



## Architectural Specification Sheet

### 1. General

#### 1.01 Summary

A. commercial low energy automatic swing door operator that consists of:

- Aluminum housing
- Electro-mechanical motor
- Operator control assembly
- Swing arm

B. Controls and safety devices

C. Accessories

D. Related Work:

1. Section 07900 – Caulking
2. Section 08400 – Entrances and Storefronts
3. Section 08710 – Finished Hardware
4. Section 08800 – Glazing
5. Section 12670 – Entrance Mats
6. Section 16120 – Electrical Supply and Termination

#### 1.02 References

A. Unit described complies with current ANSI A156.19 for Power Assist and Low Energy Power Operated

Doors.

B. Unit meets with CSA C22-2 No. 247 standard for Door, Drapery, Gate, Louver, and Window Operators

C. Unit meets UL991 Tests for Safety-Related Controls Employing Solid-State Devices

D. Unit exceeds BHMA testing - ANSI BHMA A156.19 Section 5 Cycle Testing. (1,000,000 cycles)



### **1.03 Performance Requirements**

- A. Operator to be rated for use on doors weighing up to 400 pounds per leaf.
- B. Operator capable of operating within temperature ranges of -40°C and +60°C

### **1.04 Quality Assurance**

- A. Installation and maintenance shall be performed by a factory trained installer and in strict compliance with the manufacturer's recommendations.
- B. Conform to UL Std. 325 & ANSI-BHMA Std. A156.19 certified to Can. CSA Std. C22.2#247.

### **1.05 Product Handling**

- A. All materials shall arrive in the manufacturers original sealed, labelled containers.
- B. Store materials in a dry, protected, well-vented area. Report damaged material immediately to the delivering carrier and note such damage on the carrier's freight bill of lading.
- C. Remove and dispose of all protective materials after installation.

### **1.06 Job Condition**

- A. Verify that other trades are complete before installing the automatic swinging door system.
- B. Mounting surfaces shall be plumb, straight, and secure; substrates shall be proper dimension and material.
- C. Refer to the construction documents, shop drawings and manufacturer's installation instructions.
- D. Coordinate installation with the glass, glazing and electrical work.
- E. Observe all appropriate OSHA safety guidelines for this work.

### **1.07 Submittals**

- A. Submit under provisions of relevant Section
- B. Product Data: Submit manufacturer's product data and standard details for automatic operators.
- C. Shop Drawings: Submit shop drawings detailing exact dimensions for each door unit including door operator details, activation components, and electric hardware interface, wiring details and electrical requirements.
- D. Anodized/Finish samples must be submitted



## **1.08 Owner's Manual**

A. Owner's manual to be supplied at time of commissioning.

## **1.09 Installer Qualifications**

A. Equipment may be installed by a AAADM certified technician who **must** also be a **factory trained** technician.

## **2.01 Manufacturer**

A. Omega Automation and Lighting Inc.  
105 Haist Ave Unit 7 & 8,  
Vaughan, Ontario, L4L 5V6.  
Phone: 905-670-8008  
[www.omegautomatics.com](http://www.omegautomatics.com)

## **2.02 Equipment**

A. Swing door operator consists of operator housing, swing power operator, electric control, wire harness and connecting hardware.

## **2.03 Automatic Swing Door Operator**

A. Operator: Electro-mechanical operator, powered by 24 volts, **1/3 HP motor**.

B. Operator is handed. To ensure maximum versatility the operator is field reversible and can adapt to varying field conditions.

C. Opening Force shall be adjustable by means of one screw, to compensate for different manual push forces required on varying door widths.

D. The operator is completely contained in extruded aluminum housing. All aluminum sections are 6063-T5 Super flow alloy. The operator housing width x height shall not exceed 5 1/8" x 4 3/8". Length of operator housing determined by site conditions and/or specifications herein. Motor/gear box shall be secured to operator housing via tamper proof extruded channel on the back member of operator housing.

E. Electronic Controls: Microprocessor controlled unit shall control the operation and switching of the swing power operator. The microprocessor control to provide low voltage power supply for all means of actuation. No external or auxiliary low voltage power source will be necessary. The controls include time delay for normal cycle.



F. Connecting Hardware: Surface mounted operator is connected to the door by means of a steel door arm. The door arm is secured to the top rail of the swing door using one piece threaded tubular inserts for aluminum doors, 1/4-20 binding head and post screws for wood and hollow metal doors. The standard power arm and connecting arm shall accommodate up to 12" reveals and opening angles to 180 degrees. The arm will be equipped with a mechanical device which will in the case of extreme force, "sheer" thus protecting any internal mechanical components from damage, in the case of abuse.

G. Manual Use: The operator shall serve as a manual door closer in the direction of swing with or without electrical power.

H. External Control: A two position switch will be mounted in the end cover of the housing. The switch will be clearly marked, ON/OFF.

I. Power Open: When an opening signal is received by the control unit, the door shall be opened at the operator-adjusted opening speed. Before the door is fully open at back check, it slows automatically to low speed. The motor stops when the selected door opening angle has been reached. The motor holds the open position. If the door is obstructed while opening, it will either stop or reverse (field selectable).

J. Field Adjustable Open Stop: The operator shall provide a field adjustable mechanical open stop to accommodate opening angles from 80 to 180 degrees.

K. Normal Close: Closing shall be provided by means of spring, adjustable tension will be by means of a single screw.

L. Power Close/Motor Reverse: Closing shall be provided by means of a spring and motor and removal of clutch. When the hold open time has elapsed, the operator will close the door automatically, using spring force and motor. The door will slow to low speed at latch check before it reaches the fully closed position. The door is kept closed by spring power or extended closing force by the motor. Safety sensors must be installed in this operation.

M. Push and Go: Operator can be adjusted to lower the open forces when used manually. Power Assist will be active only while pushing or pulling the door and will allow the door to close when an opening force is no longer applied to the door.

N. Electronic Dampening: Operator to include standard electric dampening system which automatically counteracts additional forces applied to the door during the opening or closing cycle by reducing door speed.

O. Latching Speed Feature: The electronic control allows for increases of forces to overcome most stack pressure issues. The control automatically compensates for lower manual push forces when



the door is used in manual mode. The door must comply with ANSI A156.19, when using this feature.

P. Lock engage circuit: If locking is unsuccessful when the door reaches the closed position, the operator will automatically reverse open 10 degrees and reclose to attempt to lock the door.

Q. Test of Safety Sensors: If optional safety sensors are specified, the control will monitor the sensors before opening and closing the door. If sensors are not functioning correctly, automation is de-activated, and the door will function as a manual swing door with a door closer.

R. Surface applied operators may connect to the face of an existing fire rated labelled door frame or wall. Connecting hardware and UL approved fire exit hardware is required. See UL materials directory.

S. A fire alarm contact will be integrated on the unit's control board, upon receipt of a signal from an external source (fire alarm), the unit will close if in an open condition and not operate as an automatic door, until the signal from the external source has been reset.

T. Stairwell Pressurization: A fire alarm contact will be integrated on the unit's control board, upon receipt of a signal from an external source (fire alarm), the unit will open if in a closed condition and not operate as an automatic door, until the signal from the external source has been reset.

U. Signage: Provide signage in accordance with ANSI/BHMA A156.19 must be used on all applications.

**V. Built in stops with Holo Chrome socket head cap screws are used in all models.**

## 2.04 Additional Features

A. Digital display: The control panel shall utilize a removable LCD display. Programming of unit will utilize English set up commands, not only numeric. Display will show the status of the operator and display fault conditions when detected.

**B. Control board has required built in relays for release of electric strike, universal bathroom system, pressurization fan, fire alarm signal and card access integration.**

## 2.05 Push Plate Control Device

Actuation device is either:

A. Hard wired push plate switches. These will be either surface mounted with an appropriate enclosure or in a concealed single gang electrical box.

B. Wireless controlled push plate switches.

C. Touch less Activation sensor plates adjustable from 2" to 24" may be used:



D Option: Suitable bollard for remotely mounting push plates in areas where no suitable mounting for existing methods of mounting the push plates exist.

E Option: Push to Activate - is a programmable feature. Push or pull the door open from any position, and the door will gently power open, time out and slowly close.

F In the event of power failure, door can be used as a manual door with no damage to the operator.

### **3. Execution**

#### **3.01 Examination**

A. The door installer shall verify that the installation area is dry, clean and free of foreign matter. Check as-built conditions and verify the manufacturer's details for accuracy to fit the wall assembly prior to fabrication. Report in writing to the Contractor any conditions detrimental to the proper functioning of the swinging door operator. Correct prior to any installation in accordance to the manufacturer's recommendations.

#### **3.02 Installation**

A. Install equipment in accordance with the manufacturers' installation instructions. Adjust equipment per instructions and current ANSI/BHMA 156.19 American National Standard for Power assist and low energy power operated doors.

B. Door Operators: Connect door operators to electrical power distribution system as specified in Division 26 Sections.

C. Controls: terminate wire to: controls, press plates, safety sensors.

#### **4.01 Warranty**

A. Warranted materials shall be free of defect for the normal use period of two years after date of manufacture. Labor and freight costs are not included in warranty.

### **5. Country of Origin**

**The operator will be manufactured in Canada.**