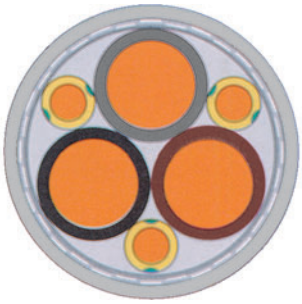
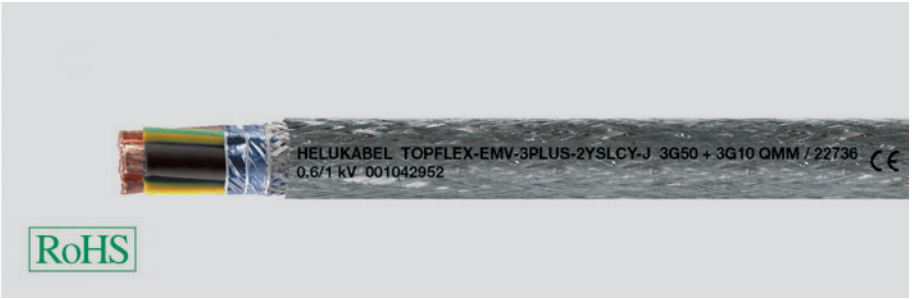
TOPFLEX®-EMV-3 PLUS 2YSLCY-J for power supply connections

to frequency converters, double screened, 0,6/1kV, meter marking

ME01





Technical data

- Special motor power supply cable for frequency converters adapted to DIN VDE 0250
- **Temperature range**
  flexing +5 °C to +70 °C
  fixed installation -40 °C to +70 °C
- **Nominal voltage** U_0/U 600/1000 V
- **Max. operating voltage**
  A.C. and 3-phase 700/1200 V
  DC operation 900/1800 V
- **Peak value** Û 1700 V
- **Test voltage** 2500 V
- **Insulation resistance**
  min. 200 MOhm x km
- **Coupling resistance**
  according to different cross-sections
  max. 250 Ohm/km
- **Minimum bending radius**
  fixed installation for outer ø:
  up to 12 mm: approx. 5x cable ø
  >12 to 20 mm: approx. 7,5x cable ø
  >20 mm: approx. 10x cable ø
  free-movement for outer ø:
  up to 12 mm: approx. 10x cable ø
  >12 to 20 mm: approx. 15x cable ø
  >20 mm: approx. 20x cable ø
- **Radiation-resistance**
  up to 80x10^6 cJ/kg (up to 80 Mrad)

Cable structure

- Plain copper, fine wire conductor according to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and/or IEC 60228 cl. 5
- Polyethylene (PE) core insulation
- Core colours: black, brown, grey, green-yellow (earth core divided into 3)
- 3+3-core structure
- Cores stranded in concentric layers
- 1. screening with special aluminium film
- 2. screening with copper braiding, tinned copper, coverage approx. 80%
- Transparent special PVC outer sheath
- with meter marking, change-over in 2011
- Pos.no. 22380 = capacitance
  core/core 270 nF/km
  core/screen 520 nF/km

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 part 4

Properties

- Behavior in fire: Test according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- PE-insulation secures a lower dielectric loss, double potential strength, high longevity and low screen-interference currents
- Application in ex-area
- Low mutual capacitance
- Meets EMC requirements according to EN 55011 and DIN VDE 0875 part 11
- Low coupling resistance for high electromagnetic compatibility
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
- The screen must be connected at both ends and ensure lare-area contact over the entire cable circumference for compliance with the functional interference requirements of EN 55011
- The minimum cross-section of 0,75² meets the requirements of DIN EN 60204 part 1

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. Used in the automotive and food industries, environmental technology, packaging industry, machine tools. Handling equipment, for SIMOVERT drives, they are particularly suitable for use with industrial pumps, ventilators, conveyor belts and air-conditioning installations and similar applications. Installation in hazardous areas
This screened motor supply cable with low mutual capacitance of the single cores because of the special PE core insulation and low screen capacitance enable a low-loss transmission of the power compared to PVC-sheathed connecting cables.
Due to the optimal screening an interference-free operation of frequency converters is obtained.
EMC = Electromagnetic compatibility
The screen must be connected at both ends and ensure lare-area contact over the entire cable circumference for compliance with the functional interference requirements of EN 55011.
CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. 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 approx. kg / km	AWG-No.
22368	3 x 1,5 + 3 G 0,25	9,9			18	86,0	140,0	16
22369	3 x 2,5 + 3 G 0,5	11,3	18	210	26	144,0	220,0	14
22370	3 x 4 + 3 G 0,75	13,0	11	210	34	224,0	323,0	12
22371	3 x 6 + 3 G 1,0	14,9	6	150	44	298,0	420,0	10
22372	3 x 10 + 3 G 1,5	18,4	7	180	61	491,0	615,0	8
22373	3 x 16 + 3 G 2,5	21,5	9	190	82	723,0	819,0	6
22374	3 x 25 + 3 G 4,0	25,3	4	95	108	1138,0	1325,0	4

Continuation ▸

HELUKABEL®

TOPFLEX®-EMV-3 PLUS 2YSLCY-J for power supply connections

to frequency converters, double screened, 0,6/1kV, meter marking

ME01

Part no.	No.cores x cross-sec. mm²	Outer Ø approx. 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 approx. kg / km	AWG-No.
22375	3 x 35 + 3 G 6,0	27,8	3	85	135	1535,0	1718,0	2
22376	3 x 50 + 3 G 10,0	31,9	2	40	168	2208,0	2399,0	1
22377	3 x 70 + 3 G 10,0	36,8	2	45	207	2871,0	3056,0	2/0
22378	3 x 95 + 3 G 16,0	40,6	1	50	250	3953,0	4162,0	3/0
22379	3 x 120 + 3 G 16,0	45,9			292	4836,0	5074,0	4/0
22380	3 x 150 + 3 G 25,0	51,7			335	5412,0	6128,0	300 kcmil
22381	3 x 185 + 3 G 35,0	53,8			382	6969,0	7189,0	350 kcmil
22382	3 x 240 + 3 G 42,5	61,7			453	8540,0	9540,0	500 kcmil

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

D