

Amorphous metal and NIPPON CHEMI-CON Amorphous Choke Coil

The amorphous metal has non crystalline structure generated by cooling molten metal rapidly. Due to the amorphous structure, the amorphous metal has excellent magnetic, mechanical, and chemical features in comparison with conventional metallic substances. NIPPON CHEMI-CON started developing amorphous components for electronic and electric equipment by making full use of the material and process technologies at its early stages and has continued the synthetic research and development to optimally match the amorphous choke coils with the material features and their applications through a variety of characteristics. NIPPON CHEMI-CON will help the customers design smaller and higher performance products by supplying excellent amorphous choke coils through the sophisticated production technology and manufacturing know-how.

STANDARD SPECIFICATIONS

♦ General Specification of Toroidal Coil

Items	Amorphous coils Rated value	Dust coils Rated value
Operating temperature range *1	-40 to 130℃	-40 to 120°C (Coating type)
		-40 to 130°C (Case type)
Storage temperature range	-40 to 130℃	-40 to 120°C (Coating type)
		-40 to 130°C (Case type)
Operating humidity range *1	20 to 95%RH	
Storage humidity range	20 to 80%RH	
Operating frequency range *2	20kHz to 500kHz	
Temperature rise *3	40K or less	
Insulation type	Туре В (130℃)	Type A(105℃) Coating type
		Type B(130°C) Case type
Incombustibility	UL 94 V-0	

Note carefully that the temperature of the core may exceed the operating temperature range depending on the circumference condition even if the coil is used in the specification ranges described above.



- *1 Temperature on the coil surface including the temperature rise in installation. Never use the coil at a temperature exceeding the rated temperature range.
- *2 Recommended range. When infra-acoustic frequency component is impressed, a beat sound sometimes occurs.
- *3 The temperature rise on the coil surface at the rated d.c. current.

DIMENSIONS



Notes on use

- •Note that the lead wire may not be subject to excess force and also may not be bent repeatedly because the wire is made of copper.
- •Never make the coil hit on a hard and/or sharp substance. If so, the coating of the coils may be damaged to ruin the performance of the coil.
- •Contact NIPPON CHEMI-CON for how to clean the substrate on which the coil is mounted.
- •When infra-acoustic frequency component is impressed, a beat sound sometimes occurs.
- •Response to the Substances of Concern
- (1) Nippon Chemi-Con aims for developing products that meet laws and regulations concerning substances of concern.
 (Some products may contain regulated substances for exempted application.)
 Please contact us for more information about law-compliance status.
- (2) According to the content of REACH handbook (Guidance on requirements for substances in articles which is published on May 2008), our electronic components are "articles without any intended release". Therefore they are not applicable for "Registration" for EU REACH Regulation Article 7 (1).

Reference: Electrolytic Condenser Investigation Society

"Study of REACH Regulation in EU about Electrolytic Capacitor" (publicized on 13 March 2008)