

# BITflex<sup>®</sup>(N)TMCGCWOEU

RoHS 2015/863/EU

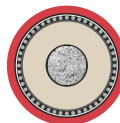
CPR

CPR 305/2011



24 months warranty

Medium voltage, screened single core cable based on DIN VDE 0250-813



mining applications



industrial application



EN 60332-1-2



high flexibility



oxygen index &gt;29



UV resistance

oil resistant  
EN 60811-404

## Technical data:

### Thermal parameters:

#### Ambient temperature:

fixed installation: -40 °C to 80 °C

flexible operation: -25 °C to 80 °C

**Max. permissible conductor temp.:** 90 °C**Max. short-circuit temp. at conductor:** 200 °C**De-rating factors:** acc. to DIN VDE 0298-4

### Mechanical parameters:

**Max. tensile load per conductor:** 15 N/mm<sup>2</sup>

#### Bending radius:

- fixed installation:  $\geq 6 \times \text{outer-}\varnothing$ - free moving:  $\geq 8 \times \text{outer-}\varnothing$ 

## Design:

#### Main cores

**Conductor:** tinned copper wires, finely stranded, class 5 acc. to DIN EN / IEC 60228

#### Insulation:

- inner semi-conductive stress control layer

- EPR compound with improved electrical and mechanical characteristics based on DIN VDE 0207-20

- outer semi-conductive insulation shield layer

#### Screen:

concentric ground conductor: spinning with tinned copper wire strands acc. to DIN VDE 0250-1, covering approx. 85 %

#### Outer sheath:

heavy duty rubber compound, type 5GM5 acc. to DIN VDE 0207-21, flame retardant acc. to EN 60332-1-2, oil resistance acc. to EN 60811-404, ozone, UV and moisture resistant, colour: red, inkjet marking

## Application:

Flexible high voltage cable used in short lengths, e.g. as a connection in switch-gear or transformer houses where small bending radius is requested. Cable are also used in slow moving Offshore-Power-Systems: energy chains or reeling operation or power supply for large electrical applications and drives via cable carrier systems.

## Approvals:

UL Classified

## Chemical parameters:

Resistance to oil:

DIN EN / IEC 60811-404

Behaviour in case of fire:

DIN EN / IEC 60332-1-2

Weather resistance:

unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Rated voltage $U_r/U$ [kV]	3.6/6	6/10	8.7/15	12/20	14/25	18/30
Maximum permissible operating voltage $U_{0,max}$ in AC systems [kV]:	4.2/7.2	6.9/12	10.4/18	13.9/24	17.3/30	20.8/36
Maximum permissible operating voltage $U_{0,max}$ in DC systems [kV]:	5.4/10.8	9/18	13.5/27	18/36	22.5/45	27/54
AC. test voltage acc. to DIN VDE 0250-813 [kV]:	11	17	24	29	36	43

Cable Factory BITNER reserves the right to modify specifications without prior notification.

Note: on customer's request other cross sections or number of cores can be produced

# BiTflex<sup>®</sup>(N)TMCGCWOEU

Medium voltage, screened single core cable based on DIN VDE 0250-813

## BiTflex<sup>®</sup>(N)TMCGCWOEU 6/10 kV

n x mm <sup>2</sup>	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity <sup>1)</sup> [A]
1x25/16	0.795	13,0	22-25	790	135
1x35/16	0.565	14,5	23-26	930	169
1x50/16	0.393	16,0	25-28	1130	207
1x70/16	0.277	18,0	27-30	1380	268
1x95/16	0.210	19,0	29-32	1640	328
1x120/16	0.164	21,0	31-34	1990	383
1x150/25	0.132	23,0	33-36	2320	444
1x185/25	0.108	25,0	35-38	2680	510
1x240/25	0.0817	27,0	38-41	3300	607

## BiTflex<sup>®</sup>(N)TMCGCWOEU 12/20 kV

n x mm <sup>2</sup>	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity <sup>1)</sup> [A]
1x25/16	0.795	17,0	26-29	1010	135
1x35/16	0.565	18,0	27-30	1160	169
1x50/16	0.393	19,0	28-31	1350	207
1x70/16	0.277	21,0	31-34	1670	268
1x95/16	0.210	23,0	33-36	1940	328
1x120/16	0.164	24,0	35-38	2230	383
1x150/25	0.132	26,0	37-40	2660	444
1x185/25	0.108	28,0	39-42	3040	510
1x240/25	0.0817	30,0	41-44	3580	607

## BiTflex<sup>®</sup>(N)TMCGCWOEU 18/30 kV

n x mm <sup>2</sup>	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity <sup>1)</sup> [A]
1x25/16	0.795	20	29-32	1220	135
1x35/16	0.565	21	32-34	1430	169
1x50/16	0.393	23	33-36	1650	207
1x70/16	0.277	24	34-37	1910	268
1x95/16	0.210	26	37-40	2300	328
1x120/16	0.164	27	38-41	2560	383
1x150/25	0.132	29	40-43	2940	444
1x185/25	0.108	32	43-46	3350	510
1x240/25	0.0817	33	44-47	3880	607
1x300/25	0.0654	36	47-50	4590	703

<sup>1)</sup> acc. to IEC 60364-5-52, conductor temperature: 90 °C/Reference ambient temperature: 30 °C, free in air, based on installation method F, three loaded conductors trefoil, values for further installation methods on request

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