

BiTmining®(N)TSCGEWOEU-F

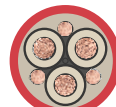
RoHS 2015/863/EU

CPR

CPR 305/2011

24 months warranty

Medium voltage, flexible power supply cable for fixed installations



open-pit mining



industrial application



EN 60332-1-2



high flexibility



UV resistance



oil resistant
EN 60811-404



mechanical resistance



low operating temperature

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: 250 °C

De-rating factors: acc. to DIN VDE 0298-4

Mechanical parameters:

Max. tensile load per conductor: 15 N/mm²

Torsional stresses: +/-100 °/m

Bending radius: acc. to DIN VDE 0298-3

Design:

Conductors:

plain 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:

plain copper wires, finely stranded, class 5 acc. to DIN

EN/IEC 60228, semi-conductive layer

Core arrangement:

three main cores laid-up with the protective conductors, symmetrically split in the interstices

Inner sheath:

synthetic rubber compound, based on type GM1b

acc. to DIN VDE 0207-21, filling the interstices

Outer sheath:

heavy duty rubber compound, type 5GM5

acc. to DIN VDE 0207-21, colour: red, inkjet marking

Application:

Flexible power supply cable for fixed and semi-fixed installations used in the area of opencast technology. Typical operations are: alongside conveyor systems, connection cables for transformers, on spreaders or bucket wheel excavators with continuous slight movements like free overhang or twisting.

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 $U_{0,max}$ in AC systems [kV]:	4.2/7.2	6.9/12	10.4/18	13.9/25	17.3/30	20.8/36
Max. permissible operating voltage $U_{0,max}$ 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					

BiTmining[®](N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining[®](N)TSCGEWOEU-F 3.6/6 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0150	3x25+3x25/3	39-42	0,780	0,33	0,45	3,6	2488	1125
BM0151	3x25+3x50/3	47-50	0,780	0,36	0,45	3,6	3329	1125
BM0152	3x35+3x25/3	43-46	0,554	0,31	0,50	5,0	2938	1575
BM0153	3x35+3x50/3	47-50	0,554	0,33	0,50	5,0	3492	1575
BM0154	3x50+3x25/3	46-49	0,386	0,30	0,58	7,2	3548	2250
BM0155	3x50+3x50/3	47-50	0,386	0,30	0,58	7,2	3859	2250
BM0156	3x70+3x35/3	50-53	0,272	0,29	0,64	10,0	4497	3150
BM0157	3x70+3x50/3	50-53	0,272	0,29	0,64	10,0	4603	3150
BM0158	3x95+3x50/3	55-58	0,206	0,27	0,73	13,6	5540	4275
BM0159	3x120+3x70/3	58-61	0,161	0,26	0,80	17,2	6698	5400
BM0160	3x150+3x70/3	62-65	0,129	0,26	0,88	21,5	7786	6750
BM0161	3x185+3x95/3	69-72	0,106	0,25	0,94	26,5	9557	8325

BiTmining[®](N)TSCGEWOEU-F 6/10 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0170	3x25+3x25/3	41-44	0,780	0,34	0,40	3,6	2658	1125
BM0171	3x25+3x50/3	46-49	0,780	0,36	0,40	3,6	3287	1125
BM0172	3x35+3x25/3	44-47	0,554	0,32	0,45	5,0	3018	1575
BM0173	3x35+3x50/3	47-50	0,554	0,34	0,45	5,0	3492	1575
BM0174	3x50+3x25/3	47-50	0,386	0,30	0,51	7,2	3635	2250
BM0169	3x50+3x35/3	47-50	0,386	0,30	0,51	7,2	3695	2250
BM0175	3x50+3x50/3	47-50	0,386	0,30	0,51	7,2	3815	2250
BM0176	3x70+3x35/3	51-54	0,272	0,29	0,57	10,0	4590	3150
BM0177	3x70+3x50/3	51-54	0,272	0,29	0,57	10,0	4697	3150
BM0178	3x95+3x50/3	56-59	0,206	0,28	0,65	13,6	5790	4275
BM0179	3x120+3x70/3	59-62	0,161	0,27	0,71	17,2	6806	5400
BM0180	3x150+3x70/3	64-67	0,129	0,26	0,78	21,5	8139	6750

BiTmining[®](N)TSCGEWOEU-F 8.7/15 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0185	3x25+3x25/3	41-44	0,780	0,36	0,32	3,6	2658	1125
BM0186	3x25+3x50/3	46-49	0,780	0,38	0,32	3,6	3287	1125
BM0187	3x35+3x25/3	44-47	0,554	0,34	0,36	5,0	3018	1575
BM0188	3x35+3x50/3	47-50	0,554	0,34	0,36	5,0	3492	1575
BM0189	3x50+3x25/3	47-50	0,386	0,32	0,41	7,2	3635	2250
BM0190	3x50+3x50/3	47-50	0,386	0,32	0,41	7,2	3815	2250
BM0191	3x70+3x35/3	51-54	0,272	0,31	0,45	10,0	4643	3150
BM0192	3x70+3x50/3	51-54	0,272	0,31	0,45	10,0	4743	3150
BM0193	3x95+3x50/3	56-59	0,206	0,29	0,51	13,6	5790	4275
BM0194	3x120+3x70/3	59-62	0,161	0,28	0,56	17,2	6806	5400
BM0195	3x150+3x70/3	64-67	0,129	0,28	0,60	21,5	8139	6750

BiTmining®(N)TSCGEWOEU-F

Medium voltage, flexible power supply cable for fixed installations

BiTmining®(N)TSCGEWOEU-F 12/20 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0200	3x25+3x25/3	49-52	0,780	0,38	0,28	3,6	3372	1125
BM0201	3x25+3x50/3	49-52	0,780	0,38	0,28	3,6	3552	1125
BM0202	3x35+3x25/3	51-54	0,554	0,36	0,31	5,0	3766	1575
BM0203	3x35+3x50/3	51-54	0,554	0,36	0,31	5,0	3946	1575
BM0204	3x50+3x25/3	56-59	0,386	0,34	0,35	7,2	4619	2250
BM0205	3x50+3x50/3	56-59	0,386	0,34	0,35	7,2	4799	2250
BM0206	3x70+3x35/3	59-62	0,272	0,32	0,38	10,0	5644	3150
BM0207	3x70+3x50/3	59-62	0,272	0,32	0,38	10,0	5750	3150
BM0208	3x95+3x50/3	65-68	0,206	0,31	0,43	13,6	6973	4275
BM0209	3x120+3x70/3	67-70	0,161	0,30	0,47	17,2	8038	5400

BiTmining®(N)TSCGEWOEU-F 14/25 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0220	3x25+3x25/3	54-57	0,780	0,40	0,24	3,6	4023	1125
BM0221	3x25+3x50/3	54-57	0,780	0,40	0,24	3,6	4204	1125
BM0222	3x35+3x25/3	57-60	0,554	0,37	0,26	5,0	4445	1575
BM0223	3x35+3x50/3	57-60	0,554	0,37	0,26	5,0	4625	1575
BM0224	3x50+3x25/3	60-63	0,386	0,35	0,30	7,2	5158	2250
BM0225	3x50+3x50/3	60-63	0,386	0,35	0,30	7,2	5339	2250
BM0226	3x70+3x35/3	65-68	0,272	0,34	0,33	10,0	6457	3150
BM0227	3x70+3x50/3	65-68	0,272	0,34	0,33	10,0	6563	3150

BiTmining®(N)TSCGEWOEU-F 18/30 kV

Cat. no	n x mm ²	Outer diameter min. – max. [mm]	Conductor resistance at 20°C [Ω/km]	Inductance [mH/km]	Operating capacitance [μF/km]	Permissible short-circuit current (1s) [kA]	Approximate cable weight [kg/km]	Maximum permissible tensile force [N]
BM0240	3x25+3x25/3	58-61	0,780	0,41	0,21	3,6	4442	1125
BM0241	3x25+3x50/3	58-61	0,780	0,41	0,21	3,6	4622	1125
BM0242	3x35+3x25/3	60-63	0,554	0,39	0,24	5,0	4879	1575
BM0243	3x35+3x50/3	60-63	0,554	0,39	0,24	5,0	5059	1575
BM0244	3x50+3x25/3	65-68	0,386	0,37	0,26	7,2	5858	2250
BM0245	3x50+3x50/3	65-68	0,386	0,37	0,26	7,2	6038	2250
BM0246	3x70+3x35/3	69-72	0,272	0,35	0,29	10,0	6956	3150
BM0247	3x70+3x50/3	69-72	0,272	0,35	0,29	10,0	7063	3150

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