



# Byrnes Entrance Technology

Formerly FRB Industries established 1981

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• AUTOMATIC DOORS • AUTOMATIC GATES • REVOLVING DOORS • TURNSTILES • BOOMGATES

## Architectural Specification for Automatic Sliding Door Operator Model BET/Tormax I MOTION 2401

Automatic doors shall be single/bi-parting/single telescopic/bi-parting telescopic sliding type door operator, with programmable self-calibrating microprocessor, heavy duty and high performance type BET/Tormax I MOTION 2401 supplied and installed by Byrnes Entrance Technology Pty Ltd, Tel: (02) 9531 5559 Email: [info@byrneset.com.au](mailto:info@byrneset.com.au)

**Drive System:** Drive system shall consist of an electromechanical sliding door drive with wear-free synchronous and gearless low maintenance AC motor technology with microprocessor control, suitable for use with 240 VAC 50Hz 10Amp mains power without the need for step down transformers and protected to IP22, ambient temperature -20°C to +50°C.

The door drive system shall conform to the requirements of RoHS (lead free standard EC directive 2002/95/EG) and complies with ecological principals for pollutant free recycling and waste disposal.

Door transmission shall be toothed fibre belt type for silent and service free operation (chain drive not acceptable).

The motor shall incorporate a brake module, which prevents uncontrolled movements of the door leaves on power failure or disrupted connections between the motor and the control system and thus provides additional user safety.

The control unit shall include a 32-bit/30MHz microprocessor to ensure computing power according to the latest technology with LIN-bus, CAN-bus and R232 used for interface to accommodate additional and future functional requirements.

Bi-parting door opening speed shall be adjustable up to a maximum of 200cm/sec or single door leaf speed of 100cm/sec.

Maximum door leaf weights; single leaf 240kgs, bi-parting 400kgs, single telescopic 120kgs and bi-parting telescopic 200kgs.

The operator when first switched on shall automatically adjust to its opening and closing positions (software pre-set for open and close positions not acceptable) and must be capable of moving and precisely controlling the door leave (s).

Door track shall be hard anodised aluminium replaceable heavy-duty track, door carriages equipped with moulded track rollers at least 55mm diameter with high quality ball bearing and with adjustable upthrust rollers and door hangers.

**Safety:** Automatic safety reversing function is inbuilt to ensure automatic reversing of door(s) if obstructed in either direction.

Also specifier to select one of the following additional mandatory safety devices:

- BET/18 Dual Photo-electric safety beams, sun resistant type, which provide safety whilst doors operate, to prevent door (s) from closing if doors is obstructed, one set of beams located at up to 200mm from finished floor level and the second set of beams located at between 600mm to 1000mm from finished floor level.
- BET/ACTIV 8 Combined Motion and safety sensor, for transom or pelmet surface mounting.
- BET/MA Electric Floor Mat Switch, fully moulded, colour black, maximum admissible intermittent load of 70kgs/cm<sup>2</sup>.

**Control Functions:** The door control function switch with LED display, mounted adjacent to the door or a remote location, shall include door mode adjustment for the authorised end-user, without the need for adjustment by service personnel:

**OFF:** Door closed and locked (electric lock is optional).

**AUTO:** Automatic operation.

**AUTO RED:** Automatic operation with reduced aperture width.

**EXIT:** Closing time mode (outside sensor turned off).

**OPEN:** Door stays open, either at full or reduced opening width.

Also variable motion parameters for opening and closing speed, hold-open times, motion control, reduced opening width. Free wheeling function and reset selectable on operation unit. The control panel shall also display via the sequence of flashing LEDS, any fault condition that is likely to occur.

**Emergency Operation:** Select from the following options:

- \* **Failsafe device** - shall open doors fully under power failure, with automatic re-setting when power is restored (spring and hold magnet configuration not acceptable).
- \* **Emergency power supply** - operator shall be fitted with a stand-by power module (for a pre- determined period) to allow door to operate in the event of a power failure with auto supervision of battery condition.

**Electric Locking:** (Optional - specifier to delete if not required).

The operator shall be fitted with an electro-magnetic, bi-stable electric lock, which engages on a horizontal plane with adjustable cams to provide locking to both door trolleys. Systems that use motor locks and batteries will not be acceptable.

**Interfacing:** - To enable interfacing with other equipment, the control system shall include 8 inputs (4 testable safety devices) optionally for emergency opening/closing, manual operation (flush position), operating modes and 3 programmable outputs for optional feedback signals, such as for different door status: Closed, Open, Fault, Lock Status, Light Pulse, Gong Pulse.

**Supply Voltage:** 240 VAC, 50Hz, 10 amp single phase GPO provided by others, above left hand side of door operator.

**Door Activation:** Select from the following options, specifier to select as required:

- BET/EAGLE 5 Motion Sensor(s), for transom or pelmet surface mounting.
- BET/EAGLE 5/C Motion Sensor(s), for ceiling flush mounting.
- BET/ACTIV 8 Combined Motion and safety sensor, for transom or pelmet surface mounting.
- BET/MA Electric Floor Mat Switch, fully moulded, colour black, maximum admissible intermittent load: 70kgs/cm<sup>2</sup>.
- BET Impulse keyswitch, wall or mullion mounting, located outside.
- BET/14 EMERGENCY EXIT switch, wall or mullion mounting, located inside.

Compatible with access control systems, card readers, intercom systems and other activation equipment.

**Proprietary Item supplied by: Byrnes Entrance Technology Pty Ltd** Email: [info@byrneset.com.au](mailto:info@byrneset.com.au)

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