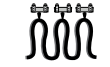


# CABLE REELS

## FLEXIDRUM® MEDIUM (N)TSCGEWÖU OPTICAL FIBER

From 3,6/6 Kv up to 20/35 Kv with antitwisting protection and optical element

ELETTROTEK KABEL® FLEXIDRUM® MEDIUM (N)TSCGEWÖU OPTICAL FIBER



### Construction:

<b>Conductor:</b>	flexible tinned copper conductor Cl. 5, acc. to IEC 60228, DIN VDE 0295
<b>Inner semi-conductive layer:</b>	semi-conducting compound
<b>Insulation:</b>	rubber EPR type 3GI3
<b>Outer semi-conductive layer:</b>	semi-conducting compound
<b>Earth Conductor:</b>	Flexible tinned copper conductor Cl. 5, acc. to IEC 60228, DIN VDE 0295
<b>Earth semi-conductive layer:</b>	semi-conducting compound
<b>Cores color:</b>	<b>Power:</b> natural color with black semi-conducting compound <b>Earth:</b> black semi-conducting compound
<b>Optical fibers element:</b>	6-12-18 fiber-optics laying in 6 free tubes (1,2 or 3 fibers per tube)
<b>Stranding:</b>	phase units laid up with earth-conductors and fiber optics in interstices
<b>Inner sheath:</b>	rubber PCP type 5GM3
<b>Supporting screen:</b>	anti-twisting protection of synthetic yarns
<b>Outer sheath:</b>	red (similar to RAL 3000) rubber PCP type 5GM5

### Resistance:



**Self-extinguishing and flame retardant acc. to:**  
DIN VDE 0482 part 265-2-1  
EN 50265-2-1  
IEC 60332-1-2



**Oil resistance acc. to:**  
DIN VDE 0473 part 811-2-1  
IEC EN 60811-2-1

### Technical data:

<b>Nominal voltage:</b>	U/oU 3,6/6 kV, U/oU 6/10 kV U/oU 8,7/15, U/oU 12/20 kV, 20/35 kV
<b>Max. operating voltage:</b>	U/oU 3,6/6 kV = 7,2 kV U/oU 6/10 kV = 12 kV U/oU 8,7/15 = 18 kV U/oU 12/20 kV = 24 kV U/oU 20/35 kV = 42 kV
<b>Test voltage:</b>	U/oU 3,6/6 kV = 11 kV U/oU 6/10 kV = 17 kV U/oU 8,7/15 = 24 kV U/oU 12/20 kV = 29 kV U/oU 20/35 kV = 50 kV
<b>Temperature range:</b>	
<i>Fixed laying:</i>	-40°C up to +80°C
<i>Flexible installation:</i>	-30°C up to +60°C
<b>Max. temperature on conductor:</b>	+ 90°C
<b>Max. temperature in short circuit:</b>	+ 250 °C
<b>Min. bending radius:</b>	
<i>Fixed laying:</i>	6 x d
<i>On drums:</i>	12 x D
<i>On deflection pulley:</i>	15 x D
<i>Free movement:</i>	12 x D
<b>Min. distance for change of direction:</b>	20 x D
<b>Max speed (main application):</b>	180 m/min
<b>Max torsion:</b>	± 25°/m

### Features:

**new version reduced weight and diameter!**

on request cold version up to -45°C

for SPEED and MINIMUM BENDING RADIUS see pages from 2 to 8 of catalogue

RoHS approval



### Applications:

power supply to mobile units with high risk of mechanical damage. It is designed to work with forced guidance systems with deflection on different floors and equipment with reel axis in direction of travel

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Suitable for reeling application



Suitable for lession application

### 3,6/6 kV (7,2) kV

Part no.	No. of cores x cross section n x mm <sup>2</sup>	Outer-Ø ca.mm ± 10%	Copper weight kg/km	Cable weight approx. kg/km	Tensile strenght N	AWG no.®)
02050MR1037M63	3x25+2x25/2+FO	40,3	960	2495	1500	4
02050MR1037M64	3x35+2x25/2+FO	42,7	1248	2990	2100	2
02050MR1037M65	3x50+2x25/2+FO	45,5	1680	3520	3000	1
02050MR1037M66	3x70+2x35/2+FO	49,6	2352	4518	4200	2/0
02050MR1037M67	3x95+2x50/2+FO	54,7	3216	5590	5700	3/0
02050MR1037M68	3x120+2x70/2+FO	58,9	4128	6960	7200	4/0
02050MR1037M69	3x150+2x70/2+FO	64,7	4992	8200	9000	250 MCM
02050MR1037M70	3x185+2x95/2+FO	68,4	6240	9770	11100	350 MCM
02050MR1037M71	3x240+2x120/2+FO	78,1	8064	12790	14400	450 MCM

### 6/10 kV (12) kV

Part no.	No. of cores x cross section n x mm <sup>2</sup>	Outer-Ø ca.mm ± 10%	Copper weight kg/km	Cable weight approx. kg/km	Tensile strenght N	AWG no.®)
02050QR1037M63	3x25+2x25/2+FO	41	960	2550	1500	4
02050QR1037M64	3x35+2x25/2+FO	43,5	1248	3070	2100	2
02050QR1037M65	3x50+2x25/2+FO	46,3	1680	3600	3000	1
02050QR1037M66	3x70+2x35/2+FO	50,3	2352	4584	4200	2/0
02050QR1037M67	3x95+2x50/2+FO	55,5	3216	5690	5700	3/0
02050QR1037M68	3x120+2x70/2+FO	59,6	4128	7050	7200	4/0
02050QR1037M69	3x150+2x70/2+FO	65,3	4992	8834	9000	250 MCM
02050QR1037M70	3x185+2x95/2+FO	69,0	6240	9840	11100	350 MCM
02050QR1037M71	3x240+2x120/2+FO	78,8	8064	12890	14400	450 MCM

### 8,7/15 kV (18) kV

Part no.	No. of cores x cross section n x mm <sup>2</sup>	Outer-Ø ca.mm ± 10%	Copper weight kg/km	Cable weight approx. kg/km	Tensile strenght N	AWG no.®)
02050SR1037M63	3x25+2x25/2+FO	47	960	2850	1500	4
02050SR1037M64	3x35+2x25/2+FO	48,2	1248	3404	2100	2
02050SR1037M65	3x50+2x25/2+FO	49,8	1680	3970	3000	1
02050SR1037M66	3x70+2x35/2+FO	55,1	2352	5140	4200	2/0
02050SR1037M67	3x95+2x50/2+FO	59	3216	6125	5700	3/0
02050SR1037M68	3x120+2x70/2+FO	64,9	4128	7786	7200	4/0
02050SR1037M69	3x150+2x70/2+FO	69	4992	8830	9000	250 MCM
02050SR1037M70	3x185+2x95/2+FO	72	6240	10268	11100	350 MCM
02050SR1037M71	3x240+2x120/2+FO	80,7	8064	13207	14400	450 MCM

### 12/20 kV (24) kV

Part no.	No. of cores x cross section n x mm <sup>2</sup>	Outer-Ø ca.mm ± 10%	Copper weight kg/km	Cable weight approx. kg/km	Tensile strenght N	AWG no.®)
02050UR1037M63	3x25+2x25/2+FO	49,5	960	3380	1500	4
02050UR1037M64	3x35+2x25/2+FO	53,4	1248	4095	2100	2
02050UR1037M65	3x50+2x25/2+FO	57,2	1680	4675	3000	1
02050UR1037M66	3x70+2x35/2+FO	60,3	2352	5807	4200	2/0
02050UR1037M67	3x95+2x50/2+FO	65,7	3216	7040	5700	3/0
02050UR1037M68	3x120+2x70/2+FO	70	4128	8530	7200	4/0
02050UR1037M69	3x150+2x70/2+FO	75,9	4992	9935	9000	250 MCM
02050UR1037M70	3x185+2x95/2+FO	79	6240	11395	11100	350 MCM
02050UR1037M71	3x240+2x120/2+FO	84,6	8064	13915	14400	450 MCM

### 20/35 kV (42) kV

Part no.	No. of cores x cross section n x mm <sup>2</sup>	Outer-Ø ca.mm ± 10%	Copper weight kg/km	Cable weight approx. kg/km	Tensile strenght N	AWG no.®)
02050YR1037M66	3x70+2x35/2+FO	82	2352	9260	4200	2/0

Other dimensions and colors available on request.

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Suitable for reeling application



Suitable for festoon application

Nominal cross section mm <sup>2</sup>	Max resistance		Reactance at 50 Hz for nominal voltage			
	D.C. at 20°C Ohm/km	A.C. at 90°C Ohm/km	3,6/6 Ohm/km	6/10 Ohm/km	8,7/15 Ohm/km	12/20 Ohm/km
25	0,780	0,995	0,106	0,107	0,114	0,123
35	0,554	0,707	0,100	0,101	0,107	0,116
50	0,386	0,493	0,095	0,097	0,102	0,110
70	0,272	0,348	0,090	0,092	0,097	0,104
95	0,206	0,264	0,087	0,088	0,093	0,099
120	0,161	0,207	0,084	0,085	0,089	0,095
150	0,129	0,167	0,082	0,083	0,087	0,092
185	0,106	0,139	0,080	0,081	0,085	0,090
240	0,0801	0,107	0,079	0,079	0,083	0,087

### Correction factors for ambient temperature other than 30°C

°C	20	25	30	40	45	50	55
K	1,1	1,05	0,95	0,89	0,84	0,77	0,71

### Optical parameters:

Transmission data of the fiber-optics	Graded-index fiber 50/125	Graded-index fiber 62.5/125	Monomode fiber E9/125
Max attenuation at wavelength 850 m	2,8 dB/km	3,3 dB/km	-
Max attenuation at wavelength 1300 m	0,8 dB/km	0,4 dB/km	0,9 dB/km
Max attenuation at wavelength 1550 m	-	-	0,3 dB/km
Bandwidth at 850 nm	>400 MHz	>400 MHz	-
Bandwidth at 1300 nm	>1200 MHz	>600 MHz	-
Numerical aperture	0,200+/-0,200	0,275+/-0,02	0,14+/-0,02
Chromatic dispersion at 1300 nm	-	-	<3,5 ps/nm km
Chromatic dispersion at 1550 nm	-	-	<3,5 ps/nm km