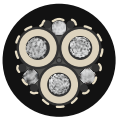
BiTmining®NTSCGEWOEU-TR

RoHS 2015/863/EU
CPR
CPR 305/2011
24 months warranty

Medium voltage, flexible power supply cable for trailing applications based on DIN VDE 0250-813



mining applications | industrial application | EN 60332-1-2 | high flexibility | oxygen index | UV resistance

dragline | shovel | mechanical resistance | low operating temperature | explosion hazardous areas | oil resistant EN 60811-404

Technical data:

Thermal parameters:

Ambient temperature:
fixed installation: -50 °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: 15N/mm^2
Bending radius: acc. to DIN VDE 0298-3
Torsional stresses: ±100 °/M.

Design:

Main cores:	
Conductors:	tinned copper wires, finely stranded, class 5 acc. to IEC 60228
Insulation:	- inner semi-conductive stress control layer - EPR compound, type 3GI3 acc. to DIN VDE 0207-20 - outer semi-conductive insulation shield layer
Protective conductor:	tinned copper wires, finely stranded, class 5 acc. to IEC 60228, semi-conductive layer
Core arrangement:	three main cores laid-up with the symmetrically split protective-earth conductor cross-section in the interstices
Reinforcement:	high-tec, tear-resistant reinforcing grid tape, acting as a protection against sheath movement and protection from transverse and longitudinal stress
Inner / outer sheath:	heavy duty rubber compound, type 5GM5 acc. to DIN VDE 0207-21, with improved tear- and abrasion resistance, colour: black, inkjet marking

Application:

Flexible power supply cable for large devices in open-pit mines where exposed to extremely high mechanical stresses, abrasion and tear usually during trailing operation.

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]	3.6/6	6/10	8.7/15	12/20	14/25	18/30
Max. permissible operating voltage $U_{b\,max}$ in AC systems [kV]:	4.2/7.2	6.9/12	10.4/18	13.9/24	17.3/30	20.8/36
Max. permissible operating voltage $U_{b\,max}$ 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
Current-carrying capacities [A]:	acc. to DIN VDE 0298-4					

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BiTmining®NTSCGEWOEU-TR 3.6/6 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1400	3x25+3x25/3	44-47	0,795	0,36	0,34	131	3,2	2855	1125
BM1401	3x35+3x25/3	46-49	0,565	0,34	0,39	162	4,48	3222	1575
BM1402	3x50+3x25/3	51-54	0,393	0,32	0,43	202	6,4	3963	2250
BM1403	3x70+3x35/3	55-58	0,277	0,30	0,49	250	8,96	5036	3150
BM1404	3x95+3x50/3	60-63	0,210	0,29	0,54	301	12,16	6214	4275
BM1405	3x120+3x70/3	63-66	0,164	0,28	0,60	352	15,36	7243	5400
BM1406	3x150+3x70/3	68-71	0,132	0,27	0,65	404	19,2	8484	6750
BM1407	3x185+3x95/3	74-77	0,108	0,27	0,70	461	23,68	10212	8325

BiTmining®NTSCGEWOEU-TR 6/10 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1425	3x25+3x25/3	47-50	0,795	0,37	0,31	131	3,2	3123	1125
BM1426	3x35+3x25/3	49-52	0,565	0,34	0,35	162	4,48	3503	1575
BM1427	3x50+3x25/3	53-56	0,393	0,33	0,39	202	6,4	4246	2250
BM1428	3x50+3x50/3	53-56	0,393	0,33	0,39	202	6,4	4426	2250
BM1429	3x70+3x35/3	58-61	0,277	0,31	0,44	250	8,96	5370	3150
BM1430	3x95+3x50/3	62-65	0,210	0,30	0,49	301	12,16	6435	4275
BM1431	3x120+3x70/3	65-68	0,164	0,29	0,54	352	15,36	7592	5400
BM1432	3x150+3x50/3	68-71	0,132	0,28	0,58	404	19,2	8576	6750
BM1433	3x150+3x70/3	70-73	0,132	0,28	0,58	404	19,2	8892	6750
BM1434	3x185+3x50/3	76-79	0,108	0,28	0,63	461	23,68	10283	8325
BM1435	3x185+3x95/3	76-79	0,108	0,27	0,63	461	23,68	10621	8325

BiTmining®NTSCGEWOEU-TR 8.7/15 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1450	3x25+3x25/3	52-55	0,795	0,39	0,25	139	3,2	3708	1125
BM1451	3x35+3x25/3	54-57	0,565	0,37	0,28	172	4,48	4113	1575
BM1452	3x50+3x25/3	59-62	0,393	0,35	0,31	215	6,4	4933	2250
BM1453	3x70+3x35/3	63-66	0,277	0,33	0,35	265	8,96	6086	3150
BM1454	3x95+3x50/3	68-71	0,210	0,32	0,39	319	12,16	7351	4275
BM1455	3x120+3x70/3	71-74	0,164	0,31	0,42	371	15,36	8426	5400
BM1456	3x150+3x70/3	76-79	0,132	0,30	0,46	428	19,2	9757	6750
BM1457	3x185+3x95/3	82-85	0,108	0,29	0,50	488	23,68	11591	8325

BiTmining®NTSCGEWOEU-TR

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BiTmining®NTSCGEWOEU-TR 12/20 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1470	3x25+3x25/3	57-60	0,795	0,41	0,22	139	3,2	4203	1125
BM1471	3x35+3x25/3	60-63	0,565	0,39	0,25	172	4,48	4762	1575
BM1472	3x50+3x25/3	64-67	0,393	0,37	0,27	215	6,4	5604	2250
BM1473	3x70+3x35/3	69-72	0,277	0,35	0,30	265	8,96	6836	3150
BM1474	3x95+3x50/3	73-76	0,210	0,33	0,33	319	12,16	7990	4275
BM1475	3x120+3x70/3	76-79	0,164	0,32	0,36	371	15,36	9226	5400
BM1476	3x150+3x70/3	81-84	0,132	0,31	0,39	428	19,2	10650	6750
BM1477	3x185+3x95/3	87-90	0,108	0,30	0,42	488	23,68	12473	8325

BiTmining®NTSCGEWOEU-TR 14/25 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1490	3x25+3x25/3	64-67	0,795	0,43	0,19	139	3,2	5162	1125
BM1491	3x35+3x25/3	66-69	0,565	0,41	0,21	172	4,48	5620	1575
BM1492	3x50+3x25/3	71-74	0,393	0,39	0,23	215	6,4	6553	2250
BM1493	3x70+3x35/3	75-78	0,277	0,37	0,25	265	8,96	7817	3150
BM1494	3x95+3x50/3	80-83	0,210	0,35	0,28	319	12,16	9204	4275
BM1495	3x120+3x70/3	83-86	0,164	0,34	0,30	371	15,36	10343	5400
BM1496	3x150+3x70/3	88-91	0,132	0,33	0,33	428	19,2	11802	6750
BM1497	3x185+3x95/3	94-97	0,108	0,32	0,35	488	23,68	13785	8325

BiTmining®NTSCGEWOEU-TR 18/30 kV

Cat. no	n x mm²	Outer diameter min.-max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [µF/km]	Current carrying capacity at 30°C [A]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM1510	3x25+3x25/3	70-73	0,795	0,45	0,17	139	3,2	6047	1125
BM1511	3x35+3x25/3	72-75	0,565	0,43	0,19	172	4,48	6533	1575
BM1512	3x50+3x25/3	77-80	0,393	0,40	0,21	215	6,4	7489	2250
BM1513	3x70+3x35/3	81-84	0,277	0,38	0,23	265	8,96	8847	3150
BM1514	3x95+3x50/3	85-88	0,210	0,37	0,25	319	12,16	10104	4275
BM1515	3x120+3x70/3	89-92	0,164	0,35	0,27	371	15,36	11431	5400
BM1516	3x150+3x70/3	94-97	0,132	0,34	0,29	428	19,2	12998	6750
BM1517	3x185+3x95/3	100-103	0,108	0,33	0,31	488	23,68	15014	8325

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