



# TFCrane (N)GRDGÖU-J/O

Based on: DIN VDE 0250-814

- Low Voltage Rubber Insulated Flexible Cable
- Upon request, weights and diameters may be individually adjusted based on end-use applications or customer requirements.



## Applications:

Flexible cable designed for high mechanical stresses, especially for applications with frequent bending. For festoon systems and connecting moveable parts of container cranes, industrial units, material handling equipment. For use in wet or dry conditions, outdoors, indoors.

## Construction

### Conductors

Flexible stranded annealed bare copper conductor class 5 to IEC 60228

### Separator

If needed a suitable tape separator between the conductor and insulation

### Insulation

EPDM rubber, halogen-free, lead-free compound, type 3GI3 acc. to DIN VDE 0207/20, developed by TFKable

Colour coding of power conductors compliant to HD 308, DIN VDE 0293- 308

#### -J version:

3 - core: Green-yellow, blue, brown

4 - core: Green-yellow, brown, black, grey or green-yellow, blue, brown, black

5 - core: Green-yellow, blue, brown, black, grey

Above 5 cores: Green-yellow, other cores black with white numbering

#### -O version:

3 - core: Brown, black, grey or blue, brown, black

4 - core: Blue, brown, black, grey

5 - core: Blue, brown, black, grey, black

Above 5 cores: Black with white numbering

### Circuit identification

### Inner sheath

A synthetic thermosetting compound type Gm1b acc. to DIN VDE 0207/21

### Color of inner sheath

Black

### Outer sheath

Designed by TFKable, synthetic thermosetting compound, type 5GM3 acc. to DIN VDE 0207/21

### Colour of outer jacket

Black

## Characteristics

### Rated Voltage $U_0/U$

0.6/1 kV

### Max. operating voltage $U_m$

1.2 kV

### AC test voltage

3 kV

## Characteristics

<b>Current carrying capacity</b>	DIN VDE 0298-4
<b>Max. conductor operating temperature +90°C</b>	+90°C
<b>Max. conductor temperature during short circuit +250°C</b>	+250°C
<b>Minimum ambient temperature for fixed installation -40°C</b>	-40°C
<b>Minimum ambient temperature for mobile installation</b>	-25°C 1x25mm <sup>2</sup> -240mm <sup>2</sup> : -35°C 4-5 x 1,5mm <sup>2</sup> -70mm <sup>2</sup> : -35°C

## Minimum bending radius acc. to DIN VDE 0298-3:

OD of cable[mm]	>8 ≤ 12	>12 ≤ 20	>20
<b>Fixed installation</b>	3D	4D	4D
<b>On drums</b>	5D	5D	5D
<b>On deflection pulleys</b>	7.5D	7.5D	7.5D
<b>Moving freely</b>	4D	5D	5D
<b>Twist limits</b>	25°/m		
<b>Travel speed up to</b>	250m/min		
<b>Tensile load</b>	15N/mm <sup>2</sup>		
<b>Flame propagation</b>	PN-EN 60332-1-2, IEC 60332-1-2		
<b>Oil resistant</b>	PN-EN 60811-404, IEC 60811-404		
<b>UV resistant</b>	UL 2556, ISO 4892-2		
<b>Ozone resistant</b>	PN-ISO 1431-1		

**Example of standard sheath marking:** TFKABLE 3 CE TFCrane (N)GRDGÖU-J 4x10 0.6/1 kV year + meter

## Parameters

Number of cores x cross-section	Conductor diameter	Approx. overall diameter	Approx. weight	Max. tensile load
mm <sup>2</sup>	mm	mm	kg/km	N
1x25	6.6	12.8	346	375
1x35	7.8	14.0	450	525
1x50	9.6	16.1	625	750
1x70	11.4	18.3	853	1050
1x95	13.0	20.3	1091	1425
1x120	14.7	22.4	1363	1800
1x150	16.5	24.6	1678	2250
1x185	18.3	27.6	2074	2775
1x240	20.9	30.6	2660	3600
4x1.5	1.5	12.1	208	90
4x2.5	2.1	14.9	317	150
4x4	2.7	16.9	421	240
4x6	3.2	18.1	525	360
4x10	4.2	22.2	821	600
4x16	5.3	25.8	1189	960
4x25	6.6	31.0	1746	1500
4x35	7.8	34.0	2236	2100
4x50	9.6	40.3	3196	3000
4x70	11.4	44.6	4213	4200
4x95	13.0	51.0	5521	5700
4x120	14.7	56.8	6919	7200
5x4	2.7	18.2	499	300
5x6	3.2	20.4	662	450
5x10	4.2	24.1	984	750
5x16	5.3	28.0	1432	1200
5x25	6.6	33.7	2108	1875
5x35	7.8	38.2	2819	2625
10x2.5	2.1	23.0	762	375
10x4	2.7	28.0	1111	600
12x1.5	1.5	19.6	533	270
12x2.5	2.1	25.4	914	450
16x2.5	2.1	27.9	1097	600

## Parameters

Number of cores x cross-section <b>mm<sup>2</sup></b>	Conductor diameter <b>mm</b>	Overall diameter <b>mm</b>	Approx. weight <b>kg/km</b>	Max. tensile load <b>N</b>
16x6	3.2	33.6	1891	1440
18x1.5	1.5	22.2	718	405
18x2.5	2.1	29.1	1166	675
24x1.5	1.5	25.3	913	540
24x2.5	2.1	30.3	1411	900
30x1.5	1.5	27.4	1104	675
30x2.5	2.1	35.1	1843	1125
36x1.5	1.5	29.3	1285	810
36x2.5	2.1	35.6	1963	1350

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