



## WIRES & CABLES

FOR TOMORROW'S TECHNOLOGIES



### AUTOMOTIVE CABLES FOR SPACE & WEIGHT REDUCTION



### COF Skinny

COFICAB designs and manufactures small cross-section cables from 0,08 mm<sup>2</sup> to 0,22mm<sup>2</sup> and compressed conductor cables up to 2,00mm<sup>2</sup>

### COF Alu

COFICAB designs and manufactures cables with aluminum and aluminum alloys conductor, which are typically used to reduce weight in vehicles

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# ABOUT US

## Since 1992

COFICAB is a member of ELLOUMI Group, founded in 1946 by Mr. Taoufik Elloumi in Tunisia. ELLOUMI Group is the biggest industrial and exporting group in this country, specializing in a wide variety of services, including automotive, power, and telecom cables, wire harnesses, agribusiness, real-estate, urban planning, retail, home appliances and consulting. ELLOUMI Group comprises 30 subsidiary companies worldwide and employs over 10 000 people.

### **COFICAB**

**is your leading global partner in the design, manufacturing, and sales of automotive cables and wires. COFICAB was founded in 1992 by Mr. Hichem Elloumi. Since then, it has experienced an incredible national and international expansion, and an unequaled speed of organic growth.**

A very important part of COFICAB's mission, is not only to be at the forefront of technology, but also to be a leader in the field. For this reason, we position ourselves ahead of market trends and demands by offering a broad catalog of products that range from lighter and smaller automotive cables, such as COFskinny; automotive cables for connectivity applications, such as COFdata; cables for autonomous driving, such as COFsense, automotive cables for electric and hybrid cars, such as e-COF; tailor-made cables for and in collaboration with our customer, examples of which, you can see in our cable family, named TAILOR-MADE.

COFICAB develops automotive wires and cables for current applications, but also develops cables for applications that have not yet been required by the current market, which is possible thanks to the constant investment in human and material resources for Research and Development, with the objective to always be at the forefront of the market and the requests of our customers.

# OUR SPIRIT OF QUALITY & EXCELLENCE



**QUALITY**  
IATF 16949  
ISO 9001



**R&D LABORATORY**  
NP EN  
ISO/IEC 17025



**ENVIRONMENT  
HEALTH & SAFETY**  
ISO 14001  
ISO 45001  
EMAS

OEM accreditation by:

Daimler  
FCA  
FORD  
GM  
JLR  
PSA  
RSA  
VW

## QUALITY

Undoubtedly, COFICAB is dedicated to quality values by continually providing innovative solutions to its partners in view of understanding their requirements and enhancing the productivity of their engineering and manufacturing applications.

Thanks to these values of knowledge and expertise, integrity, service and empowerment, COFICAB had succeeded to acquire ISO/TS 16949 version 2002 for all facilities in addition to the laboratory accreditation according to ISO 17025.

Our quality concern had driven us to implement up to date quality management systems and best practices that have allowed us to develop capable processes in order to prevent quality issues and, generally speaking, accomplish our corporate quality strategy.

## ENVIRONMENT

The environment care and protection are an integral part of our health and safety corporate policies and are key elements in our progress.

We do certainly value the importance of an environment ecologically healthy and safe that's why we had combined all our efforts to reach this ultimate goal through the compliance to the ISO 14001 standards.

In this regard, COFICAB is fully complying with the European directives, IMDS system and is now completely engaged in the REACH program.



# AUTOMOTIVE CABLES FOR **SPACE & WEIGHT** REDUCTION

## MINIATURIZED CABLES

Cross-section 0,08mm<sup>2</sup>

Cross-section 0,13mm<sup>2</sup>

Cross-section 0,22mm<sup>2</sup>

Compressed conductor

## ALUMINUM CONDUCTOR CABLES

(up to 105°C/3000h) T2

(up to 125°C/3000h) T3

(up to 150°C/3000h) T4

(up to 200°C/3000h) T6



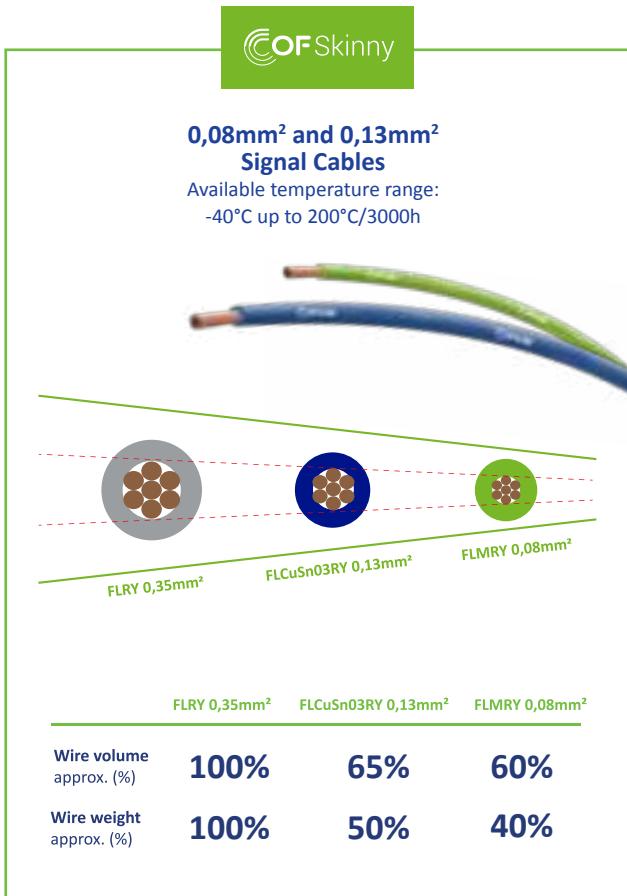
We can customize our cables on demand, e.g. we can produce all cross-sections and temperature classes upon request.

# COFSKINNY & COFALU OVERVIEW

One of the major automotive trends is the lightening of vehicles to meet fuel efficiency and CO2 emission regulations.

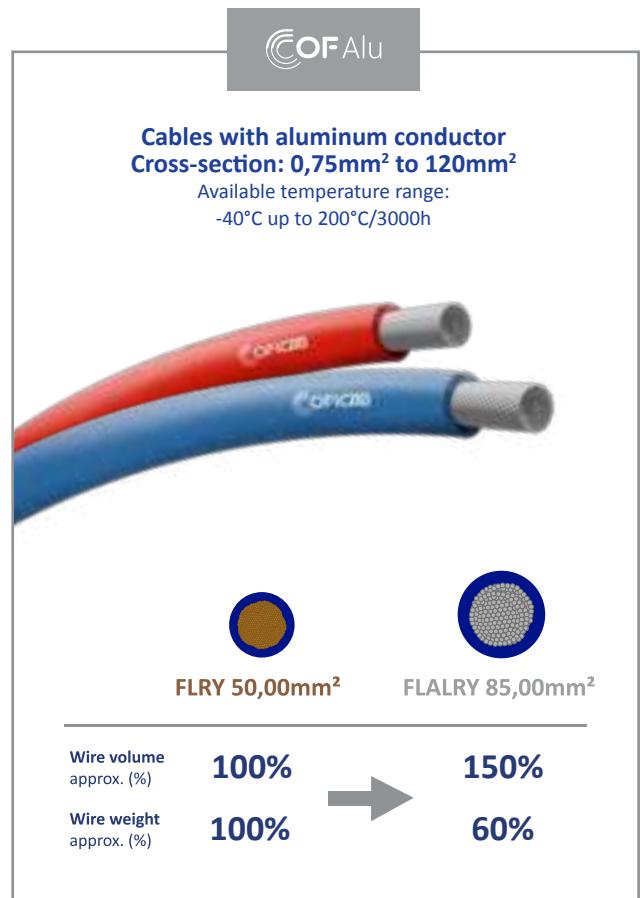
**The use of alternative and advanced materials, that are lighter, is the best way to remove weight from a vehicle.**

Apart from weight reduction, optimization and space reduction is also needed to compensate for the increase of safety equipment and new features present in the new vehicles.



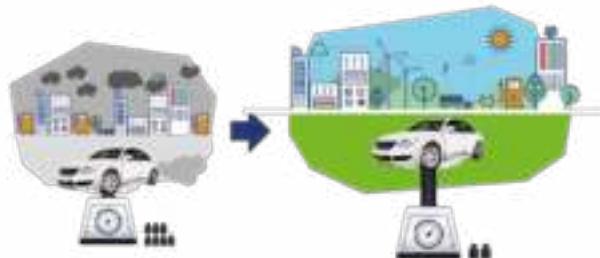
Some of the solutions that COFICAB offers for remarkable weight and space reduction are:

- Miniaturized cables with innovative conductor materials with high tensile strength for cross-section reduction (0,08 and 0,13mm<sup>2</sup>).
- Aluminum cables (0,75 to 120mm<sup>2</sup>) with insulation materials up to 200°C.
- Screened high voltage battery cables with aluminum conductor with insulation materials up to 200°C.



The use of alternative and advanced lighter materials is one of the best ways to reduce vehicle's weight. Less heavy vehicles means less CO2 emissions and less fuel consumption.

That leads us to:



## LESS ENVIRONMENTAL IMPACT



## MINIATURIZED CABLES

Cross-section 0,08mm<sup>2</sup>

FLMRY

7

FLMR9Y

8

# FLMRY

-40°C to 105°C



## DESIGN

Conductor:	Strands and solid conductor made of CuMg alloy
Insulation material:	Plasticized PVC
Covering:	Reduced wall thickness

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures. Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter nom.		Bare max.	Wire diameter	
	[mm²]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLMRY	0,08	7 x 0,13 1 x 0,33	0,375 0,322	315	0,9 – 1,0	0,20	>65

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
FLMRY 0,08m² Stranded			
FLMRY 0,08m² Solid core	0,08		1,85

# FLMR9Y

-40°C to 125°C



## DESIGN

Conductor:	Strands and solid conductor made of CuMg alloy
Insulation material:	Polypropylene
Covering:	Reduced wall thickness

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures. Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Thermal overload:	175°C short term
Min. bending radius:	5xD (static)

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter nom.		Wire diameter	Wall thickness min.	
	[mm²]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLMR9Y	0,08	7 x 0,13 1 x 0,33	0,375 0,322	315	0,9 – 1,0	0,20	>65

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
FLMR9Y 0,08mm² Stranded			
FLMR9Y 0,08mm² Solid core	0,08		1,85



## MINIATURIZED CABLES

Cross-section 0,13mm<sup>2</sup>

FLCuSn03UY	10
FLCuMg02UY	11
FLCuSn03RY	12
FLCuMg02RY	13
NF3MR	14
A3M	15
FLCuSn03R2X	16
FLCuSn03R2X T4	17

# FLCuSn03UY

-40°C to 105°C



## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72%
	Sn content 0,3 ±0,05%
Insulation material:	Plasticized PVC
Covering:	Ultra reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures. Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-4 (similar)  
LV 112-4

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Bare max.	Wall thickness min.	
	[mm²]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuSn03UY	0,13	7 x 0,158	0,49	170	0,16	0,95 -0,1	≥95

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
FLCuSn03UY	0,13		1,95

# FLCuMg02UY

-40°C to 105°C



## DESIGN

Conductor:	Strands of copper alloy CuMg0,2 alloy; IACS 75% Mg content 0,2 ±0,06%
Insulation material:	Plasticized PVC
Covering:	Ultra reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-4 (similar)  
LV 112-4 (similar)

Type	Conductor			Cable			
	Geometry		Resistance (20°C)	Geometry		Properties	
	Cross-section	Construction		Diameter max.	Bare max.	Wall thickness min.	Diameter
	[mm <sup>2</sup> ]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuMg02UY-A	0,13	7 x 0,158	0,49	170	0,16	0,85 – 0,95	≥95

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm <sup>2</sup> ]	0,13	
FLCuMg02UY-A			1,95

# FLCuSn03RY

-40°C to 105°C



## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72%
Insulation material:	Sn content 0,3 ±0,05%
Covering:	Plasticized PVC
	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-4 (similar)  
LV 112-4 (105)

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Bare max.	Wall thickness min.	
	[mm <sup>2</sup> ]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuSn03RY-A	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	≥95

Type	Cable type		
	Cross-section	Weight approx.	
		[mm <sup>2</sup> ]	[g/m]
FLCuSn03RY-A	0,13		2,1

# FLCuMg02RY

-40°C to 105°C



## DESIGN

Conductor:	Strands of copper alloy CuMg0,2 alloy; IACS 75%
	Mg content 0,2 ±0,06%
Insulation material:	Plasticized PVC
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-5 (similar)  
LV 112-4

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Bare max.	Wall thickness min.	
	[mm²]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuMg02RY-A	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	≥95

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
FLCuMg02RY-A	0,13	2,1

# NF3MR

-40°C to 125°C



COFICAB

## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72% Sn content 0,3 ±0,05%
Insulation material:	PP low halogenated
Covering:	Thin wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C/3000h
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

Renault Nissan RNDS-B-00005

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Wall thickness min.	Diameter	
	[mm²]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
NF3MR-A	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	70

Cable type		
Type	Cross-section	Weight approx.
	[mm²]	[g/m]
NF3MR-A	0,13	2,1

# A3M

-40°C to 125°C



## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72%
	Sn content 0,3 ±0,05%
Insulation material:	PP halogen free
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

CDC 36-05-009/-R

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Wall thickness min.	Diameter	
	[mm²]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
A3M	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	>70

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
A3M	0,13		2,1

# FLCuSn03R2X T3

-40°C to 125°C



## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72%
	Sn content 0,3 ±0,05%
Insulation material:	Polyethylene, cross-linked (XPE)
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures. Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-3 (similar)  
LV 112-4 (125)

Type	Conductor			Cable			
	Geometry		Resistance (20°C)	Geometry		Properties	
	Cross-section	Construction		Diameter max.	Bare max.		
	[mm²]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuSn03R2X-A	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	≥95

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
FLCuSn03R2X-A	0,13		2,1

# FLCuSn03R2X T4

-40°C to 150°C



COFICAB

## DESIGN

Conductor:	Strands of copper alloy CuSn0,3 alloy; IACS 72%
	Sn content 0,3 ±0,05%
Insulation material:	Polyethylene, cross-linked (XPE)
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 150°C / 3000h
Thermal overload:	200°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Signal cable wiring for car body or regions with moderate temperatures.  
Using copper alloy with high values of breaking strength while conductivity remains at a good value will lead to an excellent signal cable for low-current applications, for example for switches and sensors.

## ACCORDING TO THE STANDARD

ISO 19642-3 (similar)  
LV 112-4

Type	Conductor				Cable		
	Geometry			Resistance (20°C)	Geometry		Properties
	Cross-section	Construction	Diameter max.		Bare max.	Wall thickness min.	
	[mm <sup>2</sup> ]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]	[mm]	N
FLCuSn03R2X-A T4	0,13	7 x 0,158	0,49	170	0,20	0,95 – 1,05	≥95

Cable type		
Type	Cross-section	Weight approx.
	[mm <sup>2</sup> ]	[g/m]
FLCuSn03R2X-A T4	0,13	2,1



## MINIATURIZED CABLES

Cross-section 0,22mm<sup>2</sup>

B2M	19
YAH	20
B2H	21
R3H	22
A3H	23
NF3HR	24

# B2M

-40°C to 100°C



## DESIGN

Conductor: Hard copper alloy CuSn0.3  
 Insulation material: Plasticized PVC  
 Covering: Thin wall thickness

## ACCORDING TO THE STANDARD

PSA B25 1110

## TECHNICAL DATA

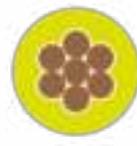
Voltage level:	60V
Temperature range:	-40°C to 100°C/3000h
Wire concentricity:	Min. 70 %
Wire tensile strength:	Min. 150 N
Conductor electrical conductivity:	Approx. 72 % IACS
Conductor density:	8,93 kg/dm <sup>3</sup>

Type	Conductor						Cable	
	Geometry			Resistance (20°C)	Lay Length max	Twisting Direction	Geometry	
	Cross-section	Construction	Diameter max.				Wall thickness min.	Diameter
	[mm <sup>2</sup> ]	N x Ømax. [mm]	[mm]	[mΩ/m]	[mm]		[mm]	[mm]
B2M	0,22	7 x 0,210	0,70	≈ 100	18	S	0,22	1,15 – 1,25

Cable type		
Type	Cross-section	Weight approx.
	[mm <sup>2</sup> ]	[g/m]
B2M	0,22	3,3

# YAH

-40°C to 105°C



## DESIGN

Conductor:	Half hard copper (Cu-ETP1)
Insulation material:	Plasticized PVC
Covering:	Thin wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Wire tensile strength:	Min. 70 N
Conductor electrical conductivity:	Approx. 97,6 % IACS
Conductor density:	8,89 kg/m³

## ACCORDING TO THE STANDARD

Jaguar Spec TPJLR.18.007

Type	Conductor						Cable			
	Geometry			Resistance (20°C)	Lay Length max.	Twisting Direction	Geometry			
	Cross-section	Construction	Diameter max.				Wall thickness min.	Diameter		
			[mΩ/m]	[mm]			[mm]			
FLRY-A (HHC)	0,22	7 x 0,21	0,70	84,8	18	S	0,20	1,10 – 1,20		

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]		
FLRY-A (HHC)	0,22		3,1

# B2H

-40°C to 100°C



## DESIGN

Conductor: Half hard copper (Cu-ETP1)  
 Insulation material: Plasticized PVC  
 Covering: Thin wall thickness

## ACCORDING TO THE STANDARD

PSA B25 1110

## TECHNICAL DATA

Voltage level: 60 V  
 Temperature range: -40°C to 100°C / 3000h  
 Wire concentricity: Min. 70 %  
 Wire tensile strength: Min. 70 N  
 Conductor electrical conductivity: Approx. 97,6 % IACS  
 Conductor density: 8,89 kg/m³

Type	Conductor					Cable		
	Geometry			Resistance (20°C)	Lay Length max	Twisting Direction	Geometry	
	Cross-section	Construction	Diameter max.				Wall thickness min.	Diameter
	[mm²]	N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]		[mm]	[mm]
B2H	0,22	7 x 0,21	0,70	84,80	18	S	0,22	1,15 – 1,25

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]	0,22	
B2H			3,3

# R3H

-40°C to 125°C



## DESIGN

Conductor: Half hard copper (Cu-ETP1)  
 Insulation material: Plasticized PVC  
 Covering: Thin wall thickness

## ACCORDING TO THE STANDARD

Renault CDC 36-05-009/-N

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 125°C / 3000h  
 Wire tensile strength: Min. 75 N  
 Conductor electrical conductivity: Approx. 97,6 % IACS  
 Conductor density: 8,89 kg/m³

Type	Conductor						Cable	
	Geometry			Electrical Resistance max. (20°C)	Lay Length max.	Twisting Direction	Geometry	
	Cross-section	Construction	Diameter max.				Wall thickness min.	Diameter
	[mm²]	N x Ømax.[mm]	[mm]				[mm]	[mm]
R3H	0,22	7 x 0,21	0,70	84,8	18	S	0,22	1,15 – 1,25

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]	0,22	
R3H			3,3

# A3H

-40°C to 125°C



## DESIGN

Conductor: Half hard copper (Cu-ETP1)  
 Insulation material: Polypropylene halogen free  
 Covering: Thin wall thickness

## ACCORDING TO THE STANDARD

CDC 36-05-009/--Q

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 125°C / 3000h  
 Wire tensile strength: Min. 75 N  
 Conductor electrical conductivity: Approx. 97,6 % IACS  
 Conductor density: 8,89 kg/m³

Type	Conductor						Cable	
	Geometry			Electrical Resistance max. (20°C)	Lay Length max.	Twisting Direction	Geometry	
	Cross-section	Construction	Diameter max.				Wall thickness min.	Diameter
	[mm²]	N x Ømax.[mm]	[mm]				[mm]	[mm]
A3H	0,22	7 x 0,21	0,70	84,8	18	S	0,20	1,15 – 1,25

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
A3H	0,22	3,2

# NF3HR

-40°C to 125°C



## DESIGN

Conductor: Half hard copper (Cu-ETP1)  
 Insulation material: Polypropylene low halogenated  
 Construction: Thin wall thickness

## ACCORDING TO THE STANDARD

Renault CDC 36-05-009/-N

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 125°C / 3000h  
 Wire tensile strength: Min. 75 N  
 Conductor electrical conductivity: Approx. 97,6 % IACS  
 Conductor density: 8,89 kg/m³

Type	Conductor					Cable			
	Geometry			Electrical Resistance max. (20°C)	Lay Length max	Geometry			
	Cross-section	Construction	Diameter max.			Twisting Direction	Wall thickness min.		
							[mm]		
NF3HR	0,22	7 x 0,21	0,70	84,8	18	S	0,22	1,15 – 1,25	

Cable type			
Type	Cross-section		Weight approx. [g/m]
	[mm²]	0,22	
NF3HR			3,2



## MINIATURIZED CABLES



Compressed Conductor

CAVUS

26

CIVUS

27

# CAVUS

-40°C to 85°C



## DESIGN

Conductor: CU ETP1 EN 13602, bare  
Insulation material: Plasticized PVC  
Covering: Ultra-reduced wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 85°C / 3000h  
Min. bending radius: 5xD (static)

## APPLICATION

General purpose wiring harness for car body or regions with enhanced temperatures.

## ACCORDING TO THE STANDARD

JASO D611:2014

Type	Conductor					Cable	
	Geometry				Resistance (20°C)	Geometry	
	Cross-section	Construction	Conductor Area	Diameter approx.		Bare max.	Wall thickness min.
	[mm²]	Number of strands	[mm²]	[mm]	[mΩ/m]	[mm]	[mm]
CAVUS	0,22	7/Compressed in circular shape	0,2199	0,55	84,4	0,16	0,9 – 1,1
CAVUS	0,30	7/Compressed in circular shape	0,3716	0,70	50,2	0,16	1,0 – 1,2
CAVUS	0,50	7/Compressed in circular shape	0,5629	0,90	32,7	0,16	1,2 – 1,4
CAVUS	0,85	7/Compressed in circular shape	0,8796	1,10	20,8	0,16	1,4 – 1,6
		11/Compressed in circular shape	0,8846				
CAVUS	1,25	16/Compressed in circular shape	1,287	1,40	14,3	0,16	1,7 – 1,9

Type	Cable type		
	Cross-section	Weight approx.	
		[mm²]	[g/m]
CAVUS	0,22		2,7
CAVUS	0,30		4,2
CAVUS	0,50		6,1
CAVUS	0,85		9,1
CAVUS	1,25		13

# CIVUS

-40°C to 85°C



## DESIGN

Conductor: CU ETP1 EN 13602, bare  
Insulation material: Plasticized PVC  
Covering: Ultra-reduced wall thickness

## APPLICATION

General purpose wiring harness for car body or regions with enhanced temperatures.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 85°C / 3000h  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

JASO D611:2014

Type	Conductor					Cable	
	Geometry				Resistance (20°C)	Geometry	
	Cross-section	Construction	Conductor Area	Diameter approx.		Bare max.	Wall thickness min.
	[mm²]	Number of strands	[mm²]	[mm]	[mΩ/m]	[mm]	[mm]
CIVUS	0,13	7/Compressed in circular shape	0,1407	0,45	210	0,16	0,75 – 0,95
CIVUS	0,22	7/Compressed in circular shape	0,2199	0,55	84,4	0,16	0,85 – 1,05
CIVUS	0,35	7/Compressed in circular shape	0,3436	0,70	54,4	0,16	1,00 – 1,20
CIVUS	0,50	7/Compressed in circular shape	0,4948	0,85	37,1	0,16	1,10 – 1,40
CIVUS	0,75	11/Compressed in circular shape	0,7266	1,00	24,7	0,16	1,20 – 1,60
CIVUS	1,00	16/Compressed in circular shape	0,9852	1,20	18,5	0,16	1,45 – 1,75
CIVUS	1,25	16/Compressed in circular shape	1,247	1,40	14,9	0,16	1,60 – 2,00
CIVUS	1,50	16/Compressed in circular shape	1,539	1,45	12,7	0,16	1,60 – 2,10

Type	Cable type		
	Cross-section	Weight approx.	
		[mm²]	[g/m]
CIVUS	0,13		1,9
CIVUS	0,22		2,7
CIVUS	0,35		3,9
CIVUS	0,50		5,4
CIVUS	0,75		7,8
CIVUS	1,00		10
CIVUS	1,25		13
CIVUS	1,50		11



## ALUMINUM CONDUCTOR

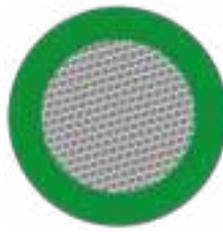
(up to 105°C/3000h) **T2**

FLALRY 29

FLALY 31

# FLALRY

-40°C to 105°C



## DESIGN

Conductor:	Aluminium alloy or EAL 99,7 acc. to EN573-3
Insulation material:	PVC
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 105°C / 3000h
Thermal overload:	155°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Light weight cable with stranded aluminium conductor to be used only with suitable connection systems at 105°C operating temperature.  
Protection against humidity to avoid corrosion effects.

## ACCORDING TO THE STANDARD

1. ISO 19642-4
2. LV 112-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section [mm²]	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max. [mm]		Wall thickness min. [mm]	Diameter [mm]			
						[mm]	[mm]			
FLALRY-A	0,75	Standard	7 x 0,38	1,3	43,6	0,24	1,7 – 1,9	1		
FLALRY-A	1,00	Standard	7 x 0,43	1,5	32,7	0,24	1,9 – 2,1	1		
FLALRY-A	1,25	Standard	19 x 0,30	1,7	26,3	0,24	2,1 – 2,3	1		
FLALRY-A	1,50	Standard	19 x 0,32	1,8	22,4	0,24	2,2 – 2,4	1		
FLALRY-A	2,00	Standard	19 x 0,37	2,0	15,7	0,28	2,5 – 2,8	1		
FLALRY-A	2,50	Standard	19 x 0,43	2,2	12,7	0,28	2,7 – 3,0	1		
FLALRY-B	3,00	Standard	23 x 0,42	2,4	10,2	0,32	3,1 – 3,4	1		
FLALRY-B	4,00	Standard	30 x 0,42	2,8	7,85	0,32	3,4 – 3,7	1		
FLALRY-B	5,00	Standard	36 x 0,42	3,1	6,57	0,32	3,9 – 4,2	1		
FLALRY-B	6,00	Standard	45 x 0,42	3,4	5,23	0,32	4,0 – 4,3	1		
FLALRY-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1		
FLALRY-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
FLALRY-B	12,00	Standard	60 x 0,52	4,8	2,53	0,48	6,0 – 6,5	1, 2		
FLALRY-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2		
FLALRY-B	20,00	Standard	95 x 0,52	6,1	1,59	0,52	7,3 – 7,8	1, 2		
FLALRY-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2		
FLALRY-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2		
FLALRY-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	10,0 – 10,4	1, 2		
FLALRY-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2		
FLALRY-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2		
FLALRY-B	59,00	-	294 x 0,51	10,6	0,527	0,80	12,5 – 13,3	1, 2		
FLALRY-B	60,00	Standard	289 x 0,52	10,5	0,525	0,80	12,5 – 13,3	1, 2		
FLALRY-B	70,00	Standard	351 x 0,52	11,6	0,432	0,80	13,5 – 14,4	1, 2		
FLALRY-B	85,00	Standard	420 x 0,52	13,2	0,365	0,90	14,4 – 15,3	1, 2		
FLALRY-B	95,00	Standard	463 x 0,52	13,8	0,327	0,90	15,7 – 16,7	1, 2		

Type	Cable type	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALRY-A		0,75	4,4
FLALRY-A		1,00	5,2
FLALRY-A		1,25	6,4
FLALRY-A		1,50	7,1
FLALRY-A		2,00	10,2
FLALRY-A		2,50	11,1
FLALRY-B		3,00	14,2
FLALRY-B		4,00	17,4
FLALRY-B		5,00	23,1
FLALRY-B		6,00	23,8
FLALRY-B		8,00	33
FLALRY-B		10,00	45
FLALRY-B		12,00	55
FLALRY-B		16,00	65
FLALRY-B		20,00	80
FLALRY-B		25,00	102
FLALRY-B		30,00	118
FLALRY-B		35,00	152
FLALRY-B		40,00	166
FLALRY-B		50,00	207
FLALRY-B		59,00	230
FLALRY-B		60,00	231
FLALRY-B		70,00	272
FLALRY-B		85,00	310
FLALRY-B		95,00	378



# FLALY

-40°C to 105°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: PVC  
Covering: Standard wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 105°C / 3000h  
Thermal overload: 155°C short term  
Min. bending radius: 5xD (static)

## APPLICATION

Light weight battery cable according to ISO 19642-4 and LV112-2 with stranded aluminium conductor.

## ACCORDING TO THE STANDARD

1. ISO 19642-4
2. LV 112-2

Type	Conductor						Cable		According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
	[mm²]	[mm²]	N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]			
FLALY-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5	1, 2		
FLALY-B	12,00	Standard	60 x 0,52	5,4	2,53	0,8	6,6 – 7,4	1		
FLALY-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1		
FLALY-B	17,00	-	84 x 0,51	5,5	1,82	0,8	7,0 – 7,7	2		
FLALY-B	20,00	Standard	95 x 0,52	6,9	1,59	0,88	8,1 – 9,1	1		
FLALY-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1		
FLALY-B	27,00	-	133 x 0,51	7,0	1,16	1,04	9,1 – 9,9	2		
FLALY-B	30,00	Standard	141 x 0,52	8,3	1,08	1,04	9,7 – 10,9	1		
FLALY-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1		
FLALY-B	40,00	Standard	193 x 0,52	9,60	0,788	1,12	11,2 – 12,4	1		
FLALY-B	42,00	-	210 x 0,51	9,0	0,743	1,04	10,9 – 11,9	2		
FLALY-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1		
FLALY-B	59,00	-	294 x 0,51	10,6	0,527	1,2	13,0 – 14,0	2		
FLALY-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1		
FLALY-B	70,00	Standard	351 x 0,52	12,5	0,432	1,2	14,0 – 15,5	1		
FLALY-B	85,00	Standard	420 x 0,51	12,9	0,365	1,28	15,1 – 16,3	1, 2		
FLALY-B	95,00	Standard	463 x 0,52	14,8	0,327	1,28	16,2 – 18,0	1		
FLALY-F	120,00	Flexible	608 x 0,51	15,1	0,259	1,28	17,4 – 18,8	1, 2		
FLALY-B	120,00	Standard	305 x 0,72	15,4	0,255	1,28	17,7 – 18,8	1, 2		

\*± 5% tolerance

Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALY-B	10,00	53
FLALY-B	12,00	68
FLALY-B	16,00	87
FLALY-B	17,00	75
FLALY-B	20,00	100
FLALY-B	25,00	131
FLALY-B	27,00	123
FLALY-B	30,00	140
FLALY-B	35,00	170
FLALY-B	40,00	188
FLALY-B	42,00	182
FLALY-B	50,00	224
FLALY-B	59,00	253
FLALY-B	60,00	258
FLALY-B	70,00	303
FLALY-B	85,00	348
FLALY-B	95,00	414
FLALY-F/B	120,00	480





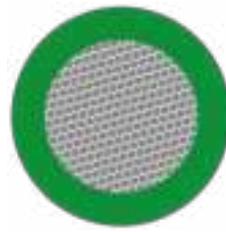
## ALUMINUM CONDUCTOR

(up to 125°C/3000h) **T3**

FLALRYW	34
FLALYW	36
FLALR2X	38
FLAL2X	40
FLALR9Y	41
FLAL9Y	43
FLALR11Y	44
FLAL11Y	45
COFFLEX-AL-R	46
COFFLEX-AL	47

# FLALRYW

-40°C to 125°C



## DESIGN

Conductor:	Aluminium alloy or EAL 99,7 acc. to EN573-3
Insulation material:	PVC
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Thermal overload:	175°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Light weight cable with stranded aluminium conductor to be used only with suitable connections systems at 125°C operating temperature. Protection against humidity to avoid corrosion effects.

## ACCORDING TO THE STANDARD

- ISO 19642-4
- LV 112-2

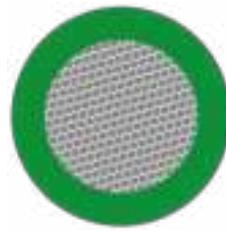
Type	Conductor					Cable			According to the Standard		
	Geometry				Resistance (20°C)	Geometry					
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.	Diameter			
FLALRYW-A	0,75	Standard	7 x 0,38	1,3	43,6	0,24	1,7 – 1,9	1			
FLALRYW-A	1,00	Standard	7 x 0,43	1,5	32,7	0,24	1,9 – 2,1	1			
FLALRYW-A	1,25	Standard	19 x 0,30	1,7	26,3	0,24	2,1 – 2,3	1			
FLALRYW-A	1,50	Standard	19 x 0,32	1,8	22,4	0,24	2,2 – 2,4	1			
FLALRYW-A	2,00	Standard	19 x 0,37	2,0	15,7	0,28	2,5 – 2,8	1			
FLALRYW-A	2,50	Standard	19 x 0,43	2,2	12,7	0,28	2,7 – 3,0	1			
FLALRYW-B	3,00	Standard	23 x 0,42	2,4	10,2	0,32	3,1 – 3,4	1			
FLALRYW-B	4,00	Standard	30 x 0,42	2,8	7,85	0,32	3,4 – 3,7	1			
FLALRYW-B	5,00	Standard	36 x 0,42	3,1	6,57	0,32	3,9 – 4,2	1			
FLALRYW-B	6,00	Standard	45 x 0,42	3,4	5,23	0,32	4,0 – 4,3	1			
FLALRYW-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1			
FLALRYW-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2			
FLALRYW-B	12,00	Standard	61 x 0,52	4,8	2,53	0,48	5,8 – 6,5	1, 2			
FLALRYW-B	16,00	Standard	80 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2			
FLALRYW-B	20,00	Standard	96 x 0,52	6,1	1,59	0,52	7,3 – 7,8	1, 2			
FLALRYW-B	25,00	Standard	126 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2			
FLALRYW-B	30,00	Standard	144 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2			
FLALRYW-B	35,00	Standard	174 x 0,52	8,3	0,878	0,64	10,0 – 10,4	1, 2			
FLALRYW-B	40,00	Standard	197 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2			
FLALRYW-B	50,00	Standard	250 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2			
FLALRYW-B	59,00	Standard	297 x 0,51	10,6	0,527	0,80	12,5 – 13,3	1, 2			
FLALRYW-B	60,00	Standard	297 x 0,52	10,5	0,525	0,80	12,5 – 13,3	1, 2			
FLALRYW-B	70,00	Standard	354 x 0,52	11,6	0,432	0,80	13,5 – 14,4	1, 2			
FLALRYW-B	85,00	Standard	424 x 0,52	13,2	0,365	0,90	14,4 – 15,3	1, 2			
FLALRYW-B	95,00	Standard	468 x 0,52	13,8	0,327	0,90	15,7 – 16,7	1, 2			

Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALRYW-A	0,75	4
FLALRYW-A	1,00	5
FLALRYW-A	1,25	6
FLALRYW-A	1,50	7
FLALRYW-A	2,00	10
FLALRYW-A	2,50	12
FLALRYW-B	3,00	15
FLALRYW-B	4,00	18
FLALRYW-B	5,00	22
FLALRYW-B	6,00	25
FLALRYW-B	8,00	33
FLALRYW-B	10,00	45
FLALRYW-B	12,00	55
FLALRYW-B	16,00	65
FLALRYW-B	20,00	80
FLALRYW-B	25,00	102
FLALRYW-B	30,00	118
FLALRYW-B	35,00	152
FLALRYW-B	40,00	166
FLALRYW-B	50,00	207
FLALRYW-B	59,00	230
FLALRYW-B	60,00	231
FLALRYW-B	70,00	272
FLALRYW-B	85,00	310
FLALRYW-B	95,00	378



# FLALYW

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: PVC  
Covering: Standard wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Thermal overload: 175°C short term  
Min. bending radius: 5xD (static)

## APPLICATION

Light weight battery cable according to ISO 19642-4 and LV 112-2 with stranded aluminium conductor.

## ACCORDING TO THE STANDARD

ISO 19642-4  
LV 112-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
	[mm²]		N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]			
FLALYW-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5	1, 2		
FLALYW-B	12,00	Standard	60 x 0,52	5,4	2,53	0,8	6,6 – 7,4	1, 2		
FLALYW-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1, 2		
FLALYW-B	17,00	-	84 x 0,51	5,5	1,82	0,8	7,0 – 7,7	1, 2		
FLALYW-B	20,00	Standard	95 x 0,52	6,9	1,59	0,88	8,1 – 9,1	1, 2		
FLALYW-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1, 2		
FLALYW-B	27,00	-	133 x 0,51	7,0	1,16	1,04	9,1 – 9,9	1, 2		
FLALYW-B	30,00	Standard	141 x 0,52	8,3	1,08	1,04	9,7 – 10,9	1, 2		
FLALYW-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1, 2		
FLALYW-B	40,00	Standard	193 x 0,52	9,60	0,788	1,12	11,2 – 12,4	1, 2		
FLALYW-B	42,00	-	210 x 0,51	9,0	0,743	1,04	10,9 – 11,9	1, 2		
FLALYW-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1, 2		
FLALYW-B	59,00	-	294 x 0,51	10,6	0,527	1,2	13,0 – 14,0	1, 2		
FLALYW-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1, 2		
FLALYW-B	70,00	Standard	351 x 0,52	12,5	0,432	1,2	14,0 – 15,5	1, 2		
FLALYW-B	85,00	Standard	420 x 0,51	12,9	0,365	1,28	15,1 – 16,3	1, 2		
FLALYW-B	95,00	Standard	463 x 0,52	14,8	0,327	1,28	16,2 – 18,0	1, 2		
FLALYW-F	120,00	Flexible	608 x 0,51	15,1	0,259	1,28	17,4 – 18,8	1, 2		
FLALYW-B	120,00	Standard	305 x 0,72	15,4	0,255	1,28	17,7 – 18,8	1, 2		

\*± 10% tolerance

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Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALYW-B	10,00	53
FLALYW-B	12,00	68
FLALYW-B	16,00	87
FLALYW-B	17,00	75
FLALYW-B	20,00	100
FLALYW-B	25,00	131
FLALYW-B	27,00	123
FLALYW-B	30,00	140
FLALYW-B	35,00	170
FLALYW-B	40,00	188
FLALYW-B	42,00	182
FLALYW-B	50,00	224
FLALYW-B	59,00	253
FLALYW-B	60,00	258
FLALYW-B	70,00	303
FLALYW-B	85,00	348
FLALYW-B	95,00	414
FLALYW-F/B	120,00	480



# FLALR2X

-40°C to 125°C



## DESIGN

Conductor:	Aluminium alloy or EAL 99,7 acc. to EN573-3
Insulation material:	XPE E-BEAM cross-linked, zero halogen, flame retardant
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Thermal overload:	175°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Light weight cable with stranded aluminium conductor to be used only with suitable connections systems at 125°C operating temperature.  
Protection against humidity to avoid corrosion effects.

## ACCORDING TO THE STANDARD

1. ISO 19642-4
2. LV 112-2

Type	Conductor					Cable			According to the Standard	
	Cross-section [mm <sup>2</sup> ]	Geometry			Resistance (20°C)	Geometry				
		Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
FLALR2X-A	0,75	Standard	7 x 0,38	1,3	43,6	0,24	1,7 – 1,9	1		
FLALR2X-A	1,00	Standard	7 x 0,43	1,5	32,7	0,24	1,9 – 2,1	1		
FLALR2X-A	1,25	Standard	19 x 0,30	1,7	26,3	0,24	2,1 – 2,3	1		
FLALR2X-A	1,50	Standard	19 x 0,32	1,8	22,4	0,24	2,2 – 2,4	1		
FLALR2X-A	2,00	Standard	19 x 0,37	2,0	15,7	0,28	2,5 – 2,8	1		
FLALR2X-A	2,50	Standard	19 x 0,43	2,2	12,7	0,28	2,7 – 3,0	1		
FLALR2X-B	3,00	Standard	23 x 0,42	2,4	10,2	0,32	3,1 – 3,4	1		
FLALR2X-B	4,00	Standard	30 x 0,42	2,8	7,85	0,32	3,4 – 3,7	1		
FLALR2X-B	5,00	Standard	36 x 0,42	3,1	6,57	0,32	3,9 – 4,2	1		
FLALR2X-B	6,00	Standard	45 x 0,42	3,4	5,23	0,32	4,0 – 4,3	1		
FLALR2X-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
FLALR2X-B	12,00	Standard	60 x 0,52	4,8	2,53	0,48	6,0 – 6,5	1, 2		
FLALR2X-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2		
FLALR2X-B	20,00	Standard	95 x 0,52	6,1	1,59	0,52	7,3 – 7,8	1, 2		
FLALR2X-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2		
FLALR2X-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2		
FLALR2X-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	9,8 – 10,4	1, 2		
FLALR2X-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2		
FLALR2X-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2		
FLALR2X-B	60,00	Standard	289 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2		
FLALR2X-B	70,00	Standard	351 x 0,52	12,5	0,432	0,80	13,5 – 14,4	1, 2		
FLALR2X-B	85,00	Standard	420 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2		
FLALR2X-B	95,00	Standard	463 x 0,52	14,8	0,327	0,90	15,7 – 16,7	1, 2		

\*± 10% tolerance

Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALR2X-A	0,75	4,3
FLALR2X-A	1,00	5,1
FLALR2X-A	1,25	6,2
FLALR2X-A	1,50	7,0
FLALR2X-A	2,00	9,7
FLALR2X-A	2,50	12
FLALR2X-B	3,00	14
FLALR2X-B	4,00	19
FLALR2X-B	5,00	22
FLALR2X-B	6,00	26
FLALR2X-B	10,00	44
FLALR2X-B	12,00	46
FLALR2X-B	16,00	61,4
FLALR2X-B	20,00	65
FLALR2X-B	25,00	90,9
FLALR2X-B	30,00	105
FLALR2X-B	35,00	130
FLALR2X-B	40,00	145
FLALR2X-B	50,00	173
FLALR2X-B	60,00	199
FLALR2X-B	70,00	242
FLALR2X-B	85,00	291
FLALR2X-B	95,00	311



# FLAL2X

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
 Insulation material: XPE E-BEAM cross-linked,  
 zero halogen, flame retardant  
 Covering: Standard wall thickness

## APPLICATION

Light weight battery cable according to ISO 19642-4 with stranded aluminium conductor.

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 125°C / 3000h  
 Thermal overload: 175°C short term  
 Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

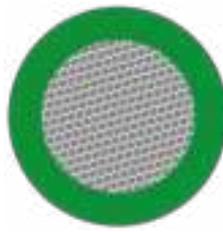
1. ISO 19642-4
2. LV 112-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
	[mm²]		N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]			
FLAL2X-B	10,00	Standard	50 x 0,52	4,3	3,03	0,8	5,9 – 6,5	1, 2		
FLAL2X-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1		
FLAL2X-B	17,00	-	84 x 0,51	5,5	1,82	0,8	7,0 – 7,7	2		
FLAL2X-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1		
FLAL2X-B	27,00	-	133 x 0,51	7,0	1,16	1,04	9,1 – 9,9	2		
FLAL2X-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1		
FLAL2X-B	40,00	Standard	193 x 0,52	9,6	0,788	1,12	11,2 – 12,4	1		
FLAL2X-B	42,00	-	210 x 0,51	9,0	0,743	1,04	10,9 – 11,9	2		
FLAL2X-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1		
FLAL2X-B	59,00	-	294 x 0,51	10,6	0,527	1,2	13,0 – 14,0	2		
FLAL2X-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1, 2		
FLAL2X-B	85,00	Standard	420 x 0,51	12,9	0,368	1,2	15,1 – 16,3	1, 2		
FLAL2X-F	120,00	Flexible	608 x 0,51	15,1	0,259	1,28	17,4 – 18,8	1, 2		

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
FLAL2X-B	10,00	52
FLAL2X-B	16,00	84
FLAL2X-B	17,00	73
FLAL2X-B	25,00	127
FLAL2X-B	27,00	118
FLAL2X-B	35,00	165
FLAL2X-B	40,00	182
FLAL2X-B	42,00	178
FLAL2X-B	50,00	218
FLAL2X-B	59,00	254
FLAL2X-B	60,00	260
FLAL2X-B	85,00	347
FLAL2X-C	120,00	468

# FLALR9Y

-40°C to 125°C



## DESIGN

Conductor:	Aluminium alloy or EAL 99,7 acc. to EN573-3
Insulation material:	PP low halogenated
Covering:	Reduced wall thickness

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 125°C / 3000h
Thermal overload:	175°C short term
Min. bending radius:	5xD (static)

## APPLICATION

Light weight cable with stranded aluminium conductor to be used only with suitable connections systems at 125°C operating temperature. Protection against humidity to avoid corrosion effects.

## ACCORDING TO THE STANDARD

- ISO 19642-4
- LV 112-2

Type	Conductor					Core			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.	Diameter		
	[mm²]		N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]	[mm]		
FLALR9Y-A	0,75	Standard	7 x 0,38	1,3	43,6	0,24	1,7 – 1,9	1		
FLALR9Y-A	1,00	Standard	7 x 0,43	1,5	32,7	0,24	1,9 – 2,1	1		
FLALR9Y-A	1,25	Standard	19 x 0,30	1,7	26,3	0,24	2,1 – 2,3	1		
FLALR9Y-A	1,50	Standard	19 x 0,32	1,8	22,4	0,24	2,2 – 2,4	1		
FLALR9Y-A	2,00	Standard	19 x 0,37	2,0	15,7	0,28	2,5 – 2,8	1		
FLALR9Y-A	2,50	Standard	19 x 0,43	2,2	12,7	0,28	2,7 – 3,0	1		
FLALR9Y-B	3,00	Standard	23 x 0,42	2,4	10,2	0,32	3,1 – 3,4	1		
FLALR9Y-B	4,00	Standard	30 x 0,42	2,8	7,85	0,32	3,4 – 3,7	1		
FLALR9Y-B	5,00	Standard	36 x 0,42	3,1	6,57	0,32	3,9 – 4,2	1		
FLALR9Y-B	6,00	Standard	45 x 0,42	3,4	5,23	0,32	4,0 – 4,3	1		
FLALR9Y-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1		
FLALR9Y-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
FLALR9Y-B	12,00	Standard	60 x 0,52	4,8	2,53	0,48	6,0 – 6,5	1, 2		
FLALR9Y-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2		
FLALR9Y-B	20,00	Standard	95 x 0,52	6,1	1,59	0,52	7,3 – 7,8	1, 2		
FLALR9Y-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2		
FLALR9Y-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2		
FLALR9Y-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	9,8 – 10,4	1, 2		
FLALR9Y-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2		
FLALR9Y-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2		
FLALR9Y-B	60,00	Standard	289 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2		
FLALR9Y-B	70,00	Standard	351 x 0,52	12,5	0,432	0,80	13,5 – 14,4	1, 2		
FLALR9Y-B	85,00	Standard	420 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2		
FLALR9Y-B	95,00	Standard	463 x 0,52	14,8	0,327	0,90	15,7 – 16,7	1, 2		

\*± 10% tolerance

Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALR9Y-A	0,75	4,1
FLALR9Y-A	1,00	4,8
FLALR9Y-A	1,25	6
FLALR9Y-A	1,50	7
FLALR9Y-A	2,00	9
FLALR9Y-A	2,50	12
FLALR9Y-B	3,00	13
FLALR9Y-B	4,00	18
FLALR9Y-B	5,00	21
FLALR9Y-B	6,00	24
FLALR9Y-B	8,00	31
FLALR9Y-B	10,00	43,5
FLALR9Y-B	12,00	46
FLALR9Y-B	16,00	61,4
FLALR9Y-B	20,00	65
FLALR9Y-B	25,00	90,9
FLALR9Y-B	30,00	105
FLALR9Y-B	35,00	130
FLALR9Y-B	40,00	145
FLALR9Y-B	50,00	173
FLALR9Y-B	60,00	199
FLALR9Y-B	70,00	242
FLALR9Y-B	85,00	291
FLALR9Y-B	95,00	311



# FLAL9Y

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: PP  
Covering: Standard wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Thermal overload: 175°C short term  
Min. bending radius: 5xD (static)

## APPLICATION

Light weight battery cable according to ISO 19642-4 with stranded aluminium conductor.

## ACCORDING TO THE STANDARD

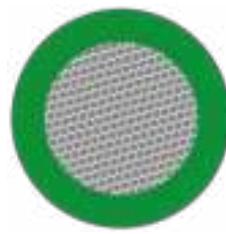
1. ISO 19642-4
2. LV 216-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
	[mm²]		N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]			
FLAL9Y-B	8,00	Standard	59 x 0,42	4,3	3,97	0,64	5,0 – 5,9	1		
FLAL9Y-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5	1		
FLAL9Y-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1		
FLAL9Y-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1		
FLAL9Y-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1		
FLAL9Y-B	40,00	Standard	193 x 0,52	9,6	0,788	1,12	11,2 – 12,4	1		
FLAL9Y-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1		
FLAL9Y-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1, 2		
FLAL9Y-B	70,00	Standard	351 x 0,52	12,5	0,432	1,2	14,0 – 15,5	1, 2		
FLAL9Y-B	85,00	Standard	420 x 0,52	13,6	0,365	1,2	15,3 – 16,8	1, 2		
FLAL9Y-B	95,00	Standard	463 x 0,52	14,8	0,327	1,2	16,2 – 18,0	1, 2		
FLAL9Y-F	120,00	Flexible	608 x 0,52	15,1	0,255	1,28	17,7 – 18,8	1, 2		

Cable type			Weight approx. [g/m]	
Type	Cross-section			
	[mm²]			
FLAL9Y-B	8,00		38	
FLAL9Y-B	10,00		48	
FLAL9Y-B	16,00		79	
FLAL9Y-B	25,00		118	
FLAL9Y-B	35,00		142	
FLAL9Y-B	40,00		160	
FLAL9Y-B	50,00		200	
FLAL9Y-B	60,00		240	
FLAL9Y-B	70,00		272	
FLAL9Y-B	85,00		305	
FLAL9Y-B	95,00		350	
FLAL9Y-F	120,00		462	

# FLALR11Y

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: Polyurethane  
Covering: Reduced wall thickness

## APPLICATION

Light weight battery cable according to ISO 19642-4 with stranded aluminium conductor.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

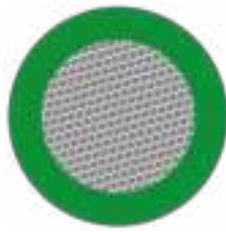
ISO 19642-4  
LV 112-2

Type	Conductor					Core	
	Geometry				Resistance (20°C)	Geometry	
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.
			N* x Ømax.[mm]	[mm]		[mΩ/m]	[mm]
FLALR11Y-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8
FLALR11Y-B	12,00	Standard	60 x 0,52	4,8	2,53	0,48	6,0 – 6,5
FLALR11Y-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0
FLALR11Y-B	20,00	Standard	95 x 0,52	6,1	1,59	0,52	7,3 – 7,8
FLALR11Y-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7
FLALR11Y-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6
FLALR11Y-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	9,8 – 10,4
FLALR11Y-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1
FLALR11Y-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2
FLALR11Y-B	60,00	Standard	289 x 0,52	11,6	0,525	0,80	12,5 – 13,3
FLALR11Y-B	70,00	Standard	351 x 0,52	12,5	0,432	0,80	13,5 – 14,4
FLALR11Y-B	85,00	Standard	420 x 0,52	13,6	0,365	0,90	14,4 – 15,3
FLALR11Y-B	95,00	Standard	463 x 0,52	14,8	0,327	0,90	15,7 – 16,7

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
FLALR11Y-B	10,00	43,5
FLALR11Y-B	12,00	46
FLALR11Y-B	16,00	61,4
FLALR11Y-B	20,00	65
FLALR11Y-B	25,00	90,9
FLALR11Y-B	30,00	105
FLALR11Y-B	35,00	130
FLALR11Y-B	40,00	145
FLALR11Y-B	50,00	173
FLALR11Y-B	60,00	199
FLALR11Y-B	70,00	242
FLALR11Y-B	85,00	291
FLALR11Y-B	95,00	311

# FLAL11Y

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: Polyurethane  
Covering: Standard wall thickness

## APPLICATION

Light weight battery cable according to ISO 19642-4 with stranded aluminium conductor.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Thermal overload: 175°C short term  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

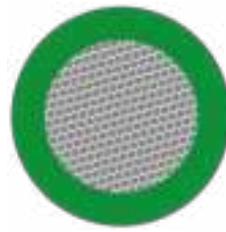
ISO 19642-4

Type	Conductor					Core	
	Geometry				Resistance (20°C)	Geometry	
	Cross-section	Stranding Acc. to ISO 19642-4 (tab A2)	Construction	Diameter max.		Bare max.	Wall thickness min.
	[mm²]		N* x Ømax.[mm]	[mm]		[mΩ/m]	[mm]
FLAL11Y-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5
FLAL11Y-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3
FLAL11Y-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4
FLAL11Y-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6
FLAL11Y-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5
FLAL11Y-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6
FLAL11Y-B	70,00	Standard	351 x 0,52	12,5	0,432	1,2	14,0 – 15,5
FLAL11Y-B	85,00	Standard	420 x 0,52	13,6	0,365	1,2	15,3 – 16,8
FLAL11Y-B	95,00	Standard	463 x 0,52	14,8	0,327	1,28	16,2 – 18,0

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
FLAL11Y-B	10,00	49
FLAL11Y-B	16,00	80
FLAL11Y-B	25,00	120
FLAL11Y-B	35,00	157
FLAL11Y-B	50,00	209
FLAL11Y-B	60,00	248
FLAL11Y-B	70,00	272
FLAL11Y-B	85,00	333
FLAL11Y-B	95,00	373

# COFFLEX-AI-R

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: XPO E-beam cross-linked  
Covering: Reduced wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Min. bending radius: 5xD (static)

## APPLICATION

Very flexible cable for battery or high current applications for car body or engine compartment with extended temperatures.

## ACCORDING TO THE STANDARD

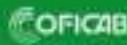
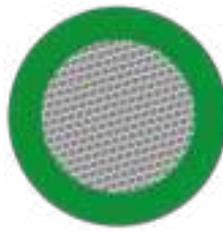
1. ISO 19642-4
2. LV 112-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.	Diameter		
	[mm²]			N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]		
COFFLEX-AI-R-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1		
COFFLEX-AI-R-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
COFFLEX-AI-R-B	12,00	Standard	61 x 0,52	5,4	2,53	0,48	5,8 – 6,2	1		
COFFLEX-AI-R-B	16,00	Standard	80 x 0,52	5,8	1,93	0,52	6,5 – 7,0	1, 2		
COFFLEX-AI-R-B	20,00	Standard	96 x 0,52	6,9	1,59	0,52	7,5 – 7,8	1		
COFFLEX-AI-R-B	25,00	Standard	126 x 0,52	7,2	1,24	0,52	8,2 – 8,7	1, 2		
COFFLEX-AI-R-B	30,00	Standard	144 x 0,52	8,3	1,08	0,64	9,2 – 9,6	1		
COFFLEX-AI-R-B	35,00	Standard	174 x 0,52	8,5	0,878	0,64	9,8 – 10,4	1, 2		
COFFLEX-AI-R-B	40,00	Standard	197 x 0,52	9,6	0,788	0,71	10,0 – 11,1	1		
COFFLEX-AI-R-B	50,00	Standard	250 x 0,52	10,5	0,613	0,72	11,5 – 12,2	1, 2		
COFFLEX-AI-R-B	60,00	Standard	297 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2		
COFFLEX-AI-R-B	70,00	Standard	354 x 0,52	12,5	0,432	0,80	13,5 – 14,4	1, 2		
COFFLEX-AI-R-B	85,00	Standard	424 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2		
COFFLEX-AI-R-B	95,00	Standard	468 x 0,52	14,8	0,327	0,90	15,7 – 16,7	1, 2		

Type	Cable type		Weight approx. [g/m]
	Cross-section	[mm²]	
COFFLEX-AI-R-B	8,00		30
COFFLEX-AI-R-B	10,00		43
COFFLEX-AI-R-B	12,00		50
COFFLEX-AI-R-B	16,00		63
COFFLEX-AI-R-B	20,00		80
COFFLEX-AI-R-B	25,00		98
COFFLEX-AI-R-B	30,00		114
COFFLEX-AI-R-B	35,00		141
COFFLEX-AI-R-B	40,00		156
COFFLEX-AI-R-B	50,00		198
COFFLEX-AI-R-B	60,00		219
COFFLEX-AI-R-B	70,00		262
COFFLEX-AI-R-B	85,00		301
COFFLEX-AI-R-B	95,00		362

# COFFLEX-AI

-40°C to 125°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: XPO E-beam cross-linked  
Covering: Standard wall thickness

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 125°C / 3000h  
Min. bending radius: 5xD (static)

## APPLICATION

Very flexible cable for battery or high current applications for car body or engine compartment with extended temperatures.

## ACCORDING TO THE STANDARD

ISO 19642-4

Type	Conductor					Cable	
	Geometry				Resistance (20°C)	Geometry	
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.
	[mm²]		N* x Ømax.[mm]	[mm]		[mΩ/m]	[mm]
COFFLEX-AI-B	8,00	Standard	59 x 0,42	4,3	3,97	0,64	5,00 – 5,90
COFFLEX-AI-B	10,00	Standard	50 x 0,52	4,5	3,03	0,80	5,90 – 6,50
COFFLEX-AI-B	12,00	Standard	60 x 0,52	5,4	2,53	0,80	6,60 – 7,40
COFFLEX-AI-B	16,00	Standard	78 x 0,52	5,8	1,93	0,80	7,70 – 8,30
COFFLEX-AI-B	20,00	Standard	95 x 0,52	6,9	1,59	0,88	8,10 – 9,10
COFFLEX-AI-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,40 – 10,40
COFFLEX-AI-B	30,00	Standard	141 x 0,52	8,3	1,08	1,04	9,70 – 10,90
COFFLEX-AI-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,60 – 11,60
COFFLEX-AI-B	40,00	Standard	193 x 0,52	9,6	0,788	1,12	11,20 – 12,40
COFFLEX-AI-B	50,00	Standard	247 x 0,52	10,5	0,613	1,20	11,50 – 13,50
COFFLEX-AI-B	60,00	Standard	289 x 0,52	11,6	0,525	1,20	13,40 – 14,60
COFFLEX-AI-B	70,00	Standard	351 x 0,52	12,5	0,432	1,20	13,50 – 15,50
COFFLEX-AI-B	85,00	Standard	420 x 0,52	13,6	0,365	1,28	14,80 – 16,80
COFFLEX-AI-B	95,00	Standard	463 x 0,52	14,8	0,327	1,28	16,00 – 18,00
COFFLEX-AI-B	120,00	Standard	305 x 0,72	16,5	0,255	1,28	17,70 – 19,70

Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
COFFLEX-AI-B	8,00	38
COFFLEX-AI-B	10,00	51
COFFLEX-AI-B	12,00	63
COFFLEX-AI-B	16,00	82
COFFLEX-AI-B	20,00	94
COFFLEX-AI-B	25,00	123
COFFLEX-AI-B	30,00	133
COFFLEX-AI-B	35,00	160
COFFLEX-AI-B	40,00	177
COFFLEX-AI-B	50,00	213
COFFLEX-AI-B	60,00	245
COFFLEX-AI-B	70,00	289
COFFLEX-AI-B	85,00	333
COFFLEX-AI-B	95,00	394
COFFLEX-AI-B	120,00	460



## ALUMINUM CONDUCTOR

(up to 150°C/3000h) **T4**

FLALR2X	49
FLAL2X	51
COFFLEX-AL-R	52
COFFLEX-AL	53

# FLALR2X

-40°C to 150°C



## DESIGN

Conductor:	Aluminium alloy or EAL 99,7 acc. to EN573-3
Insulation material:	XPE E-beam cross-linked, zero halogen, flame retardant
Covering:	Reduced wall thickness

## APPLICATION

Light weight cable with stranded aluminium conductor to be used only with suitable connections systems at 150°C operating temperature.  
Protection against humidity to avoid corrosion effects.

## TECHNICAL DATA

Voltage level:	60V
Temperature range:	-40°C to 150°C / 3000h
Thermal overload:	200°C short term
Min. bending radius:	5xD (static)

## ACCORDING TO THE STANDARD

1. ISO 19642-4
2. LV 112-2

Type	Conductor				Resistance (20°C)	Cable		According to the Standard		
	Geometry					Geometry				
	Cross-section [mm²]	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Bare max.	Wall thickness min.			
FLALR2X-A	0,75	Standard	7 x 0,38	1,3	43,6	0,24	1,7 – 1,9	1		
FLALR2X-A	1,00	Standard	7 x 0,43	1,5	32,7	0,24	1,9 – 2,1	1		
FLALR2X-A	1,25	Standard	19 x 0,30	1,7	26,3	0,24	2,1 – 2,3	1		
FLALR2X-A	1,50	Standard	19 x 0,32	1,8	22,4	0,24	2,2 – 2,4	1		
FLALR2X-A	2,00	Standard	19 x 0,37	2,0	15,7	0,28	2,5 – 2,8	1		
FLALR2X-A	2,50	Standard	19 x 0,43	2,2	12,7	0,28	2,7 – 3,0	1		
FLALR2X-B	3,00	Standard	23 x 0,42	2,4	10,2	0,32	3,1 – 3,4	1		
FLALR2X-B	4,00	Standard	30 x 0,42	2,8	7,85	0,32	3,4 – 3,7	1		
FLALR2X-B	5,00	Standard	36 x 0,42	3,1	6,57	0,32	3,9 – 4,2	1		
FLALR2X-B	6,00	Standard	45 x 0,42	3,4	5,23	0,32	4,0 – 4,3	1		
FLALR2X-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1		
FLALR2X-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
FLALR2X-B	12,00	Standard	60 x 0,52	4,8	2,53	0,48	6,0 – 6,5	1, 2		
FLALR2X-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2		
FLALR2X-B	20,00	Standard	95 x 0,52	6,1	1,59	0,52	7,3 – 7,8	1, 2		
FLALR2X-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2		
FLALR2X-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2		
FLALR2X-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	9,8 – 10,4	1, 2		
FLALR2X-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2		
FLALR2X-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2		
FLALR2X-B	60,00	Standard	289 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2		
FLALR2X-B	70,00	Standard	351 x 0,52	11,6	0,432	0,80	13,5 – 14,4	1, 2		
FLALR2X-B	85,00	Standard	420 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2		
FLALR2X-B	95,00	Standard	463 x 0,52	13,8	0,327	0,90	15,7 – 16,7	1, 2		

\*± 10% tolerance

Type	Cable type	
	Cross-section [mm <sup>2</sup> ]	Weight approx. [g/m]
FLALR2X-A	0,75	4,5
FLALR2X-A	1,00	5,4
FLALR2X-A	1,25	6,6
FLALR2X-A	1,50	7,3
FLALR2X-A	2,00	10,4
FLALR2X-A	2,50	11,4
FLALR2X-B	3,00	14,5
FLALR2X-B	4,00	17,6
FLALR2X-B	5,00	23,5
FLALR2X-B	6,00	24,1
FLALR2X-B	8,00	32
FLALR2X-B	10,00	43,5
FLALR2X-B	12,00	46
FLALR2X-B	16,00	61,4
FLALR2X-B	20,00	65
FLALR2X-B	25,00	90,9
FLALR2X-B	30,00	105
FLALR2X-B	35,00	130
FLALR2X-B	40,00	145
FLALR2X-B	50,00	173
FLALR2X-B	60,00	199
FLALR2X-B	70,00	242
FLALR2X-B	85,00	291
FLALR2X-B	95,00	311



# FLAL2X

-40°C to 150°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
 Insulation material: XPE E-BEAM cross linked, Zero halogen, flame retardant  
 Covering: Standard wall thickness

## APPLICATION

Light weight battery cable according to ISO 19642-4 with stranded aluminium conductor.

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 150°C / 3000h  
 Thermal overload: 200°C short term  
 Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

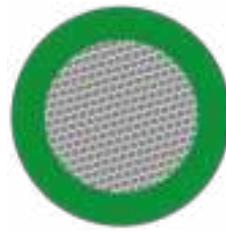
1. ISO 19642-4
2. LV 216-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
			N* x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]			
FLAL2X-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5	1		
FLAL2X-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1		
FLAL2X-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1		
FLAL2X-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1		
FLAL2X-B	40,00	Standard	193 x 0,52	9,6	0,788	1,12	11,2 – 12,4	1		
FLAL2X-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1		
FLAL2X-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1,2		

Type	Cable type		
	Cross-section	Weight approx. [g/m]	
		[mm²]	
FLAL2X-B	10,00	49	
FLAL2X-B	16,00	80	
FLAL2X-B	25,00	119	
FLAL2X-B	35,00	144	
FLAL2X-B	40,00	162	
FLAL2X-B	50,00	201	
FLAL2X-B	60,00	242	

# COFFLEX-AI-R

-40°C to 150°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: XPO E-beam cross-linked  
Covering: Reduced wall thickness

## APPLICATION

Very flexible cable for battery or high current applications for car body or engine compartment with extended temperatures.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 150°C / 3000h  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

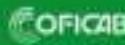
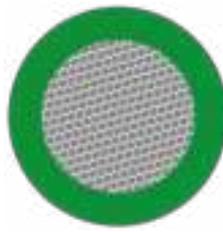
1. ISO 19642-4
2. LV 112-2

Type	Conductor				Core			According to the Standard	
	Geometry				Resistance (20°C)	Geometry			
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter		
	[mm²]		N x Ømax.[mm]	[mm]	[mΩ/m]	[mm]	[mm]		
COFFLEX-AI-R-B	8,00	Standard	59 x 0,42	4,3	3,97	0,32	4,6 – 5,0	1	
COFFLEX-AI-R-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2	
COFFLEX-AI-R-B	12,00	Standard	61 x 0,52	5,4	2,53	0,48	5,8 – 6,2	1	
COFFLEX-AI-R-B	16,00	Standard	80 x 0,52	5,8	1,93	0,52	6,5 – 7,0	1, 2	
COFFLEX-AI-R-B	20,00	Standard	96 x 0,52	6,9	1,59	0,52	7,5 – 7,8	1	
COFFLEX-AI-R-B	25,00	Standard	126 x 0,52	7,2	1,24	0,52	8,2 – 8,7	1, 2	
COFFLEX-AI-R-B	30,00	Standard	144 x 0,52	8,3	1,08	0,64	9,2 – 9,6	1	
COFFLEX-AI-R-B	35,00	Standard	174 x 0,52	8,5	0,878	0,64	9,8 – 10,4	1, 2	
COFFLEX-AI-R-B	40,00	Standard	197 x 0,52	9,6	0,788	0,71	10,0 – 11,1	1	
COFFLEX-AI-R-B	50,00	Standard	250 x 0,52	10,5	0,613	0,72	11,5 – 12,2	1, 2	
COFFLEX-AI-R-B	60,00	Standard	297 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2	
COFFLEX-AI-R-B	70,00	Standard	354 x 0,52	12,5	0,432	0,80	13,5 – 14,4	1, 2	
COFFLEX-AI-R-B	85,00	Standard	424 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2	
COFFLEX-AI-R-B	95,00	Standard	468 x 0,52	14,8	0,327	0,90	15,7 – 16,7	1, 2	

Cable type		
Type	Cross-section	Weight approx.
	[mm²]	[g/m]
COFFLEX-AI-R-B	8,00	31
COFFLEX-AI-R-B	10,00	43
COFFLEX-AI-R-B	12,00	50
COFFLEX-AI-R-B	16,00	63
COFFLEX-AI-R-B	20,00	80
COFFLEX-AI-R-B	25,00	98
COFFLEX-AI-R-B	30,00	114
COFFLEX-AI-R-B	35,00	141
COFFLEX-AI-R-B	40,00	156
COFFLEX-AI-R-B	50,00	198
COFFLEX-AI-R-B	60,00	219
COFFLEX-AI-R-B	70,00	262
COFFLEX-AI-R-B	85,00	301
COFFLEX-AI-R-B	95,00	362

# COFFLEX-AI

-40°C to 150°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: XPO E-beam cross-linked  
Covering: Standard wall thickness

## APPLICATION

Very flexible cable for battery or high current applications for car body or engine compartment with extended temperatures.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 150°C / 3000h  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

ISO 19642-4

Type	Conductor				Core	
	Geometry			Resistance (20°C)	Geometry	
	Cross-section [mm²]	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction N* x Ømax.[mm]		Bare max. [mm]	Wall thickness min. [mm]
COFFLEX-AI-B T4	8,00	Standard	59 x 0,42	4,3	3,97	0,64
COFFLEX-AI-B T4	10,00	Standard	50 x 0,52	4,5	3,03	0,80
COFFLEX-AI-B T4	12,00	Standard	60 x 0,52	5,4	2,53	0,80
COFFLEX-AI-B T4	16,00	Standard	78 x 0,52	5,8	1,93	0,80
COFFLEX-AI-B T4	20,00	Standard	95 x 0,52	6,9	1,59	0,88
COFFLEX-AI-B T4	25,00	Standard	122 x 0,52	7,2	1,24	1,04
COFFLEX-AI-B T4	30,00	Standard	141 x 0,52	8,3	1,08	1,04
COFFLEX-AI-B T4	35,00	Standard	172 x 0,52	8,5	0,878	1,04
COFFLEX-AI-B T4	40,00	Standard	193 x 0,52	9,6	0,788	1,12
COFFLEX-AI-B T4	50,00	Standard	247 x 0,52	10,5	0,613	1,20
COFFLEX-AI-B T4	60,00	Standard	289 x 0,52	11,6	0,525	1,20
COFFLEX-AI-B T4	70,00	Standard	351 x 0,52	12,5	0,432	1,20
COFFLEX-AI-B T4	85,00	Standard	420 x 0,52	13,6	0,365	1,28
COFFLEX-AI-B T4	95,00	Standard	463 x 0,52	14,8	0,327	1,28
COFFLEX-AI-B T4	120,00	Standard	305 x 0,72	16,5	0,255	1,28

Cable type		
Type	Cross-section	Weight approx.
	[mm²]	[g/m]
COFFLEX-AI-B T4	8,00	38
COFFLEX-AI-B T4	10,00	51
COFFLEX-AI-B T4	12,00	63
COFFLEX-AI-B T4	16,00	82
COFFLEX-AI-B T4	20,00	94
COFFLEX-AI-B T4	25,00	123
COFFLEX-AI-B T4	30,00	133
COFFLEX-AI-B T4	35,00	160
COFFLEX-AI-B T4	40,00	177
COFFLEX-AI-B T4	50,00	213
COFFLEX-AI-B T4	60,00	245
COFFLEX-AI-B T4	70,00	289
COFFLEX-AI-B T4	85,00	333
COFFLEX-AI-B T4	95,00	394
COFFLEX-AI-B T4	120,00	460



## ALUMINUM CONDUCTOR

(up to 200°C/3000h) **T6**

FLALR2G 55

FLAL2G 56

# FLALR2G

-40°C to 200°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
 Insulation material: Silicon rubber, high temperature  
 Covering: Reduced wall thickness

## TECHNICAL DATA

Voltage level: 60V  
 Temperature range: -40°C to 200°C / 3000h  
 Thermal overload: 250°C short term  
 Min. bending radius: 5xD (static)

## APPLICATION

Light weight battery cable with stranded aluminium conductor for application in the engine compartment.

## ACCORDING TO THE STANDARD

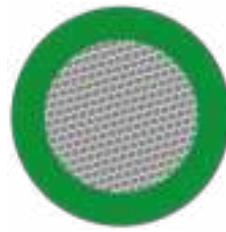
1. ISO 19642-4
2. LV 112-2

Type	Conductor					Cable			According to the Standard	
	Geometry				Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction	Diameter max.		Wall thickness min.	Diameter			
	[mm²]	N* x Ømax.[mm]		[mm]	[mΩ/m]	[mm]	[mm]			
FLALR2G-B	10,00	Standard	50 x 0,52	4,5	3,03	0,48	5,4 – 5,8	1, 2		
FLALR2G-B	12,00	Standard	60 x 0,52	5,4	2,53	0,48	5,8 – 6,5	1		
FLALR2G-B	16,00	Standard	78 x 0,52	5,5	1,93	0,52	6,5 – 7,0	1, 2		
FLALR2G-B	25,00	Standard	122 x 0,52	7,0	1,24	0,52	8,2 – 8,7	1, 2		
FLALR2G-B	30,00	Standard	141 x 0,52	7,4	1,08	0,64	9,0 – 9,6	1, 2		
FLALR2G-B	35,00	Standard	172 x 0,52	8,3	0,878	0,64	9,8 – 10,4	1, 2		
FLALR2G-B	40,00	Standard	193 x 0,52	8,6	0,788	0,72	10,4 – 11,1	1, 2		
FLALR2G-B	50,00	Standard	247 x 0,52	9,8	0,613	0,72	11,5 – 12,2	1, 2		
FLALR2G-B	60,00	Standard	289 x 0,52	11,6	0,525	0,80	12,5 – 13,3	1, 2		
FLALR2G-B	70,00	Standard	351 x 0,52	11,6	0,432	0,80	13,5 – 14,4	1, 2		
FLALR2G-B	85,00	Standard	420 x 0,52	13,6	0,365	0,90	14,4 – 15,3	1, 2		
FLALR2G-B	95,00	Standard	463 x 0,52	13,8	0,327	0,90	15,7 – 16,7	1, 2		

Type	Cable type		Weight approx. [g/m]
	Cross-section	[mm²]	
FLALR2G-B	10,00		43
FLALR2G-B	12,00		49
FLALR2G-B	16,00		62
FLALR2G-B	25,00		97
FLALR2G-B	30,00		112
FLALR2G-B	35,00		140
FLALR2G-B	40,00		157
FLALR2G-B	50,00		196
FLALR2G-B	60,00		217
FLALR2G-B	70,00		260
FLALR2G-B	85,00		293
FLALR2G-B	95,00		359

# FLAL2G

-40°C to 200°C



## DESIGN

Conductor: EAL99,7 according to EN 573-3  
Insulation material: Silicon rubber, high temperature  
Covering: Standard wall thickness

## APPLICATION

Light weight battery cable with stranded aluminium conductor for application in the engine compartment.

## TECHNICAL DATA

Voltage level: 60V  
Temperature range: -40°C to 200°C / 3000h  
Thermal overload: 250°C short term  
Min. bending radius: 5xD (static)

## ACCORDING TO THE STANDARD

1. ISO 19642-4
2. LV 112-2

Type	Conductor				Core			According to the Standard	
	Geometry			Resistance (20°C)	Geometry				
	Cross-section	Stranding Acc. to ISO 19642-4 (tab.A2)	Construction		Diameter max.	Bare max.	Wall thickness min.		
	[mm²]		N* x Ømax.[mm]		[mm]	[mΩ/m]	[mm]		
FLAL2G-B	10,00	Standard	50 x 0,52	4,5	3,03	0,8	5,9 – 6,5	1, 2	
FLAL2G-B	16,00	Standard	78 x 0,52	5,8	1,93	0,8	7,7 – 8,3	1, 2	
FLAL2G-B	17,00	Standard	84 x 0,51	5,5	1,82	0,8	7,0 – 7,7	2	
FLAL2G-B	25,00	Standard	122 x 0,52	7,2	1,24	1,04	9,4 – 10,4	1, 2	
FLAL2G-B	27,00	Standard	133 x 0,51	7,0	1,16	1,04	9,1 – 9,9	2	
FLAL2G-B	35,00	Standard	172 x 0,52	8,5	0,878	1,04	9,6 – 11,6	1, 2	
FLAL2G-B	40,00	Standard	193 x 0,52	9,6	0,788	1,12	11,2 – 12,4	1	
FLAL2G-B	42,00	Standard	210 x 0,51	9,0	0,743	1,04	11,1 – 11,9	2	
FLAL2G-B	50,00	Standard	247 x 0,52	10,5	0,613	1,2	11,5 – 13,5	1	
FLAL2G-B	59,00	Standard	294 x 0,51	10,6	0,527	1,2	13,2 – 14,0	2	
FLAL2G-B	60,00	Standard	289 x 0,52	11,6	0,525	1,2	13,4 – 14,6	1	
FLAL2G-B	70,00	Standard	351 x 0,52	12,5	0,432	1,2	13,5 – 15,5	1	
FLAL2G-B	85,00	Standard	420 x 0,52	13,6	0,365	1,28	15,3 – 16,8	1, 2	
FLAL2G-B	95,00	Standard	463 x 0,52	14,8	0,327	1,28	15,1 – 16,3	1, 2	
FLAL2G-F	120,00	Flexible	608 x 0,51	15,1	0,259	1,28	16,0 – 18,0	1, 2	

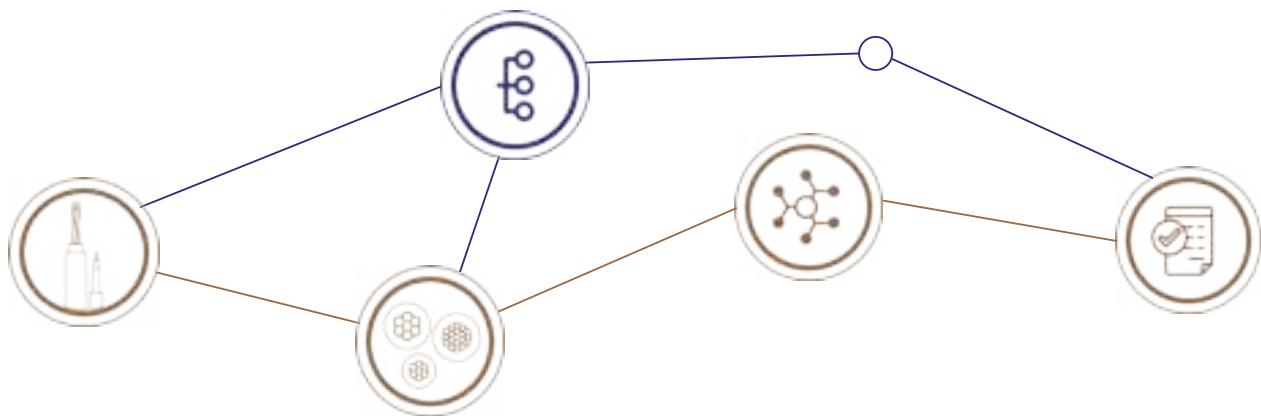
Cable type		
Type	Cross-section	Weight approx. [g/m]
	[mm²]	
FLAL2G-B	10,00	50
FLAL2G-B	16,00	81
FLAL2G-B	17,00	71
FLAL2G-B	25,00	122
FLAL2G-B	27,00	118
FLAL2G-B	35,00	159
FLAL2G-B	40,00	175
FLAL2G-B	42,00	171
FLAL2G-B	50,00	211
FLAL2G-B	59,00	239
FLAL2G-B	60,00	244
FLAL2G-B	70,00	286
FLAL2G-B	85,00	331
FLAL2G-B	95,00	390
FLAL2G-F	120,00	455



## TECHNICAL INFORMATION



# OUR PRODUCT RANGE



CABLES	CROSS SECTIONS & CONDUCTORS	INSULATION MATERIALS	SPECIFICATIONS
Primary		PVC	ISO
Battery		PA	FORD
Multicore		PP	GMW
High Temperature	Copper 0,14mm <sup>2</sup> - 120mm <sup>2</sup>	PUR	FCA
High Voltage	Copper Alloys (CuSn, CuMg, CuAg)	TPE	LV 112
Data	0,08mm <sup>2</sup> - 0,75mm <sup>2</sup>	XLPE	VW
Customized		ETFE	DAIMLER
	Aluminum 1,50mm <sup>2</sup> - 120mm <sup>2</sup>	FEP	BMW
		SiR	JASO
			SAE
			PSA
			Renault
			UL

## THIS DOCUMENT

concerns specifically COFSkinny and COFAlu, which are dedicated to cables for space and weight reduction. To consult other brands of our wide product range, please ask for the related catalogs or Technical Datasheets at [customeronlinerequest@coficab.com](mailto:customeronlinerequest@coficab.com)

We offer a wide range of products through several brands corresponding to the different applications and requirements that you need.

# OUR PRODUCT RANGE

## GENERAL PURPOSE

COFICAB designs and manufactures a wide range of electric cables for light and commercial vehicles' power and signal circuits.



COFICAB designs and manufactures high voltage cables for ELECTROMOBILITY.



COFICAB designs and manufactures CHARGING cables for ELECTROMOBILITY, according to the plugins in the market.



COFICAB designs and manufactures high transmission rate cables suitable for multimedia systems applications



COFICAB designs and manufactures specific cables for safety and security applications on the vehicle.



As an answer to the demand of the market in terms of flexibility, price, temperature performance and resistance to fluids, COFICAB developed an extra flexible polyolefin based insulation material.



COFICAB designs and manufactures small cross-section cables from 0.08 mm<sup>2</sup> to 0.22mm<sup>2</sup>



COFICAB designs and manufactures cables with aluminum and aluminum alloys conductor, which are typically used to reduce weight in vehicles.



COFICAB develops and manufactures high-temperature resistant cables for applications in or near the engine compartment where high temperatures occur. High-temperature performance may lead to cross-section reduction.

## SPECIFIC APPLICATIONS

COFICAB designs and manufactures solutions for different specific applications.

## TAILOR MADE

COFICAB designs and manufactures customized cables and wires based on specific customer requests.

## TRUCKS

COFICAB designs, and manufactures single and multicore electric cables for Trucks, in accordance with customer standards and drawings, in all cross-sections and temperature classes.

## APPLIANCES & ENERGY

COFICAB designs and manufactures cables for internal wiring of appliances, panels and power distribution.

**WE CAN PRODUCE ALL CROSS-SECTIONS AND TEMPERATURE RANGES,  
ACCORDING TO OUR CUSTOMER NEEDS.**

# TECHNICAL INFORMATION

## Cable type code according to DIN 76722

The abbreviation code describes the cable construction, from inside to outside. The code block always starts with one of the following character groups, depending on the nominal voltage:

CODE	MEANING
FL	<b>Vehicle cable</b> - voltage class A as defined in ISO 6469-3
FHL	<b>Vehicle high-voltage cable</b> - voltage class B as defined in ISO 6469-3

## Special design feature codes

Where necessary, the code for special design features is placed directly after the cable type code.

CODE	MEANING
F	<b>Flat cable</b>
K	<b>Compressed conductor</b>

## Conductor material codes

Where necessary, the conductor material code is placed after the cable type code and the code(s) identifying special design features. No code is used for copper conductors. Other conductor materials shall be identified by the codes listed in Table:

CODE	MEANING
Al	<b>Aluminium</b>
CuSn03	<b>Copper-tin alloy</b>
CuMg02	<b>Copper-magnesium alloy</b>
M	<b>Other conductor materials</b>

## Insulation wall thickness

Where necessary, the code for the insulation wall thickness is placed after the codes for cable type, conductor material and special design features.

CODE	MEANING
R	<b>Reduced insulation thickness</b> ("thin wall" as defined in ISO 19642)
U	<b>Ultra-reduced insulation thickness</b> ("ultra-thin wall" as defined in ISO 19642)
S	<b>Special insulation thickness</b>
no code	<b>Thick-walled insulation</b> ("thick wall" as defined in ISO 19642)

## Insulation and sheath materials

The code for insulation materials is placed after the codes for cable type, conductor material, special design features and insulation wall thickness.

CODE	MEANING
Y	<b>PVC</b> (polyvinyl chloride)
2Y	<b>PE</b> (polyethylene)
4Y	<b>PA</b> (polyamide)
6Y	<b>FEP</b> (tetrafluorethylene/hexafluorpropylene)
7Y	<b>E-TFE</b> (ethylene/tetrafluorethylene)
9Y	<b>PP</b> (polypropylene)
11Y	<b>TPE-U</b> (thermoplastic polyurethane, PUR)
13Y	<b>TPE-E</b> (thermoplastic polyester elastomer)
31Y	<b>TPE-S</b> (thermoplastic styrol-block-copolymer)
51Y	<b>PFA</b> (perfluoroalkoxy alkane)
91Y	<b>TPE-O</b> (thermoplastic polyolefin elastomer)
2G	<b>SiR</b> (silicone rubber)

Where an "X" is used in the code instead of a "Y", the respective polymer is used in the cross-linked form. If foamed materials are used, "0" is placed in front of the respective code.

## Non-extruded cladding

In the abbreviation code block, the code indicating non-extruded cladding (see Table 6) is placed at the position corresponding to the location of the cladding in the cable structure, beginning from the center outwards.

CODE	MEANING
B	<b>foil shielding</b>
C	<b>braided shielding, metal</b>
D	<b>spiral wire (or served) shielding, metal</b>

## Temperature class

TEMPERATURE CLASS	CODE	OPERATING TEMPERATURE	
		LONG-TERM USE (3000h)	SHORT-TERM USE (240h)
A	T1	-40°C to +85°C	to +110°C
B	T2	-40°C to +105°C	to +130°C
C	T3	-40°C to +125°C	to +150°C
D	T4	-40°C to +150°C	to +175°C
E	T5	-40°C to +175°C	to +200°C
E (180)	T5	-40°C to +180°C	to +205°C
F	T6	-40°C to +200°C	to +225°C

## Number of cores, nominal conductor cross section, specific DC resistance per unit length

The information on the number of cores, the nominal conductor cross-section and specific DC resistance per unit length (only for resistance cables) is placed at the end of the identification code block and separated from it by a space.

The following information is to be provided in the following order:

- a) for single-core cables and cores in multicore cables:
  - 1) the nominal cross-sectional area in mm<sup>2</sup>;
  - 2) if there are special requirements on flexibility, the maximum individual strand diameter can be specified after the nominal cross-section and separated from this by a slash;
  - 3) if wires with coated surfaces are used, the code for the coating material shall be appended to the numerical value of the nominal cross-section and/or of the maximum individual strand diameter; and
  - 4) conductor structures can be identified in accordance with ISO 19642 (all parts) by the letter A (for symmetrical), B (for asymmetrical) or C (for asymmetrical, fine strands);
- b) for multicore cables:
  - 1) the number of cores;
  - 2) the nominal cross-sectional area in mm<sup>2</sup>;
  - 3) the maximum diameter of a single strand, if there are special requirements for conductor flexibility and
  - 4) if wires with coated surfaces are used, the code for the coating material;
- c) for resistance cables, the specific DC resistance per unit length shall be specified, in mΩ/m, after the nominal cross-sectional value.

## Conductor structures and surface coatings

CODE	MEANING
A	<b>symmetrical structure</b> as specified in ISO 19642 (all parts)
B	<b>asymmetrical structure</b> as specified in ISO 19642 (all parts)
C	<b>asymmetrical structure</b> as specified in ISO 19642 (all parts), with fine strands
S	<b>standard structure</b> as specified in ISO 19642
F	<b>flexible structure</b> as specified in ISO 19642
Sn	<b>tin-coated wire surface</b>

## Nominal voltage

In the case of high-voltage cables for vehicles, the nominal voltage is stated in kV (AC/DC), and the value is entered after the temperature value and separated from this by a slash.

## COFFLEX

COFFLEX is an extra flexible innovative insulation exclusively made by COFICAB.

## PRINTING

According to OEM applicable standard.

## ENVIRONMENTAL PROPERTIES

In conformity with EU End-of-life Directive 2000/53/EC (EU End-of-life Vehicle Directive) and EU RoHS Directive 2011/65/EU (amended by 2015/863)

In conformity with REACH Regulation (EC) No 1907/2006  
No content of restricted substances acc. to VDA 232-101



# COFICAB WORLDWIDE



# OUR LOCATIONS

## OUR MANUFACTURING SITES

### MEXICO

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36275, Puerto Interior, Silao de la Victoria Guanajuato Leon - MEXICO  
+52 47 7162 2535

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32575 Cd Juarez, Chihuahua - MEXICO

### MOROCCO

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### HONDURAS

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### MEXICO

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+216 71 156 000

## OUR SALES & R&D OFFICES

### GERMANY

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Neumeyerstr. 34, 90411 Nürnberg - GERMANY  
+49 (0) 911 5975 2037

### USA

29777 Telegraph Road, Suite 2100, 48034 Southfield, Michigan - USA  
+1 911 5867 1242

## OUR SALES AND REPRESENTATION OFFICES

### USA

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### CHINA

Room 601, No. 388 North Fuquan Road, Changning District, 200335  
Shanghai - CHINA

### SPAIN

Calle José María Escuza, 20, 1<sup>a</sup> 48018 Bilbao - SPAIN

### INDIA

## OUR ADVANCED DELIVERY CENTERS

### TUNISIA

Z.I Messadin BP 67, 4000 - Sousse - TUNISIA

### NORTH MACEDONIA

Industriska no. 2, 1430 Kavadarci - REPUBLIC OF NORTH MACEDONIA

### MOROCCO

Zone Franche d'Exportation, Lot N°73, Lot N°2-Km 13, Route de Rabat,  
90 000 Tanger - MOROCCO  
+212 539 39 35 69

Tunisia: Two Manufacturing Sites in Tunis  
and in Medjez El Bab, Center of Excellence in  
Tunis, Advanced Delivery Center in Sousse

Morocco: Two Manufacturing Sites in Tanger  
and in Kenitra, Advanced Delivery Center in  
Tanger

Deutschland: Sales and R&D Office in  
Nuremberg

Portugal: Two Manufacturing Sites in  
Guarda, Center of Excellence in Guarda

Spain: Sales and Representation Office in  
Bilbao

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North Macedonia: Advanced Delivery Center  
in Kavadarci

China: Manufacturing Site in Tianjin, Sales  
Office in Shanghai

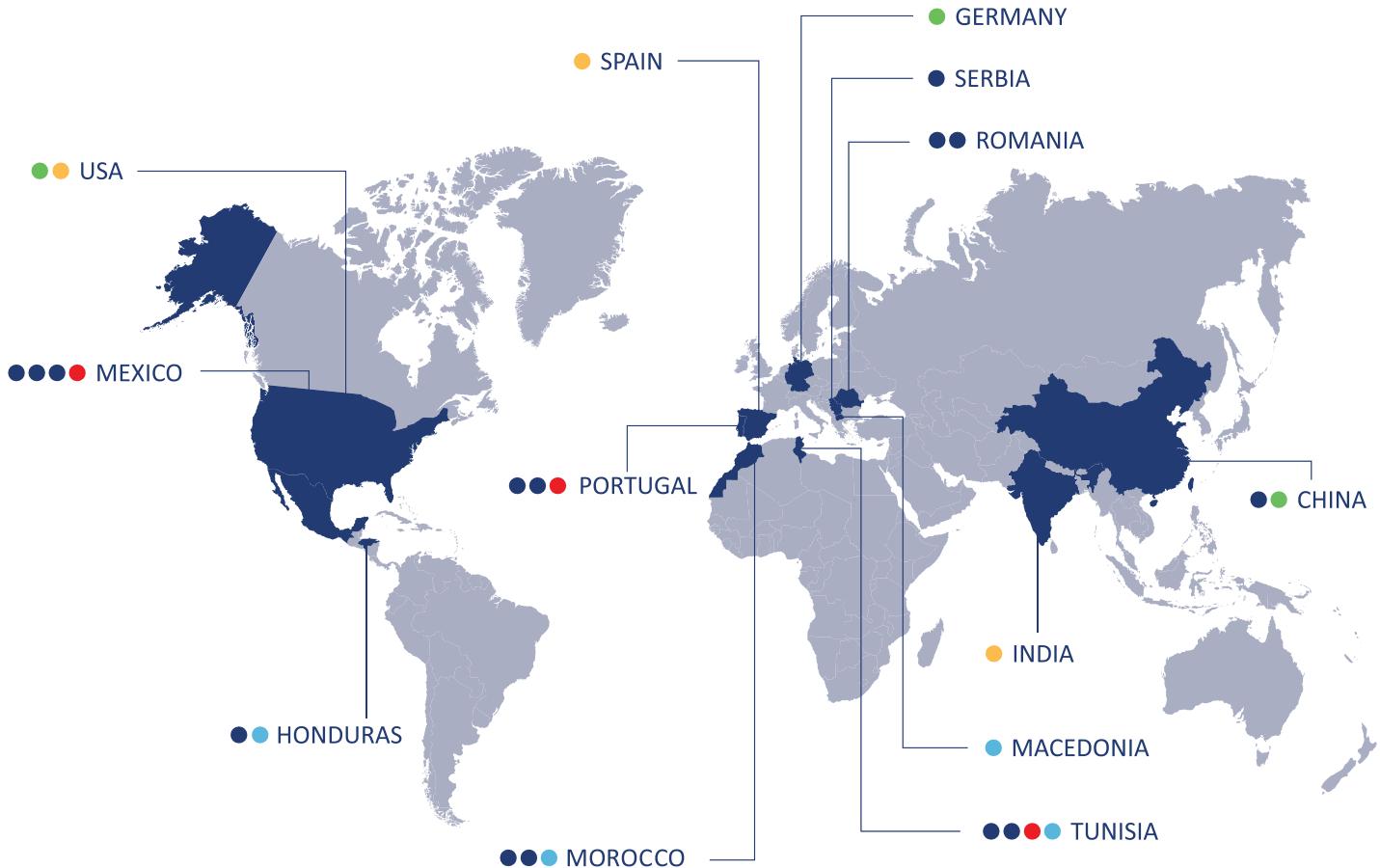
USA: Sales and R&D Office in Detroit Sales  
Office in El Paso.

Mexico: Three Manufacturing Sites in  
Durango, Leon and Juarez, Center of  
Excellence in Juarez

Honduras: Manufacturing Site in San Pedro  
Sula

India: Sales and Representation Office

# OUR FOOTPRINT



- MANUFACTURING SITE
- ADVANCED DELIVERY CENTER
- R&D CENTER OF EXCELLENCE
- SALES & CUSTOMER TECHNICAL SUPPORT OFFICE
- SALES & REPRESENTATION OFFICE

COFICAB CAN ENSURE THE SAME PRODUCT PORTFOLIO GLOBALLY AND AVOIDS OVERSEAS SHIPMENTS.



This document concerns specifically COFSkinny and COFAlu brands,  
which are dedicated to cables for space and weight reduction.  
To consult other brands of our wide product range,  
please ask for the related catalogs or Technical Datasheets at:

**[customeronlinerequest@coficab.com](mailto:customeronlinerequest@coficab.com)**

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*Follow us,  
to **the future***



## OUR PRODUCT RANGE

GENERAL PURPOSE CABLES	e-COF	COF Data	COF Sense	COF Skinny
COF Alu	COF Flex	COF Heat	TAILOR MADE CABLES	SPECIFIC APPLICATIONS
WE CAN CUSTOMIZE OUR CABLES ON DEMAND E.G. WE CAN PRODUCE ALL CROSS-SECTIONS AND TEMPERATURE CLASSES				
TRUCKS				