

# BITflex<sup>®</sup>(N)TMCGC11Y

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



mining applications



industrial application



EN 60332-1-2



high flexibility



oxygen index



UV resistance



oil resistant  
EN 60811-404

## Technical data:

### Thermal parameters:

**Ambient temperature:**

fixed installation: -40 °C to 90 °C

flexible operation: -35 °C to 80 °C

**Max. permissible conductor temp.:** 90 °C

**Max. short-circuit temp. at conductor:** 250 °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: ≥ 6 x outer - Ø

- free moving: ≥ 10 x outer - Ø

## Design:

**Main cores**

**Conductors:**

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

**Protective conductor:**

spirally applied tinned copper wires, design  
acc. to DIN VDE 0250-1

**Outer sheath:**

special PUR compound with improved mechanical characteristics, oil resistance acc.to EN 60811-404, unrestricted use indoors, outdoors, resistance to moisture, 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.

## 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

## Electrical parameters:

Rated voltage U <sub>0</sub> /U [kV]	3.6/6	6/10	8.7/15	12/20	14/25	18/30
Maximum permissible operating voltage U <sub>0,max</sub> 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 <sub>0,max</sub> 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)TMCGC11Y

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

## Bitflex<sup>®</sup> (N)TMCGC11Y 6/10 kV

Cat. no	n x mm <sup>2</sup>	Maximum conductor resistance	Nominal diameter over insulation	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity <sup>1)</sup>
IP5470	1x25/16	0.795	14,5	21-23	730	135
IP5471	1x35/16	0.565	16,0	22-24	860	169
IP5472	1x50/16	0.393	17,0	24-26	1045	207
IP5473	1x70/16	0.277	19,0	26-28	1290	268
IP5474	1x95/16	0.210	20,5	27-29	1545	328
IP5475	1x120/16	0.164	22,0	29-31	1820	383
IP5476	1x150/25	0.132	24,0	31-33	2170	444
IP5477	1x185/25	0.108	26,0	33-35	2515	510
IP5478	1x240/25	0.0817	28,0	36-38	3085	607

## Bitflex<sup>®</sup> (N)TMCGC11Y 12/20 kV

Cat. no	n x mm <sup>2</sup>	Maximum conductor resistance	Nominal diameter over insulation	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity <sup>1)</sup>
IP5490	1x25/16	0.795	18,0	25-27	925	135
IP5491	1x35/16	0.565	19,0	26-28	1065	169
IP5492	1x50/16	0.393	20,5	27-29	1250	207
IP5493	1x70/16	0.277	22,0	29-31	1520	268
IP5494	1x95/16	0.210	24,0	31-33	1790	328
IP5495	1x120/16	0.164	25,5	33-35	2075	383
IP5496	1x150/25	0.132	27,5	35-37	2455	444
IP5497	1x185/25	0.108	29,5	37-39	2815	510
IP5498	1x240/25	0.0817	31,5	39-41	3350	607

<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

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