



## B2<sub>ca</sub>

## APPLICATION

Flat LSHF flexible cable for EVC infrastructure in parkings. For residential or corporate electric vehicle charging installations. The flat cable system allows you a hassle-free Installation & easy expansion, all along the installed length of the cable. The electrician simply connects the new charging stations to the existing infrastructure.

- EVC (Electric Vehicle Charging).

## CONSTRUCTION

### Conductor

Electrolytic annealed copper, class 5 (flexible) according to EN 60228 and IEC 60228.

### Insulation

Cross-linked polyethylene insulation, type XLPE according to IEC 60502-1.

### Assembly of cores

The cores are parallel in only one layer, forming a flat cable.

Colours and position are the following:

brown + blue + green/yellow + black + grey.

### Outer sheath

Low Smoke halogen free (LSHF) polyolefin outer sheath non toxic and fire retardant, type ST8 according to IEC 60502-1. Grey colour.

## CHARACTERISTICS

### ⚡ Electrical performance

Nominal voltage: 0,6/1 kV.

### 🌡 Thermal performance

Maximum conductor temperature: 90 °C.

Minimum service temperature: -40°C (fixed and protected installations).

Maximum short-circuit temperature: 250 °C (maximum 5 s.).

### 🔥 Fire performance

Flame non-propagation according to IEC 60332-1 / EN 60332-1.

Fire non-propagation according to EN 60332-3-24 / IEC 60332-3-24/ EN 50399.

Reaction to fire CPR: B2<sub>ca</sub>-s1a,d1,a1 according to EN 50575.

Low Smoke Halogen Free according to EN 60754-1 / IEC 60754-1.

Low smoke emission according to EN 61034 / IEC 61034:

Light transmittance > 80%.

Low corrosive gases emission according to EN 60754-2 / IEC 60754-2.

### 📏 Mechanical performance

Minimum bending radius: 5 x smaller dimension.

Impact resistance: AG2 Medium severity.

### 🌐 Environmental performance

Chemical & Oil resistance: Acceptable.

UV Resistant: according to EN 50618.

Water resistance: AD5 Jets.

## COMPATIBILITY

Cable compatible with all major flat connection modules.



## STANDARDS / COMPLIANCE



### Based to

IEC 60502-1



### Standards and approvals

RoHS / CE

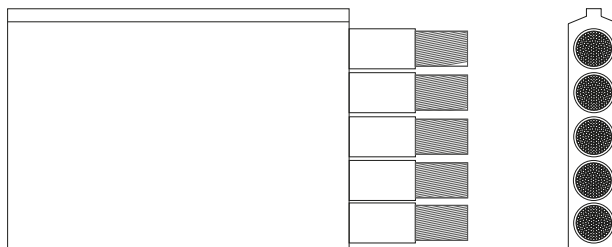


### CPR (Construction Products Regulation)

B2<sub>ca</sub>-s1a,d1,a1



### DIMENSIONS & ADMISSIBLE INTENSITIES



| Cross-Section (mm <sup>2</sup> ) | Dimensions (mm) | Weight (kg/km) | Open Air (A) <sup>1</sup> | Voltage drop (V/A km) <sup>2</sup> |
|----------------------------------|-----------------|----------------|---------------------------|------------------------------------|
| 5G16                             | 48,0 x 11,5     | 1.250          | 110                       | 2,67                               |
| 5G25                             | 48,0 x 11,5     | 1.555          | 141                       | 1,72                               |

<sup>1</sup> Reference method F (one vertical cable) according to IEC60364-5-52 in open air at 30°C ambient temperature.

<sup>2</sup>At maximum service temperature and  $\cos\phi=1$ .

In all cases it is supposed three-phase circuit.

### SHORT-CIRCUIT CURRENT-CARRYING CAPACITIES

| Time (s)          | 0,1 | 0,2 | 0,3 | 0,5 | 1   | 1,5 | 2   | 2,5 | 3  |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|----|
| A/mm <sup>2</sup> | 452 | 320 | 261 | 202 | 143 | 117 | 101 | 90  | 83 |

### CORRECTION FACTORS FOR TEMPERATURE

| Air Temp (°C) | 20   | 25   | 30 | 35   | 40   | 45   | 50   | 55   | 60   |
|---------------|------|------|----|------|------|------|------|------|------|
| Factor        | 1,08 | 1,04 | 1  | 0,96 | 0,91 | 0,87 | 0,82 | 0,76 | 0,71 |