



CHCU / CHVU open-cast MV & EHV trailing cables

35-CHVU

Mining-Machine Trailing Power Cable

20/35 kV (Umax 42 kV) screened EPR/PCP trailing power cable for walking draglines &



20/35 kV (Umax 42 kV)

DIN VDE 0250-813 Basis

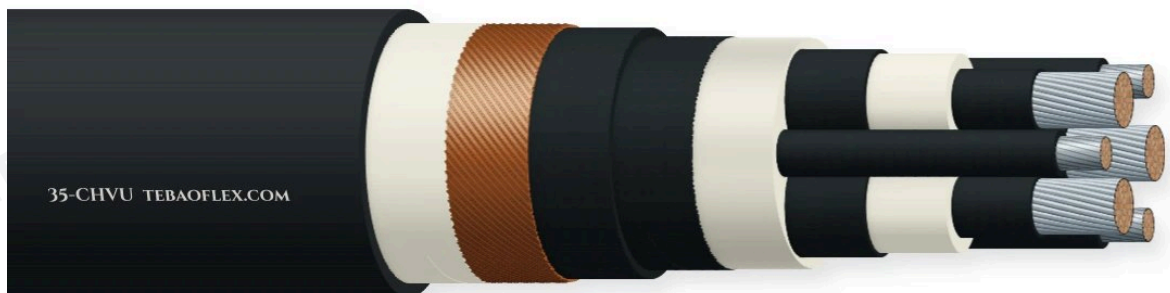
Triple-Extruded HEPR/EPR

Application

35-CHVU is an extra-high medium-voltage 20/35 kV (Umax 42 kV) flexible trailing power cable engineered for mega-scale open-pit walking draglines, bucket-wheel excavators, and in-pit crushing stations, featuring triple-extruded HEPR/EPR insulation (V)

Typical uses: Open-cast coal & lignite mines, Walking draglines & bucket-wheel excavators, In-pit mobile crushing & conveying (IPCC), Copper & iron-ore surface mega-mines

Construction



Cross-section, not to scale

1	Phase conductors	IEC 60228 Class 5
2	Inner & outer semicon (H)	DIN VDE 0250-813
3	20/35 kV HEPR/EPR dielectric (V)	DIN VDE 0207-20 / IEC 60502-2
4	Metallic phase screen (C)	DIN VDE 0250-813
5	Inner elastomeric bedding	DIN VDE 0250-813
6	Outer sheath (U)	DIN VDE 0207-21

Technical data

Typical values

Rated voltage U ₀ /U (U _{max})	20/35 kV (U _{max} 42 kV)	AC routine test voltage	50 kV rms / 5 min (or 65 kV DC per project)
Partial discharge level	≤ 10 pC at 1.73 U ₀ (35 kV)	Dielectric loss factor tan δ	≤ 0.015 at U ₀
Max. conductor operating temp.	+90 °C	Max. short-circuit temperature	+250 °C (5 s)
Ambient temperature (trailing)	-25 °C to +60 °C (-40 °C cold-pit option)	Ambient temperature (fixed)	-40 °C to +80 °C
Max. tensile load on copper	15–20 N/mm ²	Min. bending radius (fixed)	10 × cable outer diameter
Min. bending radius (trailing)	12 × cable outer diameter	Ozone & corona resistance	DIN EN 60811-403 ozone-proof 3GI3/HEPR
Oil & diesel fuel resistance	DIN EN 60811-404 (5GM5 compound)	Flame retardancy	DIN EN 60332-1-2 self-extinguishing
UV & solar radiation	Carbon/UV-stabilised outer sheath for	Standards	DIN VDE 0250-813 / ICEA S-75-381 35 kV class

Sizes

7 standard constructions

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

Order designation	Configuration	Phase size mm ²	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard 35-CHVU configurations 7 sizes						
☐ 35-CHVU 3×35+3×16/3E 20/35 kV	3×35 + 3×16/3E (20/35 kV)	35	72.0	1,480	6,450	720
☐ 35-CHVU 3×50+3×25/3E 20/35 kV	3×50 + 3×25/3E (20/35 kV)	50	76.5	1,980	7,480	765
☐ 35-CHVU 3×70+3×35/3E 20/35 kV	3×70 + 3×35/3E (20/35 kV)	70	81.2	2,710	8,720	812
☐ 35-CHVU 3×95+3×50/3E 20/35 kV	3×95 + 3×50/3E (20/35 kV)	95	86.5	3,680	10,350	865
☐ 35-CHVU 3×120+3×70/3E 20/35 kV	3×120 + 3×70/3E (20/35 kV)	120	91.5	4,650	11,920	915
☐ 35-CHVU 3×150+3×70/3E 20/35 kV	3×150 + 3×70/3E (20/35 kV)	150	96.8	5,560	13,580	968
☐ 35-CHVU 3×185+3×95/3E 20/35 kV	3×185 + 3×95/3E (20/35 kV)	185	102.0	6,890	15,640	1,020

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per DIN VDE 0250-813 / Enterprise 20/35 kV MV Trailing.

Electrical & ampacity data

7 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V _{rms}
3×35 + 3×16/3E (20/35 kV)	0.568	150	128	168	50,000
3×50 + 3×25/3E (20/35 kV)	0.396	187	159	192	50,000
3×70 + 3×35/3E (20/35 kV)	0.279	229	195	226	50,000
3×95 + 3×50/3E (20/35 kV)	0.211	276	235	267	50,000
3×120 + 3×70/3E (20/35 kV)	0.165	319	271	308	50,000
3×150 + 3×70/3E (20/35 kV)	0.132	365	310	358	50,000
3×185 + 3×95/3E (20/35 kV)	0.109	415	353	370	50,000

– Current ratings apply at +30 °C ambient in free air; apply standard derating factors for elevated ambient or drum layers.

Standards and approvals

- ✓ DIN VDE 0250-813 Basis
- ✓ IEC 60502-2 / ICEA S-75-381
- ✓ EN 10204 3.1

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/35-chvu-mining-machine-trailing-power-cable



Typical values for this cable type, based on DIN VDE 0250-813 / Enterprise 20/35 kV MV Trailing. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.