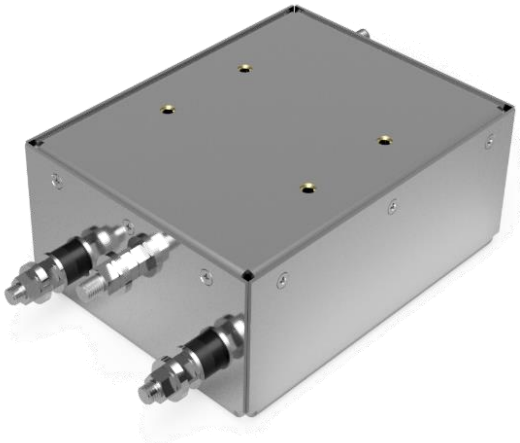
INF-NVL-EFF-28F-1

Quick Reference



Product Description

The INF-NVL-EFF-28F-1 is a single-phase dual-stage EMI filter, designed to ensure high performance within the conducted emissions limits set by MIL-STD-461.The INF-NVL-EFF product line has been designed to be highly efficient in the low frequency spectrum covered by the CE102 standard.

All devices in the INF-NVL-EFF series are made of AISI 302 steel, in order to make them resistant to corrosion. Furthermore, the devices are designed to resist shock and vibration according to the MIL-810 standard.

The completely resin-coated filter inside, guarantees protection against dust and water jets in all directions. The INF-NVL-EFF-28F-1 provides customers with the following outstanding features.

- Rated currents from 1 to 28A
- Two-stage filter
- Very high differential and common-mode attenuation

Technical & Configuration Specifications

Maximum continuous operating voltage	• 115VAC, 60Hz; • 240VAC, 60Hz;
Operating frequency	50/60 Hz;
Rated currents	1 to 28A @ 40°C max.
High potential test voltage	P –> PE 250VAC for 2 sec
Recommanded Storage Thermal Condition	-20°C to +70°C
Recommended Operating thermal condition	Operating: 0°C to +45°C
Not Operational Humidity	5 ~ 95% (non-condensing)
Operational Humidity	0 ~ 80% (non-condensing)
Design certified to	IEC/EN 60939 (applies to AC and DC applications)
IP Grade	IP54
MTBF @ 40°C	520,000 hours at 20A
Flammability corresponding to:	UL 94V-2 or better
Certifications	CE - Reach - RoHS
Design to meet	• MIL-HDBK-2036 • MIL-STD-810G • MIL-STD-167-1A • MIL-STD-461-G

Shock and Vibration Specifications

Design to Meet	
NON-OPERATIVE SHOCK	• MIL-STD-810G Meth. 516.2 30g – 11 ms Half sine – X, Y, Z axis (non-operative shock)
OPERATIVE SHOCK	• MIL-STD-810G Meth. 516.2 15g – 11 ms Half sine – X, Y, Z axis
VIBRATION	• MIL-STD-167-1A TYPE 1 - Frequency 2–14 (Hz) Amplitude 0.25 mm peak - Frequency 15-100 (Hz) Amplitude 0.2 g peak

Tabella 1-Shock and Vibration Specifications

Typical Electrical Schematic:

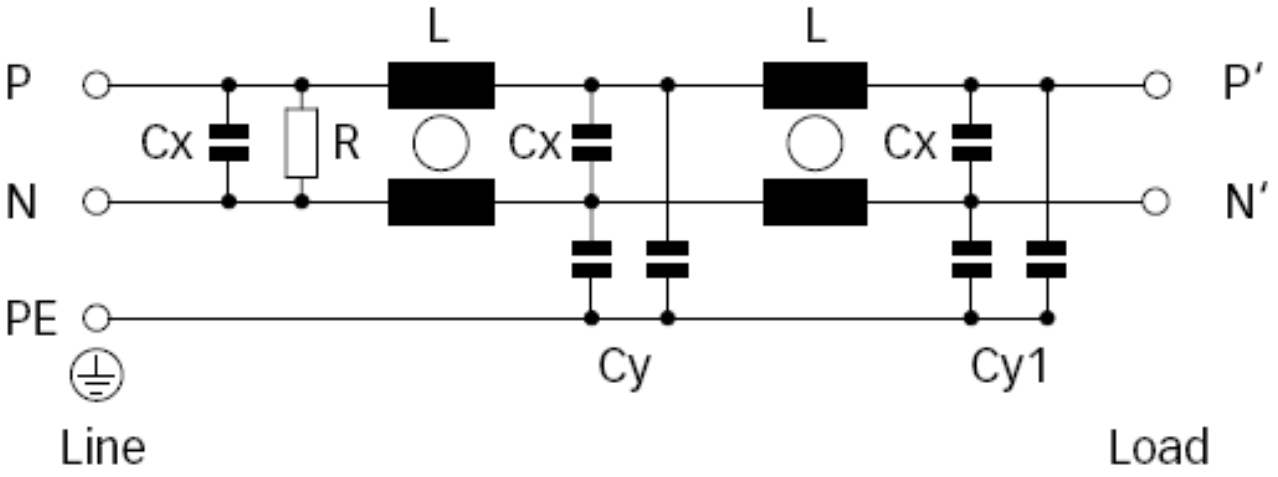


Figure 1 – Electrical Schematic

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Dimensions

INF-NVL-EFF-28F-1

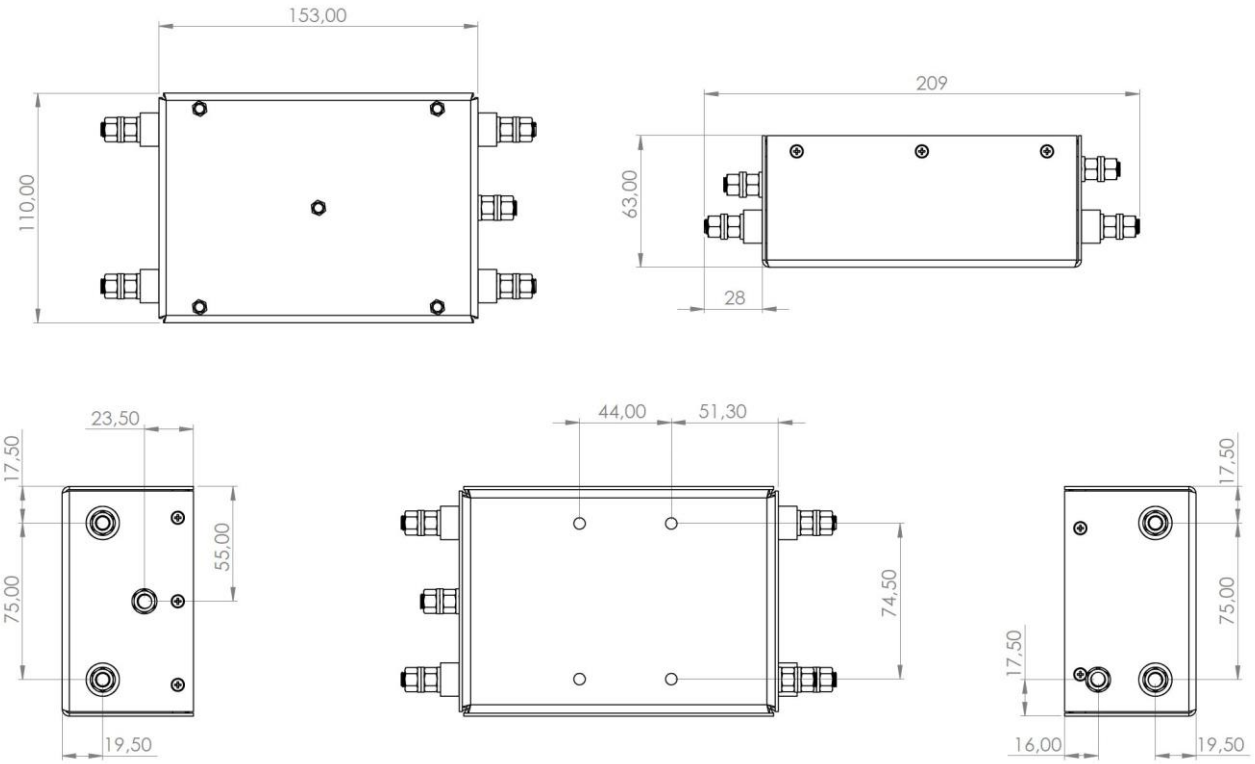

Figure 2 – Design and Dimensions

	L [mm]	W [mm]	H [mm]	WEIGHT [kg]
INF-NVL-EFF-28F-1	**209**	**110**	**63**	**2,05**

Filter Attenuation

INF-NVL-EFF-28F-1

CISPR 17:

- Curve A: 50Ω/50Ω sym Differential Mode
- Curve B: 50Ω/50Ω asym Common Mode
- Curve C: 0.1Ω/100Ω sym Differential Mode
- Curve D: 100Ω/0.1Ω sym Common Mode

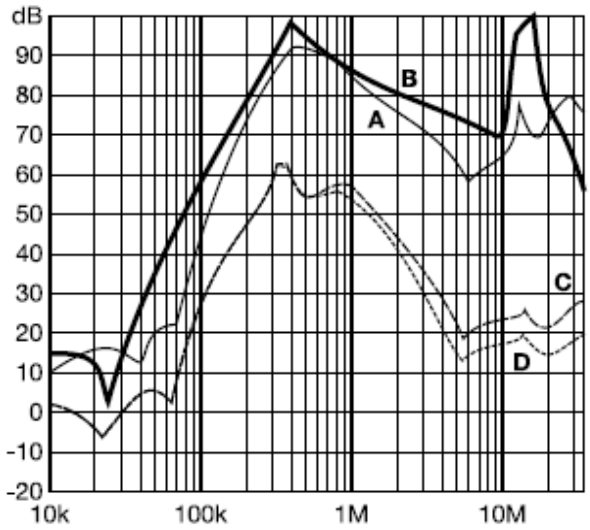

Figure 3 – Attenuation Limits

List of Revisions

Rev.	Date	Pages Effected	Description
0	30 of October 2023	1-7	Original issue
1	11 of December 2023	1-7	Updating Drawing Dimensions

Last review: December 2023