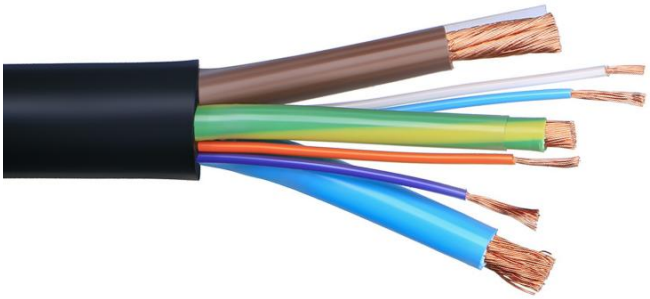
HUAPU CABLE

EV Charging Cables



AC 450/750 V; DC 1000 V
EV Charging Cable
H07BZ-F (Type 123)

Reference standards: EN 50620:2017, IEC 62893-3:2017; compatible with IEC 61851-1 (modes 1/2/3) and IEC 62196-2 (Type 2 connector).

Technical Data

Rated voltage: AC 450/750 V; DC 1000 V
Rated temperature: −40 °C to +90 °C
Charging modes: IEC 61851-1 Modes 1, 2 and 3 (AC)
Connector compatibility: Type 2 (IEC 62196-2), CCS 2 (IEC 62196-3) AC
Dielectric voltage test: 2.5 kV AC for main / power cores; 2.0 kV AC for CC / CP signal cores
Low-temperature impact: −40 °C, no cracks
Hot shock: 150 °C / 1 h, no cracks
Oil resistance: IRM 902, 100 °C / 168 h — tensile strength change < ±40%; elongation change < ±30%
Acid / alkali resistance: 168 h — tensile strength change ≤ 30%; elongation ≥ 100%
Crush resistance: cross-section ≤ 4 mm² → crush force ≥ 4 kN; 4 < cross-section ≤ 35 mm² → crush force ≥ 11 kN
Min. bending radius: ≥ 6 × OD

Application

H07BZ-F (Type 123) is the flexible AC charging cordset connecting the charging-station socket-outlet (or charger output) to the Type 2 / CCS 2 connector on the electric vehicle. EVI-2 (cross-linked polyolefin) insulation and TPU outer sheath provide the wide thermal range, oil/UV/abrasion resistance, and tight bending performance required for repeated daily plug-and-unplug handling outdoors at home, workplace, and public charging points.

Construction

① Conductor — bare copper, flexible stranded ② Insulation — EVI-2 (cross-linked polyolefin, XLPO)

③ Filler — PP yarn (polypropylene) ④ Binder tape — non-woven fabric

⑤ Outer sheath — TPU (thermoplastic polyurethane, EVM-1 grade)

DIMENSION AND WEIGHTS			ELECTRICAL PROPERTIES		
Specification (Cores × Section + Signal Cores)	Conductor Twisted OD	Unshielded Overall Diameter	Delivery Length	Max. Conductor Resistance 20°C	Reference Allowable Current
No. × mm²	mm	mm	m	mΩ/m (Ω/km)	A
3 × 1.5 + (0–6) × (0.5–1.0)	1.6	8.8 – 9.6	800	13.300	10
3 × 2.5 + (0–6) × (0.5–1.0)	2.1	10.0 – 10.8	800	7.980	16
3 × 4.0 + (0–6) × (0.5–1.0)	2.8	11.5	500	4.950	20
3 × 6.0 + (0–6) × (0.5–1.0)	3.5	13.2	400	3.300	32
3 × 10.0 + (0–6) × (0.5–1.0)	4.5	16.3	500	1.910	40
3 × 16 + (0–6) × (0.5–1.0)	5.7	19.0	500	1.210	63
5 × 2.5 + (0–6) × (0.5–1.0)	2.1	13.5	500	7.980	16
5 × 4.0 + (0–6) × (0.5–1.0)	2.8	15.0	400	4.950	20
5 × 6.0 + (0–6) × (0.5–1.0)	3.5	16.8	300	3.300	32
5 × 10.0 + (0–6) × (0.5–1.0)	4.5	20.0	300	1.910	40
5 × 16 + (0–6) × (0.5–1.0)	5.7	23.5	800	1.210	63
5 × 25 + (0–6) × (0.5–1.0)	7.2	29.0	800	0.780	80
5 × 35 + (0–6) × (0.5–1.0)	8.4	32.8	500	0.554	125

Note: "Reference allowable current" is the continuous current of the power cores under IEC 62893 reference conditions. Conductor resistance values are the maximum at 20 °C per IEC 60228 Class 5/6 (flexible stranded). The optional 0–6 signal cores at 0.5–1.0 mm² accommodate CP / CC and auxiliary control wiring; specify the exact count and cross-section in the order. The above product specifications, sizes, and structures may be changed due to technological progress; similar specifications can be designed and manufactured per customer requirements.