# FN2220-150-99-C2222-R99

SAP Code: 822428



Chassis mount	
150 A EMC filter with bus bars	
- DC	





## **Family Technical Specifications**

Maximum continuous operating voltage

High potential test voltage

Rated currents Overvoltage category Pollution degree Surge withstand Temperature range (operation and storage) Climatic category

Cooling

Altitude Protection category MTBF (Mil-HB-217F)

500 VDC (FN223X) 1000 VDC (FN222X, FN224X) P -> E 4800 VDC for 2 sec P -> P 3600 VDC for 2 sec 150 -40°C to +100°C 40/100/21 acc. to IEC 60068-1 IP 00 UL 94V-0 UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939, EN 60721-3, EN 62109 4x rated current at switch on, max. 8 sec 1.5x rated current for 1 minute, once per hour > 200,000 hours Ni plated cu bars/Metal >300,000 h @ 50°C/500V



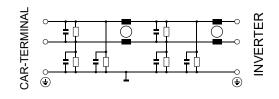
#### **Features and Benefits**

- FN222X, FN223X and FN224X series of filters provides state-of-the-art EMI attenuation with a choice of three performance levels
- The filters are built to fit perfectly to high power
  EV charging applications
- The shape allows a convenient and space-saving installation
- Fulfills the requirements in IEC/EN 61851-23
  Electric vehicle conductive charging system
- Fulfills the requirements in UL 2202 Electric
  Vehicle (EV) Charging System Equipment
- FN224X offers voltage and performance ratings of FN222X on a smaller footprint

#### **Typical Applications**

- High Power EV DC charging beyond HPC350 (500 A @ 920 V)
- Two voltage levels (500 VDC and 1000 VDC) for CHAdeMO and CCS

#### Typical electrical schematic



## **General Specification**

Voltage AC	1000 (Volt)
Nominal Frequency	DC
Rated Current @ambient	150 (Hertz)
Ambient temperature [°C]	55 (Celsius)

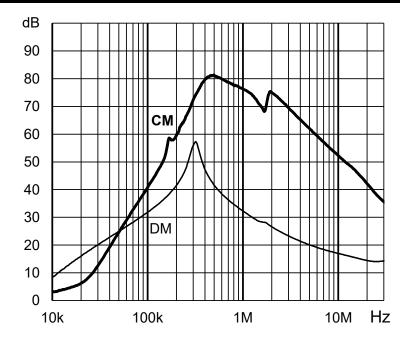
### **Electric Specification**

Input terminal	99 - special / busbar
Output terminal	99 - special / busbar
Resistance	10 (Kiloohm)

## Attenuation Specification

CM attenuation @ 150kHz [dB]	51 (Decibels)
DM attenuation @ 150kHz [dB]	36 (Decibels)
Capacitance Cyl [nF]	330 (Nanofarad)
Capacitance Cy2 [nF]	330 (Nanofarad)
	· · · · · · · · · · · · · · · · · · ·

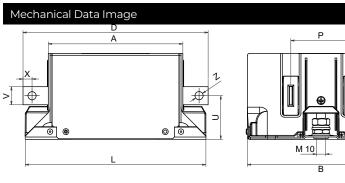
### Attenuation graph

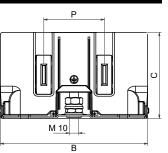


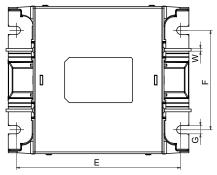
# **Mechanic Specification**

Length [mm]	150 (Millimeter)
Width [mm]	163 (Millimeter)
Height [mm]	95 (Millimeter)
Volume [cm3]	2323 (Cubic Centimeter)
NetWeight [g]	2690 (Gram)

## Schaffner schemes







### Dimensions

A [mm]	145
B [mm]	163
C [mm]	95
D [mm]	205
E [mm]	182
F [mm]	110
G [mm]	9
L [mm]	200
P [mm]	67
U [mm]	48
V [mm]	20
W [mm]	3
X [mm]	12.5
Z [mm]	9