

# Low Profile - High performance, EMC/RFI IEC inlet filter



- Excellent IEC inlet for robotics, datacenters and other applications
- Terminals available on load side: Fast-on, wire leads, bolt, and clamps
- Voltage rating up to 250 VAC
- Fits within 1 height unit (HU) of a 19" rack application
- 40 °C operating temperature
- 2-stage filter performance



## Performance indicators

standard	hi	gh	very high				
	FN2	640	FN2660				
Rated current	[A]						
0 20	40	60	80	100			
10 20							

## **Technical Specifications**

Maximum continuous operating voltage	250 VAC
	230 VAC
Nominal operating voltage	
Rated currents	10 to 20 A @ 40°C
Overload capability	1.5 x rated current for 1 minute once per hour
Operating frequency	DC to 60 Hz
High potential test voltage	P -> N 1500 VDC for 2 sec* P/N -> PE 2500 VDC for 2 sec*
Overvoltage category	II acc. IEC 60664-1
Pollution degree	2 acc. IEC 60664-1
Surge withstand	2 kV Ph-Ph / 4 kV Ph-PE (Level 4)
Temperature range (operation and storage)	-40°C to +85°C (with derating >40°C)
Climatic category	40/085/21 acc. IEC60068-1
Cooling	Natural cooling AN
Altitude	Derating above 2000 m
Protection category	IP00 / IP20 for -103 terminal
Flammability corresponding to	Plastic Material: UL 94 V0 Laces for -07 version: UL 94 VW1
Vibration and shock	3M12 acc. IEC 60721-3-3
Certified to	UL 60939-3, IEC/EN 60939, GB/T 15287
MTBF (Mil-HB-217F)	>300,000 h @ 40°C/230 V

\* High potential test voltage: Repetition with max. 80% of specified values

### Approvals & Compliances

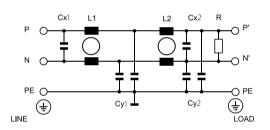
### **Features and Benefits**

- FN2640 / FN2660 series fits perfectly within 1HU height for rack mount applications
- The filters are built to fit perfectly to datacenter and audio video equipment
- The shape allows convenient and space-saving installation
- Fulfills the requirements in IEC/EN 62040-1 -Uninterruptible power systems (UPS)
- Fulfills the requirements in IEC 62368-1 Audio/ Video, Information and Communication Technology Equipment
- Fulfills the requirements in IEC/EN 60335-1 -Household and similar appliances

## **Typical Applications**

- Robotics, collaborative robots, autonomous machines
- Audio and video equipment
- UPS Uninterruptible power supplies

#### Typical electrical schematic

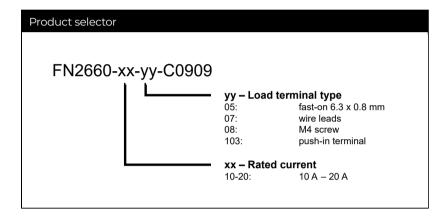


## **Filter Selection Table**

Filter	Rated current	Leakage current*	Power loss	Induct	ance**	Capacitance**			Resistance**	Connections					Weight max***	
	@ 40°C	@ 250 VAC/ 50 Hz	@ 25°C	Lì	L2	Cx1	Cx2	Cyl	Cy2	R	line side	load side				
		(@ 120 VAC/ 60 Hz)														
	[A]	[mA]	[W]	[mH]	[mH]	[µF]	[µF]	[nF]	[nF]	[kΩ]	C14 C20					[kg]
Two-stage																
FN2660-10-yy- C0909	10	0.35 (0.20)	8.2	8.3	8.3	1	0.47	2.2	2.2	680	•••	-05	-07	-08	-103	0.5
FN2660-15-yy- C0909	15	0.35 (0.20)	8.2	4.0	4.0	1	0.47	2.2	2.2	680	•••	-05	-07	-08	-103	0.5
FN2660-16-yy- C0909	16	0.35 (0.20)	9.4	4.0	4.0	1	0.47	2.2	2.2	680		-05	-07	-08	-103	0.5
FN2660-20-yy- C0909	20	0.35 (0.20)	10.6	2.4	2.4	1	0.47	2.2	2.2	680		-05	-07	-08	-103	0.5

<sup>\*</sup> Maximum leakage current under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage current could reach twice this level.

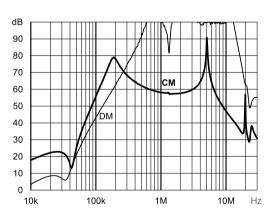
<sup>\*\*\*</sup> Weight depending on choice of connectors.



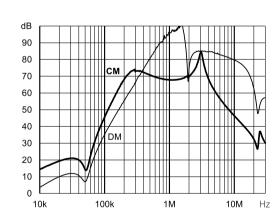
## **Typical Filter Attenuation**

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

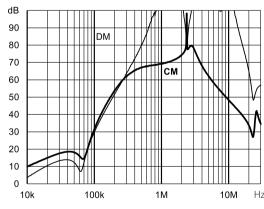
FN2660 - Two-stage filter



FN2660-10-yy-C0909



FN2660-15-yy-C0909 & FN2660-16-yy-C0909

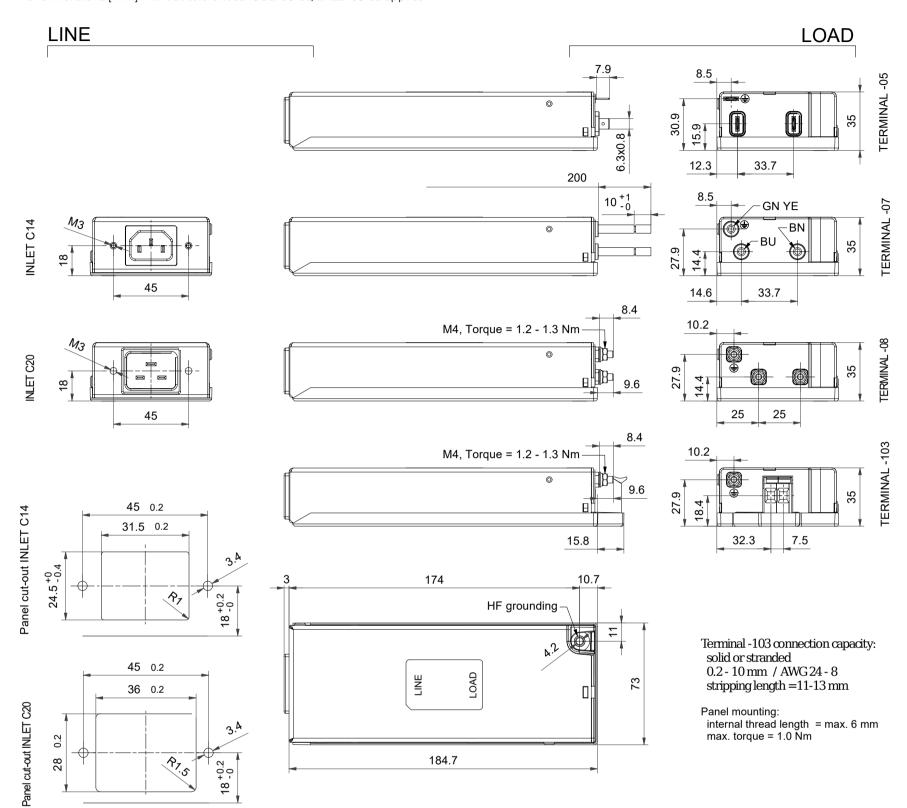


FN2660-20-yy-C0909

<sup>\*\*</sup> Tolerances apply: Inductance: -30/+50%, Capacitance: ±20%, Resistance: ±10%.

## **Dimensions FN2660 - Two-stage Filter**

For dimensions [mm] without tolerances: ISO2768-cL/EN22768-cL applies



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