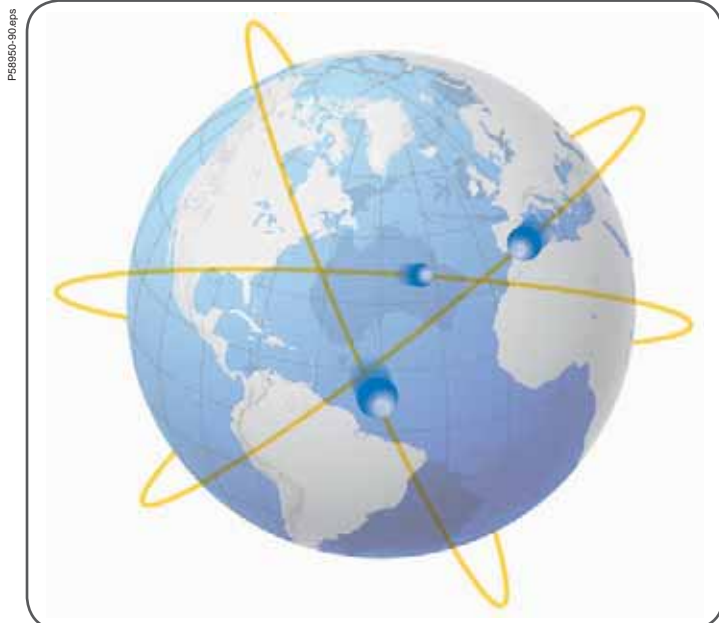


Canalis, the ideal offer to match with your needs



More than 70,000 km of Canalis busbar trunking has been sold around the world.

A total coordination with the Schneider Electric system

- Canalis is part of a comprehensive offering of Schneider Electric products designed to operate together. Our circuit breakers ensure overload and short-circuit protection. Tap-off units ensure installation upgradeability without production downtime and continuity of service. Our protection switchgear optimise switchboard functions.
- It guarantees and enhances the safety of equipment and people, and provides installation continuity of service, upgradeability and simplicity.
- This concept covers all low and medium voltage electrical distribution components.
- The result is an optimised electrical installation with even higher performance through full electrical, mechanical and communication compatibility.
- It is perfectly suited to traditional applications (factories, warehouses, etc.) and to the distribution of electrical power from the incoming transformer on through to all types of loads in offices, commercial premises, livestock production buildings, warehouses, parkings, etc.

Canalis, a comprehensive and consistent busbar trunking system for...

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 high-performance.



Optimum system performance is ensured by coordination between the protection circuit breakers and the busbar trunking used for decentralised distribution.



Decentralised electrical distribution with total coordination perfectly satisfies all your requirements in terms of safety, continuity of service, upgradeability and simplicity.



Decentralised electrical distribution with total coordination is the ideal solution for a wide range of applications including factories, warehouses, commercial premises, parkings, etc.



... lighting and power distribution in all types of buildings

Easier

• Coordination

Schneider Electric proposes coordinated busbar trunking and circuit breaker combinations for all your applications. For typical applications with power ratings up to 630 kVA, a solution including the low-voltage electrical switchboard, circuit breakers and Canalis busbar trunking ensures an installation sized to handle all short-circuit levels encountered.

• Design

The electrical installation can be designed without knowing the exact location of the equipment to be supplied.

• Operation

Canalis opens the door to total upgradeability throughout the installation. Tap-off units with standard performance circuit breakers can be installed at any point along the busbar trunking run.

Safer

• Decentralised distribution system

The combination of cascading and discrimination techniques guarantees optimum safety and continuity of service.

• Design

Total discrimination for enhanced protection as standard and at a lower cost point de la canalisation.

• Operation

Any changes to your installation are carried out in complete safety. Tap-off units can be plugged in and out with the trunking live. They are equipped with interlocking systems to prevent incorrect mounting. Coordination guarantees their installation at any point on the busbar trunking system.



For each distribution system its own Canalis

Schneider Electric ...

offers different distribution systems to fit your operating needs.

Distribution systems

Centralised distribution

For all continuous processes

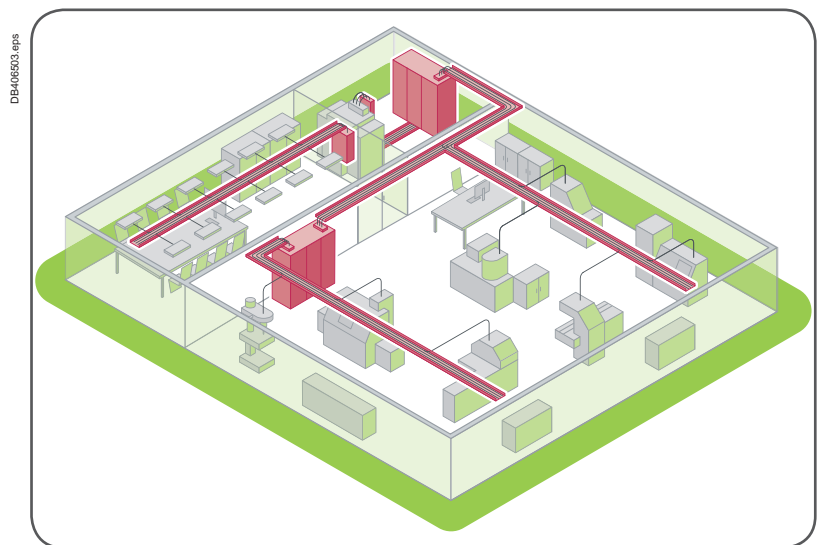
- Cement plants
- Oil and gas
- Petrochemicals
- Steel
- Paper, etc.

Centralised distribution offers

- Continuity of service
- Combined distribution of power, control and monitoring circuits
- Supervision, etc.

Our solutions

- Prisma Plus and Okken switchboards.



Decentralised distribution

For manufacturing industries

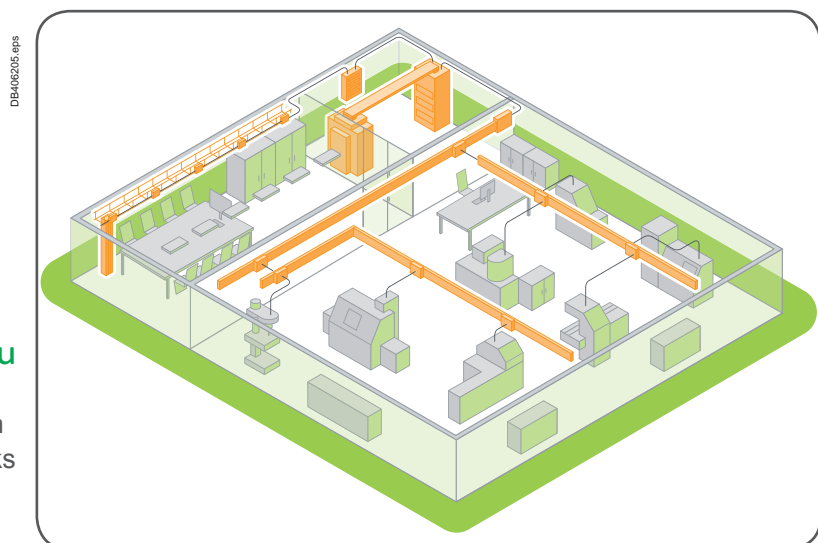
- Mechanical
- Textiles
- Lumber
- Injection moulding
- Electronics
- Pharmaceuticals
- Livestock, etc.

Decentralised distribution lets you

- Design installations without layout details
- Upgrade without shutting down production
- Get systems up and running sooner thanks to faster installation
- Generate savings depending on the number of loads.

Our solutions

- Prisma Plus switchboards.
- Canalis busbar trunking.



Combined distribution

Where the advantages of both centralised and decentralised distribution are required.

Commercial and service buildings

- Offices
- Stores
- Hospitals
- Exhibition halls, etc.

Infrastructures

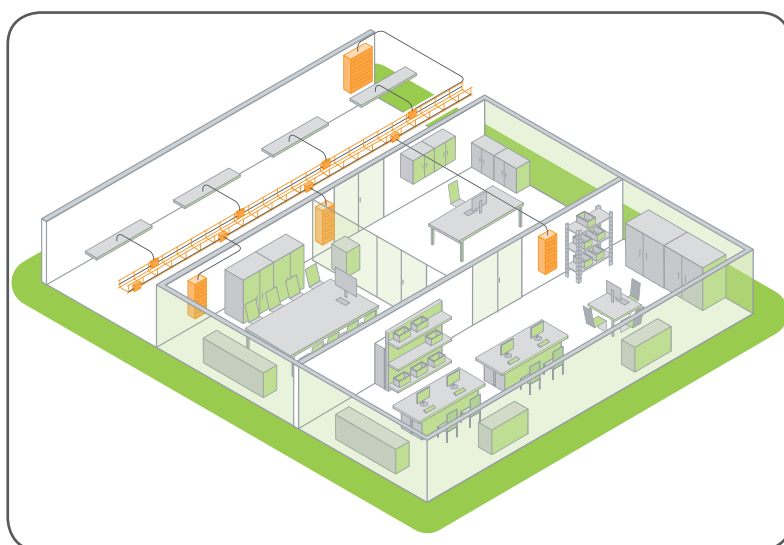
- Airports
- Telecommunications
- Internet data centres
- Tunnels, etc.

Industrial facilities

- Pharmaceuticals
- Food processing, etc.

Our solutions

- Prisma Plus and Okken switchboards.
- Canalis busbar trunking.



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For each distribution system its own Canalis

The **Canalis** decentralised distribution concept.

Electrical power available at all points, throughout the installation

“**Exclusive features of the Schneider Electric system**”

Total coordination of the Schneider Electric system provides maximum safety of life and property, continuity of service, upgradeability and ease of installation. Total coordination is made easy by the tables in the "Selection Guide". They help you chose the right combination of circuit breakers and busbar trunking. Product characteristics are checked by calculations and tests carried out in our laboratories.

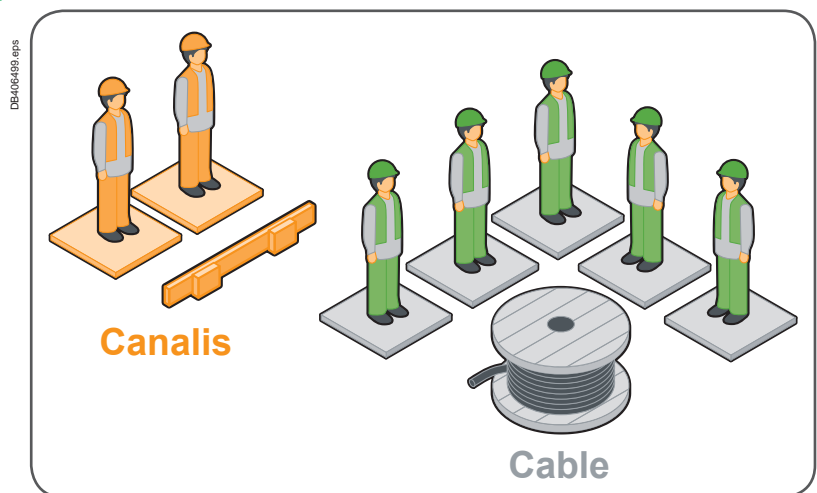
A competitive installation

Simplicity, upgradeability, safety and continuity of service and operation.

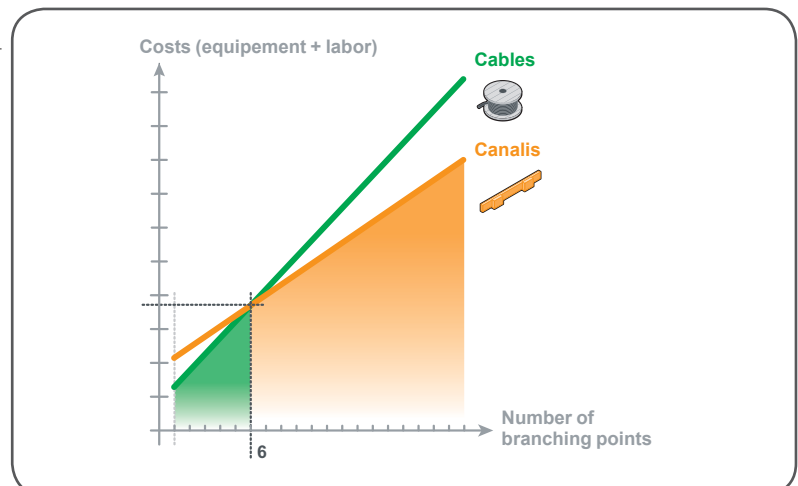
Savings start with installation

with tap-off points every 3 metres, Canalis busbar trunking reduces installation costs.

Given the low cost of adding new circuits, savings increase as the number of loads increases, a natural consequence of the growth of your business.



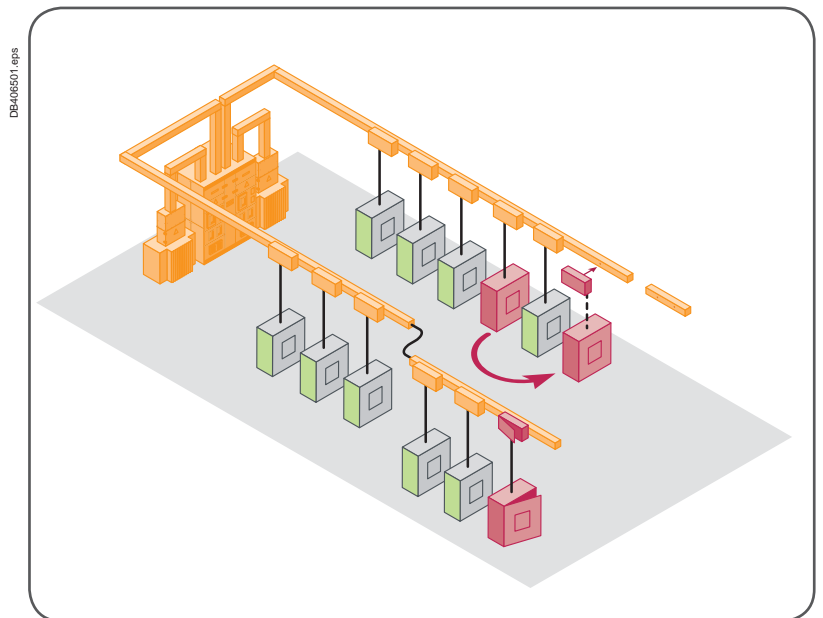
Comparative investment of 400 A electric power system equipment.



Upgradeable during operation

In decentralised distribution, evolving operating requirements and costs are integrated right from the start.

- The addition, relocation or replacement of load equipment can be carried out quickly, without de-energising the supply trunking or shutting down operation.
- The cost of making such changes is greatly reduced:
 - > loads are located close to supply points
 - > tap-off points are always available
 - > tap-units can be reused or new ones added quickly for load relocation or replacement needs.



Reusable in the event of major changes

When making major modifications to your installation, the existing trunking can be easily dismantled and reused.

Canalis, an electrical distribution divided safely

Decentralised distribution for **small sites**

Maximum power available throughout the installation

The main busbar trunking distributes the full power of the source.

Continuity and flexibility

The large number of tap-off points makes it easy to supply new loads.

Anyone can connect and disconnect loads quickly and safely. These additions or modifications are carried out without shutting down the installation.

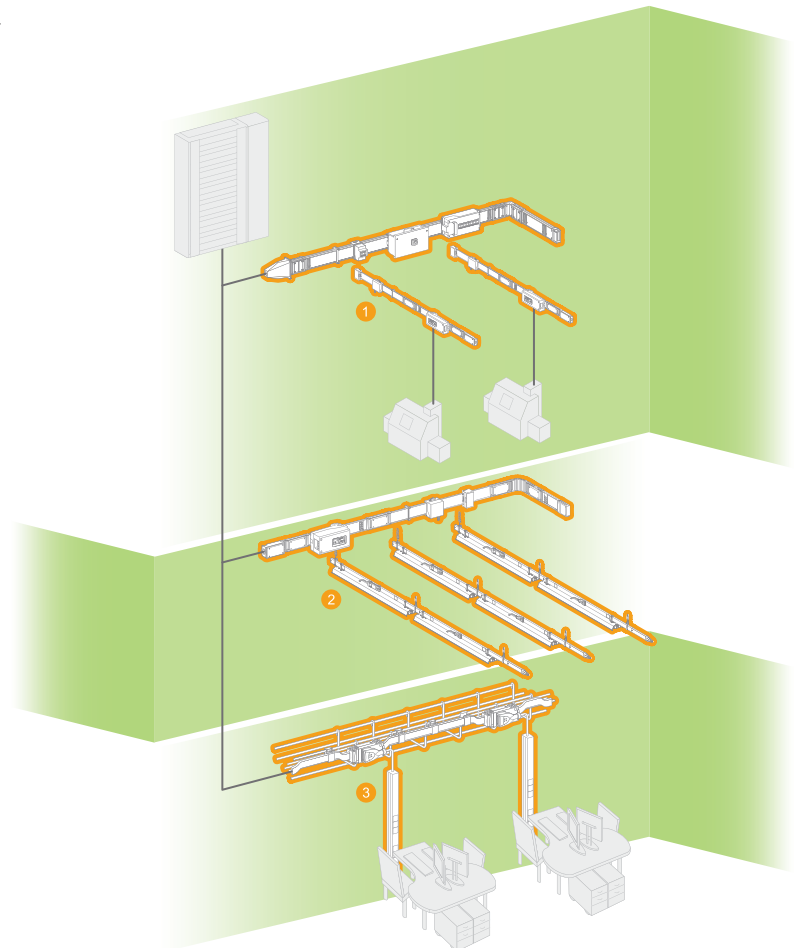
Thanks to rational design, the reliability of Canalis trunking installations is far less dependent on installation skills.

Canalis is an industrial product. Stringent inspection at all stages of production ensures a long service life.

Small sites (buildings < 5000 m²)

- ① Medium-power distribution.
- ② Low-power distribution.
- ③ Lighting.

DB417150.eps



Decentralised distribution for **large** sites

The simplicity of decentralised distribution systems

The distribution system can be designed without detailed knowledge of load locations. Only the source and load characteristics are needed. Trunking is selected in advance with optimum results.

Large sites (buildings > 5000 m²)

- 1 Transformer to low-voltage switchboard supply.
- 2 High-power distribution.
- 3 Medium-power distribution.
- 4 Low-power distribution.
- 5 Lighting.

Easy upgrading

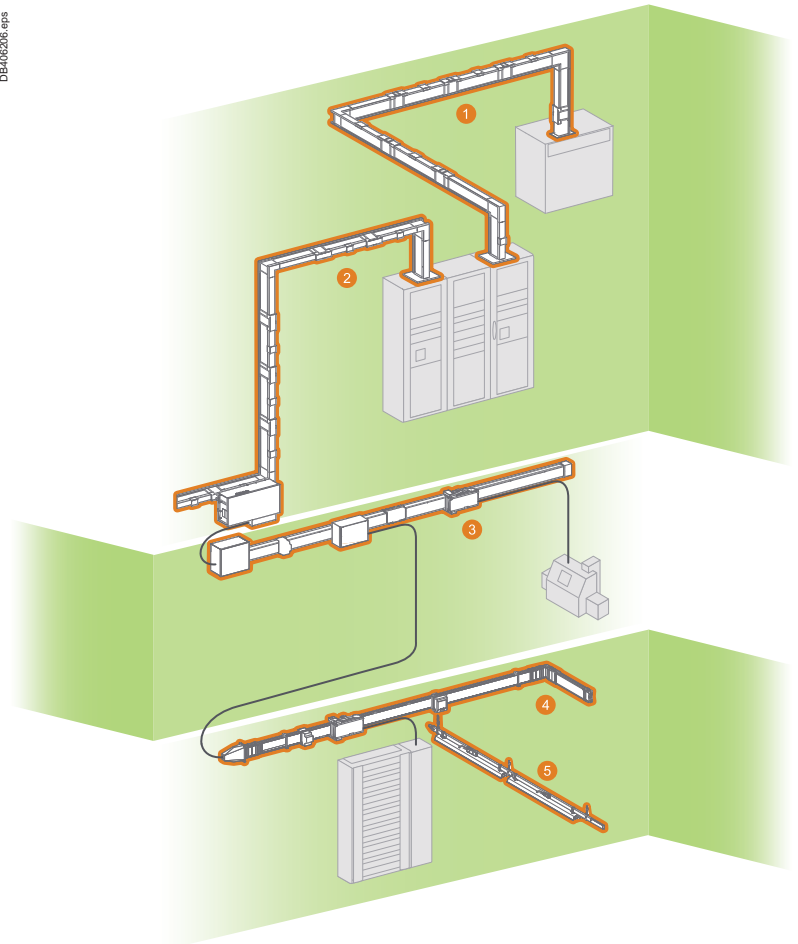
Canalis can easily adapt to installation modifications or extensions. Simply move an existing tap-off unit or add a new one at the desired location.

Total safety

Tap-units can be connected and disconnected without de-energising the trunking.

Changes can therefore be made safely on live installations:

- > protection against direct contact
- > mismatch prevention for tap-off units and automatic compatibility between the performance levels of tap-units equipped with circuit breakers and the prospective short-circuit current at the point of installation.



Canalis, in total harmony with the environment

✓ Safety of life and property

P128229-00eps



With Canalis, no toxic emission in case of fire

The busbar trunking has a low combustible load. Its construction uses very little consumable material and is **halogen free**. In the event of a fire, the busbar trunking does not emit any gas or toxic smoke.

The busbar trunking helps prevent the propagation of a fire through partition walls and floors.

Halogen-sensitive applications

- Public buildings (infrastructures, hospitals, schools, etc.).
- Buildings with evacuation difficulties (high-rises, ships, etc.) and service-activity buildings.
- Sensitive processes (production of electronic components, etc.).

Example:

Consequences of a fire in a 100 m² office with electrical distribution by cables. 200 kg of cables (i.e. 20 kg of PVC) produces:

- 4400 m³ of smoke.
- 7.5 m³ of hydrochloric acid.
- 3.7 kg of corroded steel.

Canalis contains no PVCs

When PVCs burn, they produce large amounts of smoke that can be a serious safety hazard.

- Reduced visibility:
 - > risk of panic
 - > complicates rescue work.
- Smoke toxicity:
 - > hydrogen chloride gas (highly toxic)
 - > carbon monoxide (danger of asphyxiation).

✓ Health

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Canalis reduces the risk of exposure to electromagnetic fields

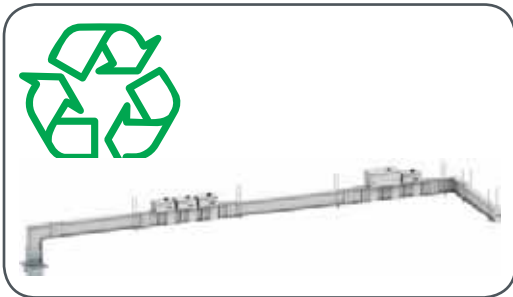
According to the WHO (World Health Organisation), exposure to electromagnetic fields can be a health hazard starting at levels as low as 0.2 micro-Teslas and could represent a long-term risk of cancer. Some countries have created standards that stipulate limits (e.g. 0.2 µT at 1 metre in Sweden).

All electrical conductors generate magnetic fields proportional to the distance between them. The design of Canalis busbar trunking with tightly spaced conductors in a metal enclosure helps to considerably reduce radiated electromagnetic fields.

The electromagnetic field characteristics of Canalis busbar trunking are well-defined and measurements show that they are far below potentially dangerous levels.

You will find the magnetic induction values of our products on the "Characteristics" pages.

✓ Environment



Example:

1 kg of PVC generates 1 kg of waste.

Canalis is fully recyclable

- Canalis busbar trunking can be reused. Canalis busbar trunking is designed for a long service life and can easily be dismantled, cleaned and reused.
- All packaging materials can be recycled (cardboard or recyclable polyethylene film).
- All Canalis products are designed for safe end-of-life recycling. PVC, on the other hand, requires neutralisation of the hydrochloric acid produced using lime and generates dioxins that are extremely toxic.

Canalis helps conserve natural resources

The depletion of raw materials (copper, plastics, etc.) is one of our ongoing concerns.

For this reason, we have optimised the used of all materials used to make our busbar trunking.

- Reduction of dangerous or polluting materials. We design our products to meet future European directives.
- Reduction in the weight of insulating materials.
- Reduction in the use of plastics for improved fire performance: less energy released during combustion, thereby limiting propagation and facilitating extinction (lower calorific value).

✓ Conservation of natural resources

Canalis reduces your line losses by 20 %

Canalis divides your consumption of plastic by a factor of four

The cost of an electrical installation includes the initial investment for the equipment and its installation, the cost of maintenance and the cost of energy losses during operation.

The concept of decentralised distribution is a way to merge all the circuits in one and thus to reduce to the maximum the low cross-section lengths and the weight of insulating materials.

Example:

34 m of **Canalis KS 250 A** trunking equipped with fourteen 4-pole 25 A feeders.

Type of distribution	Insulation	Consumption
Decentralised 	<p>23 kg</p>	<p>1600 Joules</p>
Centralised 	<p>90 kg</p>	<p>2000 Joules</p>

K_s : diversity coefficient = 0.6

Canalis is adapted for all types of buildings

✓ Parkings

Key points

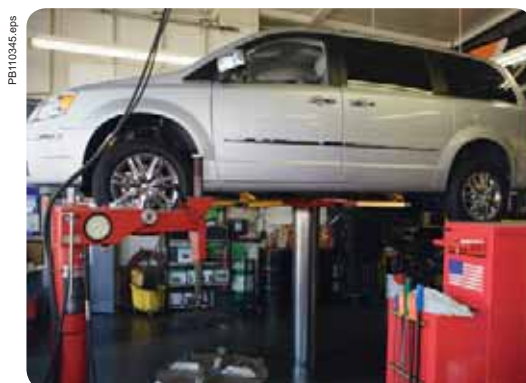
- Security.
- Operating continuity.
- Energy management.



✓ Garages

Key points

- Evolutivity.
- Costs reduction.
- Operating continuity.



✓ Cruise ships

Key points

- Security.
- Flexibility.
- Competitivity.



239001.eps

✓ Logistic centers

Key points

- Security.
- Evolutivity.
- Costs reduction.



PB110340.eps

Canalis is adapted for all types of buildings

✓ Warehouses

Key points

- Easy to maintain.
- Costs reduction.
- Evolutivity.



✓ Livestock production buildings

Key points

- Security.
- Easy to maintain.
- Evolutivity.



✓ Hypermarkets

Key points

- Operating continuity.
- Security.
- Evolutivity.



PB110347-8.eps

✓ Offices

Key points

- Comfort.
- Security.
- Energy savings.



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Canalis, a complete range

Panorama of Canalis lighting solutions

Lighting distribution

Range

Canalis KDP



Run components

Degree of protection	IP55
Number of circuits	1
Rating	20 A
Tap-off intervals	1200 - 1350 - 1500 - 2400 - 2700 - 3000 mm
Standard lengths	24 and 192 meters
Finish	-
Maximum distance between fixing points	0.7 meter

Tap-off units



Rating	10 and 16 A
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Option

-
-

Where to find the products?

Run components	page 69
Feed components and end covers	page 69
Fixing devices	page 70
Tap-off units	page 73
Accessories	page 72

Canalis KBA

PD202217_12.eps



IP55

1

27 and 42 A

500 - 1000 - 1500 mm

2 and 3 meters

White RAL 9003

3 meters

Canalis KBB

PD202219_12.eps



IP55

1 or 2

27 and 42 A

500 and 1000 mm

2 and 3 meters

White RAL 9003

5 meters

PD202225_16.eps



10 and 16 A

PD202225_16.eps



10 and 16 A

Bus conductor

-

Bus conductor

Clean earth

page 95

page 96

page 97

page 99

page 98 (Cable duct)

page 120

page 120

page 122

page 124

page 123 (Cable duct)

Canalis, a complete range

Panorama of Canalis power solutions

Power distribution

Range	Canalis KN	Canalis KS
		

Run components

Degree of protection	IP55	IP55
Polarity	3L + N + PE	3L + N + PE
Rating	40, 63, 100 and 160 A	100, 160, 250, 400, 500, 630, 800 and 1000 A
Tap-off intervals	500 - 1000 - 1500 mm	500/1000 mm on each face
Standard lengths	3 meters	3 and 5 meters
Finish	White RAL 9001	White RAL 9001
Maximum distance between fixing points	3 meters	3 and 5 meters

Tap-off units

			
Rating	Plug-in Bolt-on	16 to 63 A -	25 to 400 A -

Option

Remote control conductor	Yes	-
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Where to find the products?

Run components	page 146	page 186
Feed components and end covers	page 147	page 187
Fixing devices	page 147	page 187
Tap-off units	page 152	page 204
Complementary products	page 151	page 197
	page 163	page 203 (TRE)

Canalis KS rising mains



PD022231.eps

Canalis KT



PD022433.eps

IP55

3L + N + PE

100, 250, 400, 500, 630, 800 and 1000 A

500 mm

Defined by the floor pitch

White RAL 9001

Depending on the distance between floors

IP55

3L + PE; 3L + N + PE; 3L + N + oversized PE

800, 1000, 1250, 1350, 1600, 2000, 2500, 3200 and 4000 and 5000 A

500 and 1000 mm

2 and 4 meters

White RAL 9001

3 meters



PD022141.eps

25 to 400 A

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PD022314.eps

25 to 400 A

400 to 1000 A

page 234

page 236

page 237

page 238

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See Canalis KT catalogue, reference DEBU021EN

See Canalis KT catalogue, reference DEBU021EN

See Canalis KT catalogue, reference DEBU021EN

See Canalis KT catalogue, reference DEBU021EN

See Canalis KT catalogue, reference DEBU021EN

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