KOLLMORGEN

Low Leakage Current Application Filter

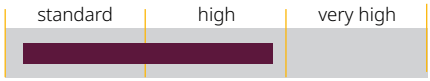
KED-3MF-xx



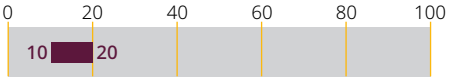
» Low leakage EMC filter with high performance options
» Improvement of system reliability
» Tight packaged EMC filter
» Industry standard form factor

Performance Indicators

Attenuation Performance



Rated Current [A]



Approvals and Compliances

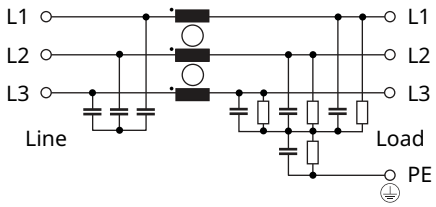
Technical Specifications

Maximum continuous operating voltage	530 / 305 VAC
Nominal operating voltage	480 VAC
Rated currents	10 to 20 A @ 50°C
Overload capacity	1.5 x rated current for 1 minute once per hour
Operating frequency	DC to 60 Hz
High potential test voltage	2.28 kV DC 2s, phase to phase 2.26 kV DC 2s Repetition with max. 80% of the HV test voltage
Operating voltage	530 / 305 VAC
Overvoltage category	II acc. IEC 60664-1
Pollution degree	PD2 (acc. IEC60664-1)
Surge withstand	2 kV, phase to phase (acc. to IEC 61000-4-5) 4 kV, phase to protected earth (acc. to IEC 61000-4-5)
Temperature range (operation and storage)	40°C to +100°C (with derating >50°C)
Climatic category	40/100/21 (acc. IEC 60068-1)
Altitude	2000 m, current and voltage derating above
Protection category	IP 00 (acc. IEC 60529-1)
Flammability corresponding to	UL 94 V0
Vibration and shock	3M4 (cc. IEC60721-3-3) Vibration: 10 to 55Hz, 2G, 3min, 1h each direction Shock: 20G, 11ms once each axial
Design corresponding to	UL/IEC 60939-3 CSA C22.2 No. 8-13
MTBF (Mil-HB-217F)	>300,000 h @ 50°C/480V

Typical Applications

» Electrical and electronic equipment
» Test and measurement devices
» Medical devices & Industrial automation
» Small machines

Typical Three-Phase Electrical Diagram



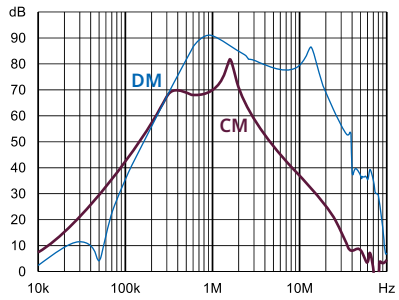
Filter Selection Table

Parameter	Filter: Units	KED-3MF-10	KED-3MF-20
Core*		MnZn	
Rated current @ 50°C	A	10	20
Leakage current** @ 530 VAC/50 Hz (@ 480 VAC/60 Hz)	mA	0.40	
Typical power Loss*** @25°	W	6.0	8.4
Weight	kg	0.45	

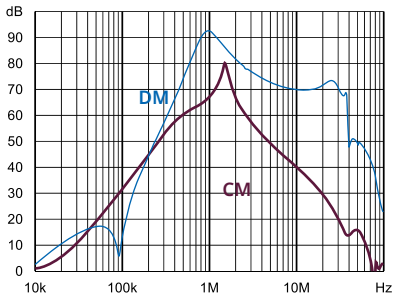
* Core material: MnZn: Ferrite core material / nano: Nanocrystalline core material
** Maximum leakage current under normal operating conditions (acc. to IEC60939-3).
*** Power Loss [W] calculated: 3*RatedCurrent2*Max.DCRes

Typical Filter Attenuation

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

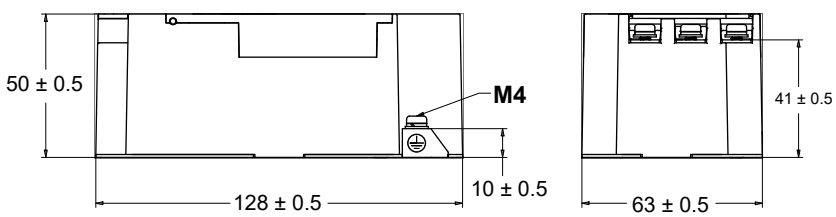


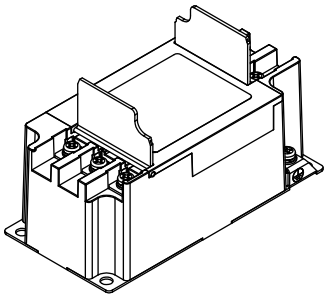
KED-3MF-10

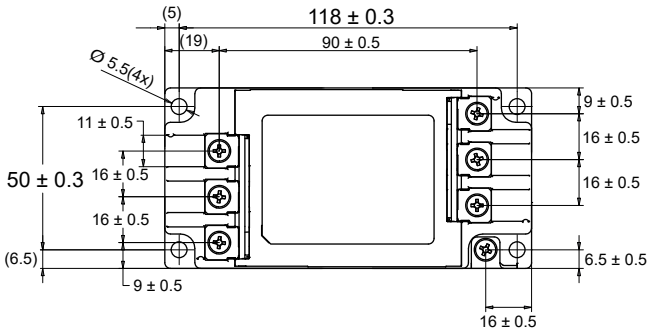


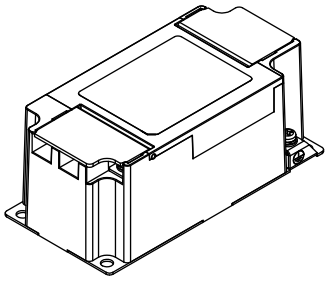
KED-3MF-10

Dimensional Drawings









Filter Input/Output Connector Cross Section

Recommended torque (Nm)	1.2 - 1.4
Earth terminal	max. 11 mm/min. Ø 4.3 mm

