



DATA SHEET

High Power Filtered Connectors

Amphenol's Rhino 38999 series is now available with a standard range of cost effective MOTS (Military Off The Shelf) filters suitable for EMC suppression of COTS (Commercial Off The Shelf) equipment on military vehicles. This, combined with the benefits of field proven MIL-DTL-38999 Series III circular connectors and hyperbolic contacts, extends the boundaries of high power connector technology.

The product has been developed in conjunction with MPE Limited, a world leading manufacturer of high performance EMC/EMP filters and capacitor products.

By combining MPE expertise in high power filtering and Amphenol expertise in connector technology, we offer a high performance, highly reliable, cost effective, filter solution based on proven design and performance. The connectors are designed for a wide variety of applications and helps to enable equipment to meet the requirements of military EMC specifications such as DEF STAN 59-411 and MIL-STD-461.

As one of the foremost manufacturers of both connectors and interconnect systems, Amphenol has recognised a distinct trend towards increased power and voltage requirements within such applications as; military and electric drive vehicles, aircraft and intelligence base stations.

The use of RADSOK contacts creates an electrical interface that exceeds typical interconnect requirements, via a hyperbolic socket contact construction, which distributes normal forces over a high percentage of the mating surface to ensure a smooth and even engagement force, with exceptionally high performance under vibration. The large surface area of the socket contact also results in a very low contact resistance, enabling much higher current ratings compared to other power contact designs. Designed to meet the latest Military and Industrial specifications, Rhino 38999 Filtered connectors also meet stringent safety requirements.

Key Features

- **Technology.** Current rating up to 500A, Operating voltage up to 100V.
- **Mechanical.** 38999 Series III connector interface, wall mount or jam-nut, 500+ mating cycle durability.
- **Environmental.**
 - RoHS compliant,
 - Black Zinc-Nickel plated.
 - Aluminium alloy.
 - Temperature range -55°C to +125°C.
 - IP68 sealing, 500 Hrs Salt Spray.

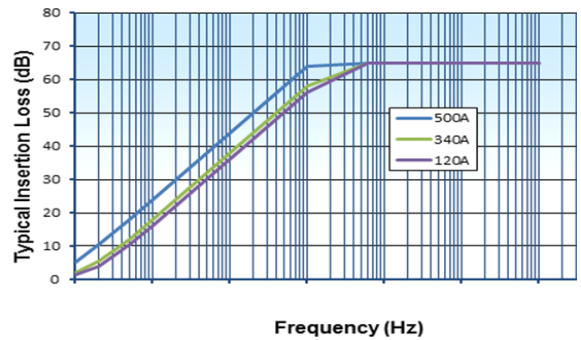
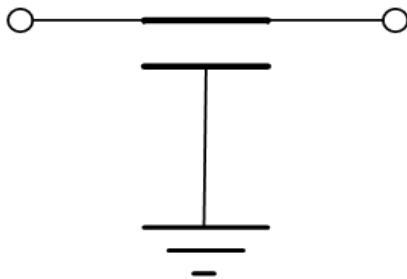


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Electrical Specification:

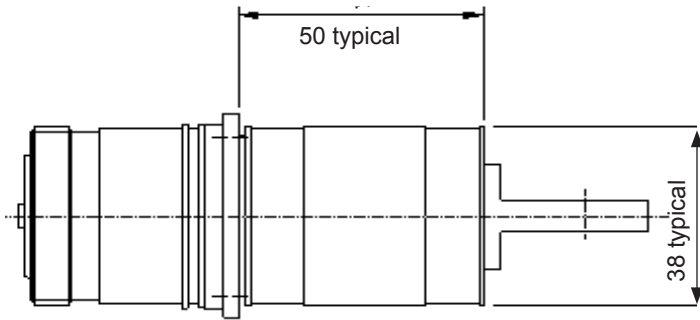
Connector Shell Size	23	21	15
Current Rating	500A@ 50°C	340A@ 50°C	120A@ 50°C
Voltage Rating	100Vdc	100Vdc	100Vdc
Test Voltage	200Vdc	200Vdc	200Vdc
Insulation Resistance	>500MΩ @100Vdc	>500MΩ @100Vdc	>500MΩ @100Vdc
Capacitance Value	10μF ± 20%	5μF ± 20%	4μF ± 20%
Performance	See graph	See graph	See graph

Circuit Diagram



Mechanical Specification

(Male and female versions available)



Ø38 typical for shell size 23
 Ø36 typical for shell size 21
 Ø26 typical for shell size 15

Housing - Aluminium Alloy
 Finishing - Black Zinc Nickel Plating

How To Order

Series	Shell Size	Class	Shell Size	Contact style	Key-way
WFPTV	00 = Wall mount receptacle 07 = Jam nut receptacle	ZN= Black Zinc Nickel	15 21 23	P = Pin Contact S = Socket Contact	N A B C D E