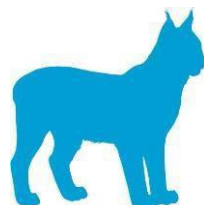


## TECHNICAL SPECIFICATIONS

### J SERIES 63-100-160 A



### Low power busbar systems

**Object:** Prefabricated busbar trunking from 63 A up to 160 A for the distribution of small driving force.

**BINDING TECHNICAL CHARACTERISTICS:** Prefabricated busbar trunking with conductors in UNI 3570 aluminum or ETP 99.9 electrolytic copper with quick coupling joint and aluminum protection casing. The external casing must act as a PE conductor and guarantee electrical continuity throughout the entire duct.

The busbar trunking and its accessories (straight elements, feed units, end caps, hangers, tap off boxes) must comply with the IEC 61439/1 and /6 standard and be part of the same system certified by the Manufacturer.

The insulation voltage must be 1000V and the operating voltage 400V with 5 conductors with sections 100% of the phase section.

Protection degree IP40 which can be increased up to IP55.

The system is suitable for installation on the ceiling, on the wall, in a riser column without derating.

#### **Electrical data**

Rated currents: 63-100-160 A

Rated operating current at room temperature:  $T_{med24h} = 43\text{ }^{\circ}\text{C}$  (average over 24 hours). Rated insulation voltage  $U_i$ : 1000 V

Nominal frequency: 50-60 Hz

#### **Certificates**

The busbar trunking must have passed all the type tests indicated in the IEC 61439/1 and /6 standards.

The busbar must have passed the short circuit test declared by a certified laboratory (INRIM or equivalent).

The minimum values for short circuit are as follows:

Rating [A]	$I_{cw}$	$I_{pk}$
160	6,0	10,2
100	3,5	5,3
63	2,3	3,5

#### **External casing**

The external casing of the busbar trunking must be made of aluminum to limit induced currents.

The enclosure must be completely closed and not ventilated to offer mechanical protection and prevent dust from entering.

The casing must be included in the initial supply and form an integral part of the busbar trunking. Additional external coverings are not permitted without the consent of the busbar trunking manufacturer.

#### **Straight elements**

Standard 3 m straight elements. Custom-made 1m elements are available.

The maximum distance between two consecutive fixing hangers is 3 m.

#### **Conductors**

The conductors must be made of EN AW 6101 aluminum or 99.9% CU ETP copper without additional treatments.

The main insulation must be in the air with self-extinguishing supports.

The temperature on the enclosure shall not exceed 55 K overtemperature at rated current.

#### **Joint**

The joint must be of the quick-fit type. Contact must be guaranteed by direct overlapping of the conductors. The pressure will be guaranteed by elastic elements which do not contribute to the direct passage of the current.

The joint cover must have the possibility of inserting gaskets to limit the entry of dust.

The joint must be such as to allow the replacement of a bar without having to move the remaining elements of the installed line.

#### **Plug-in points for tap off box**

There must be 3 or 6 plug-in points. The plug-in points must be able to be closed by rubber caps to prevent dust from entering.

The plug-in points must have a horizontal or vertical insertion axis as needed.

#### **Busbar trunking supports**

The suspension points of the busbar trunking will be metallic and must be installed with a pitch no greater than that indicated by the Manufacturer.

#### **Voltage drop**

The voltage drop must be calculated at the nominal current and at the thermal regime reached.

#### **Fire resistant**

The busbar duct must be fire resistant and does not allow secondary ignitions according to IEC 61439/6 paragraph 10.101.

The busbar trunking must not extend the fire from one room to another using elements equipped with fire barriers according to IEC 61439/6 paragraph 10.102.

The plastic materials of the busbar trunking must resist abnormal heat according to IEC 61439/6 10.102 paragraph 10.2.3.2.

In the event of a fire, the busbar trunking must not emit toxic gases.

#### **Tap off boxes**

The contacts of the tap off boxes must be overlapping. The contacts of the box will be in direct contact with the line conductors and held in contact by elastic elements. The elastic elements must not directly contribute to the passage of the current.

The PE ground contact must be the first to engage if the box is inserted and the last to disengage if the box is removed.

Opening the lid must ensure the sectioning of the box.

#### **REFERENCE STANDARDS**

IEC 61439/1-6

CEI EN 61439/1-6

CEI EN60529

CE Marking

Certification ISO9001

#### **TESTS AND TRIALS**

Type certifications

Routine tests (test reports on request)

#### **DOCUMENTATION ATTACHED TO THE PRODUCT**

Declaration of conformity with the manufacturer's product standards

Datasheet

Installation, use and maintenance manual.