



# Byrnes Entrance Technology

Formerly FRB Industries established 1981

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

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## Architectural Specification for Automatic Swing Door Operator Model I Motion 1401 Powerdrive

Swing door operator(s) shall be electromechanical programmable microprocessor controlled, heavy duty and high performance type Tormax I Motion 1401 Powerdrive, flush to floor mounted and suitable for use with single or double leaf external or internal swing doors, as supplied and installed by Byrnes Entrance Technology Pty Ltd, Tel: 02 9531 5559, Fax: 02 9531 5551, Email: [info@byrneset.com.au](mailto:info@byrneset.com.au).

**Drive system:** Drive system shall comprise of a maintenance free, heavy duty AC permanent magnet synchronous motor, with hypoid gear drive and self learning micro-processor control system which is fully programmable and suitable for 240 Volt AC power without the need for step down transformers or hydraulic drive system. The motor drive system shall drive the doors open and close by integrated closing spring to provide smooth closing action. The Swing Door Operator also to include an integrated hold open function. Adjustable door opening speed.

Maximum leaf weight is 450kg for a leaf width of 1000mm and 150kg for maximum leaf width of 1800mm.

The swing door operator to include wind load compensation for keeping the door firmly closed under wind pressure.

The swing door operator to incorporate 'safety reversing' function with stop function in opening direction and automatic reversing in closing direction.

The operator when first switched on shall automatically adjust to its required opening and closing positions and door speed via 'the teach' in program - programming of the control system by manually guiding the door through the corresponding operating sequence in the 'teach in' mode. The hold open time is infinitely adjustable between 0 and 600 seconds.

**Fire Alarm/Failsafe Function:** The operator to be supplied with a battery module with internal supervision and signal cable. On fire alarm signal or mains power failure, the operator will open and hold for a predetermined period (approximately 2 hours) and then close and auto-reset upon mains power resumption.

**Power Supply:** Power supply voltage: 240 volt AC, 50Hz, 10 amp circuit power consumption 4 ...250W. Supply voltage for all commercially available activators and safety detectors is 24VDC/0.75 (1.5)A. Lock power supply 0 ...40 VDC, max 2A, max 24W. is available for connection of electromagnetic locks or electric strikes.

**Door Activation:** When door(s) are manually pushed or pulled, the door will operate from 5 degrees of swing via the integrated "push and go" door operator function. Also select from the following activation options:

Option 1: Surface Mounted Detector – Active Infra-red, modular solid state.

Option 2: Ceiling Mounted Detector – Active Infra-red, modular solid state.

Option 3: Electric Floor Mat Switch - Electric floor mats within the 'sweep- zone' of the door, fully moulded, colour black, exposed area dimensions 700x1000, 700x1400, 900x1000 or 900x1400. Admissible Intermittent Load: 70kgs/cm2.

**Safety:** Select from the following recommend options:

Topscan IR Safety sensors, mounted to the top rails of the door.

Electric floor mats within the 'sweep- zone' of the door, fully moulded, colour black, exposed area dimensions 700x1000, 700x1400, 900x1000 or 900x1400. Admissible Intermittent Load: 70kgs/cm2.

**Control functions:** The Control Panel which can be integrated into the end of the operator or separately surface mounted, includes the operation modes OFF, AUTOMATIC 1, AUTOMATIC 2, EXIT, OPEN, MANUAL OPERATION.

**Installation Details:** Operator is 'in floor' mount, suitable for use with center hung doors opening 'out' or opening 'in'.

### Technical Data:

Dimensions (mm): 450 long x 293 wide x 127 deep.

Power supply: 240VAC 50Hz 10 Amps. Power consumption: 4 ...250W.

Inputs: 8 programmable inputs, of which 4 testable safety features, expandable by modules.

Outputs: 2 freely programmable, expandable by modules.

Integrated serial interfaces: RS232, LIN Bus, CAN Bus for integration of operator into building facilities management system.

Protective class: Control unit is IP22 installed in dry location and drive unit is IP67, with 7 days of water to upper edge.

Maximum opening angle: 0 to 100°.

Opening speed: Adjustable to maximum 60°/sec. Closing speed: Adjustable to maximum 60°/sec.

Hold open time: 0 ... 600secs; permanently open.

Ambient temperature range: -20 degrees to + 50 degrees.

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

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