

# Flexible medium voltage cable BITflex<sup>®</sup> DC (N)TMCGCWOEU UL



**Application:** Power supply cable can be used in offshore power systems for low-speed energy chains, drum applications or to supply energy to large electrical applications and drives via energy carrier systems.

Operating speed:

- Offshore power systems: 6 m/min.
- Energy chains on cranes: 70 - 240 m/min.

Current carrying capacity: acc. to IEC 60364-5-52, conductor temperature: 90 °C, ambient temperature: 30 °C, free in air, installation method F: three loaded conductors, trefoil

## Construction and technical data:

<b>Conductor material:</b>	tinned copper
<b>Conductor construction:</b>	Class 5 = flexible
<b>Insulation:</b>	basic EPR
<b>Electrical field control:</b>	inner and outer semiconducting rubber layer
<b>Arrangement of protective conductors:</b>	spirally applied tinned copper wires
<b>Screen coverage:</b>	86 %
<b>Sheathing material:</b>	rubber 5GM5
<b>Colour of outer sheath:</b>	red
<b>Flame-retardant:</b>	VDE 0482-332-1-2/IEC 60332-1-2
<b>UV-resistant:</b>	yes
<b>Oil-resistant:</b>	EN 60811-404
<b>Ozone-resistant:</b>	yes
<b>Max. temperature at conductor, °C:</b>	90 °C
<b>Max. short circuit temperature at conductor, °C:</b>	200 °C
<b>Permitted outer cable temperature, fixed, °C:</b>	-40 - +80 °C
<b>Permitted outer cable temperature, moved, °C:</b>	-25 - +80 °C
<b>Bending radius, fixed installation:</b>	6 x Ø
<b>Bending radius, moving application:</b>	8 x Ø
<b>Maximum tensile strength at the conductor:</b>	15 N/mm <sup>2</sup>



**Bitflex<sup>®</sup> DC (N)TMCGCWOEU UL 6/10 kV**

**Nominal voltage U<sub>0</sub>:** 6 kV  
**Nominal voltage U:** 10 kV  
**Maximum permitted operating voltage in three-phase systems:** 12 kV  
**Test voltage:** 17 kV

part no.	part name	RI [Ohm/km]	I <sub>bl</sub> [A]	Ø [mm]	Cu	G [kg]
054281	1x25/16	0.795	135	25	422	800
054282	1x35/16	0.565	169	23	518	930
054283	1x50/16	0.393	207	28	662	1130
054284	1x70/16	0.277	268	30	854	1375
054285	1x95/16	0.21	328	32	1094	1636
054286	1x120/16	0.164	383	34	1334	1990
054287	1x150/25	0.132	444	36	1723	2320
054288	1x185/25	0.108	510	38	2059	2680
054289	1x240/25	0.0817	607	41	2587	3300

**Bitflex<sup>®</sup> DC (N)TMCGCWOEU UL 12/20 kV**

**Nominal voltage U<sub>0</sub>:** 20 kV  
**Nominal voltage U:** 12 kV  
**Maximum permitted operating voltage in three-phase systems:** 24 kV  
**Test voltage:** 29 kV

part no.	part name	RI [Ohm/km]	I <sub>bl</sub> [A]	Ø [mm]	Cu	G [kg]
054290	1x25/16	0.795	135	29	422	1010
054291	1x35/16	0.565	169	30	518	1160
054292	1x50/16	0.393	207	31	662	1350
054293	1x70/16	0.277	268	34	854	1670
054294	1x95/16	0.21	328	36	1094	1940
054295	1x120/16	0.164	383	38	1334	2230
054296	1x150/25	0.132	444	40	1723	2660
054297	1x185/25	0.108	510	42	2059	3031
054298	1x240/25	0.0817	607	44	2587	3881

**Bitflex<sup>®</sup> DC (N)TMCGCWOEU UL 18/30 kV**

**Nominal voltage U<sub>0</sub>:** 18 kV  
**Nominal voltage U:** 30 kV  
**Maximum permitted operating voltage in three-phase systems:** 36 kV  
**Test voltage:** 43 kV

part no.	part name	RI [Ohm/km]	I <sub>bl</sub> [A]	Ø [mm]	Cu	G [kg]
054830	1x150/25	0.132	444	43	1723	2940
054862	1x185/25	0.108	510	46	2059	3350
054856	1x240/25	0.0817	607	47	2587	3880
054797	1x300/25	0.0654	703	50	3163	4590

RI	Conductor resistance
I <sub>bl</sub>	Ampacity in air (30 °C)
Ø	outer diameter approx.
Cu	Copper weight (GER)
G	net weight per 1000