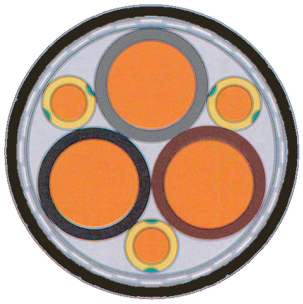
TOPFLEX®-EMV-UV-3 PLUS 2XSLCH-J

for power supply connections to frequency converters, 0,6/1 kV, halogen-free, double screened, higher current carrying capacity, meter marking



Technical data

- Special motor power supply cable for frequency converters adapted to DIN VDE 0250
- **Temperature range**
  flexing -5°C to +90°C
  fixed installation -40°C to +90°C
- Permissible **operating temperature** at conductor +90°C
- **Nominal voltage**
  U_0/U 600/1000 V
- Max. permissible **operating voltage**
  - 3-Phase and single phase operation 700/1200 V
  - DC operation 900/1800 V
- **Test voltage**
  4000 V
- **Coupling resistance**
  acc. to different cross sections
  max. 250 Ohm/km
- **Minimum bending radius**
  flexing for outer Ø:
  up to 12 mm: 10x cable Ø
  > 12-20 mm: 15x cable Ø
  > 20 mm: 20x cable Ø
  fixed installation for outer Ø:
  up to 12 mm: 5x cable Ø
  > 12-20 mm: 7,5x cable Ø
  > 20 mm: 10x cable Ø

Cable structure

- Bare copper conductor, fine wire acc. to DIN VDE 0295 cl.5 / IEC 60228 cl.5
- Core insulation of cross-linked polyethylene (XLPE)
- Core identification BK, BN, GY
- GN-YE conductor (divided into 3)
- 3+3 core design
- Cores stranded in concentric layers
- 1. Screen with special aluminium film
  2. Tinned copper braided screen, approx. 85% coverage
- Outer sheath special polyolefin compound
- Sheath colour: black (RAL 9005)
- With meter marking

Tests

- Flame test acc. to DIN VDE 0482-332-3-24 / DIN EN 60332-3-24 / IEC 60332-3-24
- Flame retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- Corrosiveness of combustion gases acc. to DIN VDE 0482-754-2 / DIN EN 60754-2 / IEC 60754-2
- Smoke density acc. to DIN VDE 0482-1034-1+2 / DIN EN 61034-1+2 / IEC 61034-1+2
- UV-resistant acc. to DIN EN ISO 4892-2
- Meets EMC requirements acc. to EN 55011 and DIN VDE 0875-11

Properties

- Halogen-free
- Low mutual capacitance
- Low coupling resistance for high electromagnetic compatibility
- This screened motor supply cable with low mutual capacitance of the single cores because of the special XLPE core insulation and low screen capacitance enable a low-loss transmission of the power
- Due to the optimal screening an interference-free operation of frequency converters is obtained
- The 3 PLUS-construction of motor power supply cables features a symmetrical 3-core design, improved in terms of EMC characteristics comparing favorably with a 4-core version. The protective conductor PE, divided into 3 is uniformly stranded in the interstices. This enables an extremely concentric structure.
- The minimum cross section of 0,75 mm² meets the requirements of DIN EN 60204-1
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Note

- **) The current carrying capacity for permanent operation at ambient temperature of 30°C. For deviating ambient temperatures the conversion factors should be used and for further see the indication in DIN VDE 0298-4.
- AWG sizes are approximate equivalent values. The actual cross section is in mm².

Application

As a supply and connecting cable for medium mechanical stresses in fixed installations and forced movements in dry, moist and wet environments and for outdoor applications. Respecting the permissible operating temperature at the conductor of +90°C permits a higher current carrying capacity than PE insulated power distribution cables. Used in the automobile industry, food industry, environmental engineering, packaging industry, toolmaking machinery, handling equipment, for SIMOVERT drivers, they are particularly suitable for use with industrial pumps, ventilators, conveyor belts and air-conditioning installations and similar applications.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Continuation ▸

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Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Coupling resistance at 1 MHz Ohm/km	Coupling resistance at 30 MHz Ohm/km	Power ratings **) with 3 loaded cores in Amperes	Cop. weight kg / km	Weight app. kg / km	AWG-No.
24536	3 x 1,5 + 3 G 0,25	9,2			23	86,0	140,0	16
24537	3 x 2,5 + 3 G 0,5	10,8	18	210	32	144,0	220,0	14
24538	3 x 4 + 3 G 0,75	12,3	11	210	42	224,0	323,0	12
24539	3 x 6 + 3 G 1	14,0	6	150	54	298,0	420,0	10
24540	3 x 10 + 3 G 1,5	17,6	7	180	75	491,0	615,0	8
24541	3 x 16 + 3 G 2,5	20,4	9	190	100	723,0	819,0	6
24542	3 x 25 + 3 G 4	23,2	4	95	127	1138,0	1325,0	4
24543	3 x 35 + 3 G 6	26,1	3	85	158	1535,0	1718,0	2
24544	3 x 50 + 3 G 10	30,8	2	40	192	2208,0	2399,0	1
24545	3 x 70 + 3 G 10	34,2	2	45	246	2871,0	3056,0	2/0
24546	3 x 95 + 3 G 16	37,8	1	50	298	3953,0	4162,0	3/0
24583	3 x 120 + 3 G 16	42,6			346	4836,0	5075,0	4/0
24584	3 x 150 + 3 G 25	47,5			399	5412,0	6128,0	300 kcmil
24585	3 x 185 + 3 G 35	53,4			456	6969,0	7189,0	350 kcmil
24586	3 x 240 + 3 G 42,5	58,7			538	8540,0	9540,0	500 kcmil

Dimensions and specifications may be changed without prior notice. (RD01)