

TOPFLEX®-EMV-UV-3-PLUS-2YSLCYK-J

double screened, EMC-preferred type



TECHNICAL DATA

Motor connection cable for frequency converters in alignment with DIN VDE 0250

Temperature range	flexible -5°C to +70°C fixed -40°C to +70°C
Nominal voltage	AC U ₀ /U 600/1000 V
Max. permissible operating voltage	alternating current (AC) conductor/earth 700 V three-phase alternating current (AC) conductor/conductor 1200 V direct current (DC) conductor/earth 900 V direct current (DC) conductor/conductor 1800 V
Test voltage core/core	4000 V
Coupling resistance	see table
Minimum bending radius	flexible < 12 mm: 10x Outer-ø flexible > 12 mm: 15x Outer-ø fixed 4x Outer-ø

■ CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: PE
- Core identification: brown, black, grey, green-yellow (divided into thirds)
- Protective conductor: GN-YE divided into thirds (3+3-core structure)
- Cores stranded with optimal lay lengths
- 1. Screen: plastic-coated aluminium foil (St)
- 2. Screen: braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: Special-PVC
- Sheath colour: black (RAL 9005)
- Length marking: in metres

■ PROPERTIES

- resistant to: UV radiation, weathering effects
- for outdoor use
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers
- symmetrical 3-PLUS-composition (protective conductor divided into thirds and stranded uniformly in the interstices) with improved EMC properties in comparison to 4-core-composition
- optimal screening enables interference-free operation of frequency converters
- low coupling resistance ensures good electromagnetic compatibility
- low mutual capacitance of the individual cores due to PE core insulation and low screen capacity, enable low-loss power transmission

■ TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- UV-resistant acc. to DIN EN ISO 4892-2
- weather-resistant acc. to DIN EN ISO 4892-2
- electromagnetic compatibility acc. to DIN VDE 0875-11 / DIN EN 55011
- minimum cross-section of 0.75 mm² meets requirements acc. to DIN EN 60204-1
- certifications and approvals: EAC

■ APPLICATION

Used as a connecting cable for medium mechanical stress with fixed installation and occasional free movement in dry, damp or wet rooms, as well as outdoors; direct burial installation is possible beginning with 3x16+3G2.5 mm². Used in automotive, food, packaging and chemical industries, as well as in the environmental technology sector. EMC = Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

■ NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Coupling resistance at 30 MHz in Ohm/km	Current carrying capacity*	Cu factor per km	Weight kg/km, approx.
22673	3 x 1.5 + 3 G 0.25	16	9.2		18	86.0	135.0
22674	3 x 2.5 + 3 G 0.5	14	10.8	210	26	144.0	198.0
22675	3 x 4 + 3 G 0.75	12	12.3	210	34	224.0	323.0
22676	3 x 6 + 3 G 1	10	14.0	150	44	298.0	430.0
22677	3 x 10 + 3 G 1.5	8	17.6	180	61	491.0	615.0
22678	3 x 16 + 3 G 2.5	6	21.2	190	82	723.0	956.0
22679	3 x 25 + 3 G 4	4	24.5	95	108	1138.0	1381.0
22680	3 x 35 + 3 G 6	2	26.9	85	135	1535.0	1759.0
22681	3 x 50 + 3 G 10	1	32.5	40	168	2208.0	2526.0
22682	3 x 70 + 3 G 10	2/0	35.5	45	207	2871.0	3457.0
22683	3 x 95 + 3 G 16	3/0	40.1	50	250	3953.0	4188.0

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Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Coupling resistance at 30 MHz in Ohm/km	Current carrying capacity*	Cu factor per km	Weight kg/km, approx.
22684	3 x 120 + 3 G 16	4/0	44.4		292	4836.0	5051.0
22685	3 x 150 + 3 G 25	300 kcmil	49.3		335	5412.0	6582.0
22686	3 x 185 + 3 G 35	350 kcmil	55.1		382	6969.0	8165.0
22687	3 x 240 + 3 G 42.5	500 kcmil	60.0		453	8540.0	10317.0

*) Current carrying capacity with 3 loaded cores in amperes for permanent operation up to 30°C ambient temperature. For deviating ambient temperatures, the conversion factors and specifications from DIN VDE 0298-4 apply.