12.3	12.4
I	19.3	20.8	32.4
J	20.1	19.9	15.5
K	5.3	5.3	4.4
L	6.3	6.3	6
M	0.7	0.7	1
Connection style -06			
N	6.3 x 0.8	6.3 x 0.8	6.3 x 0.8
Connection style -07			
O	8.3	8.3	
P	14	14.9	
AWG type wire	AWG 18	AWG 18	
Wire length	140	140	
Connection style -08			
N		M4	M4
Recommended torque (Nm)		1.2 - 1.3	1.2 - 1.3
Earth terminal		1.5 - 1.7	1.5 - 1.7

All dimensions in mm; 1 inch = 25.4 mm
Tolerances according: ISO 2768-m/ EN 22768-m