

Product Specification Sheet



GHW/C

JACKSHAFT OPERATOR WITH
NEMA 4/12 & 4X MODIFICATION

STANDARD FEATURES

- **Motor:**
60Hz high starting torque, continuous-duty, single phase capacitor start or 3 phase motor, totally enclosed (TEFC or TENV), protected against overload.
- **Reduction:**
45:1 worm gear in oil bath reducer with air breather and sealed ball bearings. Output shaft is 1" with 1/4" keyway up to 1HP, 1-1/4" output shaft with 1/4" keyway above 1HP. Output shaft speed: 38 rpm.
- **Drive:**
#50 roller chain with a 50B12 sprocket for the operator drive shaft. Door sprocket selected for a door travel of 6"/s to 12"/s.
- **Brake:**
Electrically activated drum-band type solenoid brake.
- **Manual Operation:**
Emergency manual chain hoist. Floor level chain hoist engaging device with electrical cut-out. An electrical interlock automatically disconnects power to the motor operator when the chain hoist is engaged. Hand chain available on right or on left (consult inside sales).
- **Electrical Enclosure:**
All electrical components are in a Nema 4/12 or Nema 4X enclosure. Hinged electrical enclosure cover.
- **Limit System:**
Rotary-type oil-impregnated steel cams, commercial grade switches. Remains in time when there is a manual operation or after the motor has been removed.
- **Corrosion Protection:**
Reducer and frames protected by baked on, long lasting enamel finish. Fiber glass control box. Limit and hoist shafts protected by yellow chromate coating.
- **Mounting:**
Wall mounted, vertical front of hood mounted or horizontal top of hood mounted, on the right or the left of the door. The use of a wall mounting bracket is recommended.
- **Shipping Weight:**
Approx. 140 Lbs - 64 Kg.
- **Warranty:**
2 Years.

Nema 4/12 or 4X Components

Includes watertight / oiltight / dust tight components or corrosion-resistant components

Nema 4/12 or Nema 4X Control Enclosure

Hinged cover for easy access to components and wiring

Emergency Manual Chain Hoist

With floor level chain hoist engaging device and electrical cut-out

Solenoid Brake

Drum-band type solenoid brake



The GHW/C is a heavy-duty worm gear industrial operator designed for use on industrial standard, high and vertical lift sectional doors or rolling doors and grilles.

The operator can be wall, hood, or shelf mounted on either side of the door. It incorporates a chain hoist for manual operation, with a floor level engaging device.

The Nema 4/12 modification is to be used in areas where dust, water spray, oil leaks or any other type of condensation is present. The Nema 4X modification provides additive protection against corrosive environments.

The operator is available with the Electronic Control Board (BOARD 070) with or without the option of electrical control for MONITORED external entrapment protection devices (UL325-2010 compliant).



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CONTROL OPTIONS

• ECB Units (BOARD 070):

24Vdc relaying circuit with a 40VA class II transformer, non-volatile memory. Features available: On-board radio receiver, 1.5s delay on reverse, programmable maximum run timer, mid-stop, timer to close (suspension possible from floor level), independent input loop terminal, advance close system, test buttons, reverse wiring detection and door lock sensor. Operating mode selectable on site: C2, B2, D1, E2, T or TS.

• "M" Version:



Provides the monitoring of Primary External Entrapment Protection Devices. Includes monitored Nema 4X photo cells (PHOTO 061 standard). In this mode, Ancillary Entrapment Protection Devices (optional) may be used to supplement primary entrapment protection, such as non-monitored photo cells, 2-wire non-monitored sensing edges and pneumatic sensing edges.

Certifications: CSA C22.2-247.92 and UL325.

• "E" Version:



No monitoring function.

Certifications: CSA C22.2-247.92 and compliant to UL325 5th Ed. PRIOR to August 2010 revision.

• Contactor Units:



24VAC control circuit, 40VA class II transformer, fuse protected on output, heavy-duty across-the-line linear reversing contactor with mechanical interlock.

• B2/C2 Units:

C2 wiring is standard. B2 can be set very easily by moving one wire. Available options: delay on reverse, timer to close, double limits, etc...

Certifications: CSA C22.2-247.92 and compliant to UL325 5th Ed. PRIOR to August 2010 revision.

Note: CSA C22.2-247.92 and UL325 apply to units intended to be used in ordinary locations in accordance with the Canadian Electrical Code, Part I and the National Electrical Code, NFPA 70, respectively.

MAIN OPTIONS

• Control Accessories:

Angled terminal strip allows for the connection of 3-button stations (one supplied with the operator), non-monitored sensing edges, Nema 4/12 or Nema 4X non-monitored photo cells, one push-button radio control (external strip), ceiling pull switches, key switches, loop detectors, external interlocks, universal auxiliary output module. 2A fuse protected 24VAC output is available for accessory power supply.

• Friction Clutch (Optional):

Easily adjustable slip clutch, ideally positioned on output shaft. Recommended for sectional doors.

• Mechanical Accessories:

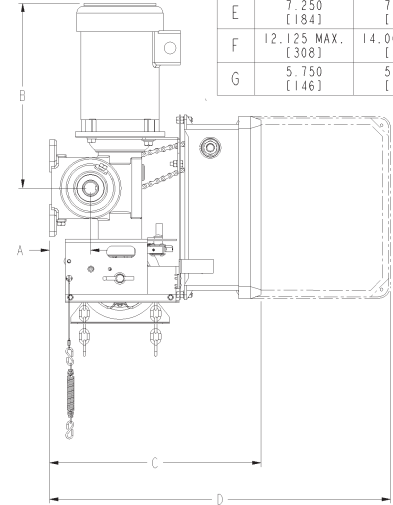
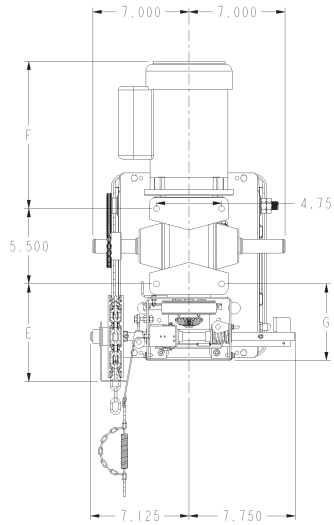
Wall or hood mounting bracket, chain spreader, hand crank, etc...consult inside sales.

• Mechanical Modifications:

Left hand chain hoist, #60 roller chain, sprocket on final drive, limit shaft speed-up, etc... consult inside sales.

DIMENSIONS

Clearance: Side room required 15" (380 mm)
With friction clutch add: 1.5" (38 mm)



| | UP TO 1 HP | 1.5 & 2 HP |
|---|-------------------|-------------------|
| A | 3.000 [76] | 3.500 [89] |
| B | 14.875 MAX. [378] | 16.750 MAX. [426] |
| C | 15.500 [394] | 16.750 [426] |
| D | 24.875 [632] | 25.875 [658] |
| E | 7.250 [184] | 7.375 [187] |
| F | 12.125 MAX. [308] | 14.000 MAX. [356] |
| G | 5.750 [146] | 5.875 [149] |

MOTOR SELECTION

Maximum Size of Door in Square Feet

| Horse Power | Rolling Doors | | | | | Sectional Doors | | | | |
|-------------|-----------------|--------------|----------------------------|------------------------|---------------------------|-------------------|--------------------------|------------------------------------|----------------------------|-------------|
| | Insulated Steel | 16 ga. Steel | Steel Grilles 20 ga. Steel | Alu. Door 22 ga. Steel | Alu. Grilles 24 ga. Steel | Steel 18 ga. ins. | Steel 18 ga. 20 ga. ins. | Wood Steel 20 ga. 22 & 24 ga. ins. | Aluminum Steel 22 & 24 ga. | Fiber Glass |
| 1/2 | 157 | 236 | 260 | 319 | 358 | 196 | 245 | 314 | 343 | 392 |
| 3/4 | 206 | 294 | 358 | 451 | 515 | 270 | 319 | 441 | 490 | 549 |
| 1 | 255 | 358 | 446 | 574 | 613 | 294 | 392 | 490 | 564 | 613 |
| 1-1/2 | 353 | 486 | 633 | - | - | 373 | 466 | 549 | 613 | - |
| 2 | 451 | 613 | - | - | - | - | - | - | - | - |

General Guideline

OPERATOR RANGE

Current Consumption (Amp.)

| Horse Power | 120V 1 Ph | 240V 1 Ph | 208/240V 3 Ph | 480V 3 Ph | 600V 3 Ph |
|-------------|-----------|-----------|---------------|-----------|-----------|
| | Nema 4/12 | 1/2: 6.6 | 3.3 | 2.2 | 1.1 |
| 3/4: 11.0 | 5.5 | 2.8 | 1.4 | 1.1 | |
| 1: 13.4 | 6.7 | 3.3 | 1.6 | 1.3 | |
| 1-1/2: 18.0 | 9.0 | 4.8 | 2.4 | 2.0 | |
| 2: - | - | 6.0 | 2.9 | 2.3 | |

General Guideline

Current Consumption (Amp.)

| Horse Power | 120V 1 Ph | 240V 1 Ph | 208/240V 3 Ph | 480V 3 Ph | 600V 3 Ph |
|-------------|-----------|-----------|---------------|-----------|-----------|
| | Nema 4X | 1/2: 8.8 | 4.4 | 2.1 | 0.8 |
| 3/4: 11.0 | 5.5 | 2.7 | 1.1 | 0.9 | |
| 1: 12.8 | 6.4 | 3.5 | 1.6 | 1.3 | |
| 1-1/2: - | 9.0 | 4.6 | 2.1 | 2.3 | |
| 2: - | - | 6.5 | 3.1 | 3.0 | |

General Guideline

