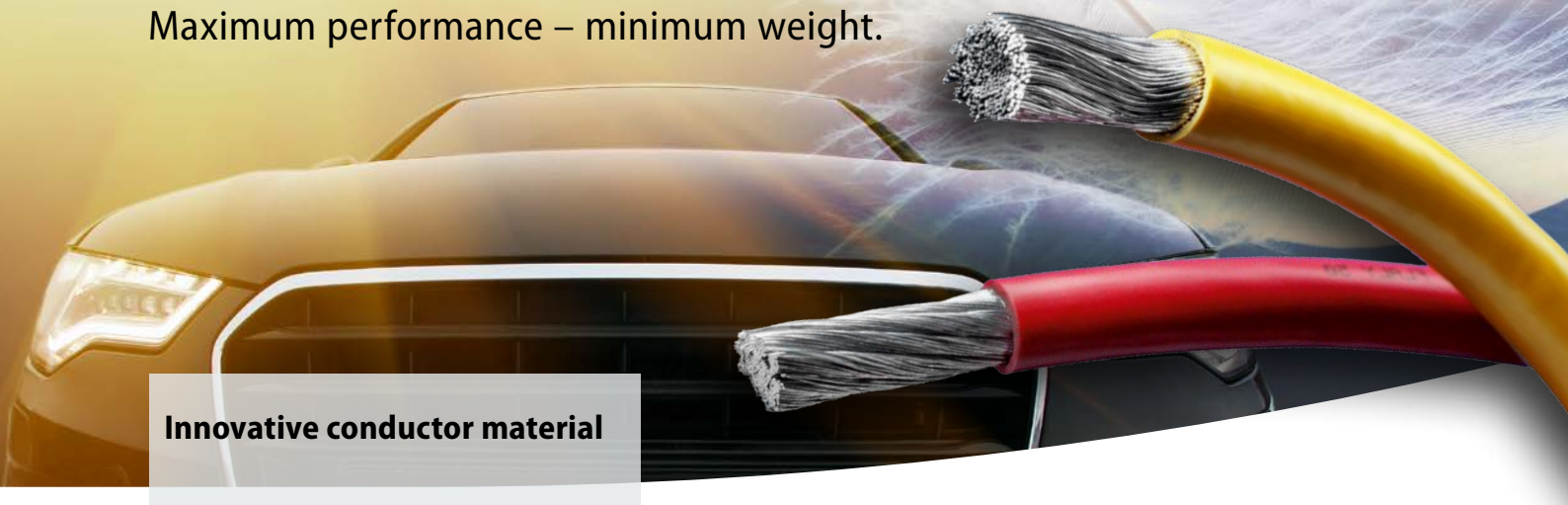
Aluminium (battery) **cables**

Maximum performance – minimum weight.



Innovative conductor material

Material
Aluminium 99.7 % / aluminium alloy

Standards and specifications
ISO 6722-2, ISO 19642-4, LV 112-2 and customer specifications

Usage in automotive industry
Signal, power and battery applications

Usage in other industries
Telecommunication, overhead contact line and electronics

Characteristics of aluminium

	Cu	Al
density (at 20 °C)	8.92 kg/dm³	2.7 kg/dm³
electrical conductivity	100 %	(60 % IACS)
tensile strength	> 200 N/mm²	70 – 120 N/mm²
elongation at break*	≥ 16 %	≥ 16 %

* *Values based on soft annealed ETP-copper and aluminium.*

Benefits of aluminium

Compared to copper conductors
✔ lower metal price
✔ major weight savings

Cable types

Description	Code	Nominal cross-section mm²	Insulation	Temperature range
ISO standard				
Automotive cables for signal and power applications	FLALRY FLALRYW	0.75 – 6.0	plasticized PVC, lead free	–40 °C up to +105 °C –40 °C up to +125 °C
Automotive cables for power and battery applications	FLAL(R)Y FLAL(R)YW	8.0 – 95.0	plasticized PVC, lead free	–40 °C up to +105 °C –40 °C up to +125 °C
Automotive cables for battery applications	FLALY FLALYW	120 – 160	plasticized PVC, lead free	–40 °C up to +105 °C –40 °C up to +125 °C

Insulation material
Besides PVC further materials, e.g. silicone or PP, are available

Coding Key
FL: automotive cable
AL: aluminum
R: thin wall
Y: PVC temperature resistant 105 °C
YW: PVC heat-resistant 125 °C

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