



CABLE STRUCTURE

CONDUCTOR & INSULATION

Power Cores

Conductors Tinned copper conductor DIN VDE 0295 class 5.
Insulation Based on 3GI3 - EPR rubber and semi conductive rubber compound.

CONTROL CORES + MONITORING PE CORE(S)

Conductors Tinned copper conductor DIN VDE 0295 class 5.
Insulation 3GI3 type EPR compound and semi conductive rubber compound.

Cradle Separator A shaped section of elastomeric material, semi conductive, with control wire in the center, designed to support the core assembly, fill the center interstice and provide a specified separation between individual power cores

Electrical Field Control Inner and outer semiconductive layer of semiconductive rubber

Core Identification Lay Up Power cores naturally colored, Control cores blue colored
 Three main conductors laid-up with three control cores & PE conductors in interstice over a cradle separator.

Inner Sheath GM1b type EPR Compound
Screen / Armour Flexible - pliable armour in helix of tinned copper and galvanised steel wires
Outer Sheath 5GMS type elastomer compound, Red

PRODUCTION AND TEST STANDARDS

Construction	DIN VDE 0250-813
General Requirements	DIN VDE 0250-1
Guide to Use	DIN VDE 0298-3
Electrical Tests	DIN VDE 0472-501, 503, 508
Non-Electrical Tests	DIN VDE 0472-401, 402, 602, 303, 615
Under Fire Conditions Tests	DIN VDE 0472-803, 804
Flame Retardant	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1
Oil Resistant	HD/EN/IEC 60811-2-1, DIN VDE 0473-811-2-1



OPERATING CHARACTERISTICS

Rated Voltage	1,8/3 kV	3,6/6 kV
AC Test Voltage	6 kV	11 kV
Max. Permissible Operating Voltage AC	2,1/3,6 kV	4,2/7,2 kV
Max. Permissible Operating Voltage DC	2,7/5,4 kV	5,4/10,8 kV
Min. Bending Radius	Acc. to DIN VDE 0298 part 3	
Current Carrying Capacity	According to DIN VDE 0298, Part 4	
Working Temperature		
Fixed	-40°C ... +80°C	
Mobile	-25°C ... +80°C	
Min. Bending Radius	VDE 0298-3 Tab. 3	
Current Carrying Capacities	VDE 0298-4	

Application

For the connection of mobile electrical equipment in mines and tunnels. Suitable also for coal cutting machines, particularly for extreme bending loads inside of steel or plastic track chains.

1,8/3 kV

Cross Section (mm ²)	Overall Diameter Min - Max (mm)	Conductor Resistance At 20 °C (Ω/km)	Approximate weight (kg / km)
3 x 25 + 3 x (1,5 ST KON+ 16/3 KON)	42.1 - 45.3	0.795	3190
3 x 35 + 3 x (1,5 ST KON+ 16/3 KON)	46.5 - 49.7	0.565	3920
3 x 50 + 3 x (1,5 ST KON+ 25/3 KON)	50.4 - 53.5	0.393	4730
3 x 70 + 3 x (1,5 ST KON+ 35/3 KON)	55.8 - 60.0	0.277	6070
3 x 95 + 3 x (1,5 ST KON+ 50/3 KON)	61.5 - 65.7	0.21	7620
3 x 120 + 3 x (1,5 ST KON+ 70/3 KON)	66.0 - 70.3	0.164	9270
3 x 150 + 3 x (1,5 ST KON+ 70/3 KON)	71.8 - 76.0	0.132	10920
3 x 185 + 3 x (1,5 ST KON+ 95/3 KON)	76.2 - 80.3	0.108	12770
3 x 240 + 3 x (1,5 ST KON+ 120/3 KON)	84.1 - 89.4	0.0817	15860

1,8/3 kV

Cross Section (mm ²)	Overall Diameter Min - Max (mm)	Conductor Resistance At 20 °C (Ω/km)	Approximate weight (kg / km)
3 x 35 + 3 x (1,5 ST KON + 25/3 KON) + ÜL KON	46.0 - 51.0	0.554	3960
3 x 50 + 3 x (1,5 ST KON + 25/3 KON) + ÜL KON	51.0 - 55.0	0.368	4980
3 x 70 + 3 x (1,5 ST KON + 35/3 KON) + ÜL KON	57.0 - 62.0	0.272	6360
3 x 95 + 3 x (1,5 ST KON + 50/3 KON) + ÜL KON	64.0 - 69.0	0.206	8150
3 x 50 + 3 x (35 + 35/3 KON) + 2 x (0,75 ST KON) + 1 x (2 x 0,75 ÜL KON)	66.0 - 71.0	0.368	8390
3 x 70 + 3 x (50 + 50/3 KON) + 2 x (0,75 ST KON) + 1 x (2 x 0,75 ÜL KON)	74.0 - 79.0	0.272	10350
3 x 95 + 3 x (70 + 70/3 KON) + 2 x (0,75 ST KON) + 1 x (2 x 0,75 ÜL KON)	85.0 - 90.0	0.206	13340

3,6/6 kV

Cross Section (mm ²)	Overall Diameter Min - Max (mm)	Conductor Resistance At 20 °C (Ω/km)	Approximate weight (kg / km)
3 x 25 + 3 x (1,5 ST KON + 16/3 KON)	47.3 - 50.4	0.795	3710
3 x 35 + 3 x (1,5 ST KON + 16/3 KON)	50.2 - 53.4	0.565	4320
3 x 50 + 3 x (1,5 ST KON + 25/3 KON)	53.5 - 57.7	0.393	5250
3 x 70 + 3 x (1,5 ST KON + 35/3 KON)	59.6 - 63.8	0.277	6600
3 x 95 + 3 x (1,5 ST KON + 50/3 KON)	64.3 - 68.5	0.21	8030
3 x 120 + 3 x (1,5 ST KON + 70/3 KON)	70.7 - 74.8	0.164	9990
3 x 150 + 3 x (1,5 ST KON + 70/3 KON)	74.5 - 78.8	0.132	11330
3 x 185 + 3 x (1,5 ST KON + 95/3 KON)	78.5 - 83.0	0.108	13280
3 x 240 + 3 x (1,5 ST KON + 120/3 KON)	86.8 - 92.10	0.0817	16380

3,6/6 kV

Cross Section (mm ²)	Overall Diameter Min - Max (mm)	Conductor Resistance At 20 °C (Ω/km)	Approximate weight (kg / km)
3 x 35 + 3 x (1,5 ST KON + 25/3 KON) + ÜL KON	46.0 - 51.0	0.554	3960
3 x 50 + 3 x (1,5 ST KON + 25/3 KON) + ÜL KON	51.0 - 55.0	0.368	4980
3 x 70 + 3 x (1,5 ST KON + 35/3 KON) + ÜL KON	57.0 - 62.0	0.272	6360
3 x 95 + 3 x (1,5 ST KON + 50/3 KON) + ÜL KON	64.0 - 69.0	0.206	8150
3 x 35 + 3 x (35 + 35/3 KON) + 2 x (0,75ST KON) + 1 x (2 x 0,75ÜL KON)	69.0 - 74.0	0.554	7800
3 x 50 + 3 x (50 + 50/3 KON) + 2 x (0,75ST KON) + 1 x (2 x 0,75 ÜL KON)	73.0 - 78.0	0.368	9340
3 x 70 + 3 x (70 + 70/3 KON) + 2 x (0,75ST KON) + 1 x (2 x 0,75 ÜL KON)	80.0 - 85.0	0.272	11580
3 x 95 + 3 x (95 + 95/3 KON) + 2 x (0,75ST KON) + 1 x (2 x 0,75 ÜL KON)	89.0 - 94.0	0.206	13930