



CHCU / CHVU open-cast MV & EHV trailing cables

6-CHCU KON

Mining Cable with Concentric Monitoring

3.6/6 kV (U_{max} 7.2 kV) MV mining trailing cable with overall concentric KON earth &



DIN VDE 0250-813

3.6/6 kV · KON Screen

Dual Phase + Concentric Screen

Application

6-CHCU KON is a 3.6/6 kV (U_{max} 7.2 kV) medium-voltage mining trailing cable built to DIN VDE 0250-813 that augments the phase-screened 6-CHCU construction with an overall concentric earth and pilot-monitoring conductor (KON) between the inner and outer

Typical uses: Underground coal & potash mining, Open-cast 6 kV shovel & drill feeders, Monitored MV mobile substations, Tunnel boring machine (TBM) power

Construction



Cross-section, not to scale

1	Phase & pilot conductors	DIN EN 60228 Class 5
2	Inner & outer semicon (H)	DIN VDE 0250-813
3	MV EPR insulation (3GI3)	DIN VDE 0207-20
4	Individual phase screen (C)	DIN VDE 0250-813
5	Inner sheath	DIN VDE 0250-813
6	Overall concentric screen (KON)	DIN VDE 0250-813
7	Outer sheath (5GM5)	DIN VDE 0207-21

Technical data

Typical values

Rated voltage U ₀ /U	3.6/6 kV (U _{max} 7.2 kV)	AC routine test voltage	11 kV rms / 5 min
Partial discharge level	≤ 20 pC at 2 U ₀	Concentric KON fault path	Full-circumference copper earth & path
Max. conductor operating temp.	+90 °C	Max. short-circuit temperature	+250 °C (5 s)
Ambient temperature (trailing)	-25 °C to +60 °C	Ambient temperature (fixed)	-40 °C to +80 °C
Max. tensile load on copper	15–20 N/mm ²	Min. bending radius (fixed)	6 × D fixed · 10 × D trailing
Radial penetration protection	Overall concentric KON screen + individual	Oil & hydraulic fluid	DIN EN 60811-404 resistant
Flame retardancy	DIN EN 60332-1-2 self-extinguishing	Abrasion & tear resistance	DIN VDE 0207-21 compound 5GM5
Standards	DIN VDE 0250-813		

Sizes

8 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 6-CHCU KON configurations 8 sizes						
☐ 6-CHCU KON 3×25+16KON 3.6/6 kV	3×25 + 16 KON (3.6/6 kV)	25	43.2	1,060	2,480	259
☐ 6-CHCU KON 3×35+16KON 3.6/6 kV	3×35 + 16 KON (3.6/6 kV)	35	46.5	1,350	2,940	279
☐ 6-CHCU KON 3×50+25KON 3.6/6 kV	3×50 + 25 KON (3.6/6 kV)	50	50.8	1,885	3,690	305
☐ 6-CHCU KON 3×70+35KON 3.6/6 kV	3×70 + 35 KON (3.6/6 kV)	70	55.6	2,570	4,630	334
☐ 6-CHCU KON 3×95+50KON 3.6/6 kV	3×95 + 50 KON (3.6/6 kV)	95	61.0	3,495	5,840	366
☐ 6-CHCU KON 3×120+70KON 3.6/6 kV	3×120 + 70 KON (3.6/6 kV)	120	65.8	4,440	7,060	395
☐ 6-CHCU KON 3×150+70KON 3.6/6 kV	3×150 + 70 KON (3.6/6 kV)	150	70.4	5,310	8,240	422
☐ 6-CHCU KON 3×185+95KON 3.6/6 kV	3×185 + 95 KON (3.6/6 kV)	185	75.5	6,590	9,740	453

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per DIN VDE 0250-813.

Electrical & ampacity data

8 sizes

Configuration	Max. DCR @ 20 °C Ω/km	Current rating in air (A)	Current rating installed (A)	Mutual C pF/m≈	AC test V _{rms}
3×25 + 16 KON (3.6/6 kV)	0.799	122	104	151	11,000
3×35 + 16 KON (3.6/6 kV)	0.568	150	128	168	11,000
3×50 + 25 KON (3.6/6 kV)	0.396	187	159	192	11,000
3×70 + 35 KON (3.6/6 kV)	0.279	229	195	226	11,000
3×95 + 50 KON (3.6/6 kV)	0.211	276	235	267	11,000
3×120 + 70 KON (3.6/6 kV)	0.165	319	271	308	11,000
3×150 + 70 KON (3.6/6 kV)	0.132	365	310	358	11,000
3×185 + 95 KON (3.6/6 kV)	0.109	415	353	370	11,000

– 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
- ✓ DIN EN 60332-1-2
- ✓ 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/6-chcu-kon-mining-cable-with-concentric-monitoring



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