

BiT 1000[®]C Power 0,6/1 kV

Flexible screened power cables, 0,6/1 kV



industrial application



internal application



external application



underground installation



EN 60332-1-2



high flexibility



UV resistance



EMC

Technical data:

Cables according to IEC 60502-1

Thermal parameters:

Operating temperature:

fixed installation: -40 °C to 80 °C
flexible connections: -5 °C to 80 °C

Max. conductor operating temp.: 90 °C

Max. conductor temperature in short-circuit: 250 °C

Electrical parameters:

Operating voltage: $U_0/U=0,6/1$ kV

Test voltage (50Hz): 4000 V

Mechanical parameters:

Min. bending radius:

flexible connections: 10xØ
fixed installation: 6xØ

Design:

Conductors:

bare copper conductors, multi-stranded class 5 acc. to EN 60228

Insulation:

XLPE

Core identification:

coloured conductors (see the table with conductor insulation colours), cables with protective earth conductor marked G (e.g. 1G10)

Screen:

tinned copper wire braid with coverage ≥80%

Outer sheath:

special PVC, self-extinguishing and flame retardant (acc. to EN 60332-1-2), UV resistant; colour: black

Application:

BiT 1000[®]Power C cables are designed for supplying power to electric devices and working in low voltage energy networks. Flexible construction enables easy and fast connections as well as application as power supply cables for portable devices. Cables are suitable for operation in dry and damp rooms as well as for outdoor installations. Outer sheath is UV resistant. **Cables designed also for direct burial in ground.**

Properly connected screen ensures full electromagnetic compatibility (EMC).

Cables classified according to **EN 50575 (CPR)**.

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
EM4500	1G10	8,6	160
EM4501	1G16	9,6	220
EM4502	1G25	11,3	315
EM4503	1G35	12,4	410
EM4504	1G50	14,3	560
EM4505	1G70	16,4	765
EM4506	1G95	18,1	990
EM4507	1G120	20,1	1225
EM4508	1G150	22,1	1505
EM4509	1G185	24,9	1875
EM4510	1G240	27,7	2415
EM4511	1G400	35,1	4290

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
EM4520	1x10	8,6	160
EM4521	1x16	9,6	220
EM4522	1x25	11,3	315
EM4523	1x35	12,4	410
EM4524	1x50	14,3	560
EM4525	1x70	16,4	765
EM4526	1x95	18,1	990
EM4527	1x120	20,1	1225
EM4528	1x150	22,1	1505
EM4529	1x185	24,9	1875
EM4530	1x240	27,7	2415
EM4531	1x400	35,1	4290

Cables without protective conductor are marked with x (e.g. 1x50)

Cables with protective conductor are marked with G (e.g. 1G50)

*Outer diameter tolerance: $\pm 0,5\%$

Cable Factory BITNER reserves the right to modify the specifications without prior notice

Note: On customer's request other cross sections or number of cores can be produced

Number of conductors	Conductor insulation colours
Cables without protective conductor	
1	black
Cables with protective conductor	
1	green-yellow

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Long term current rating of single core cables laid in air or ground as single cable operating in DC systems with distant protective conductor

Section mm ²	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
air 30°C	33	43	57	72	99	131	177	217	265	336	415	485	557	646	774	900	1060
ground 20°C	41	63	82	102	136	176	229	275	326	400	480	548	616	698	815	927	1064

Long term current rating of single core cables laid in air or ground in triangle, operating in 3-phase symmetrical systems

Section mm ²	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240	300	400
air 30°C	26	34	44	56	77	102	138	170	207	263	325	380	437	507	604	697	811
ground 20°C	33	42	54	67	89	115	148	177	209	256	307	349	393	445	517	583	663

Correction factors for ambient temperature other than 30 °C

ambient temperature °C	10	15	20	25	30	35	40	45	50	55	60	65	70	75
correction factor	1,18	1,14	1,10	1,05	1,00	0,95	0,89	0,84	0,77	0,71	0,63	0,55	0,45	0,32