

Product Specification Sheet



MRGH

STANDARD FEATURES

- **Motor:**
60Hz high starting torque, continuous-duty industrial type, 3-phase, totally enclosed (TEFC or TENV) motor.
- **Reduction:**
40:1 worm gear in oil bath reducer with air breather and sealed ball bearings. Output shaft 1-3/8" with 5/16" keyway. Output shaft is supported by cast iron flanged pillow block bearings. Pillow block bearing support on reducer output shaft (drive side, 2HP). 2 pillow block bearing supports on reducer output shaft (≥ 3 HP). Base plate included. Output shaft speed: 43 rpm.
- **Drive:**
#50, #60 or #80 roller chain and sprocket on final drive. Operator sprocket size based on application requirements.
- **Brake:**
Electrically activated drum-band type solenoid brake. Option: brake motor.
- **Manual Operation:**
Emergency manual chain hoist.⁽¹⁾ Floor level chain hoist engaging device with electrical cut-out. An electrical interlock automatically disconnects power to the motor operator when chain hoist is engaged. Hoist on right is standard; can easily be moved to the left in field.
- **Electrical Enclosure:**
All electrical components are in a Nema 1 enclosure. Simple slide-off cover.
- **Limit System:**
Rotary-type oil-impregnated steel cams, commercial grade switches. Limit shaft supported by self-lubricating bronze bushings for increased precision. Remains in time when there is a manual operation or after the motor has been removed.
- **Accu-cam® Feature:**
Precise and quick limit setting by single-hand operation.
- **Corrosion Protection:**
Reducer, control enclosure and frames protected by baked-on, long lasting enamel finish.
- **Mounting:**
Right or left wall or hood mounting.
- **Shipping Weight:**
Approx. 145 lb - 66 kg.
- **Warranty:**
2 years.

Emergency Manual Chain Hoist

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

Accu-cam® Limit Feature

For precise and quick one-hand limit setting adjustments

Cast Iron Pillow Block Bearings

Flanged pillow block bearings on the output shaft

Simple Slide-Off Cover

For easy access to components and wiring

JACKSHAFT OPERATOR HEAVY-DUTY INDUSTRIAL GEARHEAD



The MRGH is a very heavy-duty worm gear industrial operator designed for use on large sectional, multi-blade and industrial rolling doors and grilles.

The operator can be wall or hood mounted on either side of the door and incorporates a solenoid brake and a chain hoist for manual operation with a floor level engaging device with electrical cut-out.

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 (ANSI/CAN/UL325 compliant).

⁽¹⁾ The hoist is designed for light and limited use in the event of troubleshooting only.



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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), built-in cycle-counter, 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 photoelectric cells (PHOTO 070 standard). In this mode, Ancillary Entrapment Protection Devices (optional) may be used to supplement primary entrapment protection, such as non-monitored photoelectric cells, 2-wire non-monitored sensing edges and pneumatic sensing edges.

• "E" Version:

No monitoring function.

• 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.

MAIN OPTIONS

• Control Accessories:

Terminal strip allows for the connection of 3-button stations (one supplied with the operator), non-monitored sensing edges/photoelectric cells/light curtains, external radio receiver, ceiling pull switches, key switches, loop detectors, LED strips, external interlocks, universal auxiliary output module. Optional Manaras Internet Control™ (MIC) available. 2A fuse protected 24Vac output is available for accessory power supply. Nema 4/12 or Nema 4X protected monitored photoelectric cells upgrade available.

• Environmental Modifications:

Nema 4/12, Nema 4X and Nema 7/9 enclosures.

• In-Line Friction Clutch (Optional):

Easily adjustable slip clutch, ideally positioned between the motor and reducer. Provides added protection by causing the clutch to slip in the event that door system encounters an abnormally high torque to be operated.

• Mechanical Accessories:

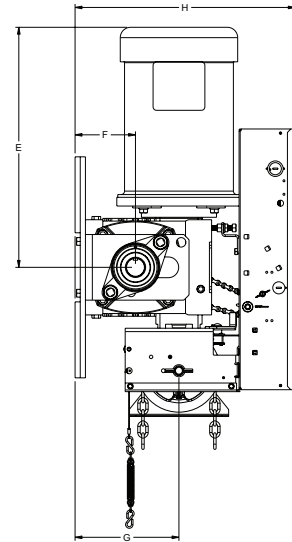
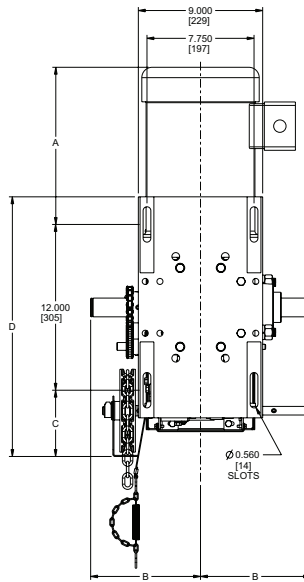
Chain spreader, hand crank, etc. Consult inside sales.

• Mechanical Modifications:

Left hand chain hoist, brake motor, etc. Consult inside sales.

DIMENSIONS

Clearance: Side room required 18" (457 mm)



	STANDARD MOTOR UP TO 3 HP	STANDARD MOTOR 5 HP
A	12.750 MAX. [324]	13.250 MAX. [337]
B	8.800 [223]	8.375 [213]
C	4.875 [124]	5.875 [149]
D	18.875 [479]	19.875 [505]
E	18.750 MAX. [476]	19.250 MAX. [489]
F	4.375 [111]	5.875 [149]
G	7.500 [191]	9.875 [251]
H	16.000 [406]	19.125 [486]

	BRAKE MOTOR UP TO 3 HP	BRAKE MOTOR 5 HP
A	15.125 MAX. [384]	16.125 MAX. [410]
B	8.800 [223]	8.375 [213]
C	4.875 [124]	5.875 [149]
D	18.875 [479]	19.875 [505]
E	21.125 MAX. [537]	22.125 MAX. [563]
F	4.375 [111]	9.875 [251]
G	7.500 [191]	19.125 [486]
H	16.000 [406]	19.125 [486]

MOTOR SELECTION

Maximum Size of Door in Square Feet

Horse Power	Rolling Doors					Sectional Doors					General Guideline
	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.	Fiberglass	
2	451	613	660	-	-	560	620	660	-	-	
3	620	830	890	-	-	830	870	910	-	-	
5	*	*	*	-	-	*	*	*	-	-	

* Consult inside sales

OPERATOR RANGE

Current Consumption (Amp.) Standard

Horse Power	208/240V 3 Ph	480V 3 Ph	600V 3 Ph	General Guideline
2	6.5	3.1	2.5	
3	8.5	4.1	3.3	
5	12.4	6.2	4.9	

Current Consumption (Amp.) Brake Motor

Horse Power	208/240V 3 Ph	480V 3 Ph	600V 3 Ph	General Guideline
2	5.6	2.8	2.2	
3	7.6	3.8	3.0	
5	12.4	6.2	4.9	



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