UL 1813 3000 VAC 200 °C FEP hook-up wire

UL 1813

3000 VAC 200 °C FEP High-Voltage Hook-Up Wire

UL AWM Style 1813 / CSA · 3000 VAC · −80…+200 °C single-wall FEP fluoropolymer lead wire

UL AWM 1813 | **3000 VAC / +200 °C** | **FEP Fluoropolymer**



Application

UL 1813 3000 VAC +200 °C high-voltage appliance and equipment hook-up wire combining concentric stranded tinned copper conductors with a 0.64 mm (25 mil) single-wall extruded FEP fluoropolymer insulation.

Typical uses: High-Voltage Transformers, Igniters & Lamp Ballasts, Medical Diagnostic, Sterilization & Laboratory Cabinets, Industrial Ovens, Commercial Kitchen & Heating Equipment, Power Electronics, Inverters & Switchgear Harnessing

Construction





Cross-section, not to scale

1	Stranded Conductor (22 AWG)	UL AWM Style 1813 / UL 758
2	Tin Surface Plating	UL AWM Style 1813 / UL 758
3	3 kV FEP Primary Insulation	UL AWM Style 1813 / UL 758

Technical data

Typical values

Rated voltage / transmission duty	3000 VAC (UL AWM Style 1813 / UL 758)	**Core / conductor construction**	Stranded Conductor (22 AWG) — 22 AWG (7 x 0.254 mm / 0.355 mm², OD 0.76 mm) concentric stranded annealed copper conductor for compact HV equipment wiring
Primary dielectric / insulation	Tin Surface Plating — Uniform electrolytic tin coating over each copper strand ensuring solderability and oxidation resistance up to 200 °C	**Continuous operating temperature**	−80…+200 °C (rated operating envelope)
Storage & transport temperature	−40…+80 °C on export drum or reel	**Outer protection / sheath**	3 kV FEP Primary Insulation — Single-wall extruded fluorinated ethylene propylene (FEP) fluoropolymer insulation (min. wall 0.64 mm / 25 mil, OD 2.13 mm) rated 3000 VAC, 200 °C, VW-1
Minimum bending radius	5 × OD	**Structural layer count**	3 concentric functional layers
Environmental & chemical resistance	Industrial moisture, oils and mechanical wear per UL AWM Style 1813 / UL 758	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	UL AWM Style 1813 / UL 758		

Sizes

6 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Weight ≈ kg/km	Tensile load kN ≈	Min. bend R mm
UL 1813 Construction Schedule (−80…+200 °C) 6 sizes						
☐ **UL 1813 24 AWG (7/32) 3000 VAC FEP**	1 × 24 AWG (0.23 mm²)	7/0.203 mm tinned Cu + FEP	1.9	6	0.1	10
☐ **UL 1813 22 AWG (7/30) 3000 VAC FEP**	1 × 22 AWG (0.35 mm²)	7/0.254 mm tinned Cu + FEP	2.1	8	0.1	11
☐ **UL 1813 20 AWG (19/32) 3000 VAC FEP**	1 × 20 AWG (0.61 mm²)	19/0.203 mm tinned Cu + FEP	2.3	11	0.2	12
☐ **UL 1813 18 AWG (19/30) 3000 VAC FEP**	1 × 18 AWG (0.96 mm²)	19/0.254 mm tinned Cu + FEP	2.5	15	0.3	13
☐ **UL 1813 16 AWG (19/29) 3000 VAC FEP**	1 × 16 AWG (1.23 mm²)	19/0.287 mm tinned Cu + FEP	2.8	19	0.4	14
☐ **UL 1813 14 AWG (19/27) 3000 VAC FEP**	1 × 14 AWG (1.94 mm²)	19/0.361 mm tinned Cu + FEP	3.2	27	0.6	16

– Custom core counts, cross-sections, sheath colours and factory-tested cut lengths available per UL AWM Style 1813 / UL 758.

Electrical, optical & thermal parameters

6 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Capacity	Operating temp.
24 AWG (0.23 mm²)	**84.20**	**3000 VAC / 6.5 A**	**−80…+200 °C**
22 AWG (0.35 mm²)	**54.30**	**3000 VAC / 9.0 A**	**−80…+200 °C**
20 AWG (0.61 mm²)	**32.10**	**3000 VAC / 13.0 A**	**−80…+200 °C**
18 AWG (0.96 mm²)	**20.60**	**3000 VAC / 18.0 A**	**−80…+200 °C**
16 AWG (1.23 mm²)	**15.80**	**3000 VAC / 22.0 A**	**−80…+200 °C**
14 AWG (1.94 mm²)	**9.90**	**3000 VAC / 30.0 A**	**−80…+200 °C**

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric and dimensional verification.

Standards and approvals

- UL AWM 1813 Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/ul-1813-3000vac-200c-fep-high-voltage-hook-up-wire

Typical values for this cable type, based on UL AWM Style 1813 / UL 758. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.