



High-temperature wire

Wire-Wound Suppression Ignition Cable

ISO 3808 Class F / SAE J2031 ferrite-core wire-wound EMI suppression ignition cable



ISO 3808 Class F / SAE J2031

Inductive Ferrite EMI Core

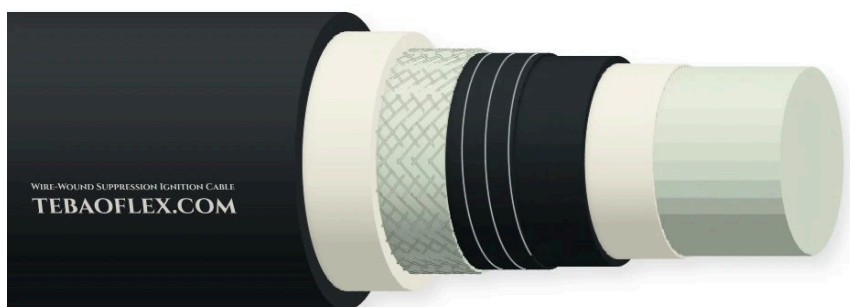
25-40 kV DC · +220 °C

Application

Inductive wire-wound EMI/RFI suppression HV ignition cable with an aramid/glass cord, magnetic ferrite core, helical CuNi44/SS304L resistance wire (0.5-5.6 kΩ/m), E-glass braid, and a +220 °C (+250 °C peak) silicone jacket (7, 8, 8.5 mm OD).

Typical uses: CHP Gas Engines & Biogas Gensets, PLC-Controlled Industrial Burners, Marine & Stationary Gas Engines, Automotive & Heavy-Duty Ignition, Flame-Supervised Boiler Skids

Construction



Cross-section, not to scale

- 1 Aramid/glass core + ferrite + helical wire
- 2 Conductive stress-control coating
- 3 High-voltage EPDM / VMQ inner dielectric
- 4 Fibreglass mechanical reinforcement braid
- 5 ISO 3808 Class F silicone outer sheath

Technical data

Typical values

Nominal ignition pulse voltage	25 kV to 40 kV DC peak	Dielectric breakdown voltage	≥ 35 kV AC rms / ≥ 45 kV DC (per ISO 3808)
Calibrated linear resistance	500 Ω/m · 1.5 kΩ/m · 2.2 kΩ/m · 5.6 kΩ/m (±20 %)	Series inductance (1 MHz)	approx. 8 to 22 µH/m (ferrite core)
Lead capacitance	≤ 115 pF/m per ISO 3808	ISO 3808 Class F temperature	-50 °C to +220 °C continuous
Short-term radiant peak	+250 °C (up to +260 °C near exhaust manifolds)	Thermal overload resistance	Wire-wound core resists carbon-track burnout
Calibrated outer diameters	7.0 mm (±0.3 mm) · 8.0 mm (±0.3 mm) · 8.5 mm	Core Diameter (ferrite + wire)	1.8 mm to 2.3 mm (fits crimp terminals)
Tensile pull strength	≥ 250 N (aramid/glass centre cord)	EMI / RFI attenuation	Complies with CISPR 12 & UN ECE R10
Oil, fuel & salt-water test	ISO 3808 fluid immersion & saltwater bath pass	Corona & ozone resistance	Zero cracking after 48 h at 50 pphm ozone
Standards	ISO 3808 Class F Type B/C (wire-wound)		

Sizes

9 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard Wire-Wound Suppression Ignition Cable configurations 9 sizes							
☐ WWSI-7.0-5K6 (7 mm · 5.6 kΩ/m)	Ø 7.0 mm (5.6 kΩ/m)	CuNi44 on ferrite core	2.55	7.00	12.0	58.0	42
☐ WWSI-7.0-2K2 (7 mm · 2.2 kΩ/m)	Ø 7.0 mm (2.2 kΩ/m)	CuNi44 on ferrite core	2.55	7.00	13.0	59.0	42
☐ WWSI-7.0-1K0 (7 mm · 1.0 kΩ/m)	Ø 7.0 mm (1.0 kΩ/m)	CuNi44 on ferrite core	2.50	7.00	14.0	60.0	42
☐ WWSI-7.0-500R (7 mm · 500 Ω/m)	Ø 7.0 mm (500 Ω/m)	CuNi44 on ferrite core	2.50	7.00	15.0	61.0	42
☐ WWSI-8.0-5K6 (8 mm · 5.6 kΩ/m)	Ø 8.0 mm (5.6 kΩ/m)	CuNi44 on ferrite core	3.00	8.00	14.0	74.0	48
☐ WWSI-8.0-2K2 (8 mm · 2.2 kΩ/m)	Ø 8.0 mm (2.2 kΩ/m)	CuNi44 on ferrite core	3.00	8.00	15.0	75.0	48
☐ WWSI-8.0-1K5 (8 mm · 1.5 kΩ/m)	Ø 8.0 mm (1.5 kΩ/m)	CuNi44 on ferrite core	2.95	8.00	16.0	76.0	48
☐ WWSI-8.0-500R (8 mm · 500 Ω/m)	Ø 8.0 mm (500 Ω/m)	CuNi44 on ferrite core	2.95	8.00	17.0	77.0	48
☐ WWSI-8.5-500R (8.5 mm · 500 Ω/m)	Ø 8.5 mm (500 Ω/m)	CuNi44 on ferrite core	3.15	8.50	18.0	86.0	51

– Outer diameters and weights are nominal engineering values for Wire-Wound Suppression Ignition Cable subject to standard manufacturing tolerances per ISO 3808 Class F / SAE J2031 Type 3 Inductive EMI Suppression Ignition Cable.

Electrical & rating data

9 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or kV)	Derated / AC rating	Dielectric test V AC rms
WWSI-7.0-5K6 (7 mm · 5.6 kΩ/m) (Ø 7.0 mm (5.6 kΩ/m))	5,600.00	30.0	14.0	35,000
WWSI-7.0-2K2 (7 mm · 2.2 kΩ/m) (Ø 7.0 mm (2.2 kΩ/m))	2,200.00	30.0	14.0	35,000
WWSI-7.0-1K0 (7 mm · 1.0 kΩ/m) (Ø 7.0 mm (1.0 kΩ/m))	1,000.00	30.0	14.0	35,000
WWSI-7.0-500R (7 mm · 500 Ω/m) (Ø 7.0 mm (500 Ω/m))	500.00	30.0	14.0	35,000
WWSI-8.0-5K6 (8 mm · 5.6 kΩ/m) (Ø 8.0 mm (5.6 kΩ/m))	5,600.00	35.0	16.0	40,000
WWSI-8.0-2K2 (8 mm · 2.2 kΩ/m) (Ø 8.0 mm (2.2 kΩ/m))	2,200.00	35.0	16.0	40,000
WWSI-8.0-1K5 (8 mm · 1.5 kΩ/m) (Ø 8.0 mm (1.5 kΩ/m))	1,500.00	35.0	16.0	40,000
WWSI-8.0-500R (8 mm · 500 Ω/m) (Ø 8.0 mm (500 Ω/m))	500.00	35.0	16.0	40,000
WWSI-8.5-500R (8.5 mm · 500 Ω/m) (Ø 8.5 mm (500 Ω/m))	500.00	40.0	18.0	45,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per ISO 3808 Class F / SAE J2031 Type 3 Inductive EMI Suppression Ignition Cable.

Standards and approvals

- ✓ ISO 3808 Class F / SAE J2031 Type 3 Inductive EMI Suppression Ignition Cable
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC & Halogen/Asbestos Compliance Verified

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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/inductive-wire-wound-ferrite-core-silicone-high-voltage-emi-suppression-ignition-cable



Typical values for this cable type, based on ISO 3808 Class F / SAE J2031 Type 3 Inductive EMI Suppression Ignition Cable. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.