PART 1 – GENERAL

1.01 WORK INCLUDED
A. Provide electric door operator(s) of size and capacity recommended for door(s) as provided by door manufacturer with electric motor and factory pre-wired motor controls, starter, reduction unit, disc brake, clutch (optional on hoist), control devices, and accessories required for proper operation.

1.02 RELATED WORK
A. Opening preparation, miscellaneous or structural metal work, access, field electrical wiring, wire conduit, fuses and disconnect switches are in the Scope of Work of other divisions or trades.

1.03 QUALITY ASSURANCE
A. In accordance with accepted quality assurance guidelines for motor-operated doors, both the door and electric operator shall be manufactured by a single-source producer of door systems.

PART 2 - PRODUCT

2.01 GENERAL
A. The electric door operator shall be the Model GCL Heavy-Duty door control system for a (standard lift) (lift-clearance), (full-vertical) sectional door and / or (rolling steel door) and / / (rolling steel grille) as manufactured by The Genie Company and suitable for the type and size of door specified.
B. The electric operator shall be (single phase) (three phase) with MultiVolt™. the ability to adjust to the correct voltage of (115/208/230 for single phase) (208/230/460 for three phase) without removal or addition of any parts. (The electric operator shall be 575VAC three phase).
C. All components to have corrosion resistant coatings.
D. The operator shall be suited for NEMA ICS 6 Type 1 (NEMA ICS 6 Type 4) (NEMA ICS 6 Type 4X) environment.

2.02 MOTOR
A. Motor shall be:
   a. (1/2 horsepower single phase or three phase with automatic thermal reset overload)
   b. (3/4 horsepower or 1 horsepower single phase with manual reset overload)
   c. (3/4 horsepower or 1 horsepower three phase with automatic thermal reset overload)
   d. (3 horsepower three phase with automatic thermal reset overload)
Motor frame shall comply with NEMA (48 for 1/2 HP single phase) (56 for 1/2 HP three phase, 4, 1 and 3 HP all phases), (open drip-proof construction) (Totally Enclosed Non Ventilated – TENV construction) (Totally Enclosed Fan Cooled – TEFC construction).

2.03 REDUCTION
A. Primary reduction is worm gear in oil bath (secondary reduction is by chain and sprocket).

2.04 DUTY CYCLE
A. Duty cycle shall accommodate heavy usage, up to 60 cycles per hour under a large constant load.

2.05 BRAKE
A. Brake shall be a DC disc type with selectable progressive braking for smooth stopping.

2.06 CLUTCH
A. Clutch shall be adjustable torque-limiter type. Standard on trolley models (optional on hoist models).

2.07 LIMIT SYSTEM
A. The EZ Limit™ system shall be magnetic type providing absolute positioning with push to set capabilities. The Limit System shall remain synchronized with the door during manual operation and supply power interruptions.

2.08 CONTROL SYSTEM
A. The control system shall be microprocessor based with relay motor controls on a single board. This system will incorporate a 16-character Liquid Crystal Display (LCD) to display the system status. This system shall be capable of monitoring and reporting on a variety of operating conditions, including: Current operating status, Current command status, Motor movement status, Current error status (if applicable), Hoist Interlock status (if applicable), External Interlock status, and 24VDC status.
B. The control system shall feature a delay-on-reverse operating protocol.
C. The system shall include maximum run timers in both directions of travel that limit motor run time in the event a clutch slips or some other problem occurs.
D. It shall include provisions for the connection of a 2-wire monitored photocell system or a 2-wire monitored edge sensor, as well as non-monitored 2-wire sensing edges, photocells or other entrapment protection devices.
E. Control action will be constant contact close until a monitored entrapment device is installed, allowing for selection of momentary contact.
F. The system shall include provisions for connection of an external, 3-wire radio control, and single and/or 3-button control stations.
G. The control system shall include on board open, close and stop control keys for local operation.
H. Trolley operators shall include an inherent secondary reversal system.

2.09 MOUNTING
A. Mounting for sectional doors shall be by jackshaft that is (side mount) (center mount) chain/sprocket coupling to door (trolley) (side-mount trolley) (dual trolley).
B. Mounting for rolling steel doors shall be (front of hood) (wall-mount) and chain/sprocket coupling to door.
C. Mounting for hoist models shall be (left hand) (right hand) field adjustable.

2.10 RELEASE
A. Release shall be a pull and hold type mechanism with single cable operation and an integrated interlock switch on hoist units. (Release shall consist of a manual disconnect door arm on trolley units).

2.11 HOIST
A. Chain hoist shall consist of chain pocket wheel, chain guard and smooth hand chain on hoist units. Standard on hoist models (optional on trolley as side mount kit).

2.12 SECONDARY REVERSAL
A. Trolley version only shall include an integral electronic reversing system that will stop and reverse a closing door upon detection of an obstruction and designed to accept an optional external reversing device.
B. Hoist versions shall be designed to accept an optional external reversing device.

2.13 OPTIONAL CONTROL ACCESSORIES
A. Control accessories: In (lieu of) (addition to) (interior push-button control station) (exterior push-button control station) (exterior key switches) (radio control) (Genie monitored photo electric eyes) (commercial photo electric eyes) (floor loops) (motion sensors).
B. Operator Accessories shall be Timer to Close and will provide auxiliary control inputs, auxiliary safety inputs, auxiliary timer hold input, and an automatic door closing feature with a user selectable time delay. Safety inputs are to be enabled or disabled using the on board keypad.
C. Operator Accessories shall be Auxiliary Output Module and will provide several auxiliary sets of dry contacts that are microprocessor controlled. Provides contacts for (up) (down) (mid-stop) limit. Provides contacts to be configured using the on board keypad to activate (lights)(horn)(strobe) while door is running (up)(down)(both up and down).

PART 3 – EXECUTION

3.01 The Model GCL Heavy Duty™ shall be installed in accordance with The Genie Company instructions and standards. Installation will be by trained and authorized Genie Company distributors or dealers.

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Note to specifier:
This specification is a suggested guide. Available options are shown in parentheses.

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Model GCL – GT / GH
Heavy-Duty Specifications

SALES INFORMATION
Job Name:

Architect:

Contractor:

APPLICATION INFORMATION
Door Type: Door Size - Width: Height: Drive Side:
Heavy-Duty Model: HP: Voltage: Phase: Hertz:

Monitored Entrapment Device:

DIMENSIONS
GCL-GH 1/2, 3/4, 1 HP

GCL-GH 3 HP

GCL-GT 1/2, 3/4, 1 HP

AMPERAGE RATING 60Hz

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<th>208V 3Ø</th>
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