GKW IPB

ISOLATED PHASE BUSBAR

www.gordonkitto.co.uk

- Complies with BS 159, BS EN 62271, ANSI C37.23 and appropriate International Standards
- High quality design: Current Range (naturally cooled) up to 23 kA; Voltage Range up to 36 kV
- Superior manufacture
- Internationally specified - adaptable to meet extreme geographic and climatic conditions
- Maximum fault 50 kA RMS, 1 sec - 150 kA peak
- Systems for all forms of power generation
- Installation and maintenance service
- Phase to phase short circuit possibilities are eliminated
- They can withstand very high throughput levels of fault current
- The integrity of the dielectric medium is permanently maintained
- Induced circulating currents in adjacent metalwork and components are prevented
- Safe, economic, durable and easy to maintain

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GKW is a world leader in every aspect of design, manufacture, supply, installation and commissioning of all types of busbar systems. GKW Isolated Phase Busbar systems are specified by the foremost electrical equipment suppliers and project management contractors, and by national power authorities. They have been supplied for fossil fuel, hydro electric and nuclear power stations. Installations can be found in each of the world's six continents.

GKW Isolated Phase Busbars provide the permanent electrical connection between the generator and the generator transformer and are rated for between 3.6kV and 36kV, with currents up to 40kA.

COOLING METHODS

For installations up to 23,000 amps standard designs are naturally air cooled. For higher current levels, i.e. up to 40,000 amps, GKW forced air cooled or water cooled systems are recommended.

INSTALLATION AND MAINTENANCE SERVICE

Highly experienced engineer and technician teams are available for site work or to supervise a client's own work force. After installation and commissioning, fully documented maintenance procedure manuals can be supplied supported by spares lists.

SUPERIOR MANUFACTURING

Modern machines, equipment and techniques are used in the manufacture of GKW Isolated Phase Busbar systems. Welding is carried out by fully certified operators who have satisfied the requirements of weld tests. Where possible the units are shipped to site pre-assembled to minimise on-site work.

RELIABILITY AND SAFETY

Type Testing of equipment is undertaken at independent laboratories in the United Kingdom and overseas. During the manufacturing cycle all GKW production is subject to strict quality control procedures.

Terminal Connections design results from exhaustive development and testing to reduce the generation of hot spots, minimise skin effect and maximise available contact areas. GKW also supply connections including special adapter plates for terminating.

Wall Seals are available to provide a weather tight seal for environmental protection. The seals are designed to allow the busbars to expand and contract during operation. Insulator bushings may also be specified to seal the annular space between the conductor and the enclosure.

Spring Loaded Insulators allow axial movement of the conductor while maintaining centralisation of the conductor within the enclosure in the event of short circuit. Insulators are fully type tested and designed to meet BS 3816. Insulators are usually manufactured from epoxy resin but alternative materials including porcelain are available.

Sealed Expansion Joints. Aluminium laminated expansion joints are incorporated to maintain full continuity. Neoprene rubber bellows seal the site joint while also allowing easy access to the connections for maintenance.

VOLTAGE TRANSFORMER AND SURGE DIVERTER CUBICLES

Voltage Transformer (VT) cubicles permit isolation of the VT while the system is on load. Various designs are available but common features include:

- Isolation achieved by simple operation of a front-mounted handle
- All live parts isolated automatically by a shutter mechanism
- An access door that cannot be opened until the equipment has been isolated and earthed
- Automatic earthing provided