AS/NZS 5000.1 symmetrical tri-earth copper-tape VSD/VFD cable

VSD EMC 3C+3E

0.6/1 kV Symmetrical Copper-Tape Drive Cable

AS/NZS 5000.1 / AS/NZS 1125 · 0.6/1 kV · Symmetrical 3C+3E copper-tape screened VSD cable



AS/NZS 5000.1 | **0.6/1 kV 3C+3E X-90** | **100% Copper Tape EMC**

Application

VSD EMC 3C+3E 0.6/1 kV low-transfer-impedance variable-speed drive cable to AS/NZS 5000.1 for mining plants and slurry pumps, combining 3 X-90 XLPE phase cores, 3 symmetrical split earth cores (3E), 100% lapped copper tape screen and 5V-90 PVC sheath.

Typical uses: Underground Coal & Hard-Rock Mining, Open-Cast Excavators, Draglines & Shovels, Vertical Mine Shafts, Hoists & Boreholes, Tunneling, Mineral Processing & Slurry Plants

Construction





Cross-section, not to scale

1. Phase Conductors (3×95 mm²)
2. X-90 XLPE Phase Insulation
3. Symmetrical Tri-Earth Cores (3×16 mm²)
4. Black PVC Bedding & Copper Tape Screen
5. Outer Sheath (Black 5V-90 PVC)

Technical data

Typical values

Rated voltage / transmission duty	0.6/1 kV (AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808)	**Core / conductor construction**	Phase Conductors (3×95 mm²) — AS/NZS 1125 plain annealed copper (Class 2 standard or Class 5 flexible)
Primary dielectric / buffering	X-90 XLPE Phase Insulation — 90 °C crosslinked polyethylene color-coded Red, White & Blue	**Continuous operating temperature**	-25 to +90 °C (mining & industrial service)
Short-circuit / peak thermal rating	Verified thermal stability per AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Outer Sheath (Black 5V-90 PVC) — UV-stabilized, flame-retardant and oil-resistant black 5V-90 PVC jacket	**Minimum bending radius**	12 × OD
Crush, impact & abrasion duty	Heavy-duty mining rock-cut, impact and tensile protection per AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808	**Flame retardancy & mine fire safety**	Self-extinguishing / flame-retardant mining jacket per AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808
Mine water, oil & chemical resistance	Resistant to acidic mine water, hydraulic oils and abrasion per AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808		

Sizes

3 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	Net weight ≈ kg/km	Tensile rating kN ≈	Min. bend R mm
VSD EMC 3C+3E Construction Schedule (-25 to +90 °C) 3 sizes						
☐ **VSD EMC 3C+3E 3×35 + 3×6 mm²**	3 × 35 mm² + 3 × 6 mm² (3E)	AS/NZS 1125 plain Cu	26.8	1,520	18.0	320
☐ **VSD EMC 3C+3E 3×95 + 3×16 mm²**	3 × 95 mm² + 3 × 16 mm² (3E)	AS/NZS 1125 plain Cu	39.2	3,740	48.0	470
☐ **VSD EMC 3C+3E 3×150 + 3×25 mm²**	3 × 150 mm² + 3 × 25 mm² (3E)	AS/NZS 1125 plain Cu	47.5	5,680	75.0	570

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 35 mm² + 3 × 6 mm² (3E)	0.52	0.6/1 kV (158 A)	-25 to +90 °C
3 × 95 mm² + 3 × 16 mm² (3E)	0.19	0.6/1 kV (285 A)	-25 to +90 °C
3 × 150 mm² + 3 × 25 mm² (3E)	0.12	0.6/1 kV (365 A)	-25 to +90 °C

– Every production length undergoes routine conductor DC resistance, high-voltage Spark/AC dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- AS/NZS 5000.1 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/vsd-emc-3c-3e-0-6-1kv-symmetrical-tri-earth-copper-tape-screened-drive-cable

Typical values for this cable type, based on AS/NZS 5000.1 / AS/NZS 1125 / AS/NZS 3808. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.