



75–160 kV DC multicore X-ray HV cable

HXC X-Ray

Multicore X-Ray High-Voltage Cable

75 kV to 160 kV DC 3-core & 4-core X-ray cathode/anode HV cable (NEMA XR7 / R10 / R24)



75 – 160 kV DC

3 / 4 Filament Cores

NEMA XR7 / R10 / R24

Application

Multicore X-ray high-voltage cable (HXC X-Ray) rated 75 kV, 100 kV, 125 kV and 160 kV DC with 3 or 4 central dual-filament and grid-bias conductors, inner/outer semiconductive stress-grading layers, EPR/silicone HV dielectric, and tinned copper screen.

Typical uses: Medical Radiography, Fluoroscopy & Surgical C-Arms, Industrial NDT Weld & Aerospace Casting Inspection, Airport Baggage & Cargo Security X-Ray Scanners, X-Ray Diffraction (XRD) & X-Ray Fluorescence (XRF), Thickness Gauging in Steel & Aluminium Rolling Mills

Construction



Cross-section, not to scale

- 1 3 or 4 central filament & grid-bias conductors
- 2 Inner semiconductive equipotential layer
- 3 Void-free HV EPR/HEPR or Silicone dielectric
- 4 Outer semiconductive stress-control layer
- 5 $\geq 85\%$ tinned copper braided earth shield
- 6 Medical Grey PVC / NDT Black PUR or Silicone jacket

Technical data

Typical values

Rated DC working voltage	75 kV, 90 kV, 100 kV, 125 kV & 160 kV DC (to ground)	Bipolar tube system rating	150 kVp (±75 kV) · 200 kVp (±100 kV) · 320 kVp (±160 kV)
Filament core-to-core rating	2.5 kV to 5.0 kV DC (up to 15 A AC/DC filament current)	Factory DC proof test	1.35 × to 1.5 × rated U _{DC} for 15 min
Nominal capacitance	110 pF/m to 145 pF/m	Operating temperature (EPR/PVC/PUR)	–25 °C to +85 °C
Operating temperature (Silicone)	–40 °C to +150 °C	Central conductor layout	3-core (2×1.5/2.5 + 1×1.0) or 4-core (2×1.5/2.5 + 2×0.75)
Min. bend radius	5 × OD static · 8 × OD dynamic C-arm/crane	Disinfectant & oil resistance	Resistant to hospital cleaners & insulating oil
Flame retardancy	IEC 60332-1-2 / UL VW-1	Standards	NEMA XR7 (CA11/CA12) · IEC 60522 · EN 60601-2-28

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	Central Filament Cores	Rated U _{DC} kV DC	Standard Cone Fit	Dielectric OD mm	Overall OD mm	Capacitance pF/m	Weight kg/km
Medical Diagnostic & C-Arm X-Ray HV Cables (75 kV to 100 kV DC, ±75–100 kV Bipolar) 6 sizes							
☐ HXC-XR-75KV-3C-SLIM	3C (2×1.5 + 1×0.75 mm ²)	75	NEMA XR7 3-Pin / Mini	13.5	17.5	135	420
☐ HXC-XR-75KV-3C-MED	3C (2×2.0 + 1×1.0 mm ²)	75	NEMA XR7 CA11 3-Pin	15.2	19.5	128	510
☐ HXC-XR-75KV-4C-MED	4C (2×1.5 + 2×0.75 mm ²)	75	NEMA XR7 CA12 4-Pin	15.5	19.8	132	530
☐ HXC-XR-90KV-3C-MED	3C (2×2.0 + 1×1.0 mm ²)	90	NEMA XR7 CA11 3-Pin	16.8	21.2	120	595
☐ HXC-XR-90KV-4C-MED	4C (2×1.5 + 2×0.75 mm ²)	90	NEMA XR7 CA12 4-Pin	17.0	21.5	124	615
☐ HXC-XR-100KV-4C-SIR	4C (2×1.5 + 2×0.75 mm ²)	100	CA12 / CT Gantry Flex	18.2	23.0	138	690
Industrial NDT, Security & Analytical XRD HV Cables (100 kV to 160 kV DC) 6 sizes							
☐ HXC-XR-100KV-3C-R10	3C (2×2.5 + 1×1.5 mm ²)	100	Euro R10 (EN 60522)	18.0	22.8	118	680
☐ HXC-XR-100KV-4C-R10	4C (2×2.5 + 2×1.0 mm ²)	100	Euro R10 4-Pin	18.4	23.2	122	705
☐ HXC-XR-125KV-3C-R24	3C (2×2.5 + 1×1.5 mm ²)	125	Euro R24 (EN 60522)	21.0	26.2	115	890
☐ HXC-XR-125KV-4C-R24	4C (2×2.5 + 2×1.0 mm ²)	125	Euro R24 4-Pin	21.4	26.6	118	920
☐ HXC-XR-160KV-3C-R24	3C (2×2.5 + 1×1.5 mm ²)	160	Euro R24 (160 kV)	24.5	30.0	110	1,180
☐ HXC-XR-160KV-4C-R24	4C (2×2.5 + 2×1.0 mm ²)	160	Euro R24 4-Pin (160 kV)	24.8	30.5	112	1,215

– Available as bulk cable on reels or complete factory-vulcanised double-ended assemblies with NEMA XR7 CA11/CA12 or Euro R10/R24 cones.

Standards and approvals

- ✓ NEMA XR7 & IEC 60522 X-Ray HV Cable Compliant
- ✓ IEC 60601-2-28 Medical X-Ray Assembly Compatible

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/multicore-x-ray-high-voltage-cable



Typical values for this cable type, based on IEC 60522 / NEMA XR7 / IEC 60601-2-28. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.