



SHIELDED EV HIGH VOLTAGE CABLE

ISO 19642

11 orderable sizes

STANDARD ISO 19642	VOLTAGE CLASS 600 V, 1 kV or specified high-voltage class	TEMPERATURE CLASS -40 °C to +125 °C, +150 °C or specified class
CONDUCTOR Flexible stranded copper conductor	INSULATION / JACKET Orange high-voltage sheath	CROSS-SECTION RANGE 2.5 mm² to 120 mm²

Construction

- 1

Conductor – Flexible stranded copper conductor · 276 × Ø0.4 mm
- 2

Insulation – High-voltage automotive insulation · Wall 0.8–1.2 mm
- 3

Shield – Braid shield (C)
- 4

Sheath – Orange high-voltage sheath

Size selection — all available cross-sections

Cable reference	Cross-section	Conductor construction	Max DC resistance at 20 °C (Ω/km)	Voltage class	Insulation / sheath wall guide (mm)	EMC screen	Overall diameter guide (mm)	Bend radius guide
EV HV Single Core Cu Shielded 2.5 mm²	2.5 mm²	50/0.25	7.6	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	5.25	42 mm moving guide
EV HV Single Core Cu Shielded 4 mm²	4 mm²	Fine stranded Cu	4.7	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	5.80	47 mm moving guide
EV HV Single Core Cu Shielded 6 mm²	6 mm²	84/0.30	3.1	600 V, 1 kV or	0.8–1.2	Copper braid or	6.38	52 mm moving

Cable reference	Cross-section	Conductor construction	Max DC resistance at 20 °C (Ω/km)	Voltage class	Insulation / sheath wall guide (mm)	EMC screen	Overall diameter guide (mm)	Bend radius guide
				specified high-voltage class		tape screen with defined coverage for EMC control		guide
EV HV Single Core Cu Shielded 10 mm ²	10 mm ²	80/0.40	1.83	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	7.30	59 mm moving guide
EV HV Single Core Cu Shielded 16 mm ²	16 mm ²	126/0.40	1.15	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	8.39	68 mm moving guide
EV HV Single Core Cu Shielded 25 mm ²	25 mm ²	196/0.40	0.727	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	9.69	78 mm moving guide
EV HV Single Core Cu Shielded 35 mm ²	35 mm ²	276/0.40	0.524	600 V, 1 kV or specified high-voltage class	0.8–1.2	Copper braid or tape screen with defined coverage for EMC control	10.88	88 mm moving guide
EV HV Single Core Cu Shielded 50 mm ²	50 mm ²	396/0.40	0.387	600 V, 1 kV or specified high-voltage class	1.2–1.6	Copper braid or tape screen with defined coverage for EMC control	13.18	106 mm moving guide

Cable reference	Cross-section	Conductor construction	Max DC resistance at 20 °C (Ω/km)	Voltage class	Insulation / sheath wall guide (mm)	EMC screen	Overall diameter guide (mm)	Bend radius guide
EV HV Single Core Cu Shielded 70 mm ²	70 mm ²	360/0.50	0.268	600 V, 1 kV or specified high-voltage class	1.2–1.6	Copper braid or tape screen with defined coverage for EMC control	14.86	119 mm moving guide
EV HV Single Core Cu Shielded 95 mm ²								
EV HV Single Core Cu Shielded 120 mm ²	95 mm ²	475/0.50	0.193	600 V, 1 kV or specified high-voltage class	1.2–1.6	Copper braid or tape screen with defined coverage for EMC control	16.65	134 mm moving guide
EV HV Single Core Cu Shielded 120 mm ²	120 mm ²	608/0.50	0.153	600 V, 1 kV or specified high-voltage class	1.2–1.6	Copper braid or tape screen with defined coverage for EMC control	18.21	146 mm moving guide