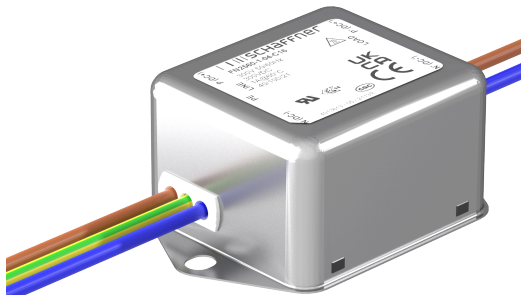
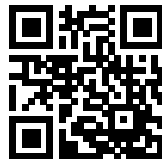


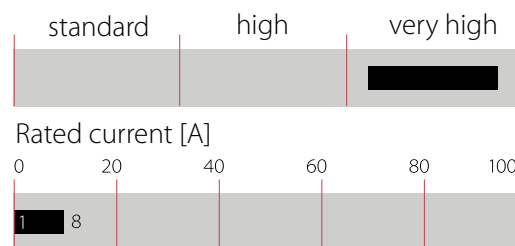
# EMC/EMI line filter for lighting applications



- 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



## Technical Specifications

<b>Rated operating voltage</b>	300 VAC / 300 VDC
<b>Rated currents</b>	1 A, 2 A, 5 A and 8 A @ 60°C
<b>Operating frequency</b>	DC to 60 Hz
<b>Temperature range (operation and storage)</b>	-40°C to 100°C (40/100/21)*
<b>Climatic class</b>	40/100/21
<b>Cooling</b>	AN
<b>Flammability corresponding to</b>	Plastic material: UL-94V-0 Laces: UL94- VV1
<b>High potential test voltage</b>	P(DC+) -> PE 3000 VDC for 2 sec P(DC+) -> N(DC-) 1500 VDC for 2 sec
<b>Altitude</b>	2000m (above derating applies)*
<b>Certified to</b>	UL 60939-3, IEC/EN 60939-3, GB/T 15287
<b>Design corresponding to</b>	IEC 61347-1 - Lamp controlgear IEC 61547 - Equipment for general lighting purposes
<b>Protection category</b>	IP20
<b>Pollution degree</b>	2 acc. IEC 60664-1
<b>MTBF</b>	> 1.800.000 h
<b>Vibration and shock</b>	3M4 (operation); 2M2 (transport) acc. to IEC 60721-3-3; IEC 60721-3-2
<b>Overvoltage category</b>	III acc. IEC 60664-1
<b>Terminals/Housing</b>	Single strand solid wires AWG16 / AWG18

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

### Approvals & Compliances



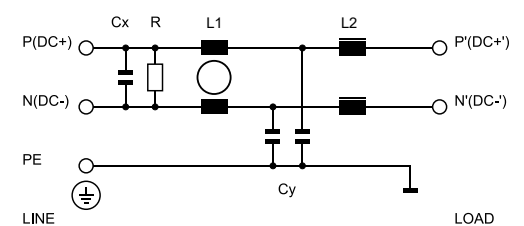
### Features and Benefits

- 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

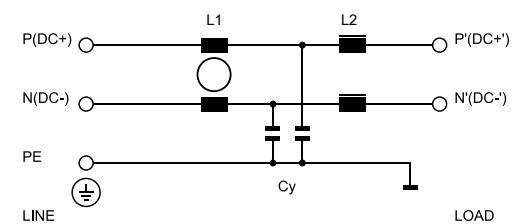
### Typical Applications

- 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)



### Filter Selection Table

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

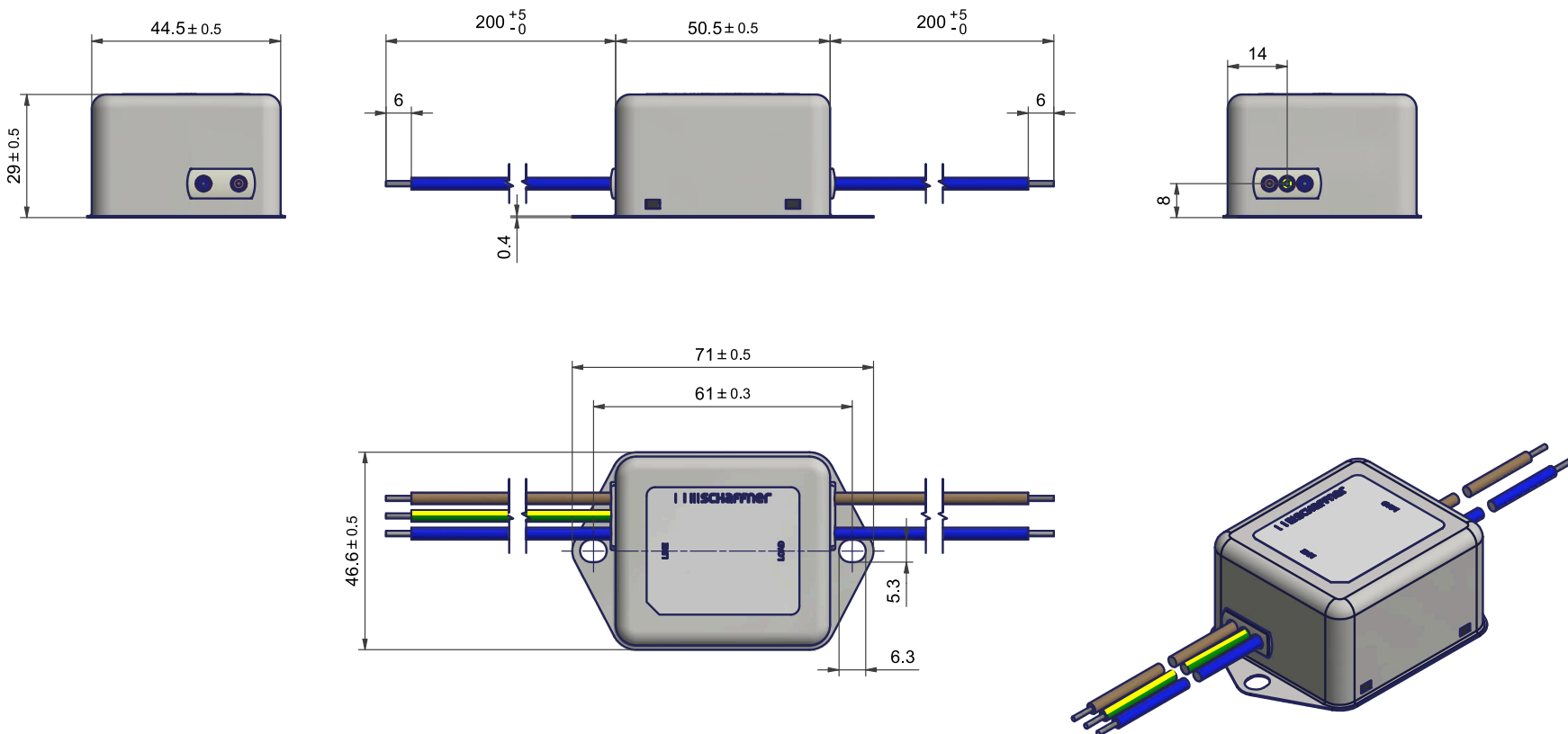
\* Maximum leakage under usual AC operating conditions (acc. IEC 60939-3), calculated at 50Hz. If the neutral line is interrupted, worst case leakage could reach twice this level.

\*\* 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



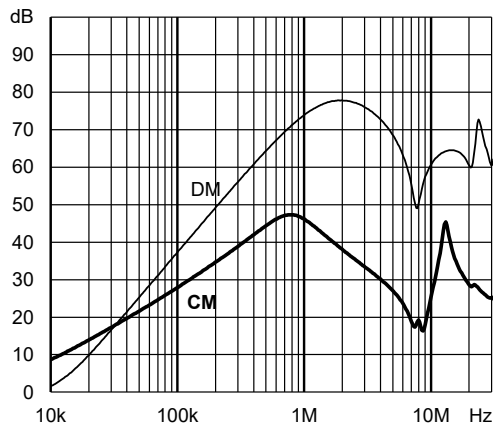
1 A - 5 A: Single strand solid wire 18 AWG  
8 A : Single strand solid wire 16 AWG

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

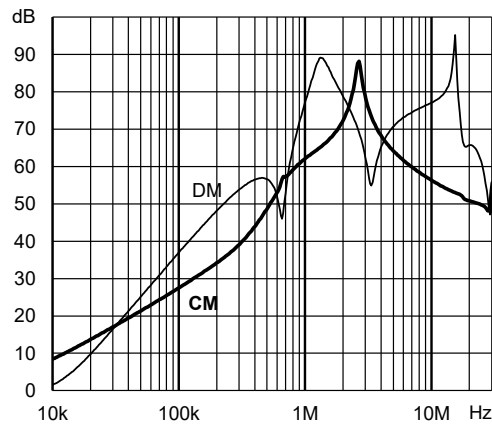
### Typical Filter Attenuation

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

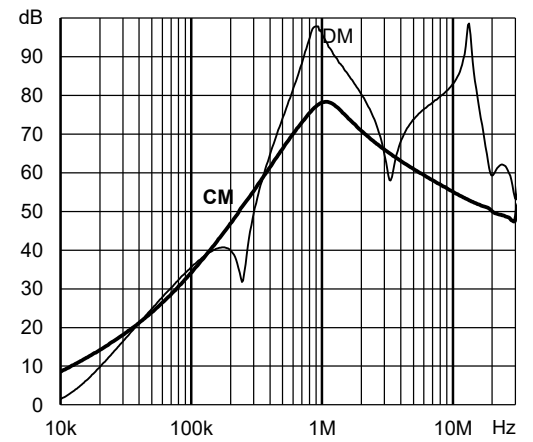
FN2560-1-04-C00 - no Y-Capacitor



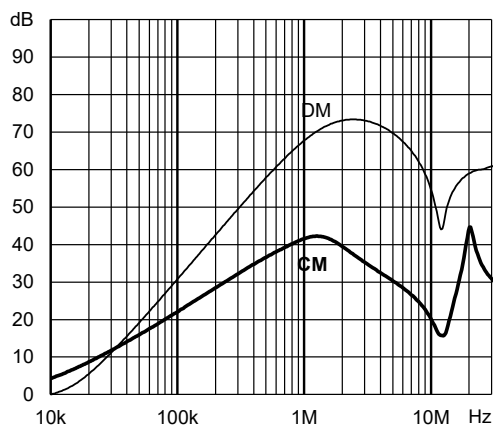
FN2560-1-04-C11 - 2 x 4.7 nF Y-Capacitor



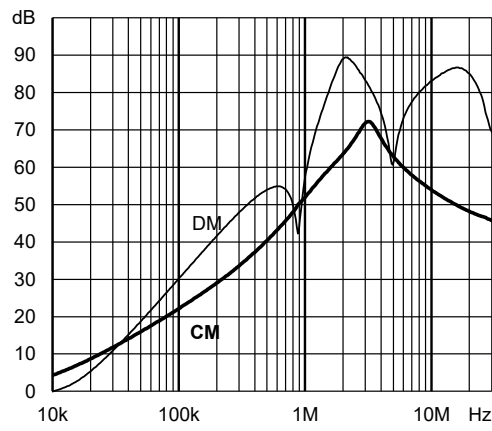
FN2560-1-04-C16 - 2 x 33 nF Y-Capacitor



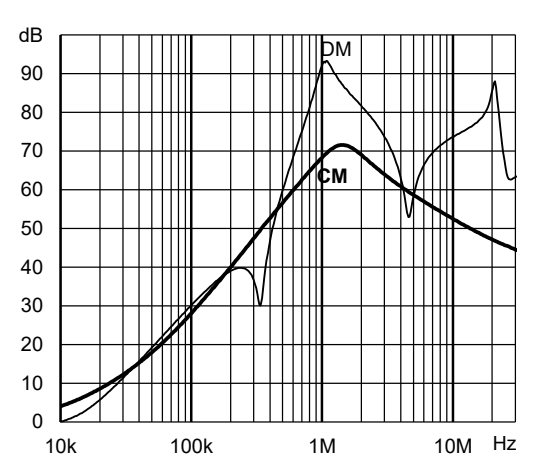
FN2560-2-04-C00 - no Y-Capacitor



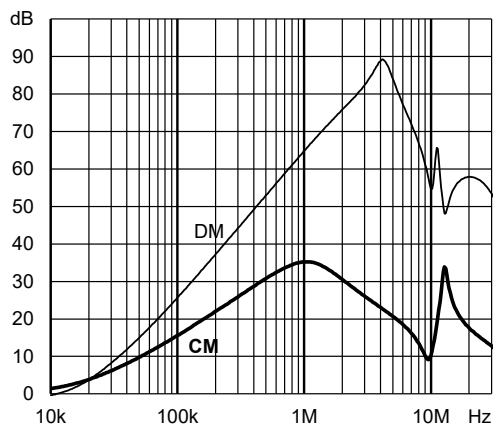
FN2560-2-04-C11 - 2 x 4.7 nF Y-Capacitor



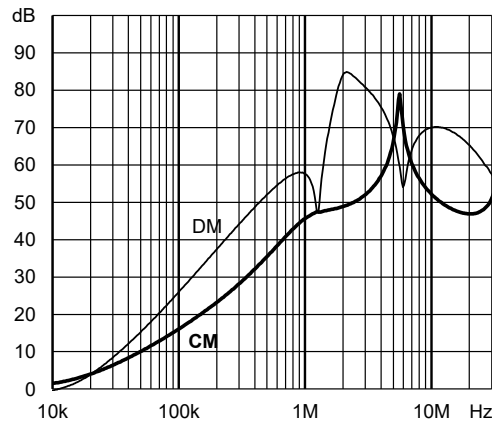
FN2560-2-04-C16 - 2 x 33 nF Y-Capacitor



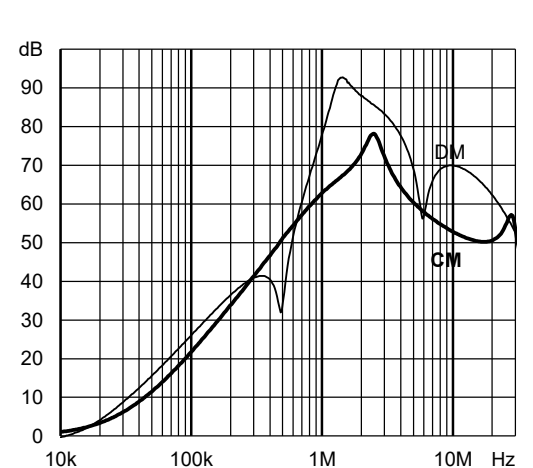
FN2560-5-04-C00 - no Y-Capacitor



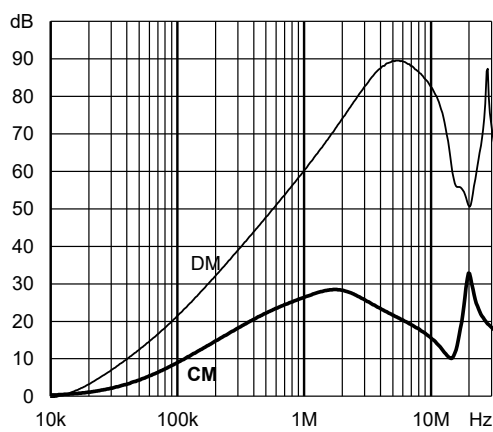
FN2560-5-04-C11 - 2 x 4.7 nF Y-Capacitor



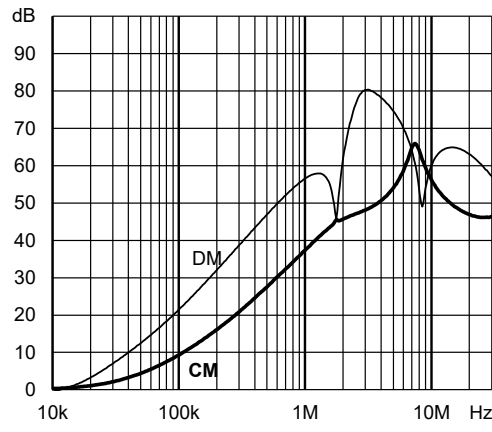
FN2560-5-04-C16 - 2 x 33 nF Y-Capacitor



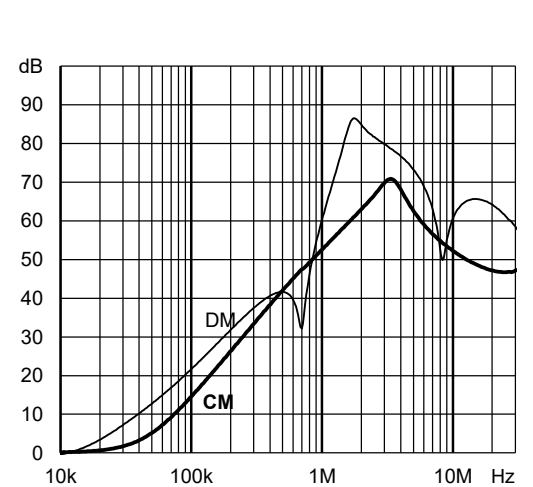
FN2560-8-04-C00 - no Y-Capacitor



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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