PEWSC Pacific Electric Wire & Cable (Shenzhen) Co., Ltd. enamel-wire.com

240°C Super High PDIV Low-DK Enamelled rectangular copper winding wires HEVW-240L

Basic Information

Place of Origin: China
Brand Name: PEWSC
Certification: UL,ROHS
Model Number: HEVW-240L

• Minimum Order Quantity: The MOQ Varies According to the Size of

the Specification

• Price: Copper Price plus Processing Fee plus

Freight

Packaging Details: Carton

• Delivery Time: 3-5 Work Days

Payment Terms: T/T 100% Payment before Shipment
 Supply Ability: Delivery 10-15 Days after Next Order



Product Specification

Product Type: HEVW-240PColor Option: Natural Red Yellow

• Temperature Resistance: 240°C

Conductor: Oxygen Free Copper

• Application: Motors, Transformers, Coils, Solenoids, Etc.

• Standard: IEC, NEMA, JIS, Or GB

Size: CustomizableCustomization: Available

• Highlight: Low-DK Enameled Copper Wire,

240°C Rectangular copper winding wires, High PDIV Enameled Copper Wire



More Images



Product Description

Enamelled flat wire, also known as rectangular enamelled wire, is a type of electrical conductor with a rectangular cross - section, coated with an insulating enamel layer. It is widely used in various electrical and electronic applications due to its unique characteristics. Here are the main features of enamelled flat wire:

1. Special Geometric Shape

Rectangular Cross - Section: Unlike round wires, it has a flat and rectangular shape, which allows for more efficient space utilization in winding applications.

Higher Fill Factor: The flat design enables tighter packing in coils, increasing the number of turns per unit area and improving the power density of electrical devices (e.g., transformers, motors, and generators).

2. Excellent Insulation Performance

Enamel Coating: The wire is coated with a thin, uniform layer of enamel (such as polyurethane, polyester, or polyimide), which provides reliable electrical insulation.

Heat Resistance: The enamel can withstand high temperatures (ranging from 130°C to 240°C, depending on the type), ensuring stability in high - heat environments.

Mechanical Protection: The coating also resists abrasion, moisture, and chemical corrosion, extending the wire's service life.

3. Superior Electrical Conductivity

High - Purity Conductors: Typically made from copper or aluminum with high electrical conductivity, it minimizes power loss and ensures efficient current transmission.

Low Resistance: The large cross - sectional area (for a given wire gauge) reduces ohmic resistance, making it suitable for high - current applications.

4. Mechanical Strength and Flexibility

Robust Structure: The wire maintains structural integrity during winding and handling, even in complex coil configurations. Bendability: It can be bent or shaped without cracking the enamel coating, adapting to various winding patterns in compact devices. 5. Space - Saving and Compact Design

Reduced Volume: The flat shape helps reduce the overall size and weight of electrical components, which is crucial for miniaturized electronics and high - density applications.

Improved Heat Dissipation: The larger surface area of the flat wire facilitates better heat dissipation, enhancing the thermal management of devices.

6. Versatility in Applications

Widely Used in Motors: Ideal for stator and rotor windings in electric motors, where space efficiency and high power output are essential.

Transformers and Inductors: Suitable for high - frequency transformers and inductors, minimizing core losses and improving energy efficiency.

Consumer Electronics: Used in compact devices like laptops, smartphones, and home appliances to save space and reduce weight.

7. Customization Options

Variable Dimensions: Available in various aspect ratios (width to thickness) to meet specific design requirements. Coating Thickness: The enamel layer can be adjusted for different voltage ratings and insulation needs.

8. Environmental and Safety Features

Lead - Free and RoHS Compliant: Many enamelled flat wires comply with environmental standards, reducing harmful substance emissions.

Flame Retardancy: Some coatings offer flame - retardant properties, enhancing safety in critical applications.

In summary, enamelled flat wire combines efficient space utilization, reliable insulation, and high electrical performance, making it a preferred choice for advanced electrical and electronic designs that demand compactness and durability.













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