

BiTmining[®] (N)TSCGEWOEU-F RoHS 2011/65/EU

CPR
CPR 305/2011
2 years warranty

Mining cables

Medium voltage, flexible power supply cable for fixed installations



- mining applications
- industrial application
- EN 60332-1
- high flexibility
- oxygen index >29
- UV resistance
- oil resistant
EN 60811-404
- mechanical resistance
- low operating temperature
- explosion hazardous areas
abc
AB

Technical data:

Operating temperature:
Fixed systems: -40°C to 90°C
Flexible operation: -25°C to 80°C
Maximum permissible water temperature: 40°C
Maximum permissible operating temperature of the conductor: 90°C
Maximum conductors operating temperature in short-circuit: 250°C
Tensile load: 15N/mm²
Torsional stresses: +/-100°/m
Min. bending radius: acc. to DIN VDE 0298, Part 3
Travel speed on rewinding: up to 100m/min
Operating voltage:
U_J/U= 3,6/6kV to 18/30kV
Test voltage: 11kV to 43kV
Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: finely stranded class 5 (EN 60228, DIN VDE 0295) bare, electrolytic copper
Insulation: EPR compound with improved electrical and mechanical characteristics (DIN VDE 0207, Part 20)
Electrical field control: inner and outer layers of semiconductive rubber
Core identification: natural colouring with black semiconductive rubber and printed white digits 1 to 3
Core arrangement: three main conductors laid-up with protective-earth conductor split into 3 in the outer interstices
Inner sheath: special EPR compound (acc. to DIN VDE 0207, Part 21)
Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), waterproof, colour: red

Application:

Flexible power supply cable for fixed installations in strip and open-pit mining facilities, alongside belt conveyors also for continuous slight movements (free overhang, slight twisting). Can also be used as connection cable between upper and lower part of excavator, stacker/reclaimer. It is suitable also for constant operation in water as power supply cable to submersible pumps.
Cables classified according to **EN 50575 (CPR)**.

Chemical parameters:

Resistance to oil: EN 60811-2-1, IEC 60811-2-1
Behaviour in case of fire: VDE 0482 Part 332-1-2, EN 60332-1-2, IEC 60332-1-2
Water compatibility: HD 22.16 (VDE 0282 Part 16)
Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Rated voltage U _J /U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U _J /U [kV]	4,2/7,2	6,9/12	10,4/18	13,9/24	17,3/30	20,8/36
Maximum permissible operating voltage in DC systems U _J /U [kV]	5,4/10,8	9/18	13,5/27	18/36	22,5/45	27/54
AC test voltage [kV]	11	17	24	29	36	43
Current-carrying capacity	According to DIN VDE 0298, Part 4					

BiTmining[®](N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining[®](N)TSCGEWOEU-F 3,6/6kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0150	3x25+3x25/3	39,2	0,780	0,33	0,45	131	3,58	2475	1125
BM0151	3x25+3x50/3	43,6	0,780	0,36	0,45	131	3,58	3225	1125
BM0152	3x35+3x25/3	42,7	0,554	0,31	0,50	162	5,01	2950	1575
BM0153	3x35+3x50/3	45,3	0,554	0,33	0,50	162	5,01	3540	1575
BM0154	3x50+3x25/3	46,2	0,386	0,30	0,58	202	7,15	3565	2250
BM0155	3x50+3x50/3	46,6	0,386	0,30	0,58	202	7,15	3960	2250
BM0156	3x70+3x35/3	50,0	0,272	0,29	0,64	250	10,01	4560	3150
BM0157	3x70+3x50/3	50,0	0,272	0,29	0,64	250	10,01	4780	3150
BM0158	3x95+3x50/3	54,5	0,206	0,27	0,73	301	13,6	5750	4275
BM0159	3x120+3x70/3	57,1	0,161	0,26	0,80	352	17,16	6600	5400
BM0160	3x150+3x70/3	64,8	0,129	0,26	0,88	404	21,45	8140	6750
BM0161	3x185+3x95/3	69,6	0,106	0,25	0,94	462	26,46	9640	8325

BiTmining[®](N)TSCGEWOEU-F 6/10kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0170	3x25+3x25/3	41,9	0,780	0,34	0,40	131	3,58	2716	1125
BM0171	3x25+3x50/3	43,6	0,780	0,36	0,40	131	3,58	3220	1125
BM0172	3x35+3x25/3	44,0	0,554	0,32	0,45	162	5,01	3065	1575
BM0173	3x35+3x50/3	46,2	0,554	0,34	0,45	162	5,01	3625	1575
BM0174	3x50+3x25/3	47,5	0,386	0,30	0,51	202	7,15	3690	2250
BM0175	3x50+3x50/3	47,5	0,386	0,30	0,51	202	7,15	4040	2250
BM0176	3x70+3x35/3	53,1	0,272	0,29	0,57	250	10,01	4915	3150
BM0177	3x70+3x50/3	53,1	0,272	0,29	0,57	250	10,01	5140	3150
BM0178	3x95+3x50/3	55,8	0,206	0,28	0,65	301	13,60	5900	4275
BM0179	3x120+3x70/3	58,4	0,161	0,27	0,71	352	17,16	6760	5400
BM0180	3x150+3x70/3	66,1	0,129	0,26	0,78	404	21,45	8320	6750

BiTmining[®](N)TSCGEWOEU-F 8,7/15kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0185	3x25+3x25/3	45,3	0,780	0,36	0,32	139	3,58	3040	1125
BM0186	3x25+3x50/3	46,2	0,780	0,38	0,32	139	3,58	3470	1125
BM0187	3x35+3x25/3	47,5	0,554	0,34	0,36	172	5,01	3400	1575
BM0188	3x35+3x50/3	47,5	0,554	0,34	0,36	172	5,01	3755	1575
BM0189	3x50+3x25/3	50,9	0,386	0,32	0,41	215	7,15	4060	2250
BM0190	3x50+3x50/3	50,9	0,386	0,32	0,41	215	7,15	4400	2250
BM0191	3x70+3x35/3	56,6	0,272	0,31	0,45	265	10,01	5320	3150
BM0192	3x70+3x50/3	56,6	0,272	0,31	0,45	265	10,01	5545	3150
BM0193	3x95+3x50/3	59,2	0,206	0,29	0,51	319	13,60	6325	4275
BM0194	3x120+3x70/3	63,1	0,161	0,28	0,56	371	17,16	7380	5400
BM0195	3x150+3x70/3	69,6	0,129	0,28	0,60	428	21,45	8820	6750

BiTmining[®](N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining[®](N)TSCGEWOEU-F 12/20kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0200	3x25+3x25/3	48,3	0,780	0,38	0,28	139	3,58	3345	1125
BM0201	3x25+3x50/3	48,3	0,780	0,38	0,28	139	3,58	3690	1125
BM0202	3x35+3x25/3	50,5	0,554	0,36	0,31	172	5,01	3725	1575
BM0203	3x35+3x50/3	50,5	0,554	0,36	0,31	172	5,01	4075	1575
BM0204	3x50+3x25/3	55,7	0,386	0,34	0,35	215	7,15	4625	2250
BM0205	3x50+3x50/3	55,7	0,386	0,34	0,35	215	7,15	4975	2250
BM0206	3x70+3x35/3	59,6	0,272	0,32	0,38	265	10,01	5695	3150
BM0207	3x70+3x50/3	59,6	0,272	0,32	0,38	265	10,01	5920	3150
BM0208	3x95+3x50/3	65,0	0,206	0,31	0,43	319	13,60	7125	4275
BM0209	3x120+3x70/3	67,6	0,161	0,30	0,47	371	17,16	8040	5400

BiTmining[®](N)TSCGEWOEU-F 14/25kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0220	3x25+3x25/3	54,4	0,780	0,40	0,24	139	3,58	4030	1125
BM0221	3x25+3x50/3	54,4	0,780	0,40	0,24	139	3,58	4380	1125
BM0222	3x35+3x25/3	56,6	0,554	0,37	0,26	172	5,01	4440	1575
BM0223	3x35+3x50/3	56,6	0,554	0,37	0,26	172	5,01	4790	1575
BM0224	3x50+3x25/3	60,0	0,386	0,35	0,30	215	7,15	5160	2250
BM0225	3x50+3x50/3	60,0	0,386	0,35	0,30	215	7,15	5510	2250
BM0226	3x70+3x35/3	65,7	0,272	0,34	0,33	265	10,01	6535	3150
BM0227	3x70+3x50/3	65,7	0,272	0,34	0,33	265	10,01	6760	3150
BM0228	3x95+3x50/3	69,3	0,206	0,32	0,36	319	13,60	7750	4275

BiTmining[®](N)TSCGEWOEU-F 18/30kV

Cat. no	Number of cores and nominal cross-section n x mm ²	Overall cable diameter* [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]	Approx. net weight [kg/km]	Maximum permissible tensile force [N]
BM0240	3x25+3x25/3	57,9	0,780	0,41	0,21	139	3,58	4450	1125
BM0241	3x25+3x50/3	57,9	0,780	0,41	0,21	139	3,58	4800	1125
BM0242	3x35+3x25/3	60,0	0,554	0,39	0,24	172	5,01	4875	1575
BM0243	3x35+3x50/3	60,0	0,554	0,39	0,24	172	5,01	5220	1575
BM0244	3x50+3x25/3	65,3	0,386	0,37	0,26	215	7,15	5885	2250
BM0245	3x50+3x50/3	65,3	0,386	0,37	0,26	215	7,15	6230	2250
BM0246	3x70+3x35/3	69,1	0,272	0,35	0,29	265	10,01	7030	3150
BM0247	3x70+3x50/3	69,1	0,272	0,35	0,29	265	10,01	7260	3150

Cable Factory BITNER reserves the right to modify specifications without prior notification.
 *Cable outer diameter may differ from the one shown in table
 Note: On customer's request other cross sections or number of cores can be produced