casmocable
CABLES FOR EXTREMES

FHLR4G

-40°C to +150°C, 1000/1500V



Construction
Conductor: Bare Copper · Flexible Stranded
Binder: Non-woven tape
Insulation: Extruded · Cross-linked EVA Copolymer (4G)

Thermal Characteristics
Operating Temperature: -40°C to +150°C

Electrical Characteristics
Operating Voltage: 1000/1500V
Test Voltage: 10000V / 5 min (ISO 19642-2 / ISO 19642-5 withstand voltage)

Application
EV High-Voltage Powertrain: Unscreened single-core high-voltage power distribution for electric and hybrid vehicle traction batteries, inverters, and PDUs.
Battery Interconnections: High-current internal and inter-module battery connections in on-road and commercial electric vehicles.

General Characteristics
Reduced-Wall Profile: Irradiation cross-linked reduced-wall insulation saves routing space and weight across high-current EV harnesses.
Flexible Routing: Available in Type B and fine-stranded Type C constructions for tight bend radii in battery packs and powertrain ducts.
Abrasion & Fluid Resistance: Resists abrasion, thermal shock, UV exposure, humidity, and aggressive automotive fluids and battery coolants.

Standards & Approvals
ISO 19642-5: Unscreened single-core high-voltage automotive cables (Class D, -40°C to +150°C, 3,000 h).
ISO 19642-2: Test methods for automotive cables.
Halogen-Free: EN 50525-1 Annex B / IEC 60754-1 & IEC 60754-2

Fire Performance
Fire Performance: Flame Retardant (ISO 19642-2)

RoHS COMPLIANT REACH COMPLIANT

FHLR4G-B

CASMO Part No.	Conductor				Min. Ins. Thickness (mm)	Cable		Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
	Conductor Size (mm²)	No. Of Strands	Max. Strand Dia. (mm)	Max. Conductor Dia. (mm)		Min. Overall O.D. (mm)	Max. Overall O.D. (mm)		
810158/62-XX	8	62	0.41	4.30	0.40	4.70	5.20	2.38	80
8101510/80-XX	10	80	0.41	4.50	0.48	5.40	5.80	1.82	102
8101512/96-XX	12	96	0.41	4.80	0.48	6.00	6.50	1.52	122
8101516/126-XX	16	126	0.41	5.50	0.52	6.50	7.00	1.16	160
8101525/196-XX	25	196	0.41	7.00	0.52	8.20	8.70	0.743	245
8101535/276-XX	35	276	0.41	8.30	0.64	9.80	10.40	0.527	345
8101550/396-XX	50	396	0.41	9.70	0.72	11.80	12.20	0.368	492
8101570/360-XX	70	360	0.51	12.50	0.80	14.00	14.40	0.259	697
8101595/475-XX	95	475	0.51	14.70	0.90	16.20	16.70	0.196	930
81015120/608-XX	120	608	0.51	16.50	1.28	18.50	19.50	0.153	1210
81015150/760-XX	150	760	0.51	18.50	1.70	21.00	23.00	0.122	1560

Table Notes

† Part No. code: XX = colour code — OR Orange (standard high-voltage colour), BK Black, RD Red, BL Blue, YW Yellow, GN Green, WH White, BN Brown, VT Violet, GY Grey.

‡ Non-woven separator tape is applied under insulation on cross-sections ≥ 16 mm²; sizes ≥ 120 mm² follow ISO 19642-5 standard insulation wall thickness.

Please confirm application-specific requirements with CASMO before ordering. Specifications are subject to change; please ensure you are using the latest revision.

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FHLR4G-C

CASMO Part No.	Conductor				Min. Ins. Thickness (mm)	Cable		Max. DCR @20°C (Ω/km)	Nom. Cable Weight (kg/km)
	Conductor Size (mm²)	No. Of Strands	Max. Strand Dia. (mm)	Max. Conductor Dia. (mm)		Min. Overall O.D. (mm)	Max. Overall O.D. (mm)		
8101525/790-XX	25	790	0.21	7.00	0.52	8.20	8.70	0.743	248
8101535/1102-XX	35	1102	0.21	8.30	0.64	9.80	10.40	0.527	348
8101550/1600-XX	50	1600	0.21	10.50	0.72	11.80	12.20	0.368	495
8101595/3000-XX	95	3000	0.21	14.70	0.90	16.20	16.70	0.196	925

Table Notes

† Part No. code: XX = colour code — OR Orange (standard high-voltage colour), BK Black, RD Red, BL Blue, YW Yellow, GN Green, WH White, BN Brown, VT Violet, GY Grey.

‡ Non-woven separator tape is applied under insulation on cross-sections ≥ 16 mm²; sizes ≥ 120 mm² follow ISO 19642-5 standard insulation wall thickness.

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