BiTmining®(N)TMCGCWOEU

RoHS 2015/863/EU

24 months warranty

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

BITNER   BiTmining®(N)TMCGCWOEU

| mining applications | industrial application | EN 60332-1-2 | high flexibility | >29 oxygen index | 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/mm²
Bending radius:
- fixed installation: ≥ 6 x outer-Ø
- free moving: ≥ 10 x outer-Ø

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

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

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 $U_{b\,max}$ in AC systems [kV]:	6.9/12	10.4/18	13.9/25	17.3/30	20.8/36
Maximum permissible operating voltage $U_{b\,max}$ 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

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BiTmining®(N)TMCGCWOEU 6/10 kV

n x mm²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity[1] [A]
1x16/16	1.24	12	20 – 23	655	116
1x25/16	0.795	13	21 – 24	785	135
1x35/16	0.565	14	22 – 25	880	169
1x50/16	0.393	16	24 – 27	1030	207
1x70/16	0.277	18	26 – 29	1305	268
1x95/16	0.210	19	28 – 31	1545	328
1x120/16	0.164	21	29 – 32	1780	383
1x150/25	0.132	23	32 – 35	2240	444
1x185/25	0.108	25	35 – 38	2600	510
1x240/25	0.0817	27	37 – 40	3090	607
1x300/25	0.0654	29	39 – 42	3865	703
1x400/35	0.0495	33	44 – 47	4945	823
1x500/35	0.0391	35	46 – 49	5925	946

BiTmining®(N)TMCGCWOEU 8,7/15 kV

n x mm²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity[1] [A]
1x16/16	1.24	12	20 – 23	655	116
1x25/16	0.795	13	21 – 24	785	135
1x35/16	0.565	14	22 – 25	880	169
1x50/16	0.393	16	24 – 27	1030	207
1x70/16	0.277	18	26 – 29	1305	268
1x95/16	0.210	19	28 – 31	1545	328
1x120/16	0.164	21	29 – 32	1780	383
1x150/25	0.132	23	32 – 35	2240	444
1x185/25	0.108	25	35 – 38	2600	510
1x240/25	0.0817	27	37 – 40	3090	607
1x300/25	0.0654	29	39 – 42	3865	703
1x400/35	0.0495	33	44 – 47	4945	823
1x500/35	0.0391	35	46 – 49	5925	946

BiTmining®(N)TMCGCWOEU 12/20 kV

n x mm²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity[1] [A]
1x25/16	0.795	16	24 – 27	900	135
1x35/16	0.565	17	26 – 29	1040	169
1x50/16	0.393	19	27 – 30	1220	207
1x70/16	0.277	21	29 – 32	1460	268
1x95/16	0.210	22.5	32 – 35	1785	328
1x120/16	0.164	24	33 – 36	2040	383
1x150/25	0.132	26	35 – 38	2435	444
1x185/25	0.108	28	38 – 41	2895	510
1x240/25	0.0817	30	40 – 43	3400	607
1x300/25	0.0654	32	42 – 45	4095	703
1x400/35	0.0495	36	46 – 49	5180	823
1x500/35	0.0391	38	50 – 53	6331	946
1x630/35	0.0292	44	55 – 58	7878	1088

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

BiTmining®(N)TMCGCWOEU 14/25 kV

n x mm²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity[1] [A]
1x25/16	0.795	18	26 – 29	990	135
1x35/16	0.565	19	27 – 30	1110	169
1x50/16	0.393	20	28 – 31	1270	207
1x70/16	0.277	22	31 – 34	1595	268
1x95/16	0.210	24	33 – 36	1865	328
1x120/16	0.164	25	34 – 37	2120	383
1x150/25	0.132	27	37 – 40	2595	444
1x185/25	0.108	29	40 – 43	2985	510
1x240/25	0.0817	31	41 – 44	3480	607
1x300/25	0.0654	33	44 – 47	4195	703
1x400/35	0.0495	37	49 – 52	5420	823
1x500/35	0.0391	39	51 – 54	6430	946

BiTmining®(N)TMCGCWOEU 18/30 kV

n x mm²	Maximum conductor resistance [Ω/km]	Nominal diameter over insulation [mm]	Outer diameter min.-max. [mm]	Approximate cable weight [kg/km]	Current carrying capacity[1] [A]
1x25/16	0.795	20	28 – 31	1115	135
1x35/16	0.565	21	29 – 32	1220	169
1x50/16	0.393	23	32 – 35	1485	207
1x70/16	0.277	24	33.5 – 36.5	1750	268
1x95/16	0.210	26	35 – 38	2040	328
1x120/16	0.164	27	37.5 – 40.5	2380	383
1x150/25	0.132	29	40 – 43	2775	444
1x185/25	0.108	32	42 – 45	3160	510
1x240/25	0.0817	33	43 – 46	3675	607
1x300/25	0.0654	36	46 – 49	4400	703
1x400/35	0.0495	40	51 – 54	5635	823
1x500/35	0.0391	42	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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