FHLR91XC13X and FHLR4GC13X Battery Cable

Eland Product Group: B5F

APPLICATION

Battery cable for use in road vehicle applications. including e-Mobility applications. Offers excellent resistance to high and low temperature, ozone, UV and weathering resistance. It is resistant to pressure at high temperatures, motor oil, fuels and hydrolysis, flame retardant, has a high abrasion resistance, and is easy to strip and process.

CHARACTERISTICS

Voltage Rating
U_0: 1000V AC
V_0: 1500V DC

Test Voltage 50 Hz, 5 min
10kV AC

Temperature Range
(3000h): -40°C to + 150°C

Minimum Bending Radius
Fixed: 4x Overall diameter
Flexing: 6x Overall diameter

CONSTRUCTION

Conductor
Bare Copper

Insulation
91X: XLPO (Cross-linked irradiation Polyolefin) for cables $\leq$6 mm^2
4G: EVA (Ethylene Vinyl Acetate) for cables >6 mm^2

Screen
TCWB (Tinned copper wire braid)

Wrapping
Tape

Sheath
TPE-E (Vulcanised Thermoplastic Elastomer 13X)

Sheath Colour
Orange

STANDARDS

ISO 6722-1 class D, ISO 19642-9 class D, EU-directive 2000/53/EG

THE CABLE LAB®

AN ISO/IEC 17025 AND IECEE CBTL ACCREDITED FACILITY

Our world-class testing facility assures the quality and compliance of this cable through a continuous and rigorous testing regime.

SUSTAINABILITY COMMITMENT

We are on a journey to Net Zero.

We've committed to near-term emissions reductions and a net-zero target with the Science Based Targets initiative and we're a signatory to the United Nations Global Compact Sustainable Development Goals.

Learn more about embodied carbon and our carbon emissions reduction actions, our comprehensive recycling services, and wider ESG activities for sustainable operations at: www.elandcables.com/company/about-us/esg-sustainability

REGULATORY COMPLIANCE

This cable meets the requirements of the Low Voltage Directive 2014/35/EU, the RoHS Directive 2015/65/EU and Reach Directive EC 1907/2006. RoHS compliance has been tested and confirmed by The Cable Lab®.

DIMENSIONS FHLR91XC13X

ELAND PART NO.	NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR			CABLE			
		NUMBER OF INDIVIDUAL WIRES	NOMINAL DIAMETER OF INDIVIDUAL WIRES mm	NOMINAL DIAMETER mm	NOMINAL DIAMETER OF INSULATION mm	NOMINAL DIAMETER OF SCREEN mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/100m
B5F010025OR	2.5	50	0.26	2.0	2.85	3.3	5.0	4.9
B5F010040OR	4	56	0.31	2.5	3.55	4.0	5.8	7.0
B5F010060OR	6	84	0.31	3.0	4.15	4.7	6.6	9.8

DIMENSIONS FHLR4GC13X

ELAND PART NO.	NOMINAL CROSS SECTIONAL AREA mm²	CONDUCTOR			CABLE			
		NUMBER OF INDIVIDUAL WIRES	NOMINAL DIAMETER OF INDIVIDUAL WIRES mm	NOMINAL DIAMETER mm	NOMINAL DIAMETER OF INSULATION mm	NOMINAL DIAMETER OF SCREEN mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/100m
B5F01008OR	8	60	0.41	3.8	5.05	5.6	7.6	12.5
B5F01010OR	10	78	0.41	4.3	5.75	6.3	8.4	15.8
B5F01012OR	12	92	0.41	4.7	6.10	6.7	8.9	17.9
B5F01016OR	16	126	0.41	5.4	6.90	7.5	9.7	23.0
B5F01020OR	20	154	0.41	6.2	7.60	8.3	10.6	28.2
B5F01025OR	25	189	0.41	6.7	8.20	8.9	11.2	32.8
B5F01030OR	30	224	0.41	7.4	9.10	9.8	12.1	38.5
B5F01035OR	35	273	0.41	7.9	9.70	10.4	12.7	44.7
B5F01040OR	40	301	0.41	8.5	10.40	11.3	13.6	51.3
B5F01050OR	50	385	0.41	9.4	11.50	12.6	14.9	64.2
B5F01060OR	60	294	0.51	10.6	12.60	13.5	15.9	73.1
B5F01070OR	70	360	0.51	11.6	13.70	14.6	17.0	85.8
B5F01095OR	95	480	0.51	13.5	16.20	17.3	19.9	115.3
B5F01120OR	120	589	0.51	15.1	18.00	19.1	22.6	145.5
B5F01150OR	150	741	0.51	17.0	20.00	21.3	24.9	177.4

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ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM RESISTANCE AT 20 °C Ω/km	NOMINAL TRANSFER IMPEDANCE OF SCREEN AT 30oC MHZ m Ω/m
2.5	7.60	100
4	4.71	110
6	3.14	70
8	2.38	40
10	1.82	30
12	1.52	30
16	1.16	40
20	0.955	30
25	0.743	40
30	0.647	30
35	0.527	60
40	0.473	20
50	0.368	30
60	0.315	30
70	0.259	30
95	0.196	20
120	0.153	20
150	0.122	30