

Automotive products

RADOX® cables and system solutions

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RADOX® battery cables – thin-wall, flexible



Power cables for road vehicles, class D according to ISO 6722, operating temperature -40 to +150 °C

RADOX battery cables are high temperature resistant products with a reduced outer diameter.

The cable is highly resistant to temperature, ozone, weathering, hydrolysis and has excellent resistance to battery acid and cooling agents. It is also resistant against oils, fuels and other fluids used inside and outside of the motor compartment.

Thanks to its electron beam cross-linked RADOX insulation, the cable has, despite the reduced outer diameter, excellent resistance to heat pressure and abrasion. In addition, the RADOX battery cable has outstanding dielectric properties. The flame retardant insulation does not melt or flow at high temperatures and is easy to strip.

General features

- Operating temperature -70 to +150 °C
- Outstanding flexibility
- Reduced outer diameter
- Resistant to motor oils, battery acid and fuels
- High resistance to heat pressure
- Excellent abrasion resistance

RADOX 155 battery cable	20
RADOX Elastomer S (REMS) battery cable	24
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RADOX screened multi core cable	32

RADOX[®] screened multi core cable (FHLR91XC13X and FHLR4GC13X)



Number of conductors	2 to 5
Cross section	1.5 to 70 mm ²
Voltage rating	1000 V AC/1500 V DC
Temperature range	-55 to +150 °C (3000 h)
Min. bending radius	4 × cable dia.

Composition of cable

1. Conductor	stranded bare copper
2. Insulation	RADOX 155S (91X) or RADOX 155 (4G)
3. EMC screen	tin plated copper braid optimised
4. Tape	plastic or aluminium screen (optional)
5. Sheath	RADOX Elastomer S (13X), colour: orange

Characteristics and specialities

- Excellent high and low temperature resistance
- Ozone and weathering resistance
- Outstanding resistance against battery acid, diesel, various oils, engine coolant and window washer fluids
- Resistance against humidity, petrol and brake fluids
- Flame retardant
- Soldering iron resistant
- Easy to strip and process

Application

Screened power cable for use in hybrid and electrical vehicles.

Standards

Conductor	General
ISO 6722	ISO 6722, ISO 19642-9 class D, thin-wall
DIN EN 13602, Cu-ETPI-A (CW003A)	

For further technical details please refer to our data sheet STD 806686.

RADOX[®] screened multi core cable (FHLR91XC13X and FHLR4GC13X)

Extract from our delivery programme

Cable type	Conductor			Cores	Cable				
	Nominal n × mm ²	Number of ind. wires guide value	Dia. of ind. wires max. mm		Conductor diameter max. mm	Diameter of cores nom. mm	Resistance at 20 °C max. Ω/km	Diameter of screen max. mm	Overall-diameter nom. mm
2 × 2.5	50	0.26	2.2	2.85	798	6.3	8.4 ± 0.3	50	12.0
2 × 4	56	0.31	2.6	3.55	4.95	7.8	10.2 ± 0.3	30	18.2
2 × 6	84	0.31	3.1	4.15	3.30	9.0	11.0 ± 0.35	50	22.5
2 × 8	60	0.41	3.8	5.05	2.50	11.0	12.8 ± 0.4	40	31.1
2 × 10	78	0.41	4.3	5.75	1.91	12.4	14.4 ± 0.4	40	40.5
3 × 2.5	50	0.26	2.2	2.85	798	6.8	8.4 ± 0.3	70	14.4
3 × 4	56	0.31	2.6	3.55	4.95	8.4	10.1 ± 0.4	80	21.0
3 × 6	84	0.31	3.1	4.15	3.30	10.0	12.4 ± 0.4	70	32.2
3 × 10	78	0.41	4.3	5.75	1.91	13.4	15.8 ± 0.5	30	49.6
3 × 16	126	0.41	5.4	6.90	1.21	16.0	18.5 ± 0.5	30	75.1
3 × 35	273	0.41	7.9	9.70	0.554	22.5	24.9 ± 0.5	140	148.8
4 × 2.5	50	0.26	2.2	2.85	798	7.6	9.2 ± 0.3	40	18.1
4 × 4	56	0.31	2.6	3.55	4.95	9.3	11.3 ± 0.4	50	26.5
4 × 6	84	0.31	3.1	4.15	3.30	11.0	12.9 ± 0.4	50	37.6
4 × 10	78	0.41	4.3	5.75	1.91	15.0	17.1 ± 0.5	40	64.7
5 × 4	56	0.31	2.6	3.55	4.95	10.8	13.3 ± 0.4	70	36.2
5 × 6	84	0.31	3.1	4.15	3.30	12.4	14.4 ± 0.4	30	47.0

Datasheet TD 806686