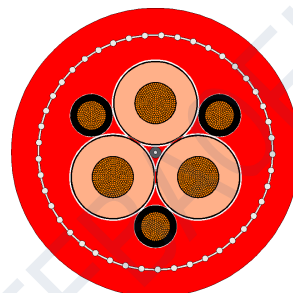




R-(N)TSCGEWOU

Medium voltage flexible cable for reeling applications

Voltage rating: 3.6/6 kV up to 12/20 kV. Based on DIN VDE 0250-813.



APPLICATION

Specially designed flexible reeling cable with optimised dimensions for very high mechanical stresses in monospiral and cylindrical reel applications, high reeling speed and torsional stress. Suitable for connection of large material handling machines such as excavators, dumpers and crushers in open-cast mines. For wet or dry conditions, industrial units, underground and open-cast mining, and explosion-risk areas.

CONSTRUCTION

Component	Description
Conductors	Flexible stranded annealed tin coated or bare copper conductor, class 5 to IEC 60228
Separator	Semi-conductive tape between power conductor and insulation, and between earth conductor and semi-conductive layer
Conductor screen	Semi-conductive rubber layer
Insulation colour	White
Insulation screen	Semi-conductive strippable layer over insulation of power cores; maximum resistivity 200 Ohm x m
Earth conductor	Tin coated or bare copper conductor class 5 to IEC 60228 with extruded semi-conductive rubber compound
Core arrangement	Power cores and earth conductors split into 3 parts, laid up around conductive filler in the centre; antiadhesion graphite over assembled cores
Inner sheath	Special synthetic thermosetting compound type 5GM3 acc. to DIN VDE 0207/21
Inner sheath colour	Red
Anti-torsion braid	Braid of polyamide threads between internal and outer layer of sheath
Outer sheath	Synthetic thermosetting compound, 5GM5 quality acc. to DIN VDE 0207/21
Outer jacket colour	Red

ELECTRICAL CHARACTERISTICS

Parameter	3.6/6 kV	6/10 kV	8.7/15 kV	12/20 kV
Max. operating voltage U_m	7.2 kV	12 kV	18 kV	24 kV
AC test voltage	11 kV	17 kV	24 kV	29 kV
Partial discharge	1.25U ₀ / max. 20 pC	1.25U ₀ / max. 20 pC	1.25U ₀ / max. 20 pC	1.25U ₀ / max. 20 pC

CHARACTERISTICS

OPERATING CHARACTERISTICS

Parameter	Value
Current carrying capacity	DIN VDE 0298-4
Max. conductor operating temperature	+90 deg C
Max. conductor temperature during short circuit	+250 deg C
Minimum ambient temperature for fixed installation	-40 deg C
Minimum ambient temperature for mobile installation	-25 deg C
Minimum bending radius	Fixed: 6xD; drums: 12xD; deflection pulleys: 15xD; moving freely: 10xD
Twist limits	100 deg/m
Travel speed	Up to 180 m/min
Tensile load	20 N/mm ²
Flame propagation	PN-EN 60332-1-2, IEC 60332-1-2
Oil resistant	PN-EN 60811-404, IEC 60811-404
UV resistant	UL 2556, ISO 4892-2
Ozone resistant	PN-ISO 1431-1

TECHNICAL DATA

3.6/6 kV				
Number of cores x cross-section (mm ²)	Conductor diameter (mm)	Overall diameter (mm)	Approx. weight (kg/km)	Max. tensile load (N)
3x25+3x25/3	6.6	39.9	2438	1500
3x35+3x25/3	7.8	42.5	2881	2100
3x50+3x25/3	9.4	46.0	3527	3000
3x70+3x35/3	11.2	51.7	4726	4200
3x95+3x50/3	12.9	55.4	5704	5700
3x120+3x70/3	14.7	59.3	6917	7200
3x150+3x70/3	16.4	64.7	8286	9000
3x185+3x95/3	18.0	68.2	9662	11100
6/10 kV				
Number of cores x cross-section (mm ²)	Conductor diameter (mm)	Overall diameter (mm)	Approx. weight (kg/km)	Max. tensile load (N)
3x25+3x25/3	6.6	41.6	2589	1500
3x35+3x25/3	7.8	44.2	3041	2100
3x50+3x25/3	9.4	47.7	3703	3000
3x70+3x35/3	11.2	53.4	4922	4200
3x95+3x50/3	12.9	57.1	5911	5700
3x120+3x70/3	14.7	61.0	7138	7200
3x150+3x70/3	16.4	66.4	8528	9000
3x185+3x95/3	18.0	69.9	9916	11100

TECHNICAL DATA CONTINUED

8.7/15 kV

Number of cores x cross-section (mm ²)	Conductor diameter (mm)	Overall diameter (mm)	Approx. weight (kg/km)	Max. tensile load (N)
3x25+3x25/3	6.6	45.1	2912	1500
3x35+3x25/3	7.8	47.7	3378	2100
3x50+3x25/3	9.4	52.9	4288	3000
3x70+3x35/3	11.2	56.9	5332	4200
3x95+3x50/3	12.9	60.6	6348	5700
3x120+3x70/3	14.7	66.2	7877	7200
3x150+3x70/3	16.4	69.9	9029	9000
3x185+3x95/3	18.0	75.1	10759	11100

12/20 kV

Number of cores x cross-section (mm ²)	Conductor diameter (mm)	Overall diameter (mm)	Approx. weight (kg/km)	Max. tensile load (N)
3x25+3x25/3	6.6	48.1	3209	1500
3x35+3x25/3	7.8	52.5	3912	2100
3x50+3x25/3	9.4	55.9	4636	3000
3x70+3x35/3	11.2	59.9	5646	4200
3x95+3x50/3	12.9	65.4	7020	5700
3x120+3x70/3	14.7	69.3	8316	7200
3x150+3x70/3	16.4	72.9	9486	9000

PACKING

Standard length cable packing: 500 m on drums. Other forms of packing and delivery are available on request.

CERTIFICATIONS



TEBAOFLEX CABLE