

# BiTcrane® (N)TSCGEW0EU-SR PLUS

RoHS 2015/863/EU

CPR

CPR 305/2011

24 months warranty

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

Crane cables



industrial application



EN 60332-1-2



high flexibility



UV resistance



oil resistant  
EN 60811-404



mechanical resistance



low operating temperature



explosion hazardous areas



reeling cable

## Technical data:

### Thermal parameters:

#### Ambient temperature:

for fixed installation: -50 °C to 80 °C

reeling operation: -35 °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/mm<sup>2</sup>

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 240 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 crss-section split into 3 parts in the outer interstices

### Inner sheath:

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

### Reinforcement:

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

### Outer sheath:

extra 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 $U_r/U$ [kV]		3.6/6	6/10	8.7/15	12/20	14/25	18/30
Maximum permissible operating voltage in AC systems $U_r/U$ [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 $U_r/U$ [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					

# BiTcrane®(N)TSCGEWOU-SR PLUS

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

## BiTcrane®(N)TSCGEWOU-SR PLUS 3.6/6 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>1)</sup> static/dynamic [N]
BC00065	3x25+3x25/3	40-43	2400	1125 / 1500
BC00066	3x35+3x25/3	43-46	2940	1575 / 2100
BC00067	3x50+3x25/3	47-50	3580	2250 / 3000
BC00068	3x70+3x35/3	51-54	4500	3150 / 4200
BC00069	3x95+3x50/3	56-59	5670	4275 / 5700
BC00070	3x120+3x70/3	59-62	6690	5400 / 7200
BC00071	3x150+3x70/3	62-65	7810	6750 / 9000
BC00072	3x185+3x95/3	69-72	9460	8325 / 11100
BC00073	3x240+3x120/3	73-76	11700	10800 / 14400

## BiTcrane®(N)TSCGEWOU-SR PLUS 6/10 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>1)</sup> static/dynamic [N]
BC00080	3x25+3x25/3	42-45	2570	1125 / 1500
BC00081	3x35+3x25/3	44-47	3020	1575 / 2100
BC00082	3x50+3x25/3	48-51	3670	2250 / 3000
BC00083	3x70+3x35/3	53-56	4750	3150 / 4200
BC00084	3x95+3x50/3	57-60	5770	4275 / 5700
BC00085	3x120+3x70/3	60-63	6820	5400 / 7200
BC00086	3x150+3x70/3	65-68	8150	6750 / 9000
BC00087	3x185+3x95/3	70-73	9590	8325 / 11100
BC00088	3x240+3x120/3	74-77	11830	10800 / 14400

## BiTcrane®(N)TSCGEWOU-SR PLUS 8.7/15 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>1)</sup> static/dynamic [N]
BC00095	3x25+3x25/3	42-45	2570	1125 / 1500
BC00096	3x35+3x25/3	44-47	3020	1575 / 2100
BC00097	3x50+3x25/3	48-51	3670	2250 / 3000
BC00098	3x70+3x35/3	53-56	4750	3150 / 4200
BC00099	3x95+3x50/3	57-60	5770	4275 / 5700
BC00100	3x120+3x70/3	60-63	6820	5400 / 7200
BC00101	3x150+3x70/3	65-68	8150	6750 / 9000
BC00102	3x185+3x95/3	70-73	9590	8325 / 11100
BC00103	3x240+3x120/3	74-77	11830	10800 / 14400

## BiTcrane®(N)TSCGEWOU-SR PLUS 12/20 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>1)</sup> static/dynamic [N]
BC00110	3x25+3x25/3	49-52	3260	1125 / 1500
BC00111	3x35+3x25/3	53-56	3920	1575 / 2100
BC00112	3x50+3x25/3	57-60	4630	2250 / 3000
BC00113	3x70+3x35/3	60-63	5620	3150 / 4200
BC00114	3x95+3x50/3	65-68	6930	4275 / 5700
BC00115	3x120+3x70/3	69-72	8040	5400 / 7200
BC00116	3x150+3x70/3	72-75	9200	6750 / 9000
BC00117	3x185+3x95/3	78-81	10990	8325 / 11100
BC00118	3x240+3x120/3	83-86	13320	10800 / 14400

# Crane cables

# BiTcrane®(N)TSCGEWOU-SR PLUS

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## BiTcrane®(N)TSCGEWOU-SR PLUS 14/25 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>*)</sup> static/dynamic [N]
BC00235	3x25+3x25/3	55-58	3900	1125 / 1500
BC00236	3x35+3x25/3	57-60	4420	1575 / 2100
BC00237	3x50+3x25/3	61-64	5160	2250 / 3000
BC00238	3x70+3x35/3	66-69	6420	3150 / 4200
BC00239	3x95+3x50/3	70-73	7540	4275 / 5700

## BiTcrane®(N)TSCGEWOU-SR PLUS 18/30 kV

Cat. no.	n x mm <sup>2</sup>	Outer diameter min. – max. [mm]	Approximate cable weight [kg/km]	Permissible tensile force <sup>*)</sup> static/dynamic [N]
BC00247	3x25+3x25/3	58-61	4310	1125 / 1500
BC00248	3x35+3x25/3	61-64	4850	1575 / 2100
BC00249	3x50+3x25/3	66-69	5850	2250 / 3000
BC00250	3x70+3x50/3	70-73	7030	3150 / 4200
BC00251	3x95+3x50/3	73-76	8060	4275 / 5700

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

<sup>\*)</sup> please contact us if higher loads are required.

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