

Eaton's XAP series busduct system is your obvious choice, when searching for a combination of technical performance and attractive design. Eaton's constant development of the busduct product portfolio has not only ensured economical and reliable solutions; XAP series busduct has evolved into an unsurpassed range able to adapt to virtually any installation.

As an integral part of the power distribution products offering from Eaton, XAP series busduct complements Eaton's range of power distribution equipment from packaged substations and MV and LV distribution switchboards to a complete selection of fused switchgear, circuit breaker systems, motor control gear and OEM products.

XAP series busduct systems are thoroughly tested and fully comply with GB7251.1/6 and IEC61439-1/-6. CCC, CB and KEMA certifications are available. The range extends from 250A to 6300A* with a wide selection of accessories.

The straightforward and highly styled design makes XAP series busduct easy to both install and use.

Features and Advantages

- XAP series busduct is assembled with Self-Pressing Riveting Joint Technology which is capable of being used in harsh environment;
- Both feeder and tap-off units are available for XAP series. Feeder units apply to IP 65 and tap-off units apply to IP54;
- High grounding performance is secured by adopting earth busduct which is above 50% of phase line busduct capacity;
- Tap-off unit is applicable for both vertical and horizontal installation. Up to 10 tap-off outlets for a standard 3m length, which allows easy changes in layout with reserved joints;
- Protection against mechanical impact meets IK10 according to IEC 62262;

Working with XAP series busduct brings you the following advantages.

The Eaton range of XAP series busduct is tested to the latest GB7251.1/6 and IEC61439-1/-6 standard makes for the perfect choice where flexibility and reliability is the key to a project's success. We have the ability to produce the busduct system that meets the requirement of any indoor installation. Eaton is a worldwide player in busduct systems. Deliver busduct to many countries globally. The advantages of XAP series busduct summarized:

- High power busduct up to 6300 A*;
- Verified by testing according to GB7251.1/6 and IEC61439-1/-6;
- Applicable for vertical or horizontal installation;
- Complete range of tap-off units with Eaton devices and wide range of options and accessories;
- No de-rating in line with current standards;
- IP65 for feeder type, IP 54 for tap-off type;
- High degree of flexibility and ease of installation;
- Fit-for-purpose for Eaton's DX series switchboards and panel boards;
- Excellent customer services and worldwide references for busduct

- Lightweight magaluma (aluminium-magnesium alloy) housing ensures the busduct has lower magnetic loss, better heat dissipation and be environmental friendly;
- Hard copper conductor with 99.95% purity for electrical engineering enables low impedance, lower voltage drop and line losses;
- Mylar EL polyester film is used for insulation which can meet 10kV per layer and heat-resisting can achieve Class B 130°C;
- The busduct is resistant to flame propagation according to IEC61439-6 10.101~102;
- The anti-seismic and vibration performance of AG3 is tested positively according to IEC60068.



XAP Series Busduct

Busduct systems range 250 – 6300A

XAP Key Components

- Feeder and tap-off busduct straight length unit;
- Angle units: L-shape, T-shape, Z-shape;
- Connection units: transformer connection, switchgear connection, cable connection;
- Tap-off units;
- Standard design for all units while customization and site-inspection can also be offered to meet specific needs.

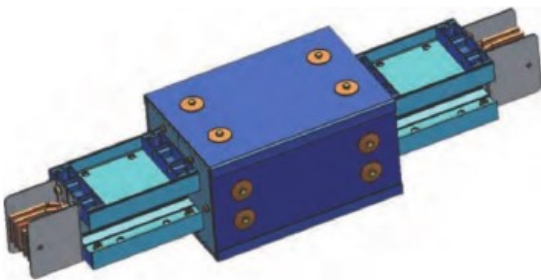
Straight busduct length

- Rated current: 250~6300A;
- Wall bushing is available;
- 1 to 10* Tap-off units per 3 metres straight length;
- Apply to IP54 for tap-off length, IP65 for feeder length;
- Lightweight magaluma-housing construction has lower magnetic loss, better heat dissipation and be environmental friendly
- High strength H-type concentrated construction for high mechanical strength and dynamic thermal stability;



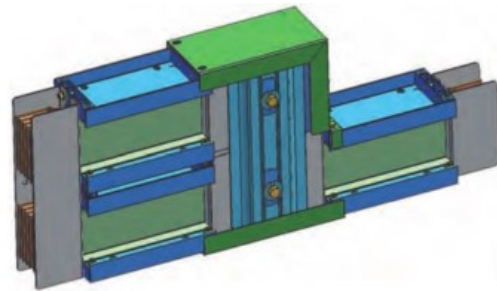
Stretch Unit

- Used to compensate the length change of busduct due to temperature and vibration;
- Standard length: 1.4m.



Reducer

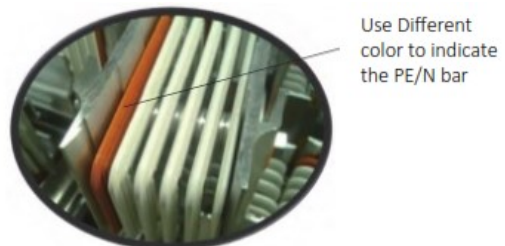
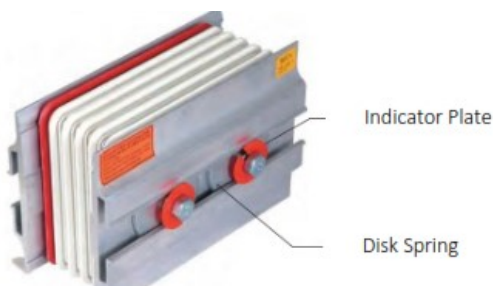
- Used to connect busducts with different current rate;
- Standard length: 1m.



XAP Key Components

Joint Unit

- Discard the traditional design, XAP uses a single bolt clamping structure, making assembly fast and reliable. Its speed of assembling is 1 time faster than that of conventional joint;
- Dual-head torque bolt is used to ensure the pressure required for connection is reached easily. And a special disk spring ensures the sustain pressure between connection contact surfaces;
- Cross-sectional area of joint is above 1.2 times of that of busduct feeder, and busduct's copper conductors are connected to joints on both sides. This structure effectively reduces the contact resistance;
- Different colors are used to indicate phase bar and PE/N bar in order to avoid phase-dislocation.
- Waterproof design applied. And cover plate with insulation sealing strip ensures the high protection level of connections.

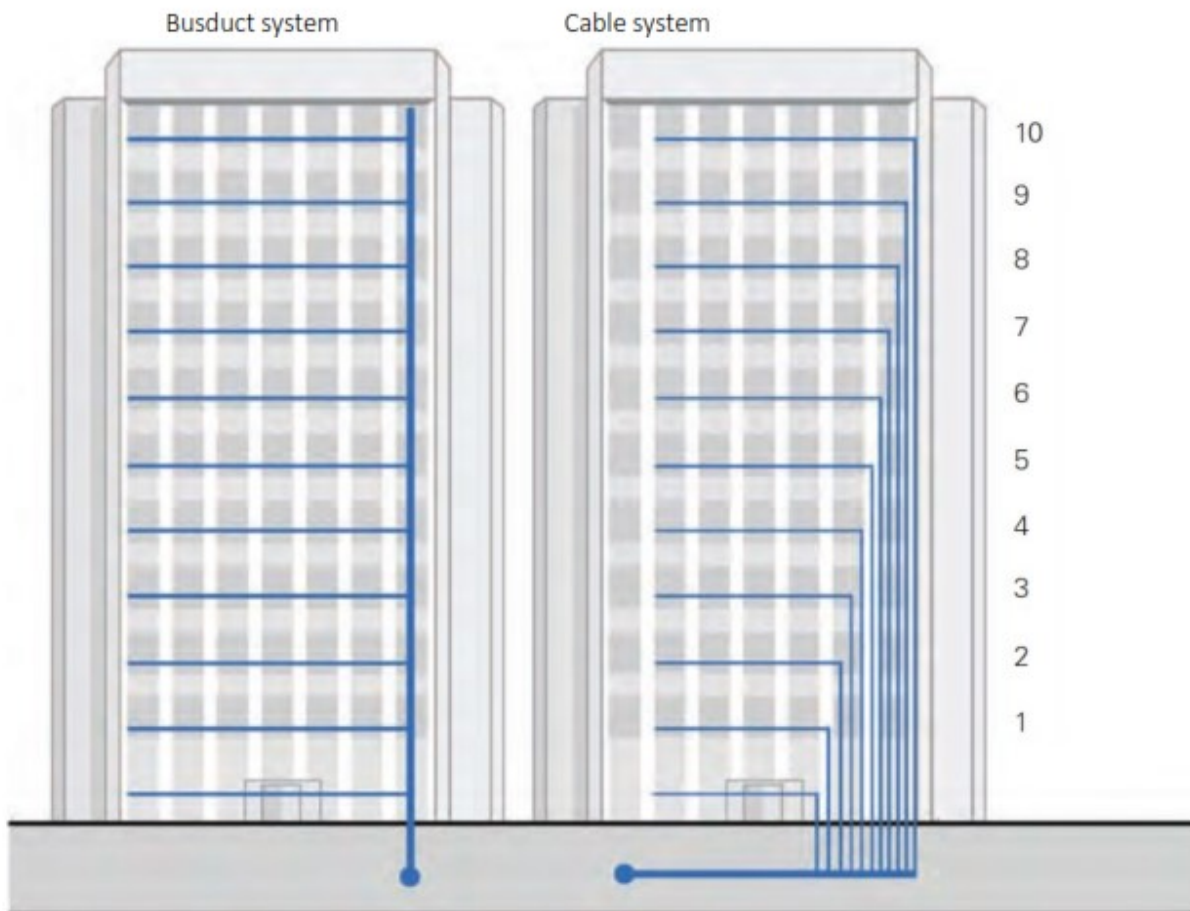


XAP Series Busduct

Busduct systems range 250 – 6300A

Advantages of using Busduct in place of cables

- Busducts are a cost effective alternative to cabling. The initial purchase of cable can be less expensive compared to busduct and hence should not be compared purely on purchase price.
- It must be noted that as current ratings increase the advantages of using busduct increase. As current increases the busduct rating can increase in size however cable sizes are limited and multiple cables may have to be used to carry the equivalent of one busduct
- Busduct replaces multiple cable runs with associated supporting metal work.
- Busduct require less termination space in switchboards and transformers.
- Busducts have short installation time compared to cables. Cable can be difficult and timely to install requiring in some instance specialist cable pulling teams to pull the cable around a building resulting in high labor costs. Busducts do not need cable trays and have no requirement for multiple cable runs (Installation Cost savings for contractor). Busduct has less fixings per metre run than for cable.
- Busducts have greater mechanical strength than cables, with minimal fixings.
- Due to the Low impedance the busducts have low heat dissipation. This reduces the cost of energy losses and also implies that busducts are a sustainable product.
- Busduct is manufactured to fit the building resulting in minimum wastage.i.e. busduct can be made with 90 degree bends but cable has to be installed to regulation with strict adherence to bending radius rules and hence will use more material andspace. Busduct connections are there for compact and take up less space.
- Busduct elements in the systems are certified and type tested products.
- Busduct systems are easily extendible. Busduct can be easily modified and circuits can be added easily by means of plug-in tap-off boxes.
- Busducts have a facility for multiple Tap-off outlets (Flexibility to accommodate power requirement changes).
- Busducts have type tested short circuit fault ratings.
- Voltage drop for busbars is lower than the equivalent cable arrangement.



Busduct vs cable in rising main applications

XAP Series Busduct

Busduct systems range 250 – 6300A

Technical Data

System

| Item | Parameter |
|--|---------------------------|
| Environment Temperature Min (°C) | -5 |
| Environment Temperature Max (°C) | +40 |
| Environment Temperature Daily Avg (°C) | +35 |
| Humidity Daily Avg | 95% |
| IP | 54/65 |
| Torque for joints (Nm) | 70 ± 6 |
| Surface Treatment | Power Painting |
| Housing Material | Aluminium-magnesium Alloy |
| Housing Color | RAL 7035 |
| Rated Voltage Ue (VAC) | 1000 (BTS) 400 (TOU) |
| Rated Impulse Withstand Voltage Uimp (KV) | 1000 (BTS) 400 (TOU) |
| Rated Frequency (Hz) | 12 (BTS) 8 (TOU) |
| Short-time Withstand Current (kA/s) | 50/60 |
| Contamination Level | 50-120 |
| Seismic rating degree | 3 |
| IK Degree | AG3 |
| BTS : Busbar Trunking System ; YOU: Tap-Off Unit | 10 |

XAP Series Busduct Busduct systems range 250 – 6300A

Certificate



Certificates XAP-1000 A



Certificates XAP – 3200 A



Certificates XAP - 4000 A

Success Story

| NO | Project Name | Customer | Market Application |
|----|--------------------------------------|-----------------------|--------------------|
| 1 | Project WTIP Tanjung Tabalong | PT. Nindya Karya | Oil & Gas |
| 2 | Lombok CFSPF FTP-2 (2x50MW) | PT. ReKayasa Industri | Power Plant |
| 3 | EPC Project Pemasangan Unit Desalter | PT. Timas Suplindo | Industrial |
| 4 | PLTMG PACKAGE V PROJECT | PT Bagus Karya | Power Plant |