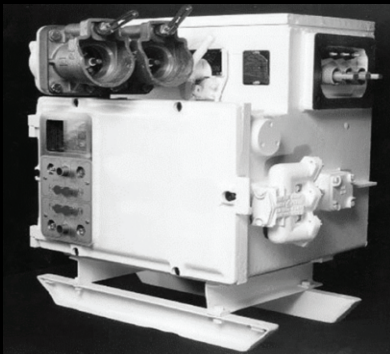




Ba(t)F

Gate End Boxes for Mining Applications



Product Range:

The BA(t)F range of gate end boxes provide control & protection of AC motors in hazardous areas.

Mining electrical drives up to 1,140V,400A.

- * BA(t)F 1 - 160A single drive unit
- * BA(t)F 2 - 400A single drive unit
- * BA(t)F 3 - 2 x 160A double drive unit
- * BA(t)F 4 - 160A reversing drive unit
- * BA(t)F 5 - 5kVA lighting supply unit
- * BA(t)F 6 - Double drill supply unit
- * BA(t)F 7 - Circuit Breaker unit

Applications:

Longwall & Shortwall face installations, roadway development, conveyor drives, fans, and pumps.

Product Highlights:

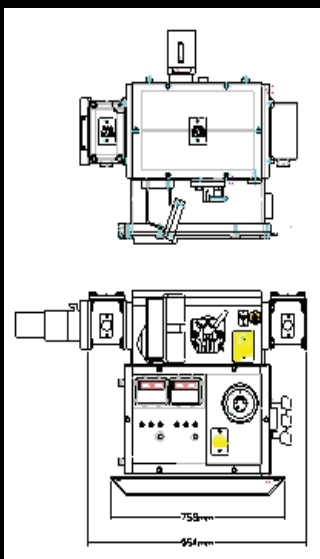
- * Low maintenance / high reliability design
- * Easy to use control systems with operator displays
- * Motor recognition with unique Intelligent Pilot system
- * Wide range of contactor drive options
- * Fieldbus connectivity options

Further benefits:

- * Easy integration into existing / new plant schemes
- * Reduced downtime through state-of-the-art diagnostics
- * Management information available via process visualisation and fieldbus

Certification:

All B&F products are ATEX & IEC certified. In addition, we are able to offer country specific certification where required.





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BA(t)F Gate End Boxes for Mining Applications

Technical Specification

Supply Voltage: 380V to 1,140V, 50/60Hz, 3-phase input.
Operates on conventional mine power supply networks with existing electrical protection systems. Available for operations on either restricted neutral or insulated neutral systems.

Power Rating: Up to 400A per drive.

Busbars: 3-phase, 400A continuously rated.

Isolator: Typically 3-phase with FORWARD / TEST / OFF / REVERSE positions. Mechanically interlocked with the front cover, and also electrically interlocked with the contactor. Provision is also made for locking in the OFF position. BA(t)F 5 units include a single-phase, double-pole isolator. BA(t)F 7 units include a 3-phase isolator with ON / OFF / EARTH positions, and provision for locking in the OFF & EARTH positions.

Contactor: A range of contactor options is available as specified by the product type. - see table below:-

* BA(t)F 1	Single Drive	160A Vacuum
* BA(t)F 2	Single Drive	400A Vacuum
* BA(t)F 3	Double Drive	160A Vacuum
* BA(t)F 4	Reversing Drive	160A Vacuum
* BA(t)F 5	5kVA Lighting Unit	Triple MCCB
* BA(t)F 6	Double Drill Unit	40A Air Break
* BA(t)F 7	Circuit Breaker	315A Air Break

Incoming Supply: A range of incoming and throughgoing 400A adapters.

Outgoing Connections: Dependent on customer requirements.

Outlet Protection: Comprehensive outlet protection is provided for all main drives. Short circuit, overload, stall, loss of load, under & over voltage, earth fault, and motor cable pilot protection (earth continuity) are all included.

Control: Outlet cable pilot wire control circuit based on a remote diode. Selectable Prevention of Inadvertent Start (POIS) mode. Local start / stop controls can also be provided.

Display: A multi-language display is provided as standard. Voltage, current, power, status, and full diagnostics are all available with event logging. Protection parameters and test functions can be accessed via the display and function buttons on the front of the unit.

Fieldbus: All popular fieldbus options can be accommodated. Intrinsically Safe (IS) RS485 and Modbus/RTU protocol are provided as standard (transmission rates up to 19.2k Baud). Transmission medium can be specified as copper or optical fibre. Optionally, Profbus-DP, Ethernet, EtherNet IP, or user-specified PLC networks (e.g. DH+, ControlNet, DeviceNet) can be provided.