

BiTcrane®(N)TSCGEW0EU-SR

RoHS 2015/863/EU

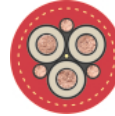
CPR

CPR 305/2011

24 months warranty

Crane cables

Medium voltage, flexible power supply cable for reeling applications based on DIN VDE 0250-813



Technical data:

Thermal parameters:

Ambient temperature:

for fixed installation: -50 °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

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

Mechanical parameters:

Max. tensile load on conductor: 20 N/mm²

Torsional stresses: ±25 °/m

Bending radius: acc. to DIN VDE 0298-3

Min. distance with S-type directional changes: 20 x O.D.

Reeling speed: up to 180 m/min

Design:

Main cores

Conductors:

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

Ground conductor

Conductor:

plain copper wires, finely stranded, class 5
acc. to IEC 60228, semi-conductive layer

Core arrangement:

three main cores laid-up with optimised lay length, ground conductor cross-section split into 3 parts in the outer interstices

Inner sheath:

heavy duty rubber compound, quality 5GM5 based on DIN VDE 0207-21, filling the interstices, colour: red

Reinforcement:

red braid made of synthetic threads, placed between inseparably bonded inner and outer sheath, acting as an anti-twist protection

Outer sheath:

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

*other designs, e.g. with cradle separator or according to application available on request

Application:

Flexible reeling cable for power supply with cable guidance in different levels, e.g. reel axis in travel direction. Especially for high and extreme mechanical stress. For connection of large material handling machines in open pit mines, different crane types in harbours, shipyards, stacker/reclaimers in stockyards and other industrial areas.

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
Maximum permissible operating voltage in AC systems U ₀ /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 ₀ /U [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 in amperes			acc. to DIN VDE 0298-4 table 15				
De-rating factors			acc. to DIN VDE 0298-4				

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BiTcrane® (N)TSCGEWOEU-SR 3.6/6 kV

Cat. no.	n x mm ²	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ¹⁾ static/dynamic [N]
BC00020	3x25+3x25/3	40-43	2400	1125 / 1500
BC00021	3x35+3x25/3	43-46	2940	1575 / 2100
BC00022	3x50+3x25/3	47-50	3580	2250 / 3000
BC00023	3x70+3x35/3	51-54	4500	3150 / 4200
BC00024	3x95+3x50/3	56-59	5650	4275 / 5700
BC00025	3x120+3x70/3	59-62	6740	5400 / 7200
BC00026	3x150+3x70/3	62-65	7800	6750 / 9000
BC00027	3x185+3x95/3	69-72	9520	8325 / 11100
BC00028	3x240+3x120/3	73-76	11660	10800 / 14400

BiTcrane® (N)TSCGEWOEU-SR 6/10 kV

Cat. no.	n x mm ²	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ¹⁾ static/dynamic [N]
BC00001	3x25+3x25/3	42-45	2560	1125 / 1500
BC00003	3x35+3x25/3	44-47	3020	1575 / 2100
BC00005	3x50+3x25/3	48-51	3660	2250 / 3000
BC00007	3x70+3x35/3	53-56	4750	3150 / 4200
BC00009	3x95+3x50/3	57-60	5760	4275 / 5700
BC00010	3x120+3x70/3	60-63	6890	5400 / 7200
BC00011	3x150+3x70/3	65-68	8150	6750 / 9000
BC00012	3x185+3x95/3	70-73	9640	8325 / 11100
BC00013	3x240+3x120/3	74-77	11830	10800 / 14400

BiTcrane® (N)TSCGEWOEU-SR 8.7/15 kV

Cat. no.	n x mm ²	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ¹⁾ static/dynamic [N]
BC00035	3x25+3x25/3	42-45	2560	1125 / 1500
BC00036	3x35+3x25/3	44-47	3020	1575 / 2100
BC00037	3x50+3x25/3	48-51	3660	2250 / 3000
BC00038	3x70+3x35/3	53-56	4750	3150 / 4200
BC00039	3x95+3x50/3	57-60	5760	4275 / 5700
BC00040	3x120+3x70/3	60-63	6890	5400 / 7200
BC00041	3x150+3x70/3	65-68	8150	6750 / 9000
BC00042	3x185+3x95/3	70-73	9640	8325 / 11100
BC00043	3x240+3x120/3	74-77	11830	10800 / 14400

BiTcrane® (N)TSCGEWOEU-SR 12/20 kV

Cat. no.	n x mm ²	Outer diameter min. - max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ¹⁾ static/dynamic [N]
BC00050	3x25+3x25/3	49-52	3260	1125 / 1500
BC00051	3x35+3x25/3	53-56	3920	1575 / 2100
BC00052	3x50+3x25/3	57-60	4630	2250 / 3000
BC00053	3x70+3x35/3	60-63	5620	3150 / 4200
BC00054	3x95+3x50/3	65-68	6910	4275 / 5700
BC00055	3x120+3x70/3	69-72	8120	5400 / 7200
BC00056	3x150+3x70/3	72-75	9200	6750 / 9000
BC00057	3x185+3x95/3	78-81	11050	8325 / 11100
BC00058	3x240+3x120/3	83-86	13280	10800 / 14400

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BiTcrane[®] (N)TSCGEWOEU-SR 14/25 kV

Cat. no.	n x mm ²	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ^{*)} , static/dynamic [N]
BC00385	3x25+3x25/3	55-58	3890	1125 / 1500
BC00386	3x35+3x25/3	57-60	4420	1575 / 2100
BC00387	3x50+3x25/3	61-64	5160	2250 / 3000
BC00388	3x70+3x35/3	66-69	6420	3150 / 4200
BC00389	3x95+3x50/3	70-73	7530	4275 / 5700

BiTcrane[®] (N)TSCGEWOEU-SR 18/30 kV

Cat. no.	n x mm ²	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force ^{*)} , static/dynamic [N]
BC00400	3x25+3x25/3	58-61	4300	1125 / 1500
BC00401	3x35+3x25/3	61-64	4850	1575 / 2100
BC00402	3x50+3x25/3	66-69	5850	2250 / 3000
BC00410	3x70+3x50/3	70-73	7030	3150 / 4200
BC00404	3x95+3x50/3	73-76	8050	4275 / 5700

Cable Factory BITNER reserves the right to modify specifications without prior notification.

^{*)} please contact us if higher loads are required.

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