

# PRO-APT SUGGESTED ARCHITECT SPECIFICATIONS

## **Model:**

The electrical operator will be a Micanan Model PRO-APT 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.

## **Products:**

Supply Micanan Model Pro-APT, low clearance design commercial/industrial duty belt drive trolley operator(s) available in 1/2 and 3/4 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, full function feature to include timer to close and time delay on reverse with optional traffic light feature. Complete with electric motor and factory pre-wired controls. Conduit and wiring to motor and accessories required for proper operation by others.

## **Electric Motor:**

Motor shall be high 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).

## **Control Circuit:**

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

## **Motor Starter, Controls, Enclosure:**

Motor control circuit shall incorporate full function featured Micanan SMART 10.0 control logic board or an across the line magnetic reversing starter electrically and mechanically interlocked, operators are factory pre-wired for timer to close and time delay on reverse. Motor controls shall be in a Nema-1 enclosure. Controls and control enclosure shall conform to ANSI/NEMA ICS 1, ICS 2 and ICS6. A Nema-1 3 button control station OPEN/CLOSE/STOP and Micanan compatible monitored photocells shall be provided as standard equipment.

## **Frame and Reduction:**

Primary speed reduction will be heavy duty 5L V-belt, secondary reduction #41 roller chain and sprockets. Incorporates 3/4" steel flanged precision bearings on pulley shaft and 1" cast iron pillow block bearings on final drive shaft, Heavy duty #41B12 front idler sprocket, trolley rail drive chain shall be #41 roller chain. All shafts shall be coated in black oxide for maximum corrosion resistance. All driven sprockets drilled and pinned and set with locktite. Operator shall be capable of driving door at a speed of 10"-12" per second.

## **Adjustable Clutch:**

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

## **Emergency Disconnect:**

Equipped with a spring loaded emergency quick release disconnect trolley carriage for safe manual door operation.

## **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.

## **Trolley Assembly:**

2"x2" 12 gauge galvanized right angle steel rails with quiet, long lasting quick disconnect cast aluminum carriage with black oxide coated steel rail spacers.

## **Execution:**

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

## **Warranty:**

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