

TOPFLEX® -EMV-2YSLCY-J for power supply connections to frequency converters, double screened, 0,6/1kV



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
- **Test voltage** 2500 V
- **Insulation resistance**
min. 200 MOhm x km
- **Coupling resistance**
according to different cross-sections
max. 250 Ohm/km
- **Mutual capacitance**
according to different cross-sections
core/core 70 to 250 nF/km
core/screen 110 to 410 nF/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 80×10^6 cJ/kg (up to 80 Mrad)

Note

- G = with green-yellow earth core.
- 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

Application

This TOPFLEX®-EMV-2YSLCY-J motor power supply cable for the frequency converters assures electromagnetic compatibility in plants and buildings, facilities with units and operating equipment where the fields of electromagnetic interference might cause adverse effects on the surroundings. As a supply and connecting cable for medium mechanical stresses in fixed installations and forced movements in dry, moist and wet environments, not however 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.

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 73/23/EEC and 93/68/EEC.

Cable construction

- Bare copper, fine wire conductor to DIN VDE 0295 cl. 5, BS 6360 cl. 5 or IEC 60228 cl. 5
- Polyethylene (PE) core insulation
- Core colours: black, brown, grey, green-yellow
- Cores stranded in concentric layers
- 1. screening with special aluminum foil
- 2. screening with copper braiding, tinned copper, coverage approx. 80%
- Transparent special PVC outer sheath

Properties

- Behavior in fire: Test according to DIN VDE 0482 Part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent to DIN VDE 0472 part 804) test type B)
- Low mutual capacitance, to DIN VDE 0472 part 504, test method B
- Features PE-insulation secures a lower dielectric loss, double potential strength, high longevity and low screen-interference currents
- Installation in hazardous areas
- Low mutual capacitance
- Meets EMC requirements according to EN 55011 and DIN VDE 0875 part 11
- Low coupling resistance for high electromagnetic compatibility
- 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
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Part No.	No. cores x cross-sec. mm²	Outer ø ca. mm	Mutual capacitance core/core ca. nF/km	Mutual capacitance core/shield ca. nF/km	Coupling resistance with 1 MHz Ohm/km	Coupling resistance with 30 MHz Ohm/km	Power ratings **) with 3 loaded cores in Ampère	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
22084	(4 x 1,5)	10,6	70,0	110,0		18,0	18,0	95	230,0	16
22085	(4 x 2,5)	12,3	80,0	130,0	18,0	210,0	26,0	150	300,0	14
22086	(4 x 4,0)	14,5	90,0	150,0	11,0	210,0	34,0	235	485,0	12
22087	(4 x 6,0)	16,4	90,0	150,0	6,0	150,0	44,0	320	633,0	10

Dimensions and specifications may be changed without prior notice.

Continuation ►

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