NF M 87-202 EISF

EISF

NF M 87-202 EISF Individual & Overall Screened Unarmoured PVC

NF M 87-202 / IEC 60332-3 · 500 V · −30…+70 °C industrial EISF construction



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Application

NF M 87-202 EISF Individual & Overall Screened Unarmoured PVC Instrument Cable (EISF) engineered to NF M 87-202 / IEC 60332-3 for 500 V service across −30…+70 °C, featuring stranded bare & tinned copper conductor and pvc rh outer sheath with minimum

Typical uses: Refinery & Petrochemical Process Units, LNG Terminals & Tank Farms, Onshore & Offshore Oil & Gas Facilities, Chemical & Hydrocarbon Processing Plants, Automated Assembly & Packaging Lines

Construction





Cross-section, not to scale

1	Stranded bare & tinned copper conductor	NF M 87-202 / IEC 60332-3
2	Al/PET individual screen	NF M 87-202 / IEC 60332-3
3	PVC individual sheath	NF M 87-202 / IEC 60332-3
4	PVC core insulation	NF M 87-202 / IEC 60332-3
5	Polyester binder	NF M 87-202 / IEC 60332-3
6	Al/PET overall screen	NF M 87-202 / IEC 60332-3
7	PVC RH outer sheath	NF M 87-202 / IEC 60332-3

Technical data

Typical values

Rated voltage / duty	500 V (NF M 87-202 / IEC 60332-3)	**Conductor construction**	Stranded bare & tinned copper conductor — High-conductivity bare & tinned copper conductor per NF M 87-202 / IEC 60332-3
Primary insulation / dielectric	Al/PET individual screen — Al/PET individual screen metallic electromagnetic screen (individual core / group layer)	**Continuous operating temperature**	−30…+70 °C per NF M 87-202 / IEC 60332-3
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	PVC RH outer sheath — Extruded PVC RH outer sheath protective layer (continuous layer)	**Minimum bending radius**	7.5 × OD (installed / static routing)
Layer count & geometry	7 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with NF M 87-202 / IEC 60332-3
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	NF M 87-202 / IEC 60332-3

Sizes

12 standard constructions

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

Order designation	Configuration	Outer Ø ≈ mm	Weight ≈ kg/km	Min. bend R fixed mm
EISF Standard Construction Schedule (500 V · −30…+70 °C) 12 sizes				
☐ **EISF 1×2×0.5**	1×2×0.5 mm²	6.4	58	52
☐ **EISF 2×2×0.5**	2×2×0.5 mm²	9.2	112	74
☐ **EISF 4×2×0.5**	4×2×0.5 mm²	11.4	176	92
☐ **EISF 8×2×0.5**	8×2×0.5 mm²	14.8	295	118
☐ **EISF 12×2×0.5**	12×2×0.5 mm²	17.6	420	141
☐ **EISF 1×2×1.0**	1×2×1.0 mm²	7.6	86	61
☐ **EISF 2×2×1.0**	2×2×1.0 mm²	11.0	168	88
☐ **EISF 4×2×1.0**	4×2×1.0 mm²	13.5	264	108
☐ **EISF 8×2×1.0**	8×2×1.0 mm²	17.9	465	143
☐ **EISF 1×2×1.5**	1×2×1.5 mm²	8.5	114	68
☐ **EISF 4×2×1.5**	4×2×1.5 mm²	15.2	348	122
☐ **EISF 12×2×1.5**	12×2×1.5 mm²	23.4	860	187

– Additional pair/triad/quad counts (up to 48 pairs) and blue Ex-i intrinsically safe outer sheaths available per NF M 87-202 / IEC 60332-3.

Electrical parameters by conductor cross-section

5 sizes

Conductor size	Max. DC R_{20} Ω/km	Mutual cap. ≈ nF/km	Inductance ≈ mH/km
0.50 mm² (7/0.30 mm · AWG 20)	39.00	115	0.65
0.75 mm² (7/0.37 mm · AWG 18)	26.00	120	0.62
1.00 mm² (7/0.43 mm · AWG 17)	19.50	125	0.60
1.50 mm² (7/0.53 mm · AWG 16)	13.30	135	0.58
2.50 mm² (7/0.67 mm · AWG 14)	7.98	145	0.55

– L/R ratio ≤ 25 µH/Ω (0.5–1.0 mm²) and ≤ 40 µH/Ω (1.5 mm²) for intrinsically safe Ex-i circuits.

Standards and approvals

- NF M 87-202 Compliant
- EN 10204 3.1 Routine 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/nf-m-87-202-eisf-individual-overall-screened-instrument-cable

Typical values for this cable type, based on NF M 87-202 / IEC 60332-3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.