

GENERATOR & INDUSTRIAL BUS DUCTS



Formoplastic
POWER DISTRIBUTION SYSTEMS

FORMOPLASTIC RANGE OF BUS DUCTS

Present day Engineering demands products with high degree of reliability especially in the critical field of electrical power transmission and distribution system.

Formoplastic is a well known, reputed manufacturer of VFD, Automation, MCC & PCC solutions. We have now started to manufacture Low Voltage and Medium High Voltage bus ducts to meet the requirement of generating stations and industrial needs. Formoplastic is in the fore front to provide a **Single Point Solution** for the needs of all electrical power plants, transmission and distribution system.

We offer a wide range of industrial and generator bus ducts custom made to suit the specific requirements of various applications.



FEATURES

- Straight run lengths.
- Right angle bends and T Joints
- Solid core Epoxy insulators.
- Solid core Porcelain insulators. (Incase of Outdoor based on customer Request)
- Aluminium Conductor of Channel construction for the Phase segregated and Voltage balanced cylindrical Busducts.
- Aluminium conductor of Tube Construction (or) Channel construction for the Isolated Phase Busducts.
- Copper Conductor bus bars in case if required for the Non segregated phase Busducts, Segregated Phase Bus ducts and for Low reactance interleaved bus duct.
- Aluminium / Copper Flexibles terminations . (Laminated or braided flexible)
- Enclosure with Aluminium / M.S (Mild steel)

OPTIONAL FEATURES

- Rubber Bellows (made out of EPDM for weather and acid resistance)
- Phase Cross Over chamber
- Seal off Bushings
- Silica gel Breather
- Wall frame assembly with seal off bushings.
- Space heater
- CT Chamber
- Disconnecting and shorting links
- CT marshalling chamber
- Space Heater Marshalling chamber
- Hot dip Galvanized support Structure.

OUR RANGE OF BUS DUCTS

- A) Conventional Non Segregated Phase Bus Ducts.
(Rating 415V, 50hz Ranging From 800 Amps To 3200 Amps)
- B) Low Reactance Interleaved Bus Ducts.
(Rating 415V, 50hz Ranging From 3200 Amps To 5000 Amps)
- C) Segregated Phase Bus Duct.
(Rating 3.3, 6.6, 11 kV, 50hz Ranging From 1250 Amps To 5000 Amps)



Information For Ordering

Please provide us with the following information and our design engineers will suggest the best product for your requirement along with an accurate estimate.

- 1) Application
- 2) System Voltage
- 3) Rated Current
- 4) Rated Frequency
- 5) System Fault level.
- 6) Site Ambient Temperature
- 7) Power plant Equipment room layout drawing if available
- 8) Requirement of Phase cross over chamber
- 9) Material of the Conductor
- 10) Material of the Enclosure up to 2000Amps Mild steel and Above 2000Amps Aluminium enclosure (Medium High Voltage products are with aluminium enclosure on customer request).

CONVENTIONAL NON SEGREGATED PHASE BUS DUCTS

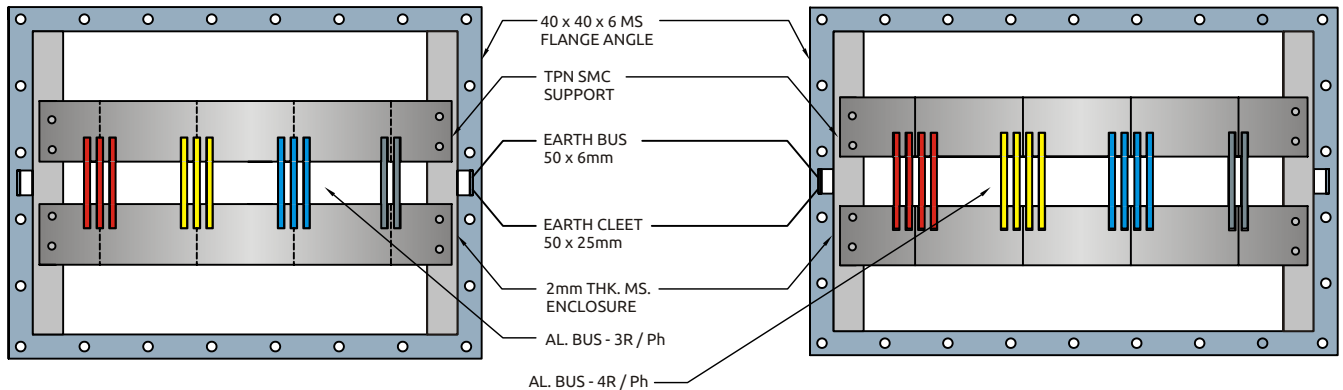
Ranging from up to 3000Amps for the Low voltage systems voltage of 415 Volt to 1.1kV having the fault level of 50kA/75kA for 1 second, with SMC / DMC Supports

Applications

- Interconnection between the Transformer and Switchgear
- Interconnection between the Switchgear and Load control centre / Power control Centre.

**2500A LT 415V BUSDUCT
NORMAL DESIGN**

**3200A LT 415V BUSDUCT
NORMAL DESIGN**



LOW REACTANCE INTERLEAVED PHASE BUS DUCTS

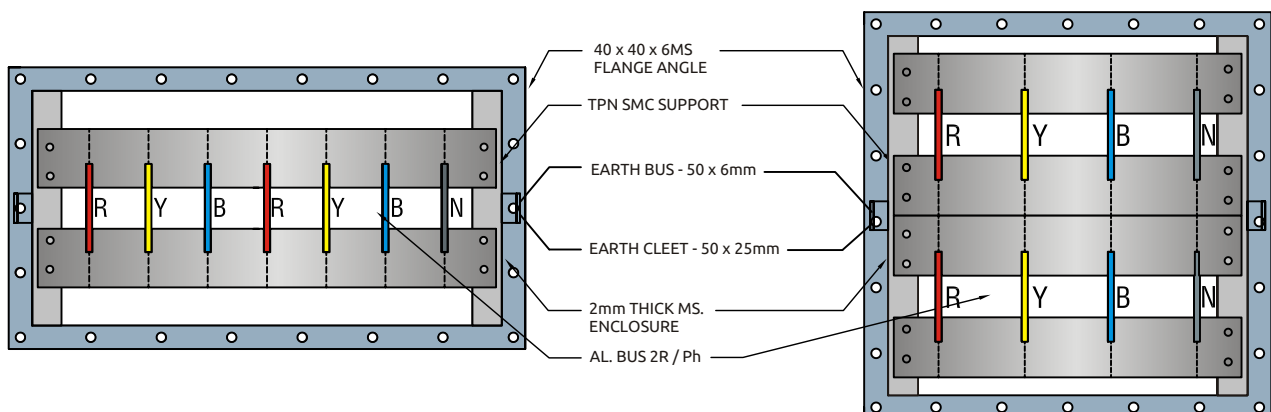
Low reactance Interleaved Bus ducts ranging from 3200Amps to 5000Amps for the Low voltage systems, to the system Voltage of 1.1 kV HAVING A FAULT LEVEL OF 50 kA / 75kA & 100kA for 1 second.

Advantages over NON Segregated Bus ducts

- This reduces the losses and the Enclosure temperature
- Smaller bus bar cross section than the Conventional NSPB.
- Reduces the Bus bar reactance and losses considerably.

**2500A LT 415V BUSDUCT
INTERLEAVED DESIGN**

**3200A LT 415V BUSDUCT
CONDUCTOR ONE ABOVE OTHER**

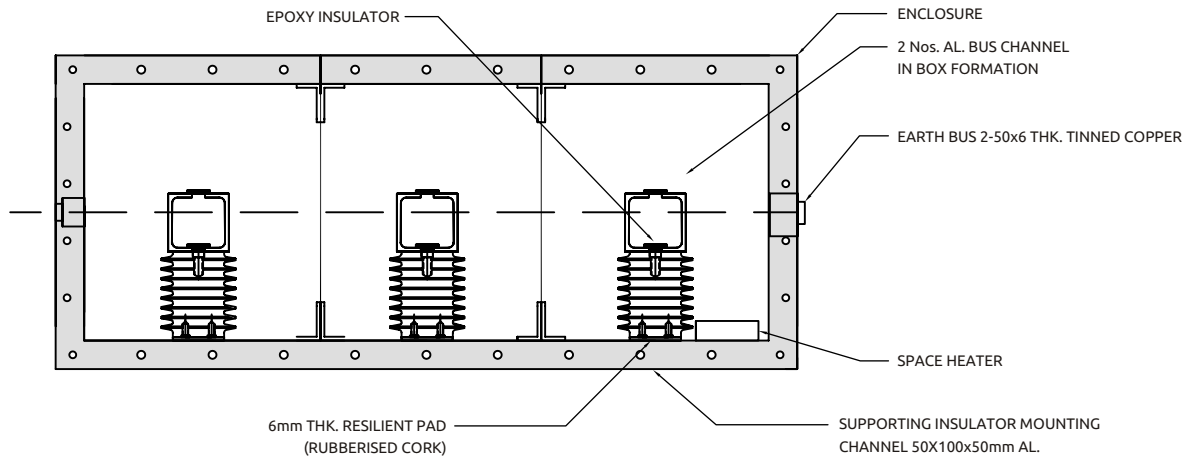


MEDIUM HIGH VOLTAGE SEGREGATED PHASE BUSDUCTS

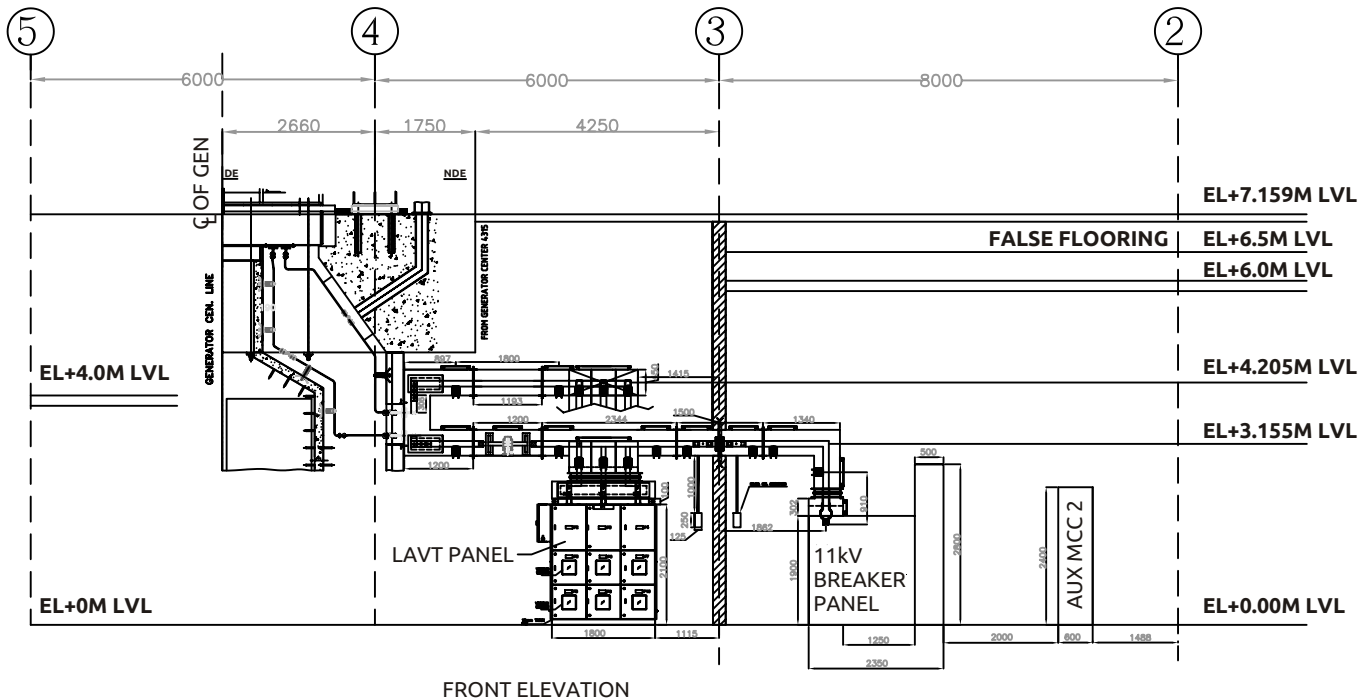
For the Medium High voltage systems Ranging from 1250Amps to 3200Amps/ 5000Amps and Voltage ranging from 3.3kV to 22kV System Voltage having a fault level of 40kA for 3 seconds.(FOR 5000Amps with STC rating of 65 kA for 3 Seconds)

Applications

Interconnection between High interruption Capacity Switchgear, with High momentary currents and Impulse voltage and for generators up to 40 / 70 MW.



TYPICAL LAYOUT FOR THE 11kV MEDIUM HIGH VOLTAGE BUSDUCTS FOR A POWERPLANT



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