

镀磁线 (FPW)

Magnetic-Plated Wires



镀磁线（磁性线）是在铜导体圆周上包覆有强磁性的薄膜层，再在此薄膜层上烧结聚氨酯绝缘层的电线。用于各种高频线圈时，相比原来的聚氨酯铜线的高频损失率减低10%。这是因为由于磁性层的存在，减轻了线圈产生的接近效应的影响，使导体的电流分布趋于均匀，减低了导体的实际电阻。

Magnetic-Plated Wire (magnet wire) is a copper conductor covered with a thin layer of highly magnetic material, over which a polyurethane insulating film is enameled. When used for high-frequency coils, it reduces high-frequency losses by 10% compared to conventional polyethane enameled copper wire. The reduction is due to the magnetic shielding, which lowers the proximity effect generally occurring in these types of coil, evenly distributes electric current in the conductor, and decreases the effective resistance of the conductor.

特长 FEATURES

① 提高了高频线圈的Q特性

Q-characteristics of high-frequency coils are improved

② 可焊接

The wire is solderable

③ 使器件可做得更小

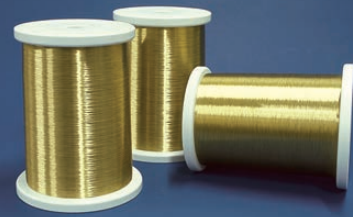
Components can be miniaturized

④ 可实现高性能线圈设计

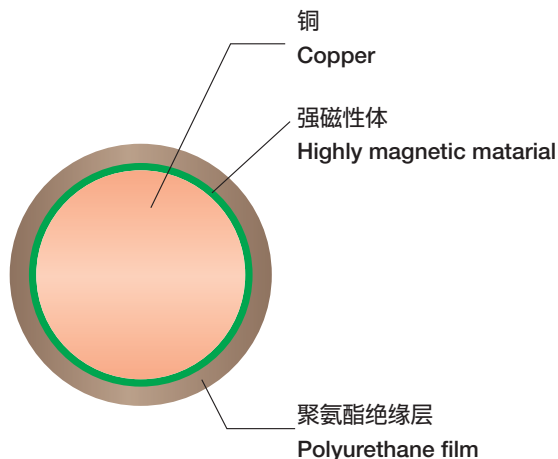
High-performance coils can be designed

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结构 CONSTRUCTION



型号说明 Product name

2 - UFPW 10.7
 (A) (B) (C)

- (A) 被覆层厚度的JIS规格 (1类、2类、3类)
 (B) 绝缘层的种类
 (C) 最高使用频率
- (A) JIS standard of film thickness (class 1, 2, 3)
 (B) Type of insulating film
 (C) The highest frequency

用途 Applications

高频线圈、延迟线
 High frequency coils, Delay lines

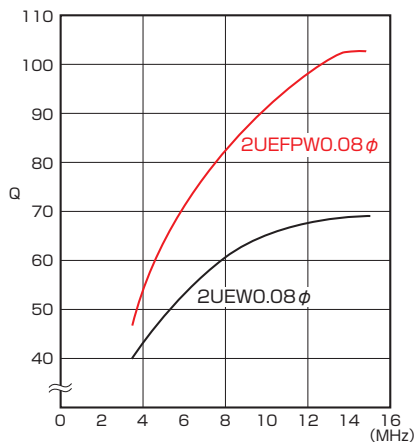
制造范围 Range of manufacture

绝缘层只有聚氨酯 Insulating film is polyurethane

标识号 Code	最高使用频率带 Maximum Frequency Band Used (MHz)	绝缘层 Insulating Film	制造范围 (mm) Range of Manufacture
UEFPW	4.5	UE	0.05 ~ 0.12
	10.7		

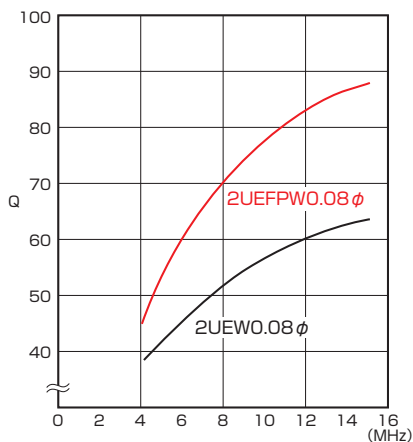
测定例 Measurement example

2UEFPW0.08mm 4.5MHz 用的 f-Q 特性
 f-Q characteristics of 2UEFPW0.08mm dia., for 4.5MHz



使用线圈：5.2mm 塑料骨架
 绕线方式：30T 紧密缠绕 引线长 35mm
 Coil used : 5.2mm dia., plastic bobbin
 Winding : 30 turns close winding. Lead length, 35mm

2UEFPW0.08mm 10.7MHz 用的 f-Q 特性
 f-Q characteristics of 2UEFPW0.08mm dia., for 10.7MHz



使用线圈：5.2mm 塑料骨架
 绕线方式：22T 紧密缠绕 引线长 35mm
 Coil used : 5.2mm dia., plastic bobbin
 Winding : 22 turns close winding. Lead length, 35mm

●技术相关询问处

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