

3-Part Architectural Specifications

Electric Door Operator

Model: MLT

Part 1 General

1.01 Description

A. Work Included: supply and installation of a medium-duty V-belt drive Trolley type electric door operator, as specified; as well as the necessary driving hardware and control accessories necessary for proper operation.

1.02 Related Work

A. Door preparation, miscellaneous or structural metal work, field electrical wiring, wires, disconnect switches, fuses and conduit are in the scope of work of other sections or trades.

1.03 Submittals

A. Submit manufacturer's product data and installation instructions for each type of operator. Include both published data and any specific data prepared for this project.

1.04 Delivery, Storage and Handling

A. Product shall be delivered to the project site in manufacturer's original packaging.

B. Product shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.

1.05 Warranty

A. Operator shall be warranted to be free from defects in material and workmanship for a period of 2 years.

Part 2 Product

2.01 Manufacturer

A. Acceptable Product: Operator model MLT as manufactured by Manaras-Opera, part of the Canimex Group.

2.02 Operator

A. Motor: to be rated 1/2 Hp, 115 Volts, 1 Phase, instant reverse, intermittent duty motor, protected against overload by a built-in thermal protection with automatic reset. Also available with 50Hz motor. Motor shall be separate from reduction mechanism for ease of maintenance.

B. Reduction: first step in reduction to be 4L/A V-belt drive, additional step by #410 chain and sprocket giving a door speed of 11"/second. Input steel shaft to be a minimum of 5/8" (15.875mm) in diameter and supported by ball bearings. Output steel shaft to be a minimum of 1" (25.4mm) in diameter and supported by ball bearings.

C. Drive and Trolley Assembly: door to be driven by a #48 (#410) full roller chain, supported by dual, 12 gauge, pre-drilled galvanized tracks for 14' doors maximum. Track spacers to be 3/4" steel shaft. Trolley to be cast aluminum alloy with possibility of chain tension adjustment.

D. Clutch: to be friction type, adjustable from outside.

E. Manual Operation: to be by a quick release disconnect arm for manual push up operation.

F. Electrical Enclosure: all electrical components to be in a NEMA 1 enclosure.

G. Limit Switches: to be rotary-type limit switch with oil-impregnated steel cams, commercial grade switches. Systems to be enclosed in electrical control box, and limit shaft to be supported in frame by self-lubricating bronze bushing for increased precision. Limit switches to remain in time when there is a manual

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operation or after the motor as been removed. Designed to prevent any lever breakage when limits have been exceeded during manual operation.

H. Corrosion Protection: Frame and control enclosure to be protected by a long lasting enamel finish. All shafts to be protected by yellow chromate coating.

I. Motor Control: to be 24V_{AC} control circuit, 40VA class II transformer, fuse protected on output. Pre-wired for connection of 3-button stations (one supplied with the operator), sensing edges, photo cells, one push button radio control (external strip), ceiling pull and key switches, loop detectors, external interlocks. Fuse protected 24V_{AC} output is available for accessory power supply.

J. Operating mode: to be C2 (or B2 or D1 see appendix for description).

Note to architects:

Motorized doors can cause serious injuries or death. Manaras-Opera strongly recommends the use of entrapment protection systems, especially in case of momentary contact to close as in B2 operating mode.

K. Control Accessories to be supplied: 3 push-button stations, open close key switch, one button radio control, electric sensing edge, pneumatic sensing edge, through beam photo cell.

L. Standards: operator to be certified UL 325 or CSA22.2/247 by a National Recognized Testing Laboratory such as UL or CSA.

Part 3 Execution

3.01 Installation

A. Installation: to be in accordance with Manaras-Opera instructions and in compliance with federal, state or local regulations.

Appendix: WIRING TYPE Descriptions

C2 Wiring (0): Factory preset as per UL325. Momentary contact to open/stop, constant pressure to close with a 3 push-button station. Activation of entrapment detection devices will reverse the door during closing. Auxiliary devices function as an open control and to reverse the door during closing.

B2 Wiring (1): Momentary contact to open/close/stop with a 3 push-button station. Activation of entrapment detection devices will reverse the door during closing. Auxiliary devices function as open/close control and reverse the door during closing.

D1 Wiring (2): Constant pressure to open/close. Activation of entrapment detection devices will stop the door during closing.