All motor operators include the following features:

- UL Listed
- NEMA-1 enclosures
- Overload protection
- Adjustable linear driven limit switches
- 24 volt control circuit
- 3-button open-close-stop wall mount control station

**Model SGH – In-line Gear Drive Operator with Auxiliary Hoist**

For all service doors and grilles in standard cycle usage (up to 50,000 cycles - not exceeding 40 cycles per hour) or high cycle usage (up to 100,000 cycles - not exceeding 40 cycles per hour) applications

Refer to HP SELECTION GUIDE for additional information and size limits

- High efficiency in-line gear reducer
- Continuous duty TEFC motor
- Solenoid actuated disc brake
- Delay on reverse function *(requires door/grille be provided with a sensing edge)*
- Interlocked chain hoist for emergency operation (up to 2hp)
- Horizontal front of coil mount
- 1/2, 1, 2, 3 and 5 hp
- 115v-1ph, 230v-3ph, 460v-3ph (2 hp recommended to be 3ph; 3 and 5 hp available in 3ph only)

**NOTE:** 230v operators are suitable for use with 208v

Consult factory for availability of 230v-1ph

**Model MGH – In-line Gear Drive Operator with Auxiliary Hoist**

For service doors and grilles in standard usage applications (up to 20,000 cycles - not exceeding 20 cycles per hour)

- Service Door size limits:
  - to 350 sq. ft. with 22 gauge slats (275 sq. ft. if insulated w/ PVC back)
  - to 300 sq. ft. with 20 gauge slats (250 sq. ft. if insulated w/ PVC back)
  - to 225 sq. ft. with 18 gauge slats (200 sq. ft. if insulated w/ PVC back)
- Grille size limits:
  - to 600 sq. ft. with aluminum grille curtains
  - to 300 sq. ft. with stainless steel grille curtains

- In-line gear reducer
- TENV motor
- Solenoid actuated disc brake
- Interlocked chain hoist for emergency operation
- Horizontal front of coil mount
- 1/2 hp
- 115v-1ph, 230v-3ph, 460v-3ph

**NOTE:** 230v operators are suitable for use with 208v

Consult factory for availability of 230v-1ph

Per the requirements of UL Standard 325, the door operator must be provided with an actuating device requiring constant pressure to close the door. As an alternative, the door may be provided with a device that will reverse the door upon contact with an obstruction during closing.
All motor operators include the following features:

- UL Listed
- Adjustable linear driven limit switches
- NEMA-1 enclosures
- 24 volt control circuit
- Overload protection
- 3-button open-close-stop wall mount control station

Model MGRL – In-line Gear Drive Operator with Internal Lock Sensor and Auxiliary Release

Model MGRL-H – In-line Gear Drive Operator with Internal Lock Sensor and Auxiliary Hoist

For service doors, counter service doors and grilles with locks in standard cycle usage applications (up to 20,000 cycles - not exceeding 20 cycles per hour)

Service Door size limits:
- to 300 sq. ft. with 24 gauge slats (215 sq. ft. if insulated w/ PVC back)
- to 240 sq. ft. with 22 gauge slats (185 sq. ft. if insulated w/ PVC back)
- to 200 sq. ft. with 20 gauge slats (160 sq. ft. if insulated w/ PVC back)
- to 150 sq. ft. with 18 gauge slats (135 sq. ft. if insulated w/ PVC back)

Counter Service Door size limits:
- to 120 sq. ft. with steel, stainless steel or aluminum slats

Grille size limits:
- to 400 sq. ft. with aluminum grille curtains
- to 200 sq. ft. with stainless steel grille curtains

* Consideration should be given to the type and size of door/grille on which the MGRL motor operator with auxiliary release is used, as it must be manually lifted open for emergency operation

In-line gear reducer
- TENV motor
- Solenoid brake
- Internal lock sensor to stop opening of door/grille upon sensing that locks are engaged
- Interlocked lever release for emergency push-up operation or connection to optional emergency egress device
- Interlocked chain hoist for emergency operation (requires field installed MGRL-H modular hoist conversion option)

Horizontal front of coil mount
- 1/3 hp
- 115v-1ph

**NOTE**: Consult factory for availability of 230v-1ph, 230v-3ph or 460v-3ph

Per the requirements of UL Standard 325, the door operator must be provided with an actuating device requiring constant pressure to close the door. As an alternative, the door may be provided with a device that will reverse the door upon contact with an obstruction during closing.
Controls
Flush mount 3-button (open-close-stop)
Surface or flush mount 3-button (open-close-stop with mortise cylinder key lockout)
Surface or flush mount key station (open-close with stop button)
Controls rated for exterior use
Radio controls (receiver and single or multiple button transmitters)
Wall mount wireless digital keypad (transmitter/receiver system)
Wall or pedestal mount digital keyless entry

Egress Device
Flush mount enclosure with ADA (extended handle) to activate partial opening of an unlocked grille for emergency exit (available with Models MGRL/MGRL-H motor operators only)

Fire Dept. Access
Knox box enclosures
Padlocked type to house key or other small access device to building
Microswitch type to automatically open an unlocked door/grille when face plate is removed

Interlocks
External guide mounted electrical interlock switches to prevent opening of door/grille with locks engaged (not required with Models MGRL/MGRL-H motor operators with internal lock sensor)

Sensing Devices
Contact type sensing edge on bottom of bottom bar to stop/reverse door/grille upon contact with an obstruction, connected to motor operator with coil cord
- Electric sensing edge – extruded rubber dual-chamber profile with integral isolated conductive elastomer switches that when compressed together signals motor operator to stop/reverse
- Monitored “failsafe” electric sensing edge – prevents door/grille from closing if sensing system fails
- Cord reel (in lieu of standard coil cord connection from sensing edge to motor operator)
- Wireless sensing edge – transmitter/receiver system in lieu of standard coil cord connection from sensing edge to motor operator
- Non-contact type sensing device to stop/reverse door/grille upon sensing an obstruction
- Photo-optic sensing edge – vinyl edge/flaps on bottom of bottom bar that upon sensing an obstruction between the emitter/receiver eyes signals motor operator to stop/reverse, connected to motor operator with cord/J-box at mid-height on each side of opening
- Retro-reflective photoelectric sensor – wall mounted at each side of opening to sense an obstruction between the light beam source and reflector
- Vehicle loop detectors – rectangular shape in-ground wire loop to detect vehicle near or on loop (additional loops can also be used to activate opening/closing of door/grille)

Modifications
Wiring modifications
- Extra limit switch (3rd set of open and close limit switches for connection of additional devices)
- Audible/visual warning device (ADA compliant horn/strobe)
- Non-reset cycle counter
- Adjustable re-close timer
- Programmable 7-day timer
- Timer defeat switch

Environmental modifications
- Industrial control panel (control panel enclosure with gasketed cover for applications where some environmental protection is desired but NEMA1 rated equipment is acceptable – available on SGH – for interior use only)
- NEMA 4 (water tight, oil tight, dust tight)
- NEMA 4X (corrosion resistant)
- NEMA 7/9 (hazardous area “explosion proof”)
- NEMA 12 (oil tight, dust tight)

NOTE: While motor operators with environmental modifications are available, their specifications, construction and features are different than as shown on the “Standard Specifications” pages – consult factory for appropriate specifications.