

# BiTservo® 2XSLCH-J

Flexible halogen-free motor connection cables for frequency converters (VFD), with improved current carrying capacity, rated 0,6/1 kV



EMC

## Technical data:

### Thermal parameters:

**Operating temperature:**

fixed installation: -40 °C to 80 °C

flexible connections: -5 °C to 80 °C

**Max. conductor operating temperature:** 90 °C

**Max. conductor temperature in shortcircuit (1 sec.):** 250 °C

### Electrical parameters:

**Operating voltage:** U<sub>0</sub>/U = 0,6/1 kV

**Test voltage:** 4000 V

**Insulation resistance:** > 200 MΩ x km

**Capacitance:**

conductor/conductor = 70 to 250 nF/km

conductor/screen = 110 to 410 nF/km

### Mechanical parameters:

**Min. bending radius:**

Ø < 12 mm – 5 x Ø

Ø = 12 + 20 mm – 7,5 x Ø

Ø > 20 mm – 10 x Ø

## Design:

### Conductors:

bare copper conductors, multi-stranded, class 5

acc. to EN 60228

### Insulation:

cross-linked polyethylene (XLPE)

black, brown, grey, green-yellow

### Core identification:

cores twisted together

### Core arrangement:

electrostatic screen made of aluminium backed polyester

tape and a second screen made of tinned copper wire braid, total screen coverage 100%

special halogen-free compound, self-extinguishing and flame retardant (acc. to EN 60332-1-2, EN 60332-3-22, cat. A); colour: orange

### Screens:

### Outer sheath:

special halogen-free compound, self-extinguishing

and flame retardant (acc. to EN 60332-1-2, EN 60332-3-22, cat. A); colour: orange

### Special properties:

- halogen-free

- low capacitance

- improved current carrying capacity

- fulfillment of electromagnetic compatibility (EMC) requirements\*

- self-extinguishing sheath

**Note:** in order to ensure optimal screen earthing and the fulfillment of electromagnetic compatibility (EMC) requirements of the connection, we recommend using metal glands or a different type of circuitual earthing system (360°)

## Application:

Cables with special construction, used to supply power to motors from frequency converters (VFD) while maintaining full electromagnetic compatibility (EMC). The XLPE insulation improves current carrying capacity maintaining at the same time low capacitance in comparison to PVC insulated cables. The cables are suitable for both fixed installation and flexible connections in industrial equipment, process lines, and machines operating in dry and damp rooms, also in public buildings. The entire cable is made of halogen-free materials and does not emit noxious substances under fire conditions. Cables classified according to EN 50575 (CPR).

Cat. no.	n x mm <sup>2</sup>	Outer diameter* [mm]	Current-carrying capacity *) [A]	Approximate cable weight [kg/km]
IP1850	4G1,5	10,8	23	155
IP1851	4G2,5	12,2	32	210
IP1852	4G4	13,3	42	285
IP1853	4G6	14,8	54	370
IP1854	4G10	17,2	75	570
IP1855	4G16	20,1	100	820
IP1856	4G25	24,7	127	1305
IP1857	4G35	27,3	158	1685
IP1858	4G50	31,9	192	2315
IP1859	4G70	37,0	246	3185
IP1860	4G95	41,6	298	4235
IP1861	4G120	45,3	346	5265
IP1862	4G150	51,8	399	6585
IP1863	4G185	57,8	456	7865
IP1864	4G240	65,9	528	10540

\*Outer diameter tolerance: +/- 5%

\*\*) - current-carrying capacity of a single cable in air at a temperature of 30 °C

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