

AWM1330/1331

产品结构

- 单根或多股镀锡、镀银、镀镍铜线绞合软导体，镀锡性能参考 GB/T4910-2022 标准；镀银性能参考 JB/T3135-2024 标准；镀镍性能参考 GB/T11019-2021 标准。导体的结构参考 UL758&UL1581 或客户的要求
- 聚全氟乙烯 FEP 绝缘，绝缘材料性能参考 UL758&UL1581；成品电线电缆的外形尺寸检验方法按 UL758&UL1581；成品电线电缆电性能检验方法参考 UL758&UL1581

技术范围

- 温度范围：-65~+200/+150°C
- 额定电压：U0/U 600V
- 测试电压：2000V
- 绝缘电阻：20°C时应不小于 $1.0 \times 10^8 \text{ M}\Omega \cdot \text{km}$
- 耐辐射性：高达 $1 \times 10^6 \text{ cJ/kg}$

产品特性

- 具有优良的耐腐蚀性能，抗油、强酸、抗强碱、强氧化剂、抗微生物、不允许任何真菌形成等
- 具有优良的电绝缘性能，具有低且几乎与频率无关的介电特性，耐高电压、高频损耗小，不吸潮吸水率 <0.01%、最小的水蒸气渗透率（24 小时内约 0.18 mgr/cm^2 ）、绝缘电阻大
- 不易燃，自熄，阻燃测试符合 DIN VDE 0482 第 265-2-1 部分/EN 50265-2-1/IEC 60332-1（等效 DIN VDE 0472 part 804 测试方法 B）
- 不含有害物质，符合 ROHS 标准

应用

- 电子行业中，可用于温度补偿导线，耐低温导线，高温加热导线，耐老化电线以及阻燃电线
- 家用电器行业中，可用于空调机，微波炉，电子消毒柜，电饭煲，电子热水瓶，电暖器，电烤箱，电砂锅，灯具灯饰等内部布线
- 用于安装在受高热影响的控制柜中以及砖厂、加热器、厨房设备和测量设备以及化学工业中
- 高温高频下使用的电子设备传输线，电子计算机内部的连接线，航空宇宙用电线，及其他特种用途安装线、油矿测井电缆、潜油电机绕组线、微电机引出线等

Product Structures

- Conductor: Soft conductor composed of single or multi-stranded tinned, silver-plated, or nickel-plated copper wires. Tinning performance reference: GB/T4910-2022 standard. Silver-plating performance reference: JB/T3135-2024 standard. Nickel-plating performance reference: GB/T11019-2021 standard. Conductor structure reference: UL758&UL1581 or customer requirements.
- Insulation: FEP. Insulation material performance reference: UL758&UL1581 standard. Finished wire/cable dimensional inspection method: UL758&UL1581. Finished wire/cable electrical performance inspection method reference: UL758&UL1581.

Technical Scope

- Temperature Range: -65~+200/+150°C
- Rated Voltage: U0/U 600V Test Voltag: 2000V
- Insulation Resistance: Not less than $1.0 \times 10^8 \text{ M}\Omega \cdot \text{km}$ at 20°C (Min. $1000 \text{ M}\Omega \cdot \text{km}$ at 20°C)
- Radiation resistanc: up to $1 \times 10^6 \text{ cJ/kg}$ (up to 1 Mrad)

Product features

- Excellent corrosion resistance: Resistant to oil, strong acids, strong alkalis, strong oxidizers, and microorganisms; prevents any fungal growth.
- Excellent electrical insulation properties: Features low, frequency-independent dielectric characteristics; high voltage resistant; low high-frequency loss; non-hygroscopic (water absorption < 0.01%); minimal water vapor permeability (approx. 0.18 mgr/cm^2 per 24 hours); high insulation resistance.
- Non-flammable and self-extinguishing: Flame retardant performance complies with DIN VDE 0482 Part 265-2-1 / EN 50265-2-1 / IEC 60332-1 (equivalent to DIN VDE 0472 part 804 test method B).
- Free from harmful substances: Compliant with ROHS standards.

Applications

- Electronics Industry: Temperature compensation wires, cryogenic-resistant wires, high-temperature heating wires, aging-resistant wires, flame-retardant cables.
- Household Appliance Industry: Internal wiring for air conditioners, microwave ovens, electronic sterilizers, rice cookers, electric hot water bottles, electric heaters, electric ovens, electric casseroles, lamps, and lighting fixtures.
- Industrial Settings: Installation in control cabinets exposed to high heat, brick factories, heaters, kitchen equipment, measurement devices, chemical industry applications.
- Specialized Applications: Transmission lines for high-temperature/high-frequency electronic equipment; internal connection wires for computers; aerospace cables; other special-purpose installation wires; oil well logging cables; winding wires for submersible oil pump motors; lead wires for micro-motors.

技术参数 Technical Parameters

线规 Guage (AWG)	导体结构 根数 / 线径 Conductor construction: Number/size(mm)	绝缘厚度 Insulation thickness (mm)	平均外径 Average outer diameter (mm)	20°C时导体直流电阻 Max The maximum resistance value of the conductor at 20°C (Ω/km)	包装长度 The length of package (m)
10	37×0.43	0.51	4.05	3.546	305
12	19×0.49	0.51	3.50	5.64	305
14	19×0.37	0.51	2.90	8.96	305
16	19×0.30	0.51	2.55	14.6	305
17	19×0.26	0.51	2.35	18.3	305
18	19×0.235	0.51	2.20	23.2	305
20	19×0.20	0.51	2.00	36.7	305
	1×0.813	0.51	1.85	35.2	305
22	19×0.16	0.51	1.85	59.4	610
	1×0.65	0.51	1.70	56.4	610
24	7×0.20	0.51	1.65	94.2	610
	1×0.511	0.51	1.55	89.3	610
26	7×0.16	0.51	1.50	150	610
	1×0.404	0.51	1.45	143	610
28	7×0.12	0.51	1.40	239	610
	1×0.32	0.51	1.35	227	610
30	7×0.10	0.51	1.35	381	610
	1×0.254	0.51	1.30	361	610