

BiTcrane[®](N)SHTOEU-J

Low voltage, reeling cable based on DIN VDE 0250-814



Crane cables



Technical data:

Thermal parameters:

Ambient temperature:
 fixed installation: -40 °C to 80 °C
 reeling operation: -30 °C to 80 °C
Max. permissible conductor temp.: 90 °C
Max. short-circuit temp. at conductor: 250 °C

Mechanical parameters:

Tensile load static/dynamic: 15 / 30 N/mm²
Torsional stresses: ± 25 °/m
Bending radius acc. to DIN VDE 0298-3:
 - fixed installation: ≥ 4 x cable - Ø
 - reeling application: ≥ 6 x cable - Ø
 - on deflection pulleys: ≥ 7,5 x cable - Ø
 - min. distance with S-type directional changes:
 20 x cable - Ø
Reeling speed: ≤ 180 m/min

Design:

Main cores:
Conductors: plain copper wires, finely stranded, acc. to IEC 60228 class 5
Insulation: HEPR compound acc. to IEC 60502-1, core colours: acc. to DIN VDE 0293-308

Ground conductor:
Conductor: plain copper wires, finely stranded, acc. to IEC 60228 class 5
Insulation: HEPR compound acc. to IEC 60502-1, core colours: green-yellow

Inner sheath: heavy duty rubber compound, quality 5GM5 acc. to DIN VDE 0207-21, filling the interstices

Reinforcement: braid made of synthetic threads in a vulcanized bond between inner and outer sheath

Outer sheath: heavy duty rubber compound, quality 5GM5 acc. to DIN VDE 0207-21, colour: black, inkjet marking

*other designs, e.g. with cradle separator available on request

Application:

Heavy duty rubber reeling cable for power supply. For applications with high mechanical stress, especially for simultaneous tensile and torsional stress. Suitable for all types of mobile equipment such as stackers/reclaimers, on container handling equipment of any kind in ports or stockyard areas with motor-driven mono spiral / cylindrical reels or spring-operated reels.

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]	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:	3.5 kV
Current-carrying capacities in amperes:	acc. to DIN VDE 0298-4 table 15
De-rating factors (thermal/reeling):	acc. to DIN VDE 0298-4

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Cat. no.	n x mm ²	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]
IP5450	3x16+3x16/3	30-33	1460
IP5451	3x25+3x16/3	30-33	1650
IP5452	3x35+3x16/3	30-33	1890
IP5453	3x35+3x25/3	37-40	2460
IP5454	3x50+3x25/3	37-40	2760
IP5455	3x70+3x35/3	42-45	3760
IP5456	3x95+3x50/3	47-50	4800
IP5457	3x120+3x70/3	49-52	5770
IP5458	3x150+3x70/3	54-57	6980
IP5459	3x185+3x95/3	59-62	8350
IP5460	3x240+3x120/3	67-70	11010
IP5461	3x300+3x150/3	73-76	13400

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