

### Suggested Architect Specifications

**Model:**

The electric operator will be a **Micanan Model PRO-H** as manufactured by Micanan Systems Inc. Related work – Door preparation, miscellaneous or structural metal work, field electrical wiring, wire, conduit, fuses, and disconnect switches are in the scope of work of other division trades.

**Product:**

Supply Micanan Model PRO-H, industrial duty, belt drive jackshaft with emergency chain hoist operator(s) available in 1/3, 1/2, 3/4, and 1HP single phase or three phase.

**General:**

Provide CSA listed, UL 325 2010 tested and approved electric door operator assembly of size and capacity recommended by door manufacturer. External entrapment device monitoring built in to control circuit, complete with mechanical brake, electric motor and factory pre-wired motor controls. Conduit and wiring from control to motor and accessories required for proper operation by others.

**Electric Motor:**

Motor shall be high starting torque, 1725 RPM continuous duty, instant reversible, industrial type, capacitor start (1-phase), protected by automatic thermal overload device (3-phase) or an external reset overload device (1-phase).

**Motor Starter, Controls, Enclosures**

Motor control circuit shall incorporate the SMART 10.0 control logic board or an across the line magnetic reversing starter electrically and mechanically interlocked, motor controls shall be in a Nema-1 enclosure. Controls and control enclosure shall conform to ANSI/NEMA ICS 1, ICS 2, and ICS 6. A Nema-1 3 button control station OPEN/CLOSE/STOP and Micanan compatible monitored photocells shall be provided as standard equipment.

**Control Circuit:**

24V NEC Class 2 Circuit with a 40VA transformer, 24V fused control circuit to protect against short circuit.

**Frame and Reduction:**

Speed reduction shall be heavy duty 5L V-belt, second and third stage reduction #41 roller chain and sprockets. Operator shall utilize #50 roller chain and sprockets on final drive. All shafts shall be coated in black oxide for maximum corrosion resistance, permanently lubricated and sealed ball bearings on all drive shafts. All drive sprockets drilled, pinned and set with locktite. Operator shall be capable of driving door at a speed of 8" – 10" per second.

**Adjustable clutch:**

Operator shall be equipped with an adjustable friction clutch to prevent door and operator damage.

**Emergency Operation:**

Equipped with a floor level emergency disconnect with electrical cut-out switch and chain hoist for manual operation.

**Mechanical Brake:**

Equipped with mechanical brake to stop and hold the door in position. Solenoid brake optional.

**Limit Switches:**

Fully adjustable, rotary driven linear type limit switch mechanism shall synchronize the operator with the door. Low friction oil impregnated powder metal limit cams, fitted on threaded steel shaft, rotating on oillite self lubricating bronze bushings. The motor shall be removable without affecting the limit switch settings.

**Execution:**

Install the motor operator in accordance with Micanan Systems instruction and standards and in compliance with applicable federal, state or local regulations.

**Warranty:**

Micanan Systems warrants that its operators shall be free of any defect in materials and workmanship for a period of 2 years.