

Busbar trunking systems

Canalis[®]

In greenhouses

Application
datasheet



Merlin Gerin
Square D
Telemecanique

Schneider
 **Electric**
Building a New Electric World

The customer's needs



For new constructions, upgrading or rehabilitation of:

- horticultural and market gardening greenhouses
- rigid greenhouses with metal reinforcements (industrial buildings).

To ensure the quality and freshness of their produce, farmers require a reliable electrical installation offering all guarantees.

By means of automated systems present at every point, the customer regulates:

- lighting,
- power supply of lighting lines,
- power supply of rolling blinds.

Lighting



Lighting has a decisive influence on plant behaviour:

- more light generates more growth. Weak poor quality lighting leads to mediocre productivity.

Power supply to lighting lines



The entire power supply system must generate as little shade as possible, while at the same time ensuring accessibility.

Power supply to roller blinds



Use of rolling blinds is essential to:

- avoid overheating in the case of excessive sunshine,
- preserve heat at night.

The Canalis solutions

The advantages of a range based on 30 years' experience

- Upgradeable: extremely easy addition of components and modification of network, to allow for changes in crops and new investments,
- Continuity of supply: simplified maintenance allowing addition, displacement and replacement of live loads, without interfering with the activity.



Canalis KBB supports and supplies lamps. It satisfies the following needs:

- compliance with lead times: installation mounting time is cut by 3
- cost reduction

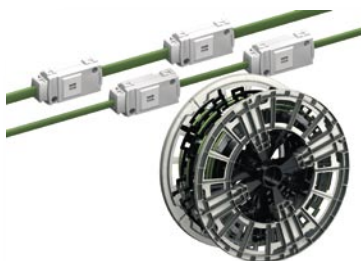
With Canalis, the installation can easily be upgraded over time. Moreover, it is possible to modify illumination levels in event of changes in operation (horticulture, market gardening etc.).

Canalis KBB allows the creation of three-phase distribution in $3 \times 12 \text{ mm}^2$, using the 2 conductor layers connected in parallel. Voltage drops are limited and operating efficiency increased.



Use of Canalis KS:

- reduces the number of cables and thus the shadows cast,
- increases installation legibility. Protection devices are placed at each lighting line,
- modifies the installation considerably. Addition of lighting lines, modification of centre distance between lines is simplified by use of the busbar distribution principle: there are no additional cables to lay.



Supply of rolling blind motors by **Canalis KDP:**

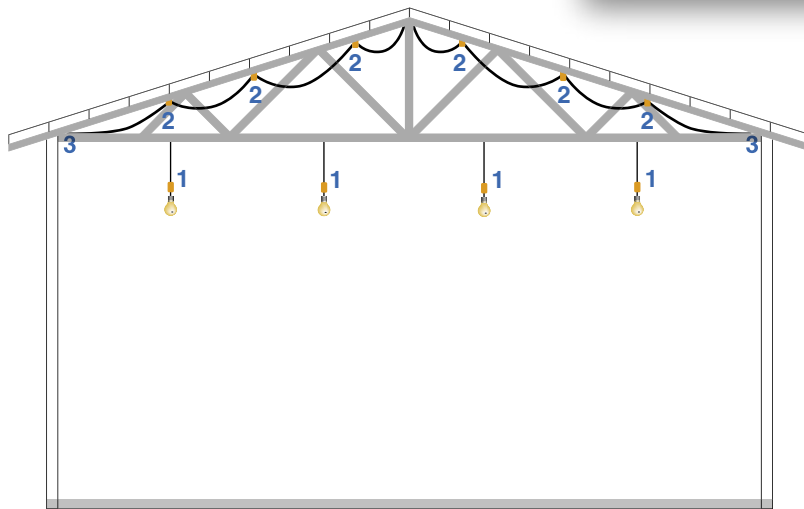
- cuts cabling times by 3,
- makes it possible to replace a faulty motor with power on without disturbing the rest of the installation,
- guarantees connection reliability by means of elastic contacts.

Application example

The horticultural greenhouse

Specificities

- Surface/greenhouse unit 1500 m² (100 metres x 15 metres)
- Loads:
 - 4 lighting lines equipped with 600W horticultural lamps
 - 16 rolling blinds for one greenhouse unit



Equipment installed

- 400 metres of **KBB 40A** + 150 **KBC** connectors for supplying lighting lines (1)
- 50 metres of **KDP** + 12 **KBC** for controlling rolling blinds (2)
- 15 metres of **KS 400A** for supplying lighting lines. (3)

The Canalis advantages

Its modularity means that Canalis can adapt to the greenhouse infrastructure and easily ensure optimum lighting exactly where it is required.

The installation is upgradeable and allows for changes in crops, rearrangements inside the greenhouse or, quite simply, the needs of progressive investment.

Maintenance is simplified: defective lamps are replaced with power on and at any time.

Mounting times are cut by 3 with KBB lines, and by 2 for lighting as a whole.

The manufacturer commits to a guarantee of more than 10 years.

A comprehensive offer

A new path for achieving your electrical installations

Canalis is part of a comprehensive offer of products that are perfectly coordinated to meet all medium and low voltage electrical distribution requirements. All of these products have been designed to work together: electrical, mechanical and communication compatibility.

The electrical installation is thus both optimised and has improved performance:

- better service continuity,
- increased personnel and equipment safety,
- guaranteed upgradeability,
- efficient monitoring and control.

You therefore have all the advantages at hand in terms of know-how and creativity for achieving optimised, safe, upgradeable and compliant installations.

The Schneider Electric products

Lighting busbar trunkings

■ **Canalis KDP:** flexible busbar trunking

- Nominal current 20 A.
- 2 or 4 live conductors
- Tap-off connectors: 10 and 16 A.
- Tap-off every 1, 2 metres to 3 metres.
- Degree of protection IP55.
- Packaged in a reel.

■ **Canalis KBB:** rigid busbar trunking

- Nominal current 25 or 40 A.
- 2 to 8 live conductors.
- Tap-offs every 0.5 metre to 1.5 metre.
- Tap-off connectors: 10 and 16 A.
- Degree of protection IP55.

Medium power busbar trunkings

■ **Canalis KS:** rigid trunking

- Nominal current 100 to 1000 A.
- 4 live conductors.
- Tap-offs every metre on each surface.
- Connectors and tap-off units: 25 to 400 A.
- Degree of protection IP55.



Canalis KDP



Canalis KBA/KBB



Canalis KS



Prisma Plus cubicle

Prisma Plus enclosure

Electrical switchboards

■ **Prisma Plus cubicle:** main switchboard

- Current rating I(e) at 40°C: 3200 A.
- Permissible short-term rated current I_{cw}: 187 kA rms/1s.
- Degree of protection IP30 to IP55.

■ **Prisma Plus enclosures:** subdistribution boards

- Current rating I(e) at 40°C: 630 A.
- Permissible short-term rated current I_{cw}: 25kA rms/1s.
- Degree of protection IP30 à IP55.

Other applications

- Garages
- Livestock production buildings
- Logistic centres
- Offices
- Hypermarkets
- Cruisers
- Industrial workshops
- Flooring tile plants
- Electronic plants
- Car factories
- Trade fairs and exhibitions

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