

BiTmining®(N)TSCGEWOEU-R



RoHS 2011/65/EU

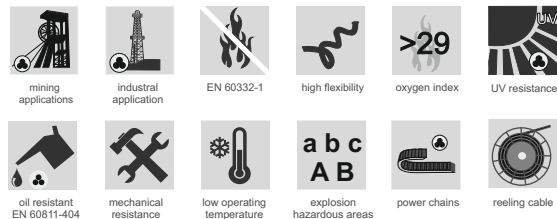
CPR

CPR 305/2011

2 years warranty

Mining cables

Medium voltage, flexible power supply cable for reeling applications



Technical data:

Operating temperature:

Fixed systems: -40°C to 90°C

Flexible operation: -25°C to 80°C

Maximum permissible operating temperature of the conductor: 90°C

Maximum conductors operating temperature in short-circuit: 250°C

Tensile load: 20N/mm²

Torsional stresses: +/-100°/m

Min. bending radius: acc. to DIN VDE 0298, Part 3

Minimum distance with S-type directional changes: 20xD

Travel speed:

- In operation: up to 60m/min

- On rewinding: up to 180m/min

Operating voltage: U_i/U= 3,6/6kV to 18/30kV

Test voltage: 11kV to 43kV

Standard: based on DIN VDE 0250 p.813

Construction:

Conductor: very finely stranded class 6 (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)

Anti-torsion reinforcement: braid of polyamide threads in a vulcanized bond between inner and outer sheath being integral part of an outer sheath. Protection from transverse and longitudinal stress.

Outer sheath: 5GM5 compound with improved mechanical characteristics (acc. to DIN VDE 0207, Part 21), waterproof, colour: red

Application:

Flexible power supply cable for use in strip and open-pit mining facilities, for high mechanical stresses, designed for connection of large material handling machines such as excavators, dumpers or mobile crushers. Main application: operation on cable reels. 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

Weather resistance: Unrestricted use indoors, outdoors, resistance to ozone, UV and moisture

Rated voltage U _i /U [kV]	3,6/6	6/10	8,7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems U _i /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 _i /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-R

Medium voltage, flexible power supply cable for reeling applications

BiTmining[®](N)TSCGEWOEU-R 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]
BM0255	3x25+3x25/3	39,2	0,780	0,31	0,44	131	3,58	2545	1500
BM0256	3x25+3x50/3	43,1	0,780	0,35	0,44	131	3,58	3216	1500
BM0257	3x35+3x25/3	43,3	0,554	0,30	0,50	162	5,01	3087	2100
BM0258	3x35+3x50/3	45,8	0,554	0,32	0,50	162	5,01	3660	2100
BM0259	3x50+3x25/3	46,8	0,386	0,28	0,58	202	7,15	3810	3000
BM0260	3x50+3x50/3	48,0	0,386	0,30	0,58	202	7,15	4280	3000
BM0261	3x70+3x35/3	50,5	0,272	0,27	0,65	250	10,01	4750	4200
BM0262	3x70+3x50/3	50,5	0,272	0,27	0,65	250	10,01	4960	4200
BM0263	3x95+3x50/3	56,2	0,206	0,26	0,74	301	13,6	6230	5700
BM0264	3x120+3x70/3	58,4	0,161	0,25	0,82	352	17,16	7136	7200
BM0265	3x150+3x70/3	65,5	0,129	0,25	0,90	404	21,45	8650	9000
BM0266	3x185+3x95/3	69,1	0,106	0,24	0,97	462	26,46	9585	11100
BM0267	3x240+3x120/3	74,1	0,080	0,24	1,10	540	34,32	11772	14400
BM0268	3x300+3x150/3	80,8	0,064	0,23	1,21	620	42,90	14440	18000

BiTmining[®](N)TSCGEWOEU-R 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]
BM0270	3x25+3x25/3	41,8	0,780	0,32	0,39	131	3,58	2765	1500
BM0271	3x25+3x50/3	44,5	0,780	0,32	0,39	131	3,58	3355	1500
BM0272	3x35+3x25/3	45,0	0,554	0,31	0,45	162	5,01	3250	2100
BM0273	3x35+3x50/3	47,1	0,554	0,31	0,45	162	5,01	3795	2100
BM0274	3x50+3x25/3	48,5	0,386	0,29	0,51	202	7,15	3985	3000
BM0275	3x50+3x50/3	48,5	0,386	0,29	0,51	202	7,15	4320	3000
BM0276	3x70+3x35/3	53,3	0,272	0,28	0,58	250	10,01	5055	4200
BM0277	3x70+3x50/3	55,1	0,272	0,28	0,58	250	10,01	5485	4200
BM0278	3x95+3x50/3	57,9	0,206	0,27	0,66	301	13,60	6430	5700
BM0279	3x120+3x70/3	60,1	0,161	0,26	0,73	352	17,16	7340	7200
BM0280	3x150+3x70/3	67,2	0,129	0,25	0,79	404	21,45	8890	9000
BM0281	3x185+3x95/3	70,8	0,106	0,25	0,86	462	26,46	9840	11100
BM0282	3x240+3x120/3	77,6	0,080	0,24	0,97	540	34,32	12360	14400
BM0283	3x300+3x150/3	82,5	0,064	0,24	1,07	620	42,90	14740	18000

BiTmining[®](N)TSCGEWOEU-R 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]
BM0290	3x25+3x25/3	45,2	0,780	0,34	0,31	139	3,58	3085	1500
BM0291	3x25+3x50/3	46,1	0,780	0,34	0,31	139	3,58	3500	1500
BM0292	3x35+3x25/3	48,4	0,554	0,33	0,36	172	5,01	3590	2100
BM0293	3x35+3x50/3	48,4	0,554	0,33	0,36	172	5,01	3925	2100
BM0294	3x50+3x25/3	52,0	0,386	0,31	0,41	215	7,15	4350	3000
BM0295	3x50+3x50/3	52,0	0,386	0,31	0,41	215	7,15	4690	3000
BM0296	3x70+3x35/3	57,1	0,272	0,30	0,45	265	10,01	5505	4200
BM0297	3x70+3x50/3	57,1	0,272	0,30	0,45	265	10,01	5715	4200
BM0298	3x95+3x50/3	61,4	0,206	0,28	0,51	319	13,60	6870	5700
BM0299	3x120+3x70/3	64,8	0,161	0,27	0,57	371	17,16	7975	7200
BM0300	3x150+3x70/3	70,6	0,129	0,27	0,62	428	21,45	9390	9000
BM0301	3x185+3x95/3	74,3	0,106	0,26	0,67	488	26,46	10370	11100
BM0302	3x240+3x120/3	81,0	0,080	0,25	0,75	574	34,32	12940	14400
BM0303	3x300+3x150/3	86,0	0,064	0,25	0,82	665	42,90	15350	18000

BiTmining[®](N)TSCGEWOU-R

Medium voltage, flexible power supply cable for reeling applications

BiTmining[®](N)TSCGEWOU-R 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]
BM0305	3x25+3x25/3	48,2	0,780	0,36	0,27	139	3,58	3385	1500
BM0306	3x25+3x50/3	48,2	0,780	0,36	0,27	139	3,58	3720	1500
BM0307	3x35+3x25/3	51,4	0,554	0,34	0,31	172	5,01	3910	2100
BM0308	3x35+3x50/3	51,4	0,554	0,34	0,31	172	5,01	4240	2100
BM0309	3x50+3x25/3	56,8	0,386	0,32	0,35	215	7,15	4925	3000
BM0310	3x50+3x50/3	56,8	0,386	0,32	0,35	215	7,15	5460	3000
BM0311	3x70+3x35/3	60,5	0,272	0,31	0,39	265	10,01	5935	4200
BM0312	3x70+3x50/3	60,5	0,272	0,31	0,39	265	10,01	6145	4200
BM0313	3x95+3x50/3	65,4	0,206	0,30	0,44	319	13,60	7415	5700
BM0314	3x120+3x70/3	69,3	0,161	0,29	0,48	371	17,16	8650	7200
BM0315	3x150+3x70/3	73,6	0,129	0,28	0,52	428	21,45	9850	9000
BM0316	3x185+3x95/3	79,1	0,106	0,27	0,56	488	26,46	11170	11100
BM0317	3x240+3x120/3	84,0	0,080	0,26	0,63	574	34,32	13460	14400
BM0318	3x300+3x150/3	89,0	0,064	0,26	0,69	665	42,90	15900	18000

BiTmining[®](N)TSCGEWOU-R 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]
BM0320	3x25+3x25/3	54,4	0,780	0,38	0,23	139	3,58	4030	1500
BM0321	3x25+3x50/3	54,4	0,780	0,38	0,23	139	3,58	4380	1500
BM0322	3x35+3x25/3	56,6	0,554	0,36	0,26	172	5,01	4440	2100
BM0323	3x35+3x50/3	56,6	0,554	0,36	0,26	172	5,01	4790	2100
BM0324	3x50+3x25/3	60,0	0,386	0,34	0,30	215	7,15	5160	3000
BM0325	3x50+3x50/3	60,0	0,386	0,34	0,30	215	7,15	5510	3000
BM0326	3x70+3x35/3	65,7	0,272	0,32	0,33	265	10,01	6535	4200
BM0327	3x70+3x50/3	65,7	0,272	0,32	0,33	265	10,01	6760	4200
BM0328	3x95+3x50/3	69,3	0,206	0,31	0,37	319	13,60	7750	5700
BM0329	3x120+3x70/3	71,9	0,161	0,30	0,41	371	17,16	8680	7200
BM0330	3x150+3x70/3	76,9	0,129	0,29	0,44	428	21,45	9970	9000
BM0331	3x185+3x95/3	83,4	0,106	0,28	0,47	488	26,46	11930	11100
BM0332	3x240+3x120/3	88,3	0,080	0,27	0,53	574	34,32	14185	14400
BM0333	3x300+3x150/3	93,3	0,064	0,27	0,58	665	42,90	16690	18000

BiTmining[®](N)TSCGEWOU-R 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]
BM0335	3x25+3x25/3	57,4	0,780	0,40	0,21	139	3,58	4415	1500
BM0336	3x25+3x50/3	57,4	0,780	0,40	0,21	139	3,58	4750	1500
BM0337	3x35+3x25/3	60,6	0,554	0,38	0,24	172	5,01	5005	2100
BM0338	3x35+3x50/3	60,6	0,554	0,38	0,24	172	5,01	5340	2100
BM0339	3x50+3x25/3	64,5	0,386	0,35	0,26	215	7,15	5920	3000
BM0340	3x50+3x50/3	64,5	0,386	0,35	0,26	215	7,15	6255	3000
BM0341	3x70+3x35/3	69,3	0,272	0,34	0,29	265	10,01	7145	4200
BM0342	3x70+3x50/3	69,3	0,272	0,34	0,29	265	10,01	7360	4200
BM0343	3x95+3x50/3	73,1	0,206	0,32	0,33	319	13,60	8550	5700
BM0344	3x120+3x70/3	78,5	0,161	0,31	0,36	371	17,16	10095	7200
BM0345	3x150+3x70/3	82,8	0,129	0,30	0,39	428	21,45	11380	9000
BM0346	3x185+3x95/3	86,8	0,106	0,29	0,42	488	26,46	12530	11100
BM0347	3x240+3x120/3	91,8	0,080	0,28	0,46	574	34,32	14900	14400
BM0348	3x300+3x150/3	96,7	0,064	0,27	0,51	665	42,90	17425	18000

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