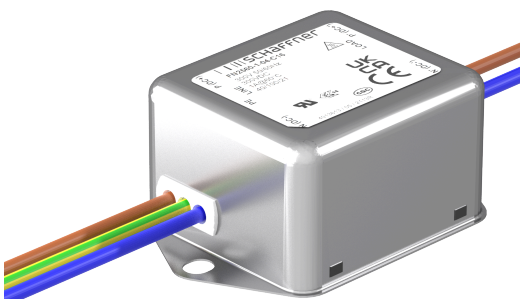
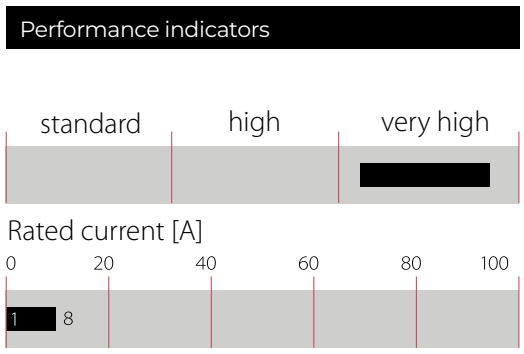
EMC/EMI line filter for lighting applications



- Excellent EMC filter for lighting applications
- Choice between 3 different leakage ratings C00/C11/C16:
- -C00: no leakage current, medical applications
- -C11: low leakage current, safety applications
- -C16: standard version, best filter performance
- Voltage rating up to 300 VAC
- Choice between 4 current ratings: 1 A, 2 A, 5 A and 8 A
- Compact, space-saving design
- Cable outlets with enhanced length give freedom for flexible installation
- Versions without X-capacitor available - FN2564

Performance indicators



Approvals & Compliances

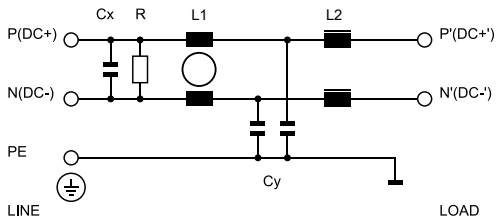
Features and Benefits

- Very high differential mode attenuation
- Suitable for AC and DC applications
- Offering a very high differential and common mode performance in low profile housing
- Easy installation with single strand wires
- Voltage rating according to high voltage LED lighting market

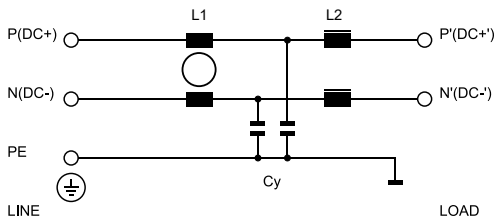
Typical Applications

- Lighting equipment
- LED driver and displays
- Street lamps and signage
- Industrial and architectural lighting
- Fluorescent ballasts
- Other applications with high demand for differential mode performance

Typical electrical schematic - FN2560



Typical electrical schematic - FN2564 (no X-cap)



Technical Specifications

Rated operating voltage	300 VAC / 300 VDC
Rated currents	1 A, 2 A, 5 A and 8 A @ 60°C
Operating frequency	DC to 60 Hz
Temperature range (operation and storage)	-40°C to 100°C (40/100/21)*
Climatic class	40/100/21
Cooling	AN
Flammability corresponding to	Plastic material: UL-94V-0 Laces: UL94- VW1
High potential test voltage	P(DC+) –> PE 3000 VDC for 2 sec P(DC+) –> N(DC-) 1500 VDC for 2 sec
Altitude	2000m (above derating applies)*
Certified to	UL 60939-3, IEC/EN 60939-3, GB/T 15287
Design corresponding to	IEC 61347-1 - Lamp controlgear IEC 61547 - Equipment for general lighting purposes
Protection category	IP20
Pollution degree	2 acc. IEC 60664-1
MTBF	> 1.800.000 h
Vibration and shock	3M4 (operation); 2M2 (transport) acc. to IEC 60721-3-3; IEC 60721-3-2
Overvoltage category	III acc. IEC 60664-1
Terminals/Housing	Single strand solid wires AWG16 / AWG18

* for dedicated requests exceeding this specification, please contact your local Schaffner sales office

Filter Selection Table

Filter	Rated current @ 60°C	Rated current @ 40°C	Leakage current* @ 300 VAC/60 Hz	Inductance** L1	Inductance** L2	Capacitance** Cx	Capacitance** Cy	Dis. Resistor** R	Weight m	Typ. Dissipation P
	[A]	[A]	[mA]	[mH]	[uH]	[µF]	[nF]	[kΩ]	[g]	[W]
FN2560-1-04-C00	1	1	0.0	4.0	198	0.470	-	1000	119	0.54
FN2560-1-04-C11	1	1	0.4	4.0	198	0.470	2 x 4.7	1000	119	0.54
FN2560-1-04-C16	1	1	3.1	4.0	198	0.470	2 x 33	1000	119	0.54
FN2560-2-04-C00	2	3	0.0	2.0	98	0.470	-	1000	125	1.52
FN2560-2-04-C11	2	3	0.4	2.0	98	0.470	2 x 4.7	1000	125	1.52
FN2560-2-04-C16	2	3	3.1	2.0	98	0.470	2 x 33	1000	125	1.52
FN2560-5-04-C00	5	6	0.0	1.0	51	0.470	-	1000	130	2.65
FN2560-5-04-C11	5	6	0.4	1.0	51	0.470	2 x 4.7	1000	130	2.65
FN2560-5-04-C16	5	6	3.1	1.0	51	0.470	2 x 33	1000	130	2.65
FN2560-8-04-C00	8	10	0.0	0.5	26	0.470	-	1000	135	3.45
FN2560-8-04-C11	8	10	0.4	0.5	26	0.470	2 x 4.7	1000	135	3.45
FN2560-8-04-C16	8	10	3.1	0.5	26	0.470	2 x 33	1000	135	3.45

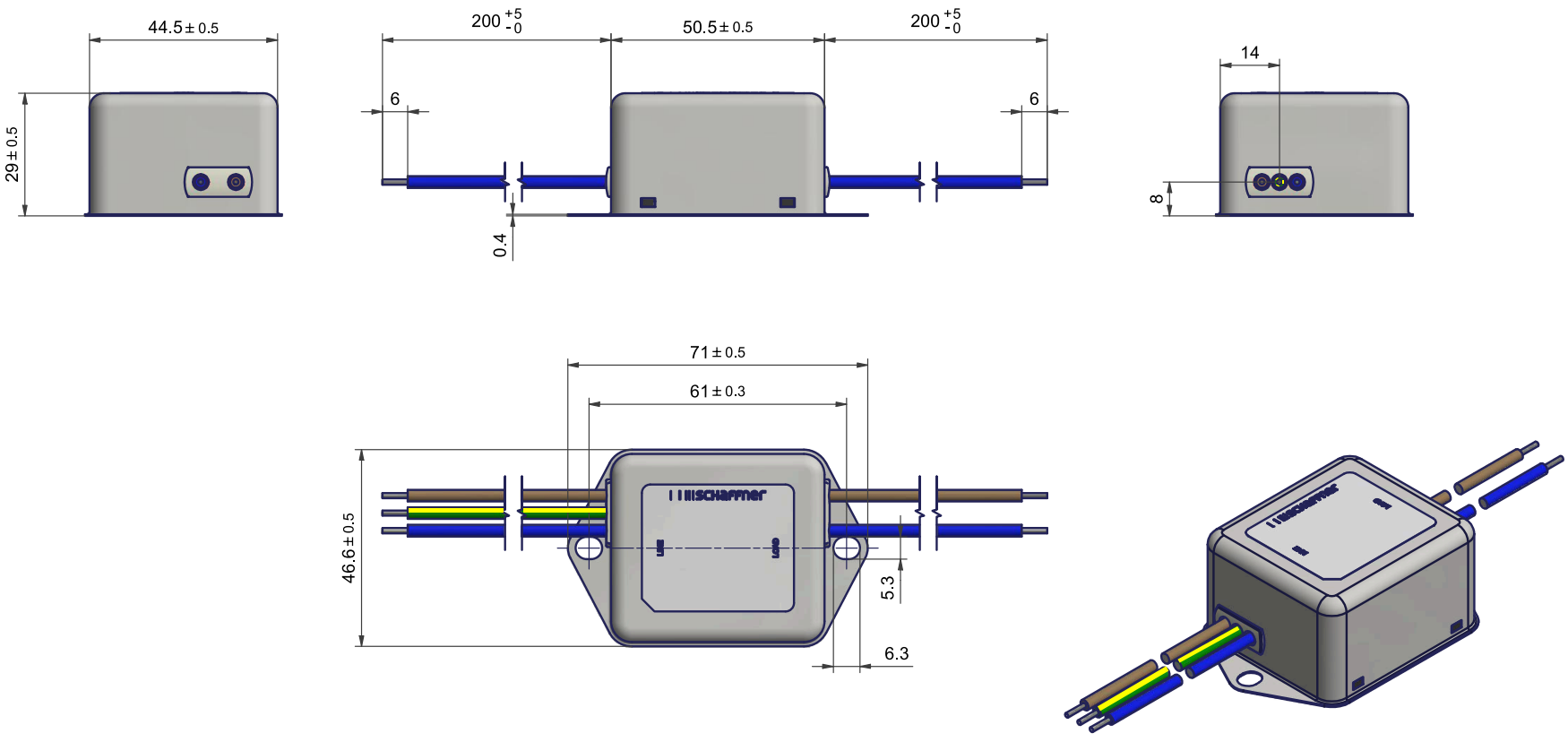
* Maximum leakage under usual AC operating conditions (acc. IEC 60939-3), calculated at 50Hz. If the neutral line is interrupted, worst case leakage could reach twice this level.
** Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%

Performance Adaptations Available

- Series for reduced reactive currents: FN2564
  All FN2560 designations can also be ordered without X-capacitor. For example: FN2564-1-04-C00
  - Pro: Lower reactive currents P (DC+) and N(DC-)
  - Con: Lower differential mode attenuation performance

- Options with adapted leakage currents (on request)
  Additionally to the existing C00, C11 and C16 options, 10 other Y-capacitor options (0.47 - 22 nF) are available.
  For FN2560 and FN2564 series
  - Pro: Fine adaptation of leakage current between 0.00 mA and 3.11 mA
  - Con: -

Mechanical Data



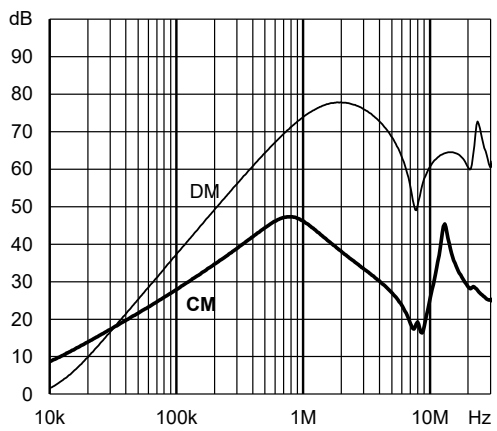
1 A - 5 A: Single strand solid wire 18 AWG
8 A : Single strand solid wire 16 AWG

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

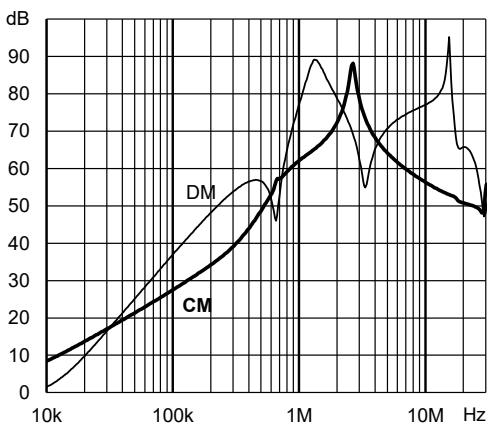
Typical Filter Attenuation

Per CISPR 17; DM=50 Ω/50 Ω sym, differential mode; CM=50 Ω/50 Ω asym, common mode

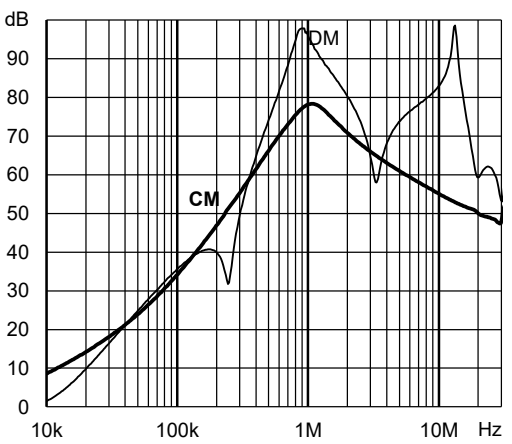
FN2560-1-04-C00 - no Y-Capacitor



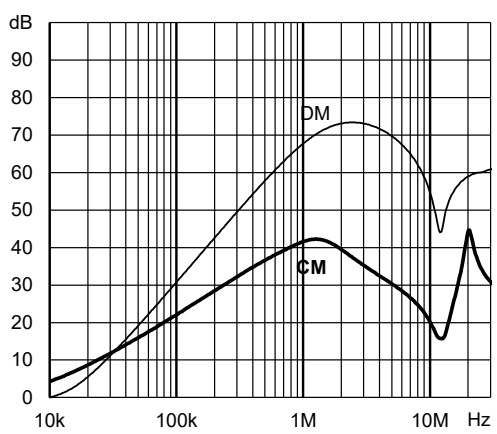
FN2560-1-04-C11 - 2 x 4.7 nF Y-Capacitor



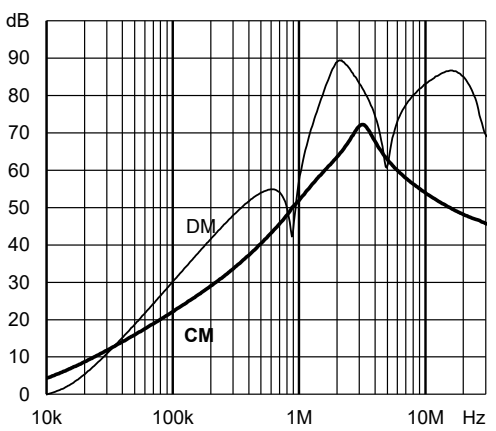
FN2560-1-04-C16 - 2 x 33 nF Y-Capacitor



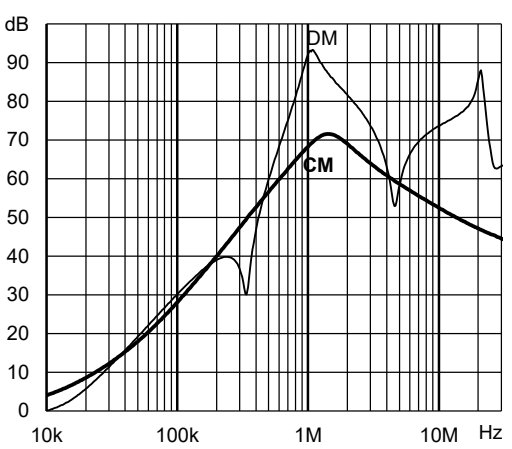
FN2560-2-04-C00 - no Y-Capacitor



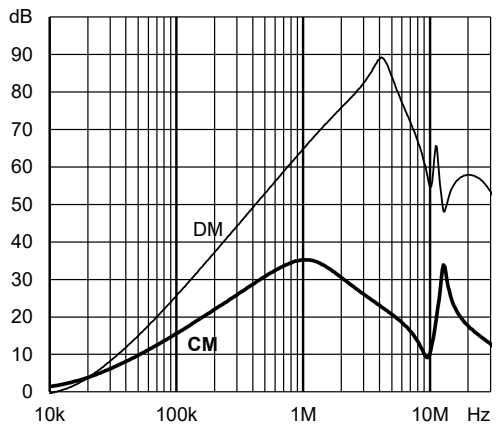
FN2560-2-04-C11 - 2 x 4.7 nF Y-Capacitor



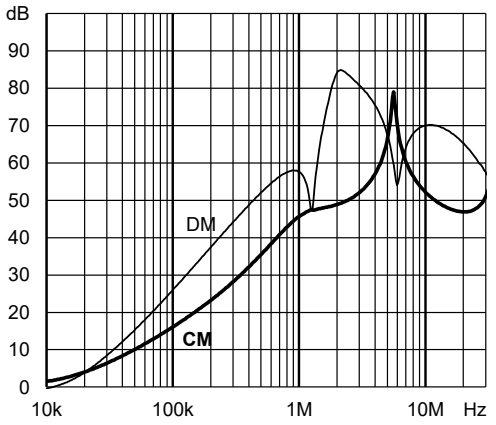
FN2560-2-04-C16 - 2 x 33 nF Y-Capacitor



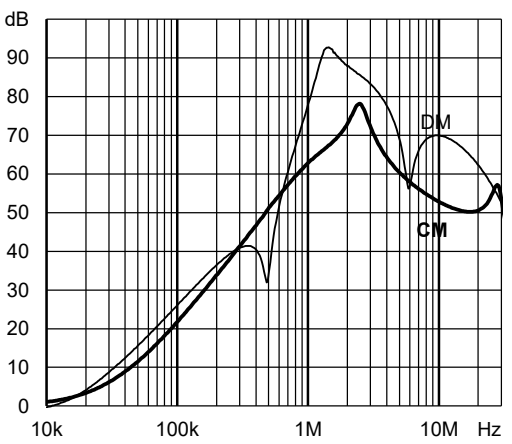
FN2560-5-04-C00 - no Y-Capacitor



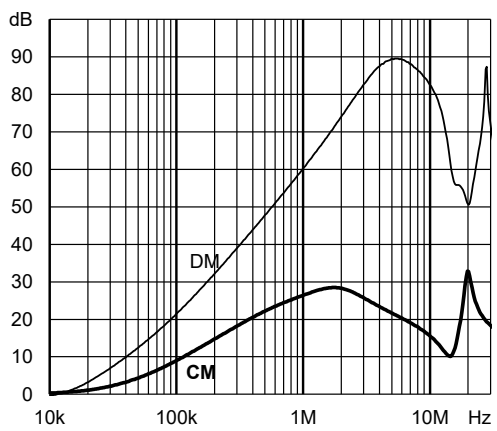
FN2560-5-04-C11 - 2 x 4.7 nF Y-Capacitor



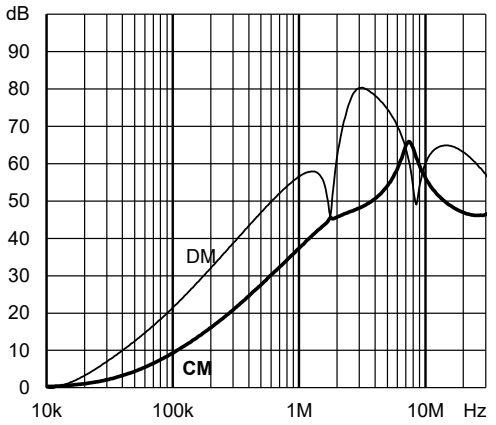
FN2560-5-04-C16 - 2 x 33 nF Y-Capacitor



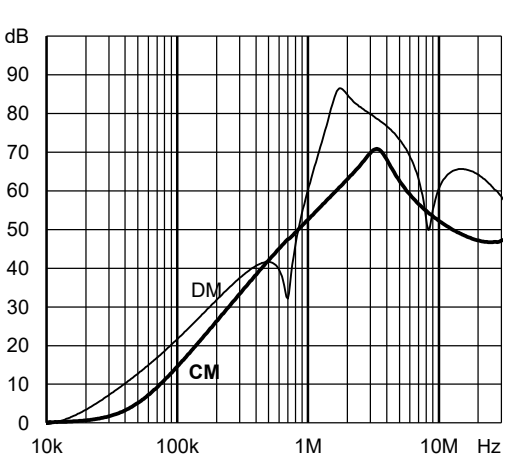
FN2560-8-04-C00 - no Y-Capacitor



FN2560-8-04-C11 - 2 x 4.7 nF Y-Capacitor



FN2560-8-04-C16 - 2 x 33 nF Y-Capacitor



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