

TOPFLEX®-EMV-3-PLUS-2YSLCY-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: transparent
- Length marking: in metres

PROPERTIES

- 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
- 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, however, not suitable for outdoor use. 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.
22368	3 x 1.5 + 3 G 0.25	16	9.2		18	86.0	152.0
22369	3 x 2.5 + 3 G 0.5	14	10.8	210	26	144.0	216.0
22370	3 x 4 + 3 G 0.75	12	12.3	210	34	224.0	307.0
22371	3 x 6 + 3 G 1	10	14.0	150	44	298.0	436.0
22372	3 x 10 + 3 G 1.5	8	17.6	180	61	491.0	624.0
22373	3 x 16 + 3 G 2.5	6	21.2	190	82	723.0	920.0
22374	3 x 25 + 3 G 4	4	24.5	95	108	1138.0	1330.0
22375	3 x 35 + 3 G 6	2	26.9	85	135	1535.0	1743.0
22376	3 x 50 + 3 G 10	1	32.5	40	168	2208.0	2483.0
22377	3 x 70 + 3 G 10	2/0	35.5	45	207	2871.0	3203.0
22378	3 x 95 + 3 G 16	3/0	40.1	50	250	3953.0	4114.0
22379	3 x 120 + 3 G 16	4/0	44.4		292	4836.0	4924.0
22380	3 x 150 + 3 G 25	300 kcmil	49.3		335	5412.0	6705.0

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22381	3 x 185 + 3 G 35	350 kcmil	55.1		382	6969.0	7818.0
22382	3 x 240 + 3 G 42.5	500 kcmil	60.0		453	8540.0	9938.0

*) 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.