

BiTmining[®] NSSHCOEU



Heavy duty, screened rubber cable for frequency converters, acc. to DIN VDE 0250-812



Mining cables



Technical data:

Thermal parameters:

Ambient temperature:

fixed installation: -40 °C to 80 °C
free movement: -30 °C to 80 °C

Max. permissible conductor temp.: 90 °C

Max. short-circuit temp. at conductor: 200 °C

Mechanical parameters:

Max. tensile load on conductor: 15 N/mm²

Bending radius:

fixed installation: 4 x outer - Ø
free movement: 5 x outer - Ø

Design:

Main cores:

Conductors:

tinned copper wires, finely stranded, acc. to IEC 60228 class 5

Insulation:

EPR compound, type 3GI3 acc. to DIN VDE 0207-20, core colours: natural with black digits

Ground conductor:

Conductor:

tinned copper wires, finely stranded, acc. to IEC 60228 class 5

Insulation:

EPR compound, type 3GI3 acc. to DIN VDE 0207-20, core colours: green-yellow

Screen:

Inner sheath:

tinned copper wire braid
synthetic rubber compound, 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: yellow, inkjet marking

Application:

Motor power supply cables for frequency converter controlled drives on mobile equipment and machines under very high mechanical loads in dry and damp areas, outdoors and in explosion hazard areas. They meet the requirements of DIN EN 50628: Erection of electrical installations in underground mines, DIN VDE 0168: Erection of electrical installation in open-cast mines, quarries and similar works and DIN VDE 0298-3: Application of cables and cords in power installations – Guide to use of non-harmonized low voltage cables.

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_n/U [kV]	0.6/1 kV
Maximum permissible operating voltage $U_{0,max}$ in AC systems [kV]:	0.7/1.2 kV
Maximum permissible operating voltage $U_{0,max}$ in DC systems [kV]:	0.9/1.8 kV
AC test voltage acc. to DIN VDE 0250-812: - main cores:	3 kV
Current-carrying capacities in amperes acc to:	DIN VDE 0298-4 table 15 DIN EN 50628
De-rating factors acc. to:	DIN VDE 0298-4

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Various constructions as defined in DIN VDE 0250-812: protective conductor cross-section symmetrically split in three parts in the outer interstices or defined cross-section in the outer interstices

Cat. no.	n x mm ²	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]
IP4200	3x16+3x2,5	25-28	1329
IP4201	3x25+3x4	30-33	1961
IP4202	3x35+3x6	32-35	2336
IP4209	3x35+3x16/3	32-35	2336
IP4203	3x50+3x25/3	39-42	3226
IP4204	3x70+3x35/3	44-47	4383
IP4210	3x95+3x35/3	48-51	5469
IP4205	3x95+3x50/3	49-52	5322
IP4206	3x120+3x70/3	54-57	6935
IP4207	3x150+3x70/3	59-62	8346
IP4208	3x185+3x95/3	66-69	10253

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