

BiTmining[®](N)TMCGCWOEU



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



open-pit
mining



industrial
application



EN 60332-1-2



high flexibility



oxygen index



UV resistance



oil resistant
EN 60811-404



mechanical
resistance

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

Mechanical parameters:

Max. tensile load per conductor: 15 N/mm²

Bending radius:

- fixed installation: $\geq 6 \times$ outer- $\varnothing$

- free moving: $\geq 10 \times$ outer- $\varnothing$

Design:

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

Protective conductor:

Outer sheath:

heavy duty rubber compound, type 5GM5
acc. to DIN VDE 0207-21, unrestricted use indoors,
outdoors, resistance to ozone, UV and 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_0/U [kV]	6/10	8.7/15	12/20	14/25	18/30
Maximum permissible operating voltage $U_{0,max}$ in AC systems [kV]:	6.9/12	10.4/18	13.9/25	17.3/30	20.8/36
Maximum permissible operating voltage $U_{0,max}$ in DC systems [kV]:	9/18	13.5/27	18/36	22.5/45	27/54
AC test voltage acc. to DIN VDE 0250-813 [kV]:	17	24	29	36	43
De-rating factors:	acc. to DIN VDE 0298-4				

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BiTmining[®](N)TMCGCWOEU 6/10 kV

Cat. no.	n x mm ²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Calculated cable weight [kg/km]	Current carrying capacity ¹⁾ [A]
BM1700	1x25/16	0.795	13.0	20-23	760	135
BM1701	1x35/16	0.565	14.0	21-24	855	169
BM1702	1x50/16	0.393	16.0	22-25	1010	207
BM1703	1x70/16	0.277	17.0	25-28	1280	268
BM1704	1x95/16	0.210	19.0	26-29	1515	328
BM1020	1x120/16	0.164	20.0	28-31	1765	383
BM1706	1x150/25	0.132	22.0	31-34	2230	444
BM1707	1x185/25	0.108	25.0	33-36	2590	510
BM1708	1x240/25	0.0817	26.0	35-38	3125	607
BM1709	1x300/25	0.0654	29.0	38-41	3820	703
BM1710	1x400/35	0.0495	33.0	42-45	4890	823
BM1711	1x500/35	0.0391	35.0	45-58	5890	946

BiTmining[®](N)TMCGCWOEU 8,7/15 kV

Cat. no.	n x mm ²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Calculated cable weight [kg/km]	Current carrying capacity ¹⁾ [A]
BM1720	1x25/16	0.795	13.0	20-23	760	135
BM1721	1x35/16	0.565	14.0	21-24	855	169
BM1722	1x50/16	0.393	16.0	22-25	1010	207
BM1723	1x70/16	0.277	17.0	25-28	1280	268
BM1724	1x95/16	0.210	19.0	26-29	1515	328
BM1725	1x120/16	0.164	20.0	28-31	1765	383
BM1726	1x150/25	0.132	22.0	31-34	2230	444
BM1727	1x185/25	0.108	25.0	33-36	2590	510
BM1728	1x240/25	0.0817	26.0	35-38	3125	607
BM1729	1x300/25	0.0654	29.0	38-41	3820	703
BM1730	1x400/35	0.0495	33.0	42-45	4890	823
BM1731	1x500/35	0.0391	35.0	45-58	5890	946

BiTmining[®](N)TMCGCWOEU 12/20 kV

Cat. no.	n x mm ²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Calculated cable weight [kg/km]	Current carrying capacity ¹⁾ [A]
BM1736	1x25/16	0.795	16.0	23-26	890	135
BM1027	1x35/16	0.565	17.0	25-28	1030	169
BM1737	1x50/16	0.393	19.0	26-29	1215	207
BM1738	1x70/16	0.277	21.0	28-31	1450	268
BM1026	1x95/16	0.210	22.5	31-33	1770	328
BM1739	1x120/16	0.164	24.0	32-35	2040	383
BM1025	1x150/25	0.132	26.0	34-37	2445	444
BM1040	1x185/25	0.108	28.0	37-40	2900	510
BM0861	1x240/25	0.0817	30.0	39-41	3450	607
BM1741	1x300/25	0.0654	32.0	41-44	4057	703
BM1742	1x400/35	0.0495	36.0	46-49	5165	823
BM1743	1x500/35	0.0391	39.0	49-52	6305	946

¹⁾ 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

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BiTmining[®](N)TMCGCWOEU 14/25 kV

Cat. no.	n x mm ²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Calculated cable weight [kg/km]	Current carrying capacity ¹⁾ [A]
BM1750	1x25/16	0.795	18.0	25-28	980	135
BM1751	1x35/16	0.565	19.0	25-28	1100	169
BM1752	1x50/16	0.393	20.0	26-29	1265	207
BM1753	1x70/16	0.277	22.0	28-31	1580	268
BM1754	1x95/16	0.210	24.0	31-33	1850	328
BM1755	1x120/16	0.164	25.0	32-35	2125	383
BM1756	1x150/25	0.132	27.0	34-37	2610	444
BM1757	1x185/25	0.108	29.0	37-40	2990	510
BM1758	1x240/25	0.0817	31.0	39-41	3530	607
BM1759	1x300/25	0.0654	33.0	41-44	4170	703
BM1760	1x400/35	0.0495	37.0	46-49	5390	823
BM1761	1x500/35	0.0391	40.0	49-52	6430	946

BiTmining[®](N)TMCGCWOEU 18/30 kV

Cat. no.	n x mm ²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Calculated cable weight [kg/km]	Current carrying capacity ¹⁾ [A]
BM1770	1x25/16	0.795	20.0	27-30	1100	135
BM1771	1x35/16	0.565	21.0	28-31	1210	169
BM1772	1x50/16	0.393	23.0	31-34	1475	207
BM1773	1x70/16	0.277	24.0	33-36	1740	268
BM1774	1x95/16	0.210	26.0	34-37	2025	328
BM1775	1x120/16	0.164	27.0	37-40	2375	383
BM1776	1x150/25	0.132	28.5	39-42	2780	444
BM1777	1x185/25	0.108	32.0	41-44	3165	510
BM1778	1x240/25	0.0817	33.0	42-45	3720	607
BM1779	1x300/25	0.0654	36.0	45-48	4380	703
BM1780	1x400/35	0.0495	40.0	50-53	5640	823
BM1781	1x500/35	0.0391	42.0	53-56	6660	946

¹⁾ 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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