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Canalis®

Prefabricated busbar trunking
from 20 to 400 A

Simplified
Catalogue



Merlin Gerin

Square D

Telemecanique

Schneider
 **Electric**
Building a New Electric World

Canalis,

a comprehensive and consistent for lighting and power distribution

*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.

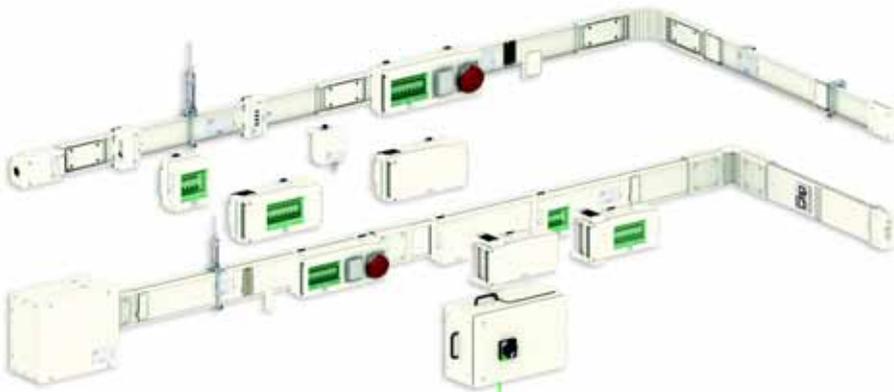
The electrical installation is thus both optimised and high-performance.



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 and laboratories.



busbar trunking system 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

With Canalis busbar trunking, electrical power is available throughout your installation.

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, whatever the prospective short-circuit current.

Safer

Decentralised distribution system

When all aspects are coordinated, safety and continuity of service are maximised.

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

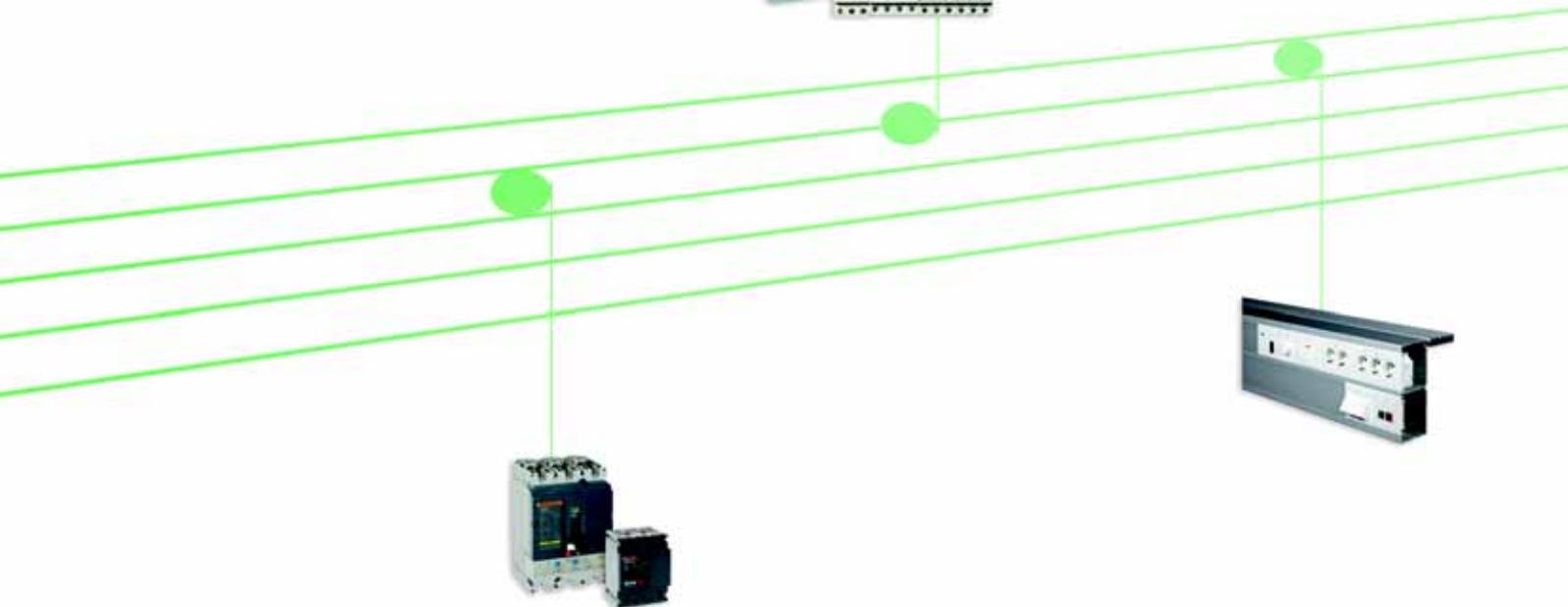
Design

Total discrimination for enhanced protection as standard and at a lower cost.

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.





In decentralised distribution, Canalis hits the high note!

Canalis busbar trunking

- b For lighting and power socket distribution.
- b For medium and high power distribution.

Canalis, closer to you

Canalis components are available from your official distributor... in less than one hour.

Canalis has evolved to better integrate within your environment

- b The Canalis KN and KS ranges are now white (RAL 9001).
- b They improve conditions in all environments, from industrial buildings to offices and stores.
- b They fit naturally into the Merlin Gerin range of electric power distribution products (Prisma Plus, Kaedra, etc.).



More than 50,000 km of Canalis busbar trunking have been sold around the world.



The new Canalis range is fully compatible with the existing range

Special jointing units connect components of the new range to those of the present range.

An existing installation can be upgraded without any problem.

- b Old tap-off units can be mounted on the new range.
- b New tap-off units can be mounted on the old range.
- b All straight lengths can be joined together *.

** except for the KS 400 A rating*

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For you, the electrical contractor



Canalis offers a number of advantages thanks to prefabricated design and a rational system

1

Maximise safety

Interlocking systems prevent mounting errors and reduce inspection times. Work is carried out safely without exposure to live connections.

Live parts in Canalis tap-off units are not accessible. Tap-off units can be added and removed with the trunking energised. Interlocking devices eliminate connection errors.

The PE conductor is connected before the phase and neutral conductors to enhance protection.

2

Control deadlines

Prefabricated design ensures smooth work flow. Installation times can be precisely planned in advance and, if plans must be changed, a fast and effective solution is always available with the adaptable and upgradeable Canalis system.

The result is improved productivity.

3

Make modifications easy

With Canalis, electrical equipment can be moved or a machine added easily and quickly. That is the type of service that customers appreciate.

With cables, the same modification could take over a day. That can become a real problem if another job has already been scheduled. What is more, customers today expect this type of service at no extra cost.

4

Create a new image for electrical contracting

The worksite remains clean, with no cable ends or waste scattered about.

Stand out from the crowd and gain customer recognition by installing modern upgradeable systems.

For your customers



5

Provide greater continuity of service

In the industrial sector, customers want continuity of service. Canalis avoids costly production shutdowns. Tap-off units can be connected or disconnected with the trunking live. This makes it possible to add or remove loads without cutting power to the rest of the installation.

6

Offer quick modifications...

...at no cost to you!

Accept last-minute changes with a smile. Your customers will be even more satisfied and that means more business for you. The need to change the electrical distribution network will no longer be an obstacle to development projects.

7

Offer total freedom for upgrades

Your customers will have access to electrical power throughout their installations. Easy upgrading of the electrical installation become a routine part of future investment projects.

8

Offer flexibility in machine layout...

...without taking any risks on your quote.

In the early stages of a project, firm information on machine layout is not always available. The customer nevertheless needs a good idea on the costs and deadlines that you can meet. With Canalis, you have the solution in hand because:

- b the product can handle any and all modifications,
- b worksite uncertainties are reduced to a minimum and deadlines remain under control,
- b the customer is reassured, they now have the time to analyse and finalise the layout. Canalis offers a degree of flexibility unmatched by any conventional solution.

9

Offer a reusable system

Canalis is 100% reusable, producing major savings when changing layouts or increasing power ratings.

10

Simplify maintenance

Due to successive modifications, many customers lose a clear understanding of their electrical installation over the course of time. With Canalis, the entire distribution network remains clear, consistent and easy to understand, whatever the changes.

11

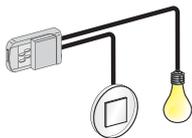
Offer an attractive solution

Provide your customer with a discreet product that blends in with the on-site architecture. This represents a clear advantage over cable trays running under ceilings and along walls. This added touch will show your customer that your know-how goes beyond technical aspects.

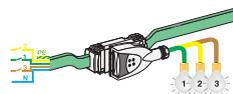
Canalis KDP, KBA and KBX For lighting and power-socket distribution

KDP For lighting and power-socket distribution

- b Flexible 20 A trunking
- b Used when the luminaires are attached to the building structure (false ceilings, beams, etc.)
- b Available in 192-metre reels, single-phase or three-phase
- b Fixing systems for all types of building structures
- b 10 and 16 A tap-off units, with fixed polarity or phase selection.



A special tap-off unit for lighting control



Three levels of illuminance

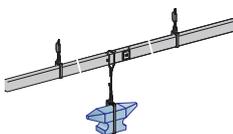


The installation is finished in a snap

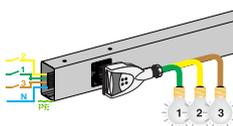


KBA For supply and fixing of luminaires

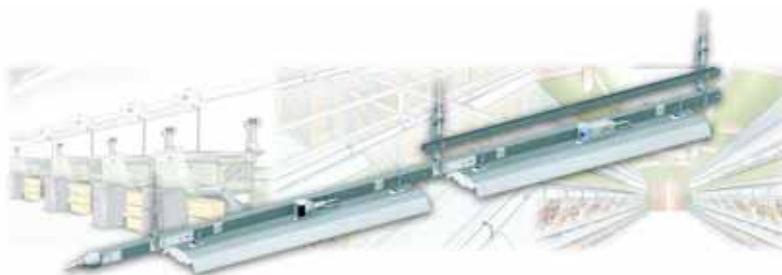
- b Rigid 25 A trunking
- b Available in 3-metre lengths, single-phase or three-phase
- b 10 and 16 A tap-off units, with fixed polarity or phase selection.



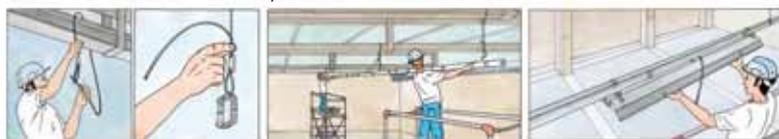
Very rigid carrier rail



3 illuminance levels in three-phase systems



The installation is finished in a snap



KBX For continuous lighting systems in buildings requiring a high level of illuminance

- b Rigid 25 A trunking specially design with built-in 2 x 58 W luminaires
- b Available in 3-metre lengths.



An eye-pleasing solution, perfect for bright lighting



A professional solution



The installation is finished in a snap

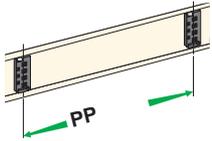


Canalis KN and KS

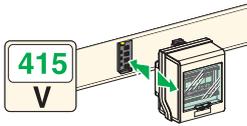
For low and medium-power distribution

KN Trunking for low-power distribution from 40 to 160 A

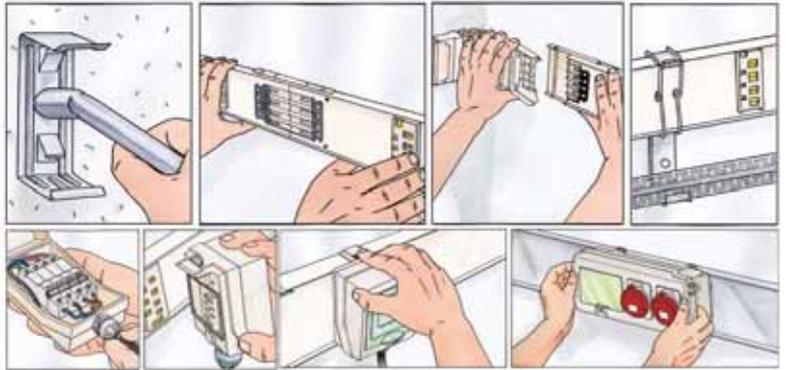
- b For loads rated 16 to 63 A
- b For supply of Canalis KBA or KDP lighting systems
- b Tap-off units with circuit breaker or fuse protection
- b Tap-off units with power sockets.



Unmatched upgrading possibilities



The installation is finished in a snap



KS Trunking for medium-power distribution from 100 to 400 A

- b For loads rated 25 to 160 A
- b Available in 3-metre lengths
- b Tap-off units with circuit breaker or fuse protection
- b Tap-off units with power sockets.



Light and easy to handle



Excellent contact



The installation is finished in a snap



Where to use Canalis

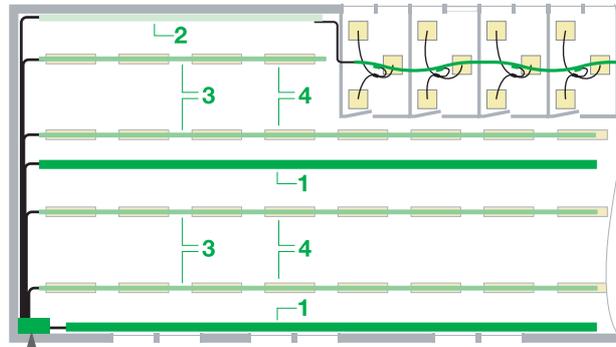
Canalis in workshops and factories

Example: in a plastics factory



Characteristics

- b Area: 1500 m² (50 x 30 m)
- b Loads:
 - v 30 plastic injection presses,
 - v fluorescent lighting.



Electricity where you need it!

Prisma Plus System G electrical distribution switchboard

Canalis products installed

For power distribution

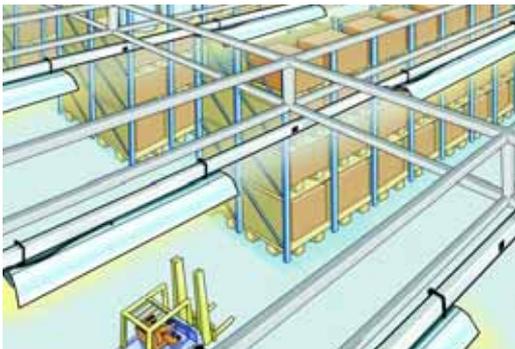
- 1- 2 KS 400 A runs, 48 m long, equipped with cable trays, 15 x 50 A tap-off units and 4 x 100 A tap-off units,
- 2- 1 KN 100 A run, 24 m long, equipped with 5 x 16 A tap-off units and 1 x 25 A tap-off unit.

For lighting

- 3- 3 x 48 m long and 1 x 21 m long KBA lighting runs to supply the luminaires,
 - 4- 48 KBL industrial luminaires (2 x 58 W).
- For office lighting, see next page.

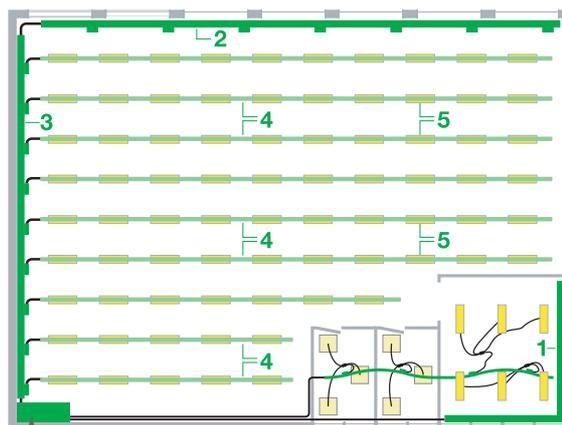
Canalis in warehouses

Example:



Characteristics

- b Area: 4800 m² (60 x 80 m)
- b Loads:
 - v automatic doors,
 - v battery chargers for forklifts,
 - v T5 fluorescent lighting (2 x 80 W).



Electricity where you need it!

Prisma Plus System G electrical distribution switchboard

Canalis products installed

For power distribution

- 1- 1 KNA 160 A run, 15 m long, to supply the battery chargers,
- 2- 1 KNA 63 A run, 75 m long, to supply the automatic doors.

For lighting

- 3- 1 KNA run, 57 m long, to supply the lighting circuits,
 - 4- 6 x 57 m long, 1 x 42 m long and 2 x 29 m long KBA 25 A runs to supply the luminaires
 - 5- 90 KBL T5 2 x 80 W luminaires.
- For office lighting, see next page.

Canalis in a supermarket

Example:

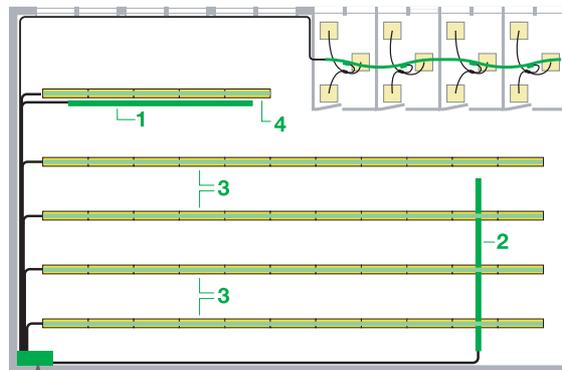


Characteristics

b Area: 600 m² (30 x 20 m)

b Loads:

- v refrigerated display cases and cash registers,
- v fluorescent lighting.



Light up
your business!

Prisma Plus System G electrical distribution switchboard

Canalis products installed

For power distribution

- 1- 1 KBA 25 A run, 12 m long, to supply the cash registers,
- 2- 1 KBA 25 A run, 12 m long, to supply the refrigerated display cases.

For lighting

- 3- 4 KBX 2 x 58 W strip lighting runs, 25 m long, for the store,
 - 4- 1 KBX 2 x 58 W strip lighting run, 12 m long, for the cash registers.
- For office lighting, see below.

Canalis in offices

Example: in a partitioned office

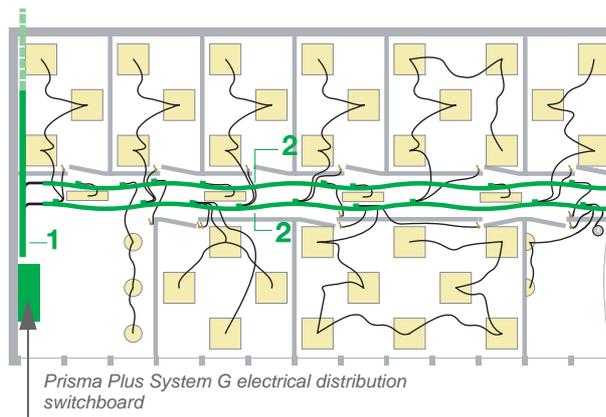


Characteristics

b Area: 1000 m² (40 x 25 m)

b Loads:

- v power: supply to power sockets and VDI network,
- v fluorescent lighting (3 x 36 W).



Change office
layouts easily!

Prisma Plus System G electrical distribution switchboard

Canalis products installed

For power distribution

- 1- 2 KN 63 A runs, 21 m long, installed as feeders to supply the lighting circuits.

For lighting

- 2- 4 KDP runs, 21 m long, to supply the 180 3 x 36 W luminaires
- 7 KBC single-switch units for the offices,
- 1 KBC two-way switch unit for the meeting room,
- 3 timer switch units for the entrance, washrooms and hall.

Canalis KDP trunking

For lighting and power socket distribution



Run components



b Rating: 20 A
b 2 or 4 live conductors

| Polarity | Distance between tap-offs (mm) | Reel | Cat. no. |
|------------------------------------|--------------------------------|-------|------------------------|
| Single-phase L + N + PE | 1200 | 192 m | KDP 20ED2192120 |
| | 1350 | 183 m | KDP 20ED2183135 |
| | 1500 | 192 m | KDP 20ED2192150 |
| | 3000 | 192 m | KDP 20ED2192300 |
| 3-phase 3L + N + PE | 1200 | 192 m | KDP 20ED4192120 |
| | 1350 | 183 m | KDP 20ED4183135 |
| | 1500 | 192 m | KDP 20ED4192150 |
| | 3000 | 192 m | KDP 20ED4192300 |

Feed units (supplied with end cover)



b The feed units and end covers receive the cables supplying one end of Canalis KDP trunking

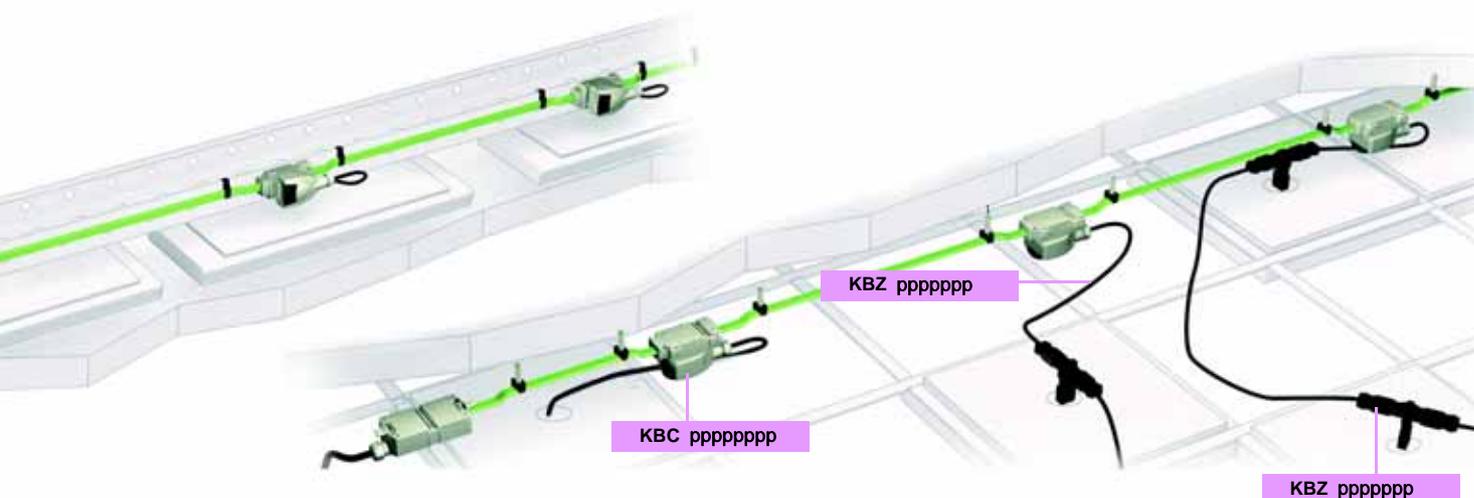
| Mounting | Cable connection | | Cat. no. |
|----------------------|------------------------------|-------------------------|-------------------|
| | Terminals (mm ²) | Cable gland Ø maxi (mm) | |
| Left or right | 4 | PG 16, Ø 15 | KDP 20ABG4 |

Fixing system



b The fixing system is used to attach Canalis KDP to the sides of cable trays, metal structures or concrete slabs

| Fixing on | Thickness (mm) | Order in multiples of | Cat. no. |
|--|--------------------------------------|-----------------------|-----------------|
| Pre-slotted sheet-metal cable trays | - | 100 | KDP ZF10 |
| Mesh trays | Ø 4...Ø 6 | 100 | KDP ZF14 |
| Metal structure | 1...8 | 100 | KDP ZF10 |
| | 8...13 | 100 | KDP ZF11 |
| | 13...17 | 50 | KDP ZF12 |
| | 17...22 | 50 | KDP ZF13 |
| Wood or concrete | fixing with cable tie | 100 | KDP ZF20 |
| | concrete fixing plug for Ø 8 mm hole | 100 | KDP ZF21 |



Tap-off units



| Type of busbar trunking | Polarity | Colour of lock | Order in multiples of | Cat. no. |
|---|----------------|----------------|-----------------------|---------------------|
| Tap-off unit, direct connection | | | | |
| 10 A with fixed polarity | L1 + N | green | 10 | KBC 10DCS101 |
| | L2 + N | yellow | 10 | KBC 10DCS201 |
| | L3 + N | brown | 10 | KBC 10DCS301 |
| Tap-off unit pre-wired, S05Z1Z1-F 3 x 1.5 mm², 0.8 m long | | | | |
| 10 A with phase selection, with or without prewiring | all polarities | | 10 | KBC 10DCB20 |
| | all polarities | | 10 | KBC 10DCC211 |
| 10 A single-phase tap-off units for lighting control, with phase selection | | | | |
| 10 A with fixed polarity | | | | |
| Single-circuit | all polarities | | 10 | KBC 10DSA20 |
| Double-circuit switching | all polarities | | 1 | KBC 10DDA20 |
| Two-way switching | all polarities | | 1 | KBC 10DVV20 |
| Timer or impulse switch | all polarities | | 1 | KBC 10DMT20 |

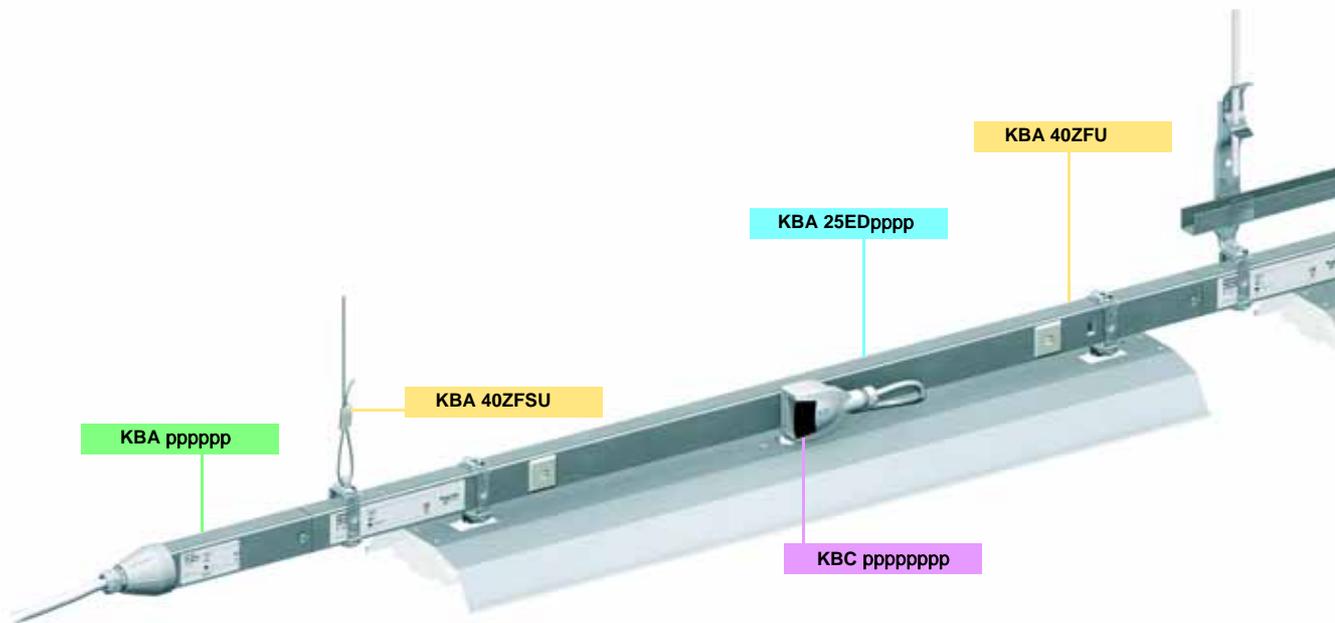
Connection leads



| Used to... | Length (m) | Order in multiples of | Cat. no. |
|-----------------------------------|---|-----------------------|--------------------|
| Connect the luminaires | 1 | 10 | KBZ 31MC010 |
| Connect to tap-off units | 1 | 10 | KBZ 31FC010 |
| | 3 | 10 | KBZ 31FC030 |
| | 5 | 10 | KBZ 31FC050 |
| Connect between luminaires | 2 | 10 | KBZ 31FM020 |
| | 3 | 10 | KBZ 31FM030 |
| | 5 | 10 | KBZ 31FM050 |
| Used to... | Function | Order in multiples of | Cat. no. |
| Splitter block | T-shape, 1 male input 2 female outputs | 20 | KBZ 32BA12 |
| | T-shape, 1 male input 5 female outputs | 10 | KBZ 32BA15 |
| Connector to be wired | female | 50 | KBZ 32PFR2 |
| | male | 10 | KBZ 32PMR2 |
| Lock | resists pulling forces | 10 | KBZ 32VP01 |

Canalis KBA trunking

For lighting and power socket distribution



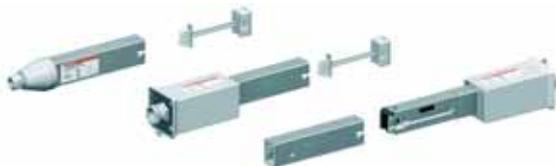
Run components



b Rating: 25 A

| Type of component | Length (m) | Number of tap-offs | Order in multiples of | Rating 25 A Cat. no. |
|---|------------|--------------------|-----------------------|-------------------------|
| Standard straight length L + N + PE | 3 | 2 | 6 | KBA 25ED2302 |
| Standard straight length 3L + N + PE | 3 | 2 | 6 | KBA 25ED4302 |
| | 2 | 2 | 6 | KBA 25ED4202 |

Feed units (supplied with end cover)



| Designation | Rating (A) | Mounting | Cable connection | | Cat. no. |
|---------------|------------|----------|------------------------------|-------------------------|-------------------|
| | | | Terminals (mm ²) | Cable gland Ø maxi (mm) | |
| End feed unit | 25 | left | 4 | PG 16, Ø 15 | KBA 25ABG4 |
| Feed unit | 25 | right | 10 | PG 21, Ø 19 | KBA 40ABD4 |

Fixing system



b The fixing system ensures that Canalis KBA is well secured

| Designation | Mounting | Max. load (kg) | Order in multiples of | Cat. no. |
|---|--|----------------|-----------------------|-------------------|
| Busbar trunking fixings | | | | |
| Universal fixing bracket ⁽¹⁾ | suspended on threaded rod or lateral (except wall) | 60 | 10 | KBA 40ZFPU |
| Cable suspension system | universal fixing bracket and steel cable, 3 m long | 60 | 10 | KBA 40ZFSU |
| Pigtail hook | suspended by small chain | 60 | 10 | KBB 40ZFC |
| Luminaire fixings | | | | |
| Universal fixing bracket ⁽¹⁾ | for direct suspension under trunking | 60 | 10 | KBA 40ZFU |

⁽¹⁾ Optional white-lacquered metal enclosure: add W to cat. no.
Example: KBA 40ZFUW.



Tap-off units



b The 10 and 16 A tap-off units pre-wired or not, offer phase selection or fixed polarities, and can be used with the whole range

| Type of trunking | Polarity | Colour of lock | Order in multiples of | Cat. no. |
|---|----------------|----------------|-----------------------|---------------------|
| 10 A tap-off unit, direct connection with phase selection, 2L + PE | | | | |
| All types possible | all polarities | | 10 | KBC 10DCB20 |
| 10 A tap-off unit, direct connection with phase selection, 2L + PE, pre-wired S05Z1Z1-F 3 x 1.5 mm², 1 m long | | | | |
| All types possible | all polarities | | 10 | KBC 10DCC211 |
| Tap-off unit, direct connection pre-wired S05Z1Z1-F 3 x 1.5 mm², 0.8 m long | | | | |
| 10 A with fixed polarity, 2L + PE Single-circuit switching and balancing on 3 phases or 3-circuit switching | L1 + N | green | 10 | KBC 10DCS101 |
| | L2 + N | yellow | 10 | KBC 10DCS201 |
| | L3 + N | brown | 10 | KBC 10DCS301 |

KBL luminaires



b The IP20 luminaires are designed for lighting in premises of low to medium height (industrial) or high premises (intensive)
 b The IP55 luminaires are designed for premises of low to medium height with severe environments

| Type of tube | Type of ballast | Power (W) | Cat. no. |
|---|----------------------------|-----------|-------------------|
| IP20 industrial luminaires (delivered with 10 A tap-off unit with phase selection, pre-wired with S05Z1Z1-F 3 x 1.5 mm ²) | | | |
| T8 | compensated ferro-magnetic | 2 x 58 | KBL 258C |
| | electronic | 2 x 58 | KBL 258HF |
| T5 | electronic | 2 x 34 | KBL 235T5 |
| IP20 intensive luminaires (delivered with 10 A tap-off unit with phase selection, pre-wired with S05Z1Z1-F 3 x 1.5 mm ²) | | | |
| T5 | electronic | 2 x 80 | KBL 280T5 |
| IP55 metacrylate dust and damp-proof luminaires (delivered with 10 A tap-off unit with phase selection, pre-wired with S05Z1Z1-F 3 x 1.5 mm ²) | | | |
| T8 | compensated ferro-magnetic | 2 x 58 | KBL 258CE |
| | electronic | 2 x 58 | KBL 258HFE |
| T5 | electronic | 2 x 34 | KBL 235T5E |



Run components

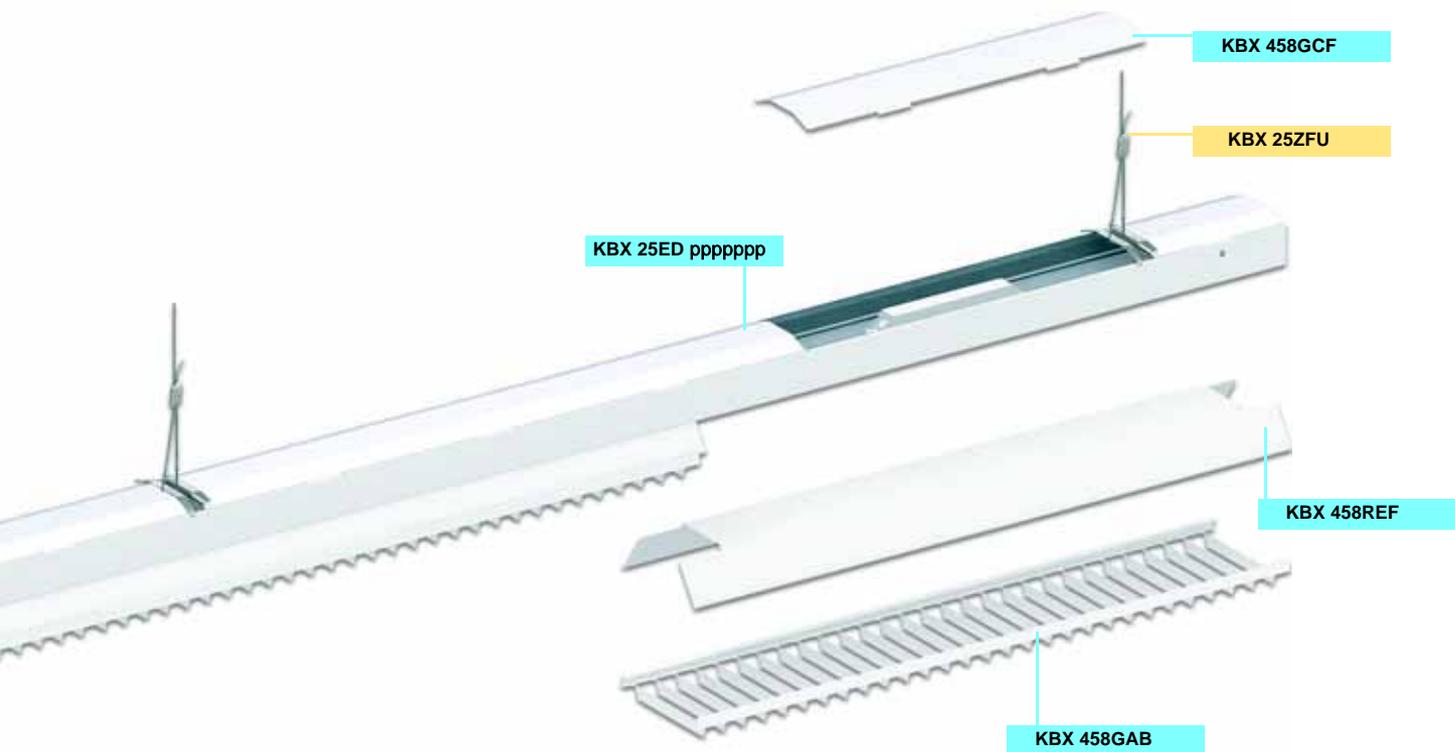


- b Prewiring assembly with five 2.5 mm²
- b Fluorescent tube (not supplied), diameter 26 mm (type T8)
- b Phase wire not connected at one end to allow phase balancing during installation

- b 1550 mm long reflector to concentrate the lighting
- b 1550 mm long anti-dazzle unit to reduce glare
- b Cover to provide an IP20 degree of protection.

| Trunking polarity | Fluorescent tube | Fluorescent tube | | Type of ballast | Order in multiples of | Cat. no. |
|-------------------|------------------|------------------|----|-----------------|-----------------------|------------------------|
| | | Type | Nb | | | |
| 3L + N + PE | T8 | 4 | 58 | ferromagnetic | 30 | KBX 25ED430458C |
| | | 2 | 58 | ferromagnetic | 30 | KBX 25ED415258C |

| Designation | Order in multiples of | Cat. no. |
|-------------------------|-----------------------|-------------------|
| End cover | 6 | KBX 458CF |
| Reflector | 6 | KBX 458REF |
| Anti-dazzle unit | 6 | KBX 458GAB |



Feed units



b The feed units and end covers receive the cables supplying one end of Canalis KBX trunking

| Designation | Order in multiples of | Cat. no. |
|------------------|-----------------------|-------------------|
| Feed unit | 1 | KBX 25ABG4 |

Fixing system



b The fixing system ensures that Canalis KBX is well secured, whatever the type of building structure

| Designation | Mounting | Order in multiples of | Cat. no. |
|--------------------------------|-----------------------|-----------------------|--------------------|
| Suspension bracket | | 3 | KBX 25ZFU |
| Cable suspension system | cable alone, 3 m long | 10 | KBB 40ZFS23 |
| Pigtail hook | | 10 | KBB 40ZFC |

Canalis KN trunking

For low-power distribution
from 40 to 160 A



Run components



b 4 live conductors

| Polarity | Rating (A) | Length (mm) | Number of tap-off outlets | Cat. no. |
|---|------------|----------------------|---------------------------|----------------------|
| Standard lengths | | | | |
| 3L + N + PE or 3L + PEN | 40 | 3000 | 3 | KNA 40ED4303 |
| | 63 | 3000 | 3 | KNA 63ED4303 |
| | 100 | 3000 | 3 | KNA 100ED4303 |
| | 160 | 3000 | 3 | KNA 160ED4303 |
| Additional lengths | | | | |
| 3L + N + PE or 3L + PEN | 63 | 2000 | 4 | KNA 63ED4204 |
| | 100 | 2000 | 4 | KNA 100ED4204 |
| | 160 | 2000 | 4 | KNA 160ED4204 |
| Designation | Rating | Direction (edgewise) | Cat. no. | |
| Flexible elbow, for internal or external angle, 80° to 180°* | 40 to 63 | left or right | KNA 63DL4 | |
| | 100 | left or right | KNA 100DL4 | |
| | 160 | left or right | KNA 160DL4 | |

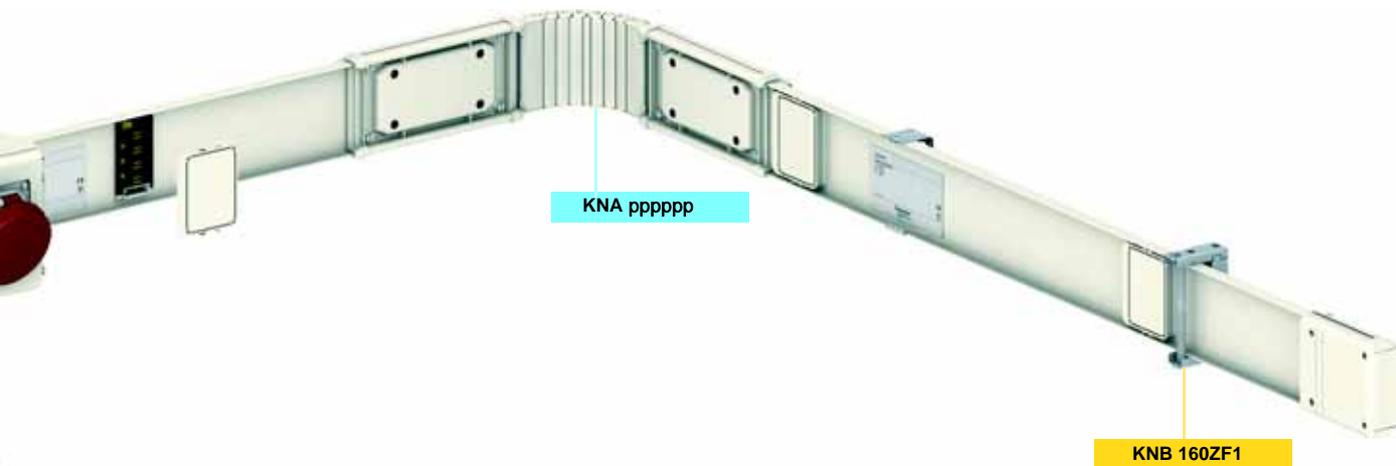
* Minimum curve radius: 70 mm

Feed units (supplied with end cover)



b The feed units, delivered with end covers, receive the cables supplying one end or any other point of Canalis KN trunking

| Designation | Rating (A) | Mounting | Connection | Max. size (mm ²) | | Cat. no. |
|----------------------|------------|---------------|------------------|------------------------------|-------|-------------------|
| | | | | Flexible | Rigid | |
| End feed unit | 40 and 63 | left or right | terminals | 16 | 25 | KNA 63AB4 |
| Feed unit | 100 | left or right | lugs (M8 screws) | 35 | 50 | KNA100AB4 |
| | 160 | left or right | lugs (M8 screws) | 95 | 95 | KNA 160AB4 |



Tap-off units and tap-off unit with isolator



b They are used to supply loads from 16 to 63 A

| Designation Rating | Distribution | Protection | Cat. no. |
|--|--|---|--------------------|
| 16 A Single-phase tap-off unit | single-phase L + N + PE with phase selection | circuit breaker (supplied) | KNB 16CM2 |
| 32 A Four-pole tap-off unit | 3-phase 3L + N + PE ⁽¹⁾ or 3L + Np + PE | circuit breaker 5 modules modules) | KNB 32CM55 |
| 32 A Tap-off unit with power sockets ⁽²⁾ | 3-phase 3L + N + PE or 3L + N + PE + Vigi | circuit breaker (8 x 18 mm modules) | KNB 32CP15F |
| 63 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽¹⁾ or 3L + Np + PE | circuit breaker (8 x 18 mm modules) | KNB 63SM48 |
| 16 A Single-phase tap-off unit | single-phase L + N + PE with phase selection | NF fuses 8.5 x 31.5 (not supplied) | KNB 16CF2 |
| 25 A Four-pole tap-off unit | 3-phase 3L + N + PE ⁽¹⁾ | NF fuses 10 x 38 (not supplied) | KNB 25CF5 |
| 50 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽¹⁾ | NF fuses 14 x 51 (not supplied) | KNB 50SF4 |

⁽¹⁾ Also suitable for tap-off unit 3L + PE (N not distributed)

⁽²⁾ Power socket polarity according to the case

Fixing system

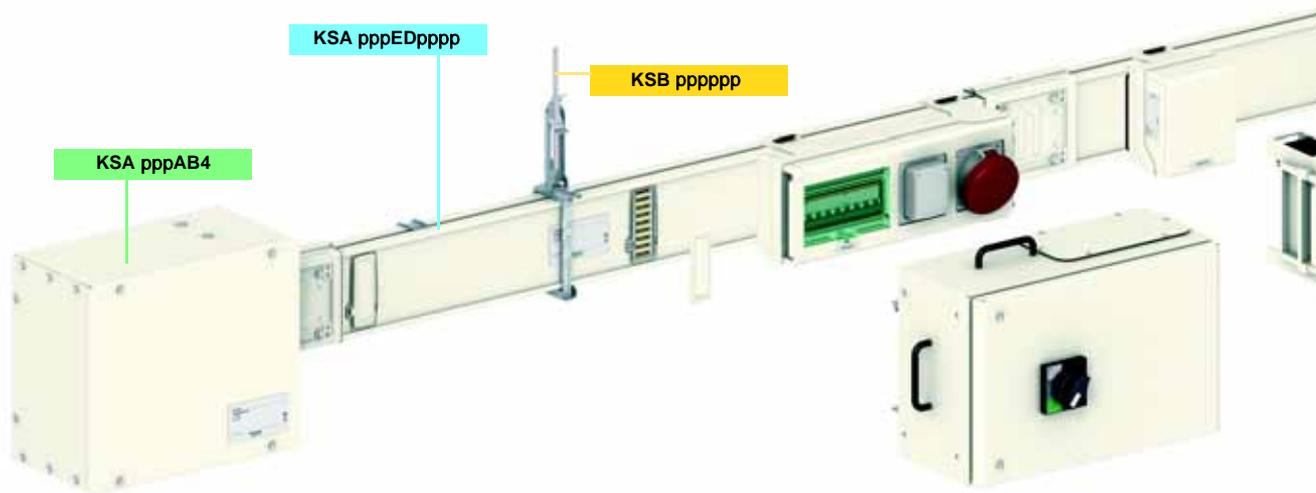


b Used to secure Canalis KN whatever the type of building structure

| Designation | Rating (A) | Mounting | Order in multiples of | Cat. no. |
|----------------------------------|---------------|---------------------------------|--------------------------|--------------------|
| Spring fixing bracket | 40 to 160 | suspended on threaded rod | 10 | KNB 160ZFPU |
| Fixing bracket | 40 to 160 | suspended on threaded rod | 10 | KNB 160ZF1 |

Canalis KS trunking

For medium-power distribution
from 100 to 400 A



Run components with tap-off outlets

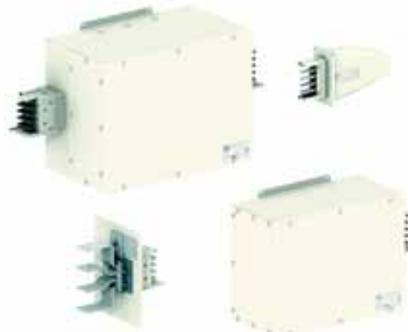


b 4 live conductors

| Polarity | Rating (A) | Length (mm) | Number of tap-off outlets | Cat. no. |
|-------------------------------|------------|----------------------|---------------------------|----------------------|
| Standard lengths | | | | |
| 3L + N + PE or 3L + PEN | 100 | 3000 | 6 | KSA 100ED4306 |
| | 160 | 3000 | 6 | KSA 160ED4306 |
| 3L + PEN | 250 | 3000 | 6 | KSA 250ED4306 |
| | 400 | 3000 | 6 | KSA 400ED4306 |
| Additional lengths | | | | |
| 3L + N + PE or 3L + PEN | 250 | 2000 | 8 | KSA 250ED4208 |
| Designation | Rating | Direction (edgewise) | Cat. no. | |
| Edgewise elbow* | 100 to 250 | left or right | KSA 250DLC40 | |

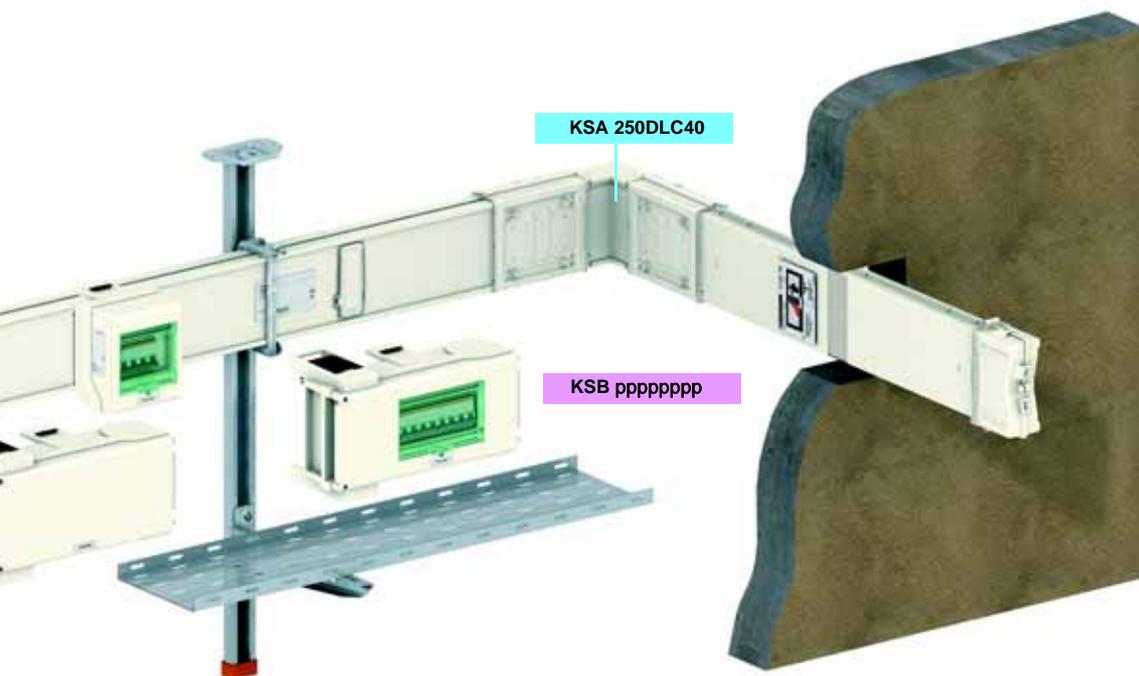
* Flat elbow and edgewise tee are also available

Feed units (supplied with end cover)



b The feed units, delivered with end covers, receive the cables supplying one end or any other point of Canalis KS trunking

| Designation | Rating (A) | Mounting | Connection | Max. size (mm ²) | | Cat. no. |
|----------------------|------------|---------------|-------------------|------------------------------|---------|-------------------|
| | | | | Flexible | Rigid | |
| End feed unit | 100 | left or right | terminals | 5 x 16 | 5 x 16 | KSA 100AB4 |
| End feed unit | 100 to 250 | left or right | lugs (M10 screws) | 240 | 240 | KSA 250AB4 |
| | | | | 2 x 240 | 2 x 240 | |



Tap-off units and tap-off unit with isolator



b They are used to supply loads from 25 to 160 A

| Designation | Distribution | Protection | Cat. no. |
|---|--|---|---------------------|
| 32 A Tap-off units | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | circuit breaker (5 x 18 mm modules) | KSB 32CM55 |
| 32 A Tap-off unit with power sockets⁽³⁾ | 3-phase 3L + N + PE or 3L + N + PE + Vigi | circuit breaker (8 x 18 mm modules) | KSB 32CP15F |
| 63 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | circuit breaker (8 x 18 mm modules) | KSB 63SM48 |
| 100 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | circuit breaker (8 x 18 mm modules) | KSB 100SM412 |
| 160 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | NS circuit breaker | KSB 160DC4 |
| 32 A Tap-off units | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | NF fuses 10 x 38 (not supplied) | KSB 32CF5 |
| 50 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | NF fuses 14 x 51 (not supplied) | KSB 50SF4 |
| 100 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | NF fuses 22 x 58 (not supplied) | KSB 100SF4 |
| 160 A Tap-off unit with isolator | 3-phase 3L + N + PE ⁽²⁾ or 3L + PEN | blade-type fuses (not supplied) | KSB 160SF4 |

(2) Also suitable for tap-off unit 3L + PE (N not distributed)
 (3) Power socket polarity according to the case

Fixing system



b Used to secure Canalis KN whatever the type of building structure

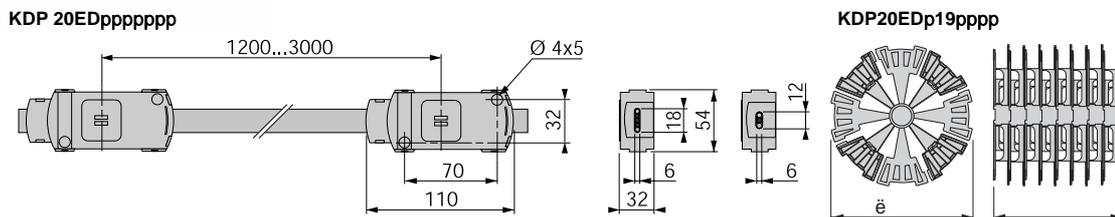
| Designation | Rating (A) | Mounting | Order in multiples of | Cat. no. |
|--|------------|-----------------------------------|-----------------------|-------------------|
| Fixing bracket⁽¹⁾ | 100 to 400 | wall or suspended on threaded rod | 10 | KSB 400ZF1 |
| Spring fixing bracket⁽¹⁾ | 100 to 400 | suspended on threaded rod | 10 | KSB 400ZPU |

(1) Maximum load: 130 kg

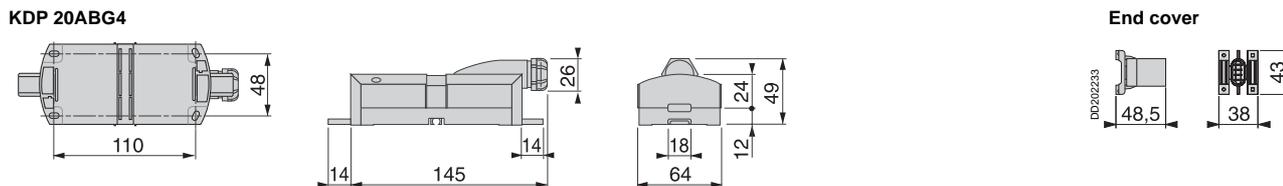
Canalis KDP trunking

For lighting and power socket distribution

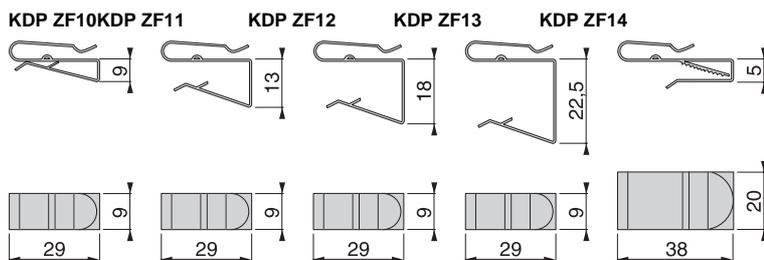
Run components



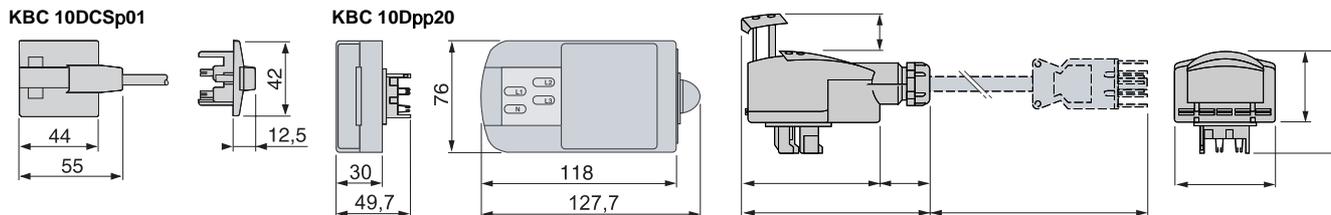
Feed units (supplied with end cover)



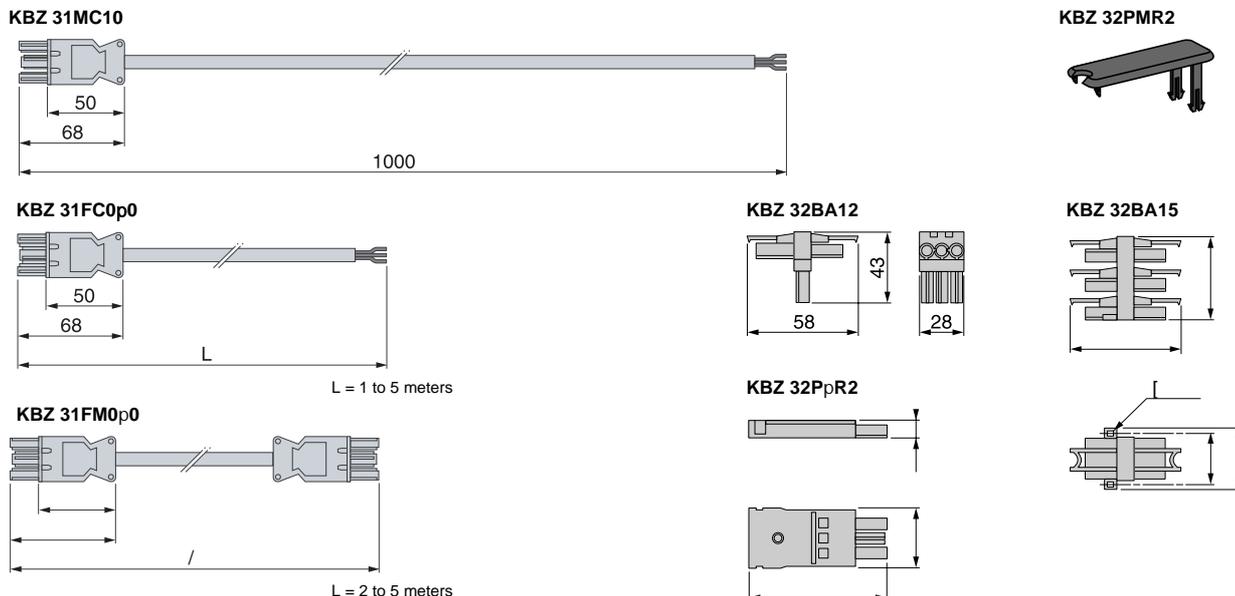
Fixing system



Tap-off units



Connection leads

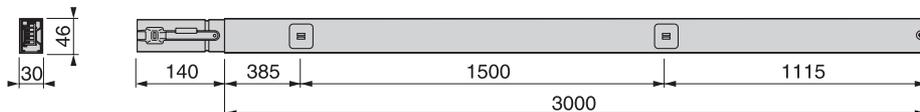


Canalis KBA trunking

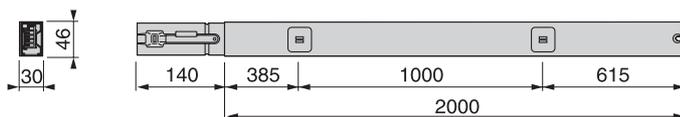
For lighting and power socket distribution

Run components

KBA 25EDp302

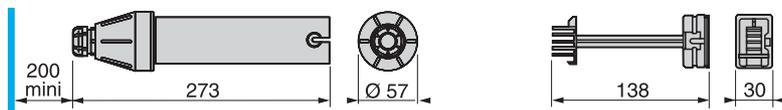


KBA 25ED4202

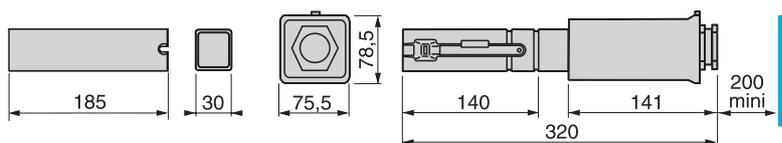


Feed units (supplied with end cover)

KBA 25ABG4 with end cover

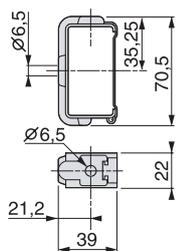


KBA 40ABD4 with end cover

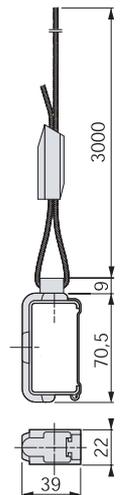


Fixing system

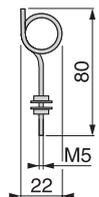
KBA 40ZFPU



KBA 40ZFSU



KBB 40ZFC

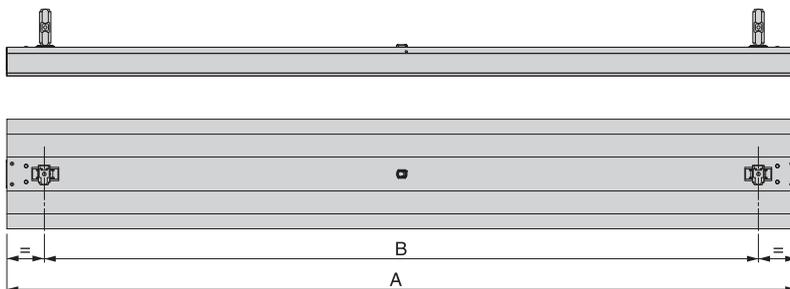
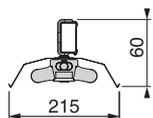


Canalis KBA trunking

For lighting and power socket distribution (cont.)

KBL luminaires

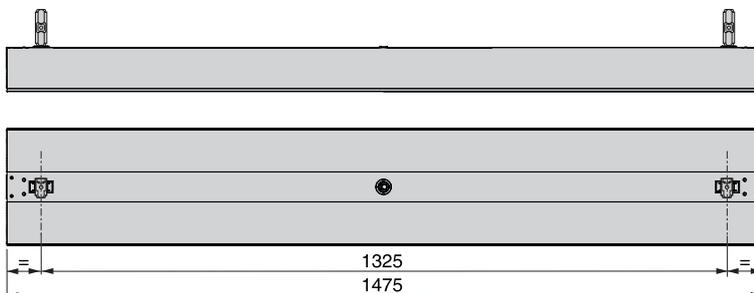
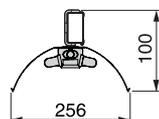
KBL 258C, KBL 258HF, KBL 235T5



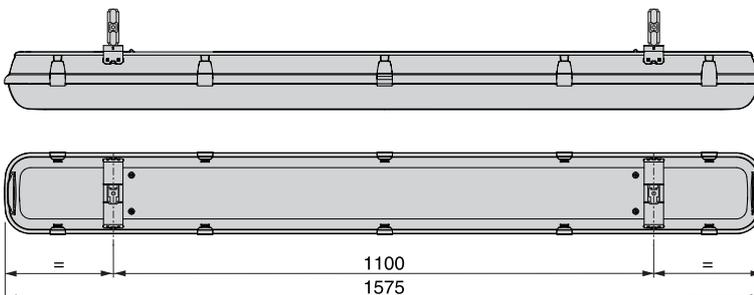
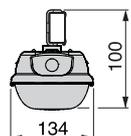
| | A | B |
|-----------|------|------|
| KBL 258C | 1526 | 1375 |
| KBL 258HF | 1526 | 1375 |
| KBL 235T5 | 1475 | 1325 |

Dim. in mm

KBL 280T5



KBL 258CE, KBL 258HFE, KBL235T5E



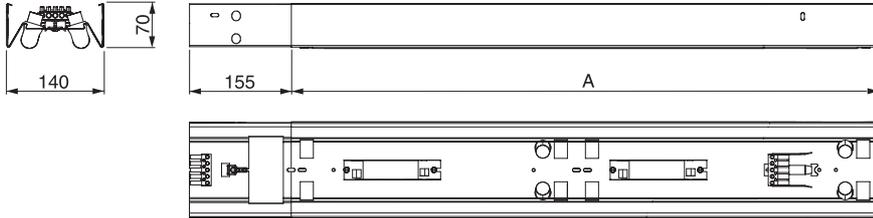
Nota : All KBL luminaires come equipped with a 10 A tap-off unit, with phase selection.
This tap-off unit is prewired with a S05Z1Z1-F, 3 x 1 mm² cable.
KBL are supplied with fixing brackets.

Canalis KBX trunking

Strip lighting distribution

Run components

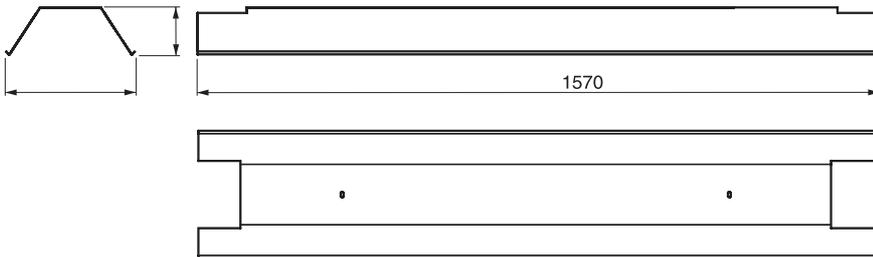
KBX 25ED4ppp58C



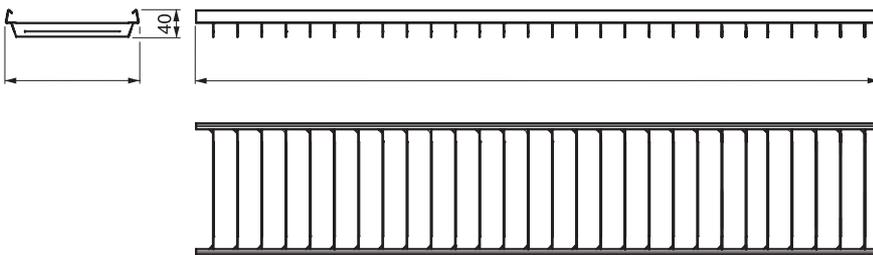
| | A |
|-----------------|------|
| KBX 25ED430458C | 3100 |
| KBX 25ED415258C | 1550 |

Dim. in mm

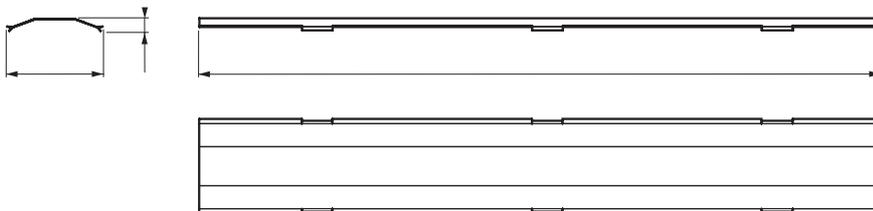
KBX 458REF



KBX 458GAB

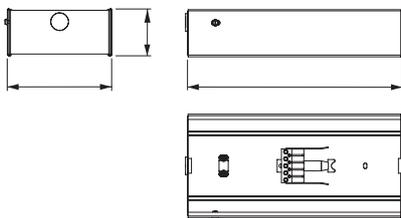


KBX 458CF



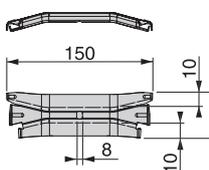
Feed units

KBX 458AA4

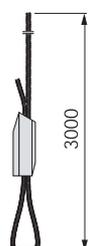


Fixing system

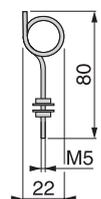
KBZ 25ZFPU



KBB 40ZFS23



KBB 40ZFC

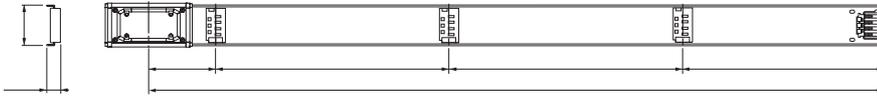


Canalis KN trunking

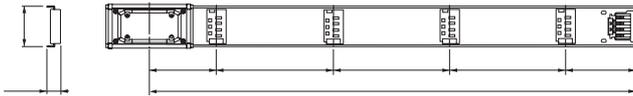
For low-power distribution
from 40 to 160 A

Run components

KNA pppED4303

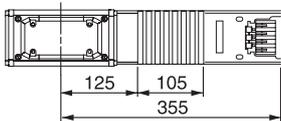


KNA pppED4204



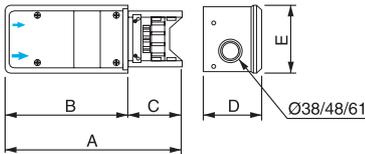
Component for changing direction (one dimension)

KNA pppDL4



Feed units (supplied with end cover)

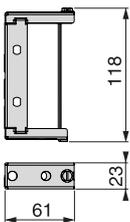
KNA pppAB4



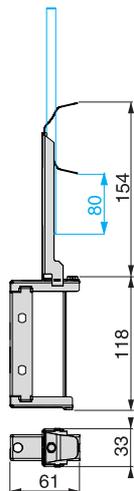
| Dim. | 40 to 60 A | 100 A | 160 A |
|------|------------|-------|-------|
| A | 265 | 340 | 256 |
| B | 165 | 238 | 258 |
| C | 100 | 102 | 98 |
| D | 71 | 112 | 130 |
| E | 92 | 127 | 185 |

Fixing system

KNB 160ZF1

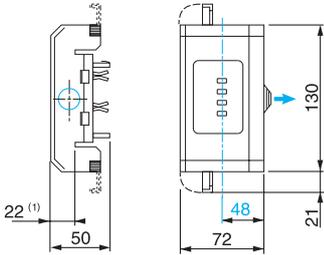


KNB 160ZFP1

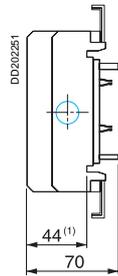


Tap-off unit and tap-off unit with isolator

KNB 16CF2

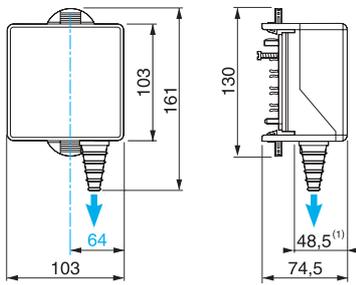


KNB 16CM2

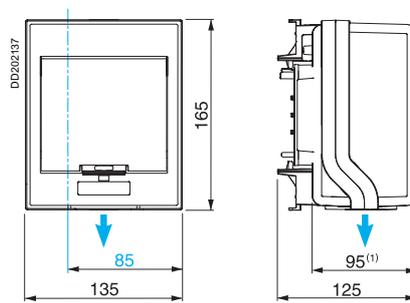


— Centre line of tap-off outlets
 ➔ Cable exit

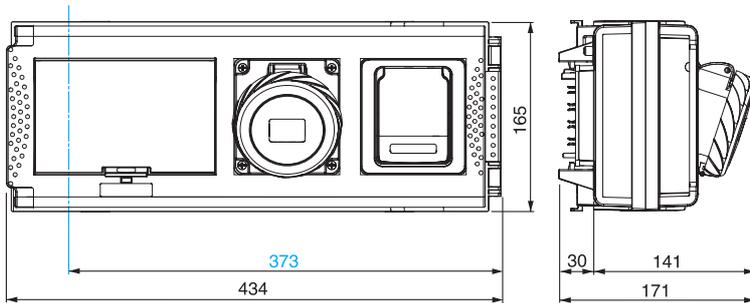
KNB 25CF5



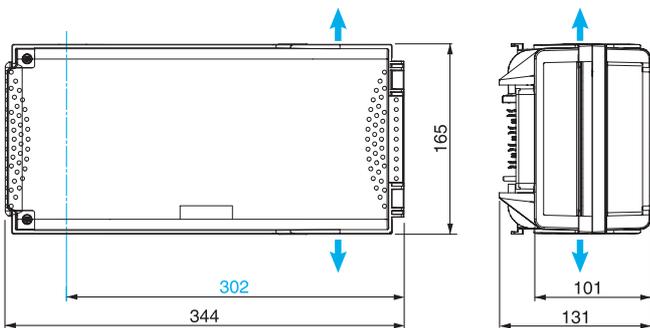
KNB 32CM55



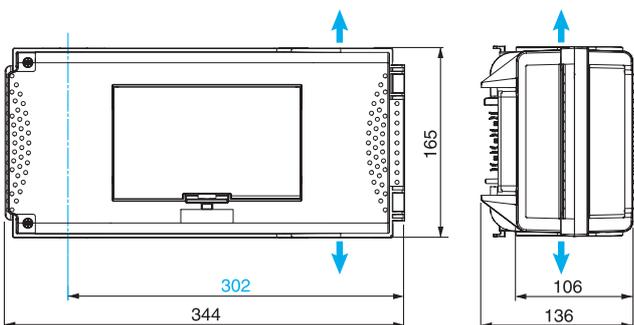
KNB 32CP15F



KNB 50SF4



KNB 63SM48



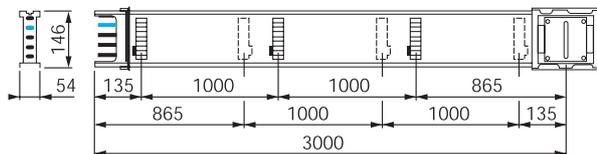
(1) protruding

Canalis KS trunking

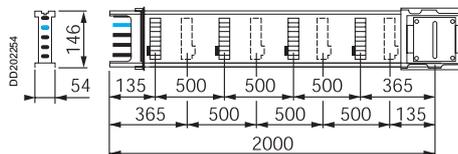
For medium-power distribution
from 100 to 400 A

Run components with tap-off outlets

KSA pppED4306

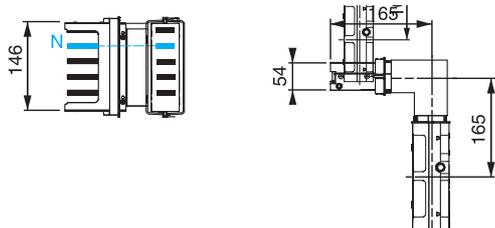


KSA pppED4208



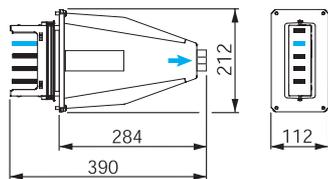
Components for changing direction

KSA 250DLC40

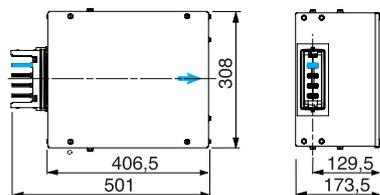


Feed units (supplied with end cover)

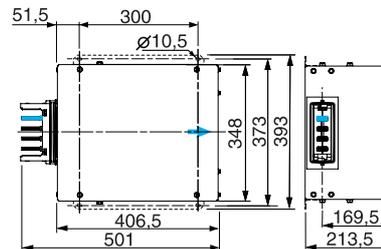
KSA 100AB4



KSA 250AB4

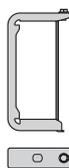


KSA 400AB4



Fixing system

KSB 400ZF1

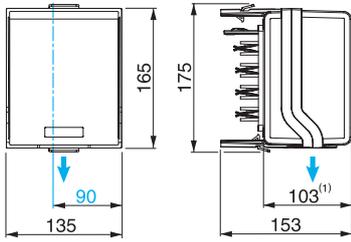


KSB 400ZPU

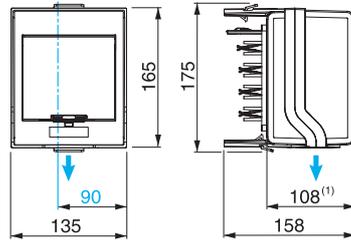


Tap-off unit and tap-off unit with isolator

KSB 32CF5

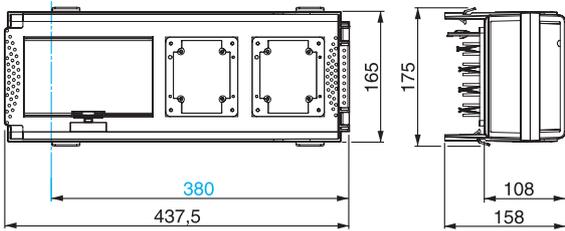


KSB 32CM55

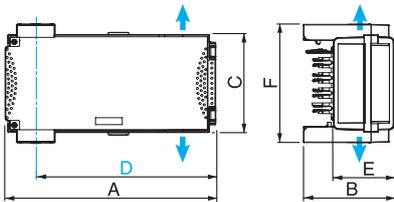


— Centre line of tap-off outlets
 ➔ Cable exit

KSB 32CP15F

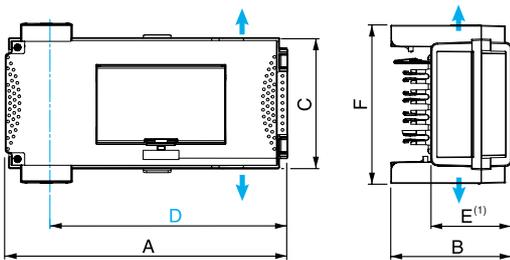


KSB 50SF4, KSB 100SF4



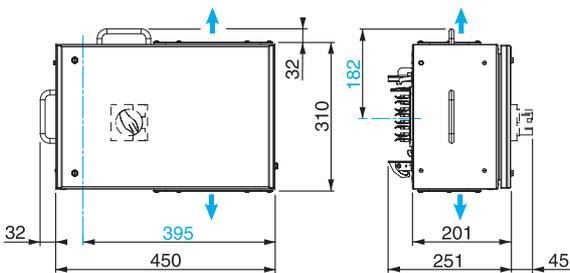
| Dim. | KSB 50SF4 | KSB 100SF4 |
|------|-----------|------------|
| A | 356 | 444 |
| B | 153 | 178 |
| C | 167 | 202 |
| D | 309 | 397 |
| E | 103 | 128 |
| F | 202 | 220 |

KSB 63SM48, KSB 100SM412

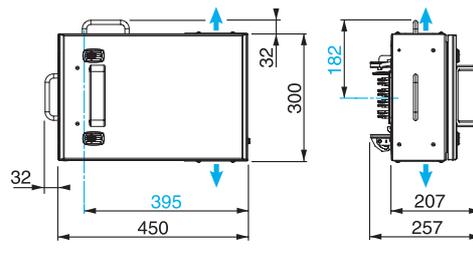


| Dim. | KSB 63SM48 | KSB 100SM412 |
|------|------------|--------------|
| A | 357 | 441 |
| B | 158 | 183 |
| C | 167 | 202 |
| D | 309 | 397 |
| E | 108 | 133 |
| F | 202 | 220 |
| G | 164 | 236 |

KSB 160DC4



KSB 160SF4



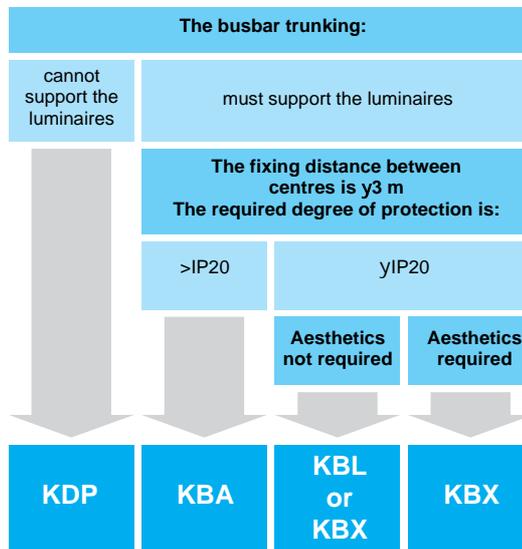
(1) protruding

Due to its flexible design, KDP busbar trunking simplifies routing and thus reduces design and installation times. It is the optimum solution for installations with false ceilings or floors.

KBA and KBB busbar trunking is ideal where the building structure cannot support the luminaires. It offers an IP55 degree of protection which means they can be installed in all types of buildings.

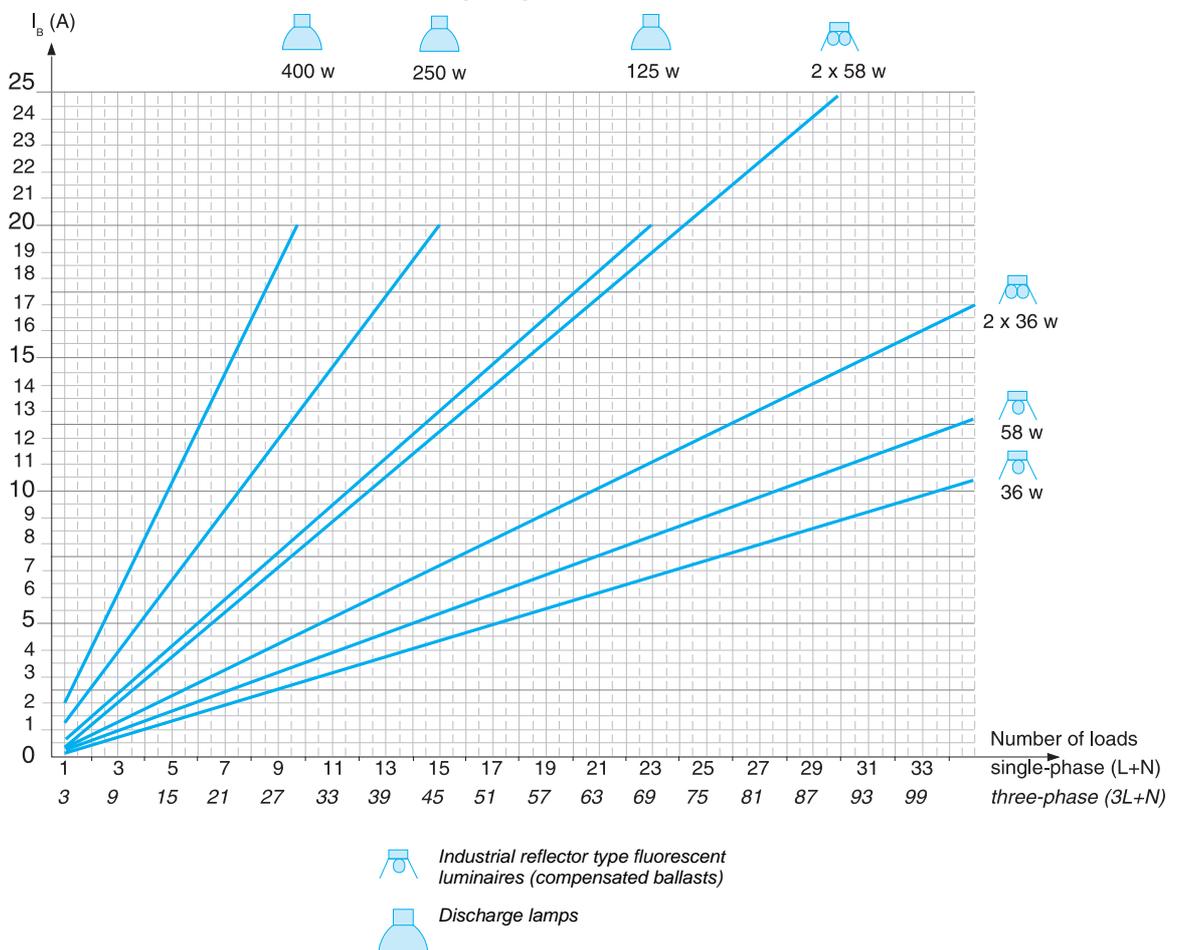
The competitiveness and aesthetics of KBX busbar trunking, with built-in luminaires, are unmatched. It is the optimum solution for intensely lighted stores and buildings.

Which trunking for lighting distribution?

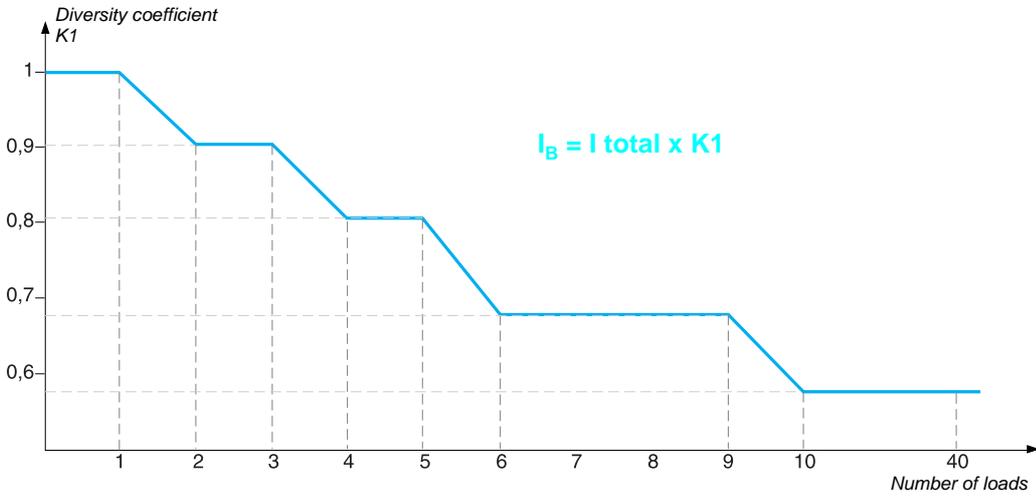


1 Calculate the operational current I_B

b For lighting circuits



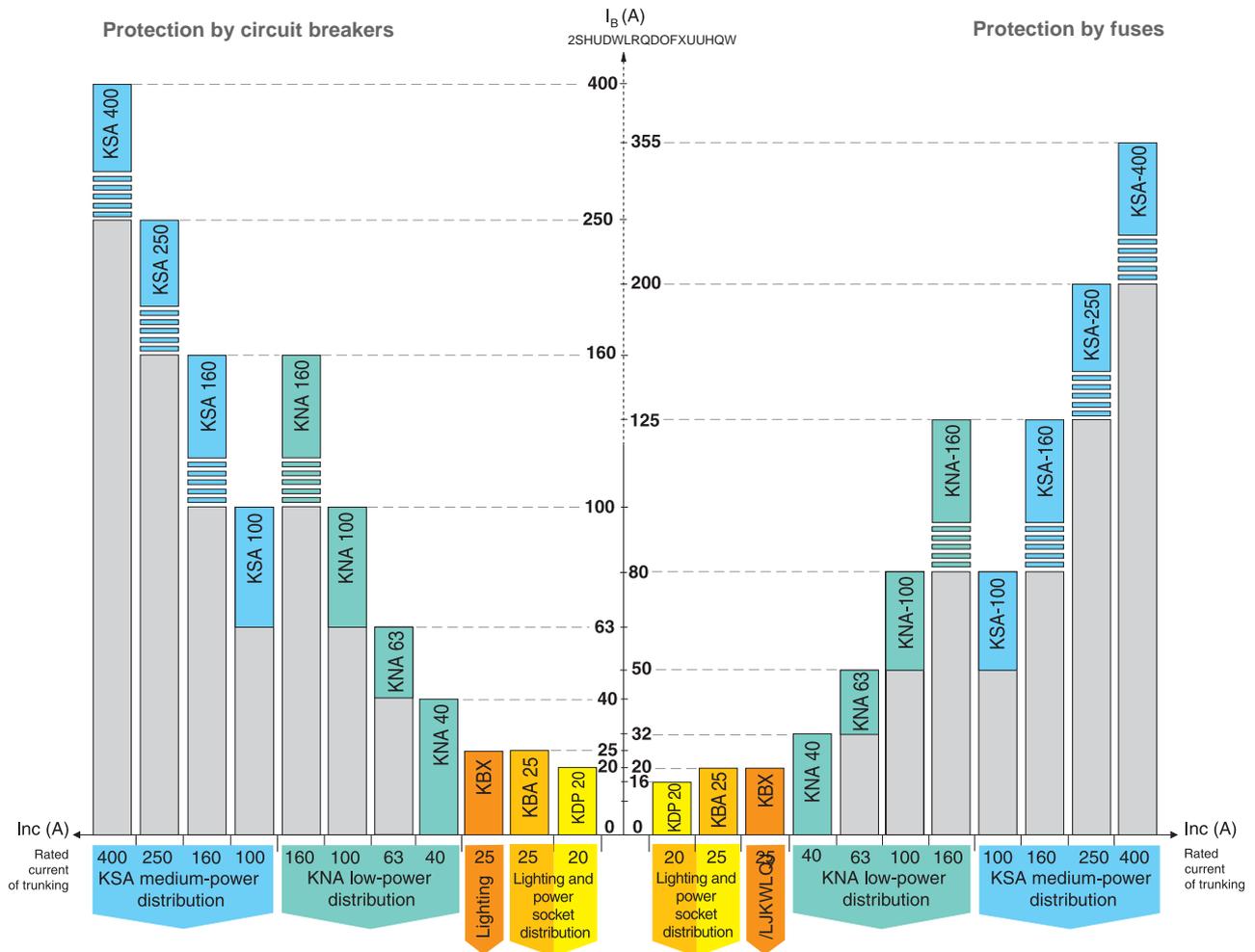
b For power distribution



b Because not all loads operate at the same time, the diversity coefficient K_1 is applied.

b For heating and lighting applications, the coefficient K_1 is always equal to 1.

2 Determine the busbar trunking rating according to the operational current and the selected protection



>> Use of trunking at full rated load is the most economical solution

>> Limitation of the operational current (I_B)e

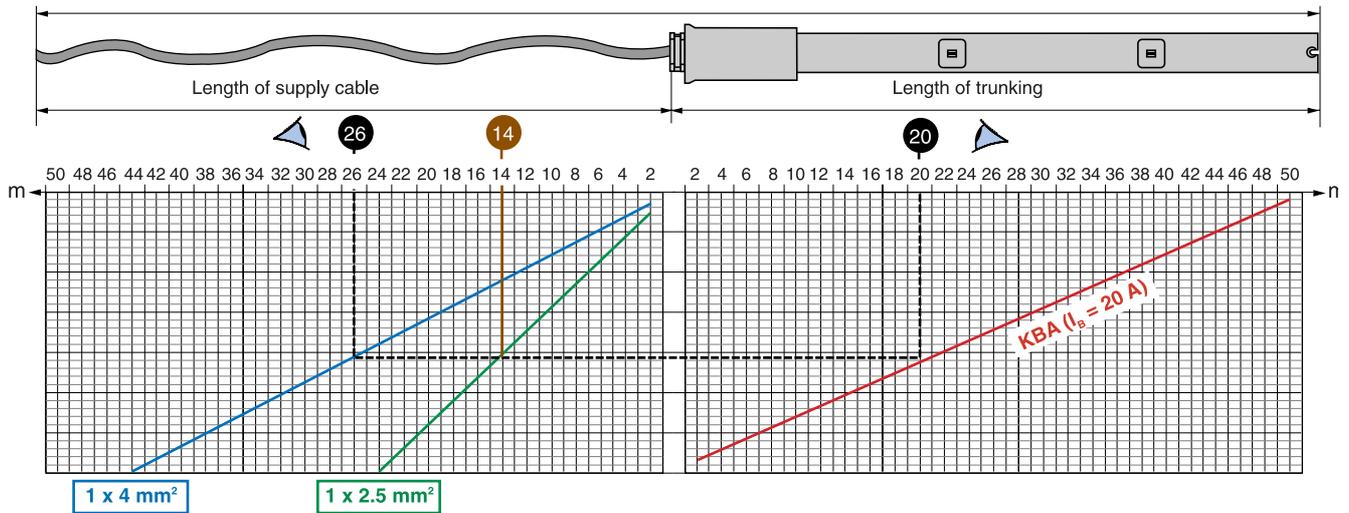
3 Check the voltage drop (ΔU)

The maximum permissible voltage drop in the final circuit is:

- b 3% for lighting circuits (KBA)
- b 5% for power distribution circuits (KNA and KSA).

b Lighting circuits

The graph below indicates, for an operational current (I_B) of 20 A, the trunking and cable lengths ensuring a maximum voltage drop of 3%.

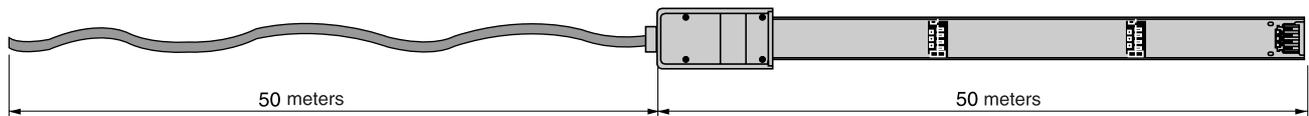


Example

The 3% voltage drop is reached if, for trunking 20 metres long, a 1 x 4 mm² supply cable is 26 metres long or a 1 x 2.5 mm² supply cable is 14 metres long.

b Power distribution

For lengths less than 100 metres (50 m + 50 m), KNA and KSA ensure voltage drops of less than 5%.

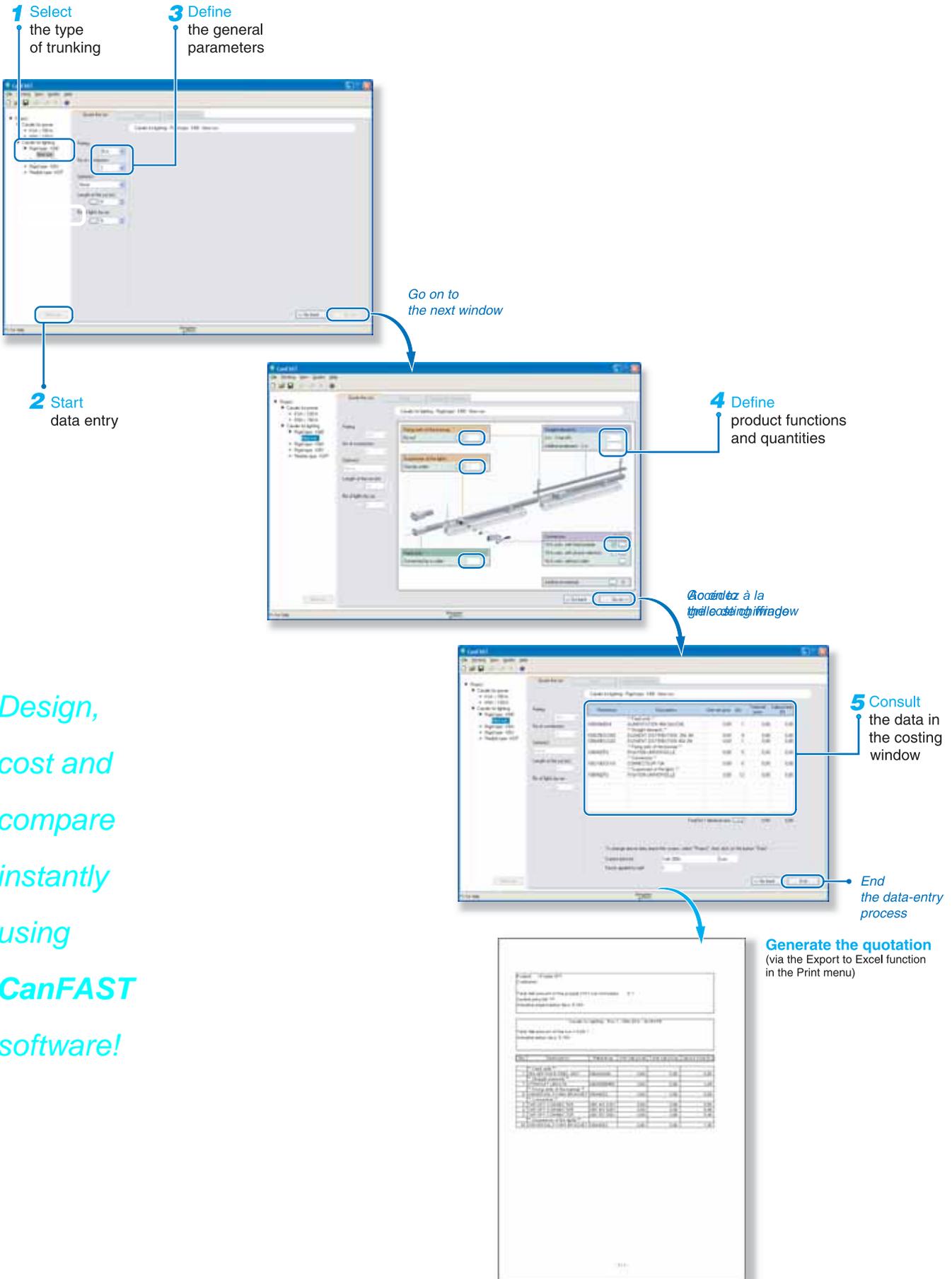


>> Use of trunking at full rated load

Summary of performance characteristics

Canalis, a high-quality system

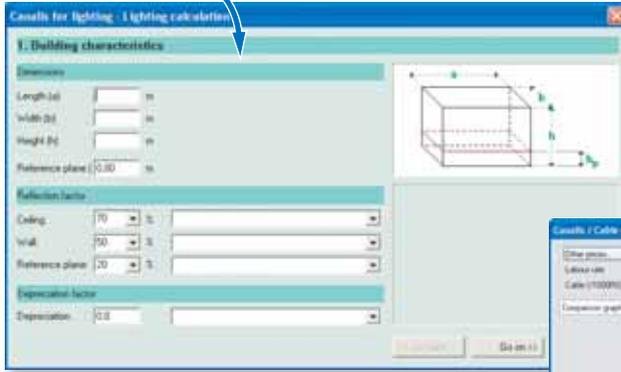
| In | Safety | IP55 | Reliability | IK08 | IPxxD | Cost |
|---|---|---|---|---|---|--|
| |  |  |  |  |  |  |
| | <i>Canalis is halogen free and does not release smoke or toxic gases.</i> | <i>A high degree of protection (IP55) means Canalis can be installed in all types of buildings.</i> | <i>Interlocking devices prevent mounting errors, ensuring total safety for maintenance personnel.</i> | <i>IK08 for high impact strength.</i> | <i>IPxxD for total safety of maintenance personnel.</i> | <i>Lower cost than a conventional installation by cutting mounting time in half.</i> |
| For lighting and power-socket distribution | | | | | | |
| Canalis KDP | 20 A | b | b | b | b | b |
| Canalis KBA | 25 A | b | b | b | b | b |
| Canalis KBX | 25 A | b | IP 20 | b | b | b |
| Low and medium power distribution | | | | | | |
| Canalis KN | 100 - 160 - 250 - 400 A | b | b | b | b | b |
| Canalis KS | 40 - 63 - 100 -160 A | b | b | b | b | b |



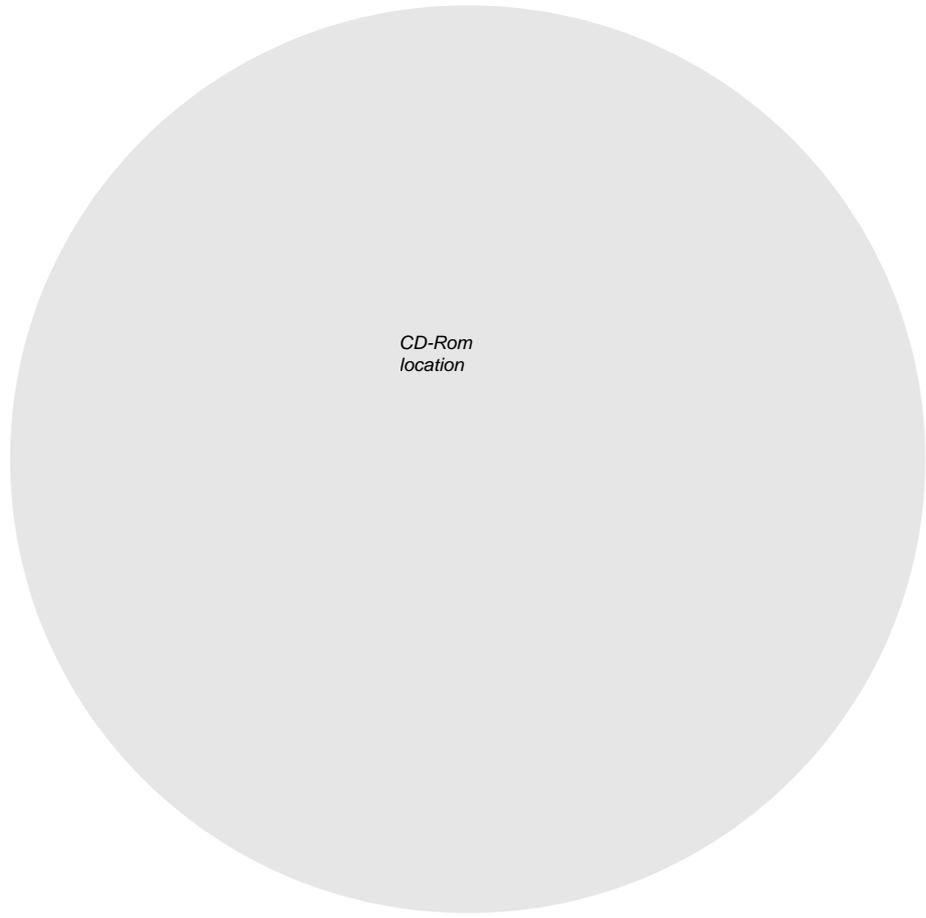
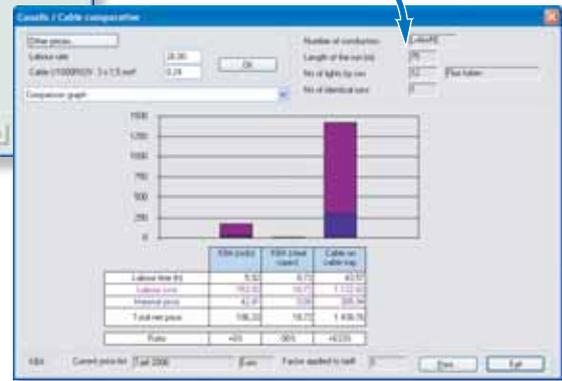
Design, cost and compare instantly using **CanFAST** software!



A design guide
for lighting applications



A comparison between
a Canalis lighting installation
and an equivalent conventional
cable-based solution



CD-Rom
location

Schneider Electric Industries SAS

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F-38050 Grenoble Cedex 9
Tél.: +33 (0)4 76 57 60 60
<http://www.schneiderelectric.com>

RCS Nanterre B 954 503 439

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