TOPFLEX®-EMV-UV-3 PLUS 2YSLCYK-J

for power supply connections to frequency converters, double screened, 0,6/1 kV, meter marking





Technical data

- Special motor power supply cable for frequency converters adapted to DIN VDE 0250
- Temperature range flexing -5°C up to +70°C fixed installation -40°C up to +70°C
- Nominal voltage U₀/U 600/1000 V
- Max. operating voltage
 A.C. and 3-phase 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 cable Ø: up to 12 mm: 10x cable Ø > 12 mm: 15x cable Ø fixed installation 4x cable Ø
- Radiation resistance up to 80x10⁶ cJ/kg (up to 80 Mrad)



Cable structure

- Bare copper conductor, to DIN VDE 0295 cl.5, fine wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of polyethylene (PE)
- 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 of special PVC
- Sheath colour: black (RAL 9005)
- With meter marking

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.
- AWG sizes are approximate equivalent values. The actual cross section is in mm².

Properties

- Low mutual capacitance
- Low coupling resistance for high electromagnetic compatibility
- 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 part 1
- UV-resistant
- Outdoor application
- 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
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Tests

- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2 (equivalent DIN VDE 0472 part 804 test method B)
- Meets EMC requirements acc. to EN 55011 and DIN VDE 0875 part 11

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, possible for installation in underground at $3x16+3G2.5 \text{ mm}^2$. Used in the automotive and food industries, environmental technology, packaging industry, chemical industry.

EMC = Electromagnetic compatibility

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

 $\mathbf{C} \mathbf{\epsilon}$ = Product conforms with Low-Voltage Directive 2014/35/EU.

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07.12.2016 / Dimensions and specifications may be changed without prior notice.

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Part no.	No.cores x cross-sec. mm²	Outer Ø app. mm	Coupling re at 1 MHz Ohm/km	esistance at 30 MHz Ohm/km	Power ratings **) with 3 loaded cores in Amperes	Cop. weight kg/km	Weight app. kg / km	AWG-No.
22673	3 x 1,5 + 3 G 0,25	9,2			18	86,0	140,0	16
22674	3 x 2,5 + 3 G 0,5	10,8	18	210	26	144,0	220,0	14
22675	3 x 4 + 3 G 0,75	12,3	11	210	34	224,0	323,0	12
22676	3 x 6 + 3 G 1,0	14,0	6	150	44	298,0	420,0	10
22677	3 x 10 + 3 G 1,5	17,6	7	180	61	491,0	615,0	8
22678	3 x 16 + 3 G 2,5	21,2	9	190	82	723,0	819,0	6
22679	3 x 25 + 3 G 4,0	24,5	4	95	108	1138,0	1325,0	4
22680	3 x 35 + 3 G 6,0	26,9	3	85	135	1535,0	1718,0	2
22681	3 x 50 + 3 G 10,0	32,5	2	40	168	2208,0	2399,0	11
22682	3 x 70 + 3 G 10,0	35,5	2	45	207	2871,0	3056,0	2/0
22683	3 x 95 + 3 G 16,0	40,1	1	50	250	3953,0	4162,0	3/0
22684	3 x 120 + 3 G 16,0	44,4			292	4836,0	5075,0	4/0
22685	3 x 150 + 3 G 25,0	49,3			335	5412,0	6128,0	300 kcmil
22686	3 x 185 + 3 G 35,0	55,1			382	6969,0	7189,0	350 kcmil
22687	3 x 240 + 3 G 42,5	60,0			453	8540,0	9540,0	500 kcmil

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