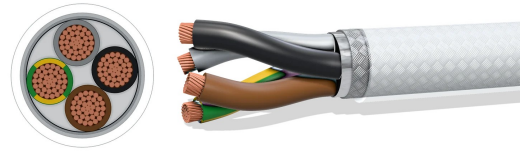


Application

2YSLCY-J is a screened power cable for the connection of frequency-inverter-driven (variable-frequency-drive, VFD) motors, rated 0.6/1 kV. The finely stranded bare copper conductors are insulated with polyethylene (PE, the low-capacitance '2Y' compound that keeps charging currents and reflections low on inverter outputs) and laid up symmetrically as a four-core power group with a green/yellow protective conductor (J). An EMC screen of a plastic-coated aluminium foil plus a braided screen of tinned copper wires (approx. 85 % coverage) surrounds the cores, and a PVC outer sheath protects the cable. The double screen carries the high-frequency return currents of the inverter and, when bonded to earth at both ends over a large contact area, gives interference-free operation of the drive system. For higher thermal or mechanical duty an XLPE-insulated, PUR-sheathed sibling (2XSLCYK-J / VFD-PUR type, CU/XLPE/TCWB/PUR) and halogen-free (LSZH) variants are available; signal-pair hybrids exist but are outside the scope of this power-core datasheet.



CONSTRUCTION

Conductor	Finely stranded bare annealed copper, class 5 to IEC/EN 60228 (VDE 0295).
Insulation	Polyethylene (PE), low-capacitance '2Y' compound for frequency-converter duty.
Screen	EMC double screen: plastic-coated aluminium foil plus a braided screen of tinned copper wires (TCWB), approx. 85 % coverage.
Sheath	PVC compound (transparent or black). PUR and halogen-free (LSZH) sheath variants are available.
Core identification	Brown / black / grey power cores plus a green/yellow protective conductor (J) acc. to VDE 0293-334.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	0.6/1 kV.
Test voltage	4 kV.
Standard	Construction acc. to DIN VDE 0250 / EN 50525 basis; EMC acc. to VDE 0875-11 / EN 55011.
Flame-retardant	IEC/EN 60332-1-2 (VDE 0482-332-1-2).
Conductor standard	IEC/EN 60228 class 5 (VDE 0295).
Max. conductor temperature	+70 °C (short-circuit +160 °C).
Permitted outer cable temperature, fixed	-40 °C to +70 °C.
Permitted outer cable temperature, flexing	-5 °C to +70 °C.
Min. bending radius, fixed	4 × outer diameter.
Min. bending radius, flexing	15 × outer diameter (10-20 × by size).
EMC screen	Symmetrical 4-core build with double screen; bond the screen to earth at both ends over a large contact area for interference-free VFD operation.
Reaction to fire (CPR)	Eca where classified for fixed installation (EN 50575, class per article number); as a flexible motor / servo connection cable it may fall outside CPR scope.

DIMENSIONS & TECHNICAL DATA

Cores × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
4 × 1.5	13.3	10.1	161
4 × 2.5	7.98	11.9	241
4 × 4	4.95	13.6	343
4 × 6	3.3	15.3	458
4 × 10	1.91	19.4	707
4 × 16	1.21	22.4	1112
4 × 25	0.78	26.7	1540
4 × 35	0.554	29.3	1957
4 × 50	0.386	34.1	2676
4 × 70	0.272	39	3740
4 × 95	0.206	44	4921
4 × 120	0.161	48.7	6171
4 × 150	0.129	54.2	7585
4 × 185	0.106	60.6	9449

Outer diameter and weight are nominal manufacturer values of the leading reference source for the four-core (4G) power configuration with green/yellow protective conductor; conductor resistance is the maximum value at 20 °C per IEC/EN 60228 class 5; all values are indicative and non-binding.