Power & distribution cables

U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321

Aluminium Cable



NF C 32-321 / IEC 60502-1 · 1.8/3 (3.6) kV · -25°C to +90°C · Min. bend 15 × OD

NF C 32-321 / IEC 60502-1 | 1.8/3 kV

Application

U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321 Aluminium Cable manufactured to NF C 32-321 / IEC 60502-1, rated 1.8/3 (3.6) kV and -25°C to +90°C with a 15 × OD minimum bending radius for renewable energy installations.

Typical uses: Power distribution & utility networks, Railways, tunnels & public infrastructure, Process instrumentation & oil/gas skids, Industrial automation & control cabinets, Renewable energy, marine & heavy industry

Construction





Cross-section, not to scale

1	Conductor	1×240 mm² RM Class 2 Compacted Al
2	Insulation & Core Identification	U-3000 AR3V 1.8/3kV thick-wall XLPE primary insulation (240 mm² Compacted Al)
3	Screen / Bedding / Armour Layer	2.2 mm thick-wall 1.8/3 (3.6) kV XLPE dielectric moisture-resistant interface (NF C 32-321)
4	Outer Protective Sheath	Black UV-resistant Polyethylene (PE) / PVC outer sheath (OD 27.6 mm)

Technical data

Typical values

Nominal / reference voltage	1.8/3 (3.6) kV	Conductor & core insulation	1×240 mm² RM Class 2 Compacted Al · U-3000 AR3V 1.8/3kV thick-wall XLPE primary insulation (240 mm² Compacted Al)
Routine dielectric / continuity test	100% factory drum spark & continuity verified	Operating temperature range	-25°C to +90°C
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s conductor thermal limit)	Flame & fire performance	NF C 32-321 / IEC 60502-1
Minimum bending radius	15 × OD	Screening / armour architecture	2.2 mm thick-wall 1.8/3 (3.6) kV XLPE dielectric moisture-resistant interface (NF C 32-321)
Outer sheath material & colour	Black UV-resistant Polyethylene (PE) / PVC outer sheath (OD 27.6 mm)	Standards	NF C 32-321 / IEC 60502-1

Sizes

3 standard constructions

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

Part designation	Configuration	Conductor & shield	Insulation / wall	Outer sheath	Outer diameter mm	Min. bend radius mm	Max. conductor resistance @ 20 °C Ω/km	Conductor weight kg/km	Cable weight kg/km	Key electrical / optical rating
U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321 3 sizes										
☐ U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321 (1×240 mm²)	1×240 mm²	Class 2 Compacted Stranded Aluminium	U-3000 AR3V 1.8/3kV thick-wall XLPE primary insulation	Outdoor PE	27.6	414	0.12	477.7	1,257	336 A
☐ U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321 (1×300 mm²)	1×300 mm²	Class 2 Compacted Stranded Aluminium	U-3000 AR3V 1.8/3kV thick-wall XLPE primary insulation	Outdoor PE	32.6	489	0.09	665.0	1,750	385 A
☐ U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321 (1×400 mm²)	1×400 mm²	Class 2 Compacted Stranded Aluminium	U-3000 AR3V 1.8/3kV thick-wall XLPE primary insulation	Outdoor PE	38.1	572	0.07	909.7	2,394	445 A

– Dimensions and weights are nominal manufacturing targets subject to standard production tolerances.

Standards and approvals

- ✓ NF C 32-321 / IEC 60502-1 Compliant
- ✓ EN 10204 3.1 Factory Test Certificate
- ✓ CE, UKCA, 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/u-3000-ar3v-u-1000-ar3v-1-8-3kv-nf-c-32-321-aluminium-cable**

Typical values for this cable type, based on Reference specification per NF C 32-321 / IEC 60502-1 (U-3000 AR3V / U-1000 AR3V 1.8/3kV NF C 32-321). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.