GDI

POWERING YOUR PROFITS

GDI manufactures electric door and gate operators. These operators utilize advanced technology which significantly increases energy efficiency and reduce motor size compared to induction electric motors used in industrial systems. GDI operators can reduce battery size and weight in battery-powered products.

GDI's ALGORYTHM™ DRIVE technology provides significantly higher power density, dramatically better performance and increased energy utilization efficiencies in start/stop applications when compared with competitive induction motor systems. The ALGORYTHM™ DRIVE consists of the following elements:

- Electric motor
- Motor controller
- Embedded software which controls the energy flow into and out of the motor

Applications using GDI operators provide considerably higher torque response in smaller packages and may significantly lower your costs. Applications using GDI operators require less assembly and installation time, are easier to set up using self calibrating features, require less cooling due to their more energy efficient operation and provide a variety of programmable functions, all of which add market value to your products.

NetworkPower™ - GDI operators can be networked in a multi-operator configuration via GDI's NetworkPower™ technology. NetworkPower™ enables up to 128 operators to be synchronized, controlled and monitored through any one of the networked operators.

The built in controllers of the Jackshaft operators are internet ready for remote analysis, monitoring, control as well as for review of new installation operation from a remote location.

SYSTEMS FOR A BROAD RANGE OF INDUSTRIAL & COMMERCIAL APPLICATIONS

Gates and Doors Inc.

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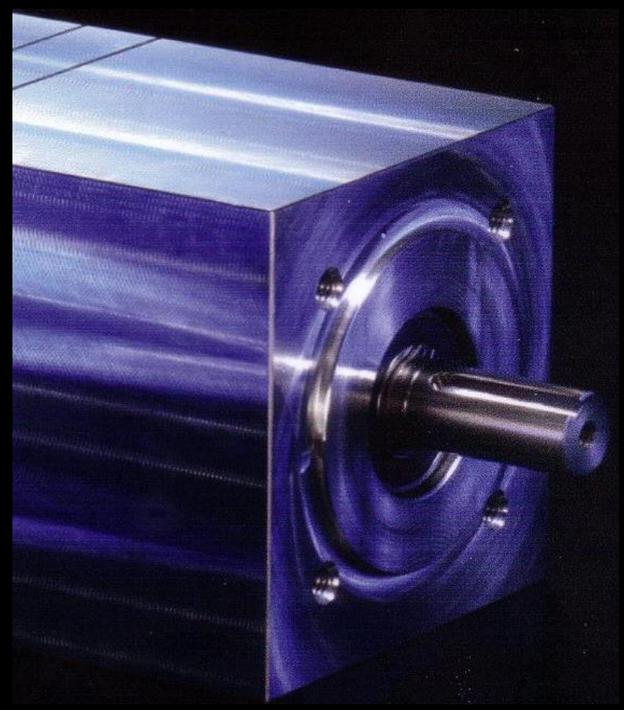
Version **4.1**

GDI

Gates and Doors Inc.



JHMG – GearMotor Operators

Adaptive Motor and Controller Systems

A New Spin on Motor Technology

JHMG FAMILY OF GEARMOTOR OPERATORS

UL 325 Compliant

GM-9441 – JHMG series of GearMotors with Control Panels

FEATURES

- High quality advanced DC brushless servo motor technology
- Unique features, built to work with GDI's Adaptive controller system
- High energy density, compact package
- Planetary gear for high efficiency and high reliability
- Double shielded, precision stainless steel ball bearings

BENEFITS

- Compact gear motor and pre-wired control panel
- Back drivable configuration available
- Light weight; Only 18 lbs
- Simple mechanical installation
- Advanced DC brushless motor system
- Electronic overload protection (no mechanical clutch required)

POWER and TORQUE

- Family of models to choose from for various door style
- Output torques 300 in. lb. to 400 in. lb.
- Operator output shaft speeds from 140 to 200 RPM
- Proper choice of sprocket ratio gives required door spe
- Battery backup option with GDI's Adaptive Controller S

MECHANICAL

- Output shaft; 1" Diameter with keyway
- Simple to use 4-hole mounting
- Capable of side or front mounting with four bolts
- Left or right mounting (programmable opening directio
- High reliability, precision components

OPTIONS

- NEMA 4
- Programmable failsafe brake with manual disengage
- Continuous system operation on battery power during l power (Includes intelligent battery charging with GDI's Controller System)
- Chain wheel with engage/disengage for manual door o

RELIABILITY

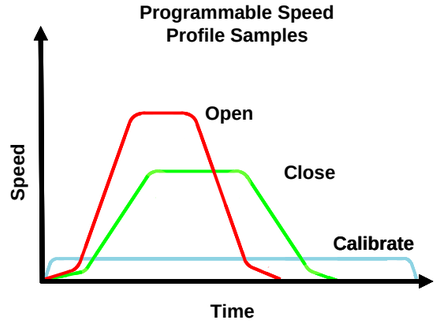
- High quality DC brushless servo motor
- Double shielded, precision stainless steel ball bearings
- Environment; -20 deg. C to +50 deg. C; operates at lower temperatures with heating strips

NEMA 4/4X Control Panel

GMC-9334 - JHMG series of Adaptive Controllers

FEATURES

- Adjustable open and close speeds; with 'S' curve soft start and soft stop
- Advanced AlgorithmDrive™ 4-quad, closed loop technology maintains a set position profile over a wide range of door weights
- Adjustable obstruction sensing
- Adjustable deceleration/delay in reversing and emergency stop
- No limit switches required
- Automatic or manual door size calibration
- Direction select for left /right mounting
- Adjustable time delay for automatic closing
- Intelligent Diagnostic™, clear text information display on LCD
- Simple menu operation with keypad and LCD (password access)
- 7 programmable inputs for loop sensors, Ultrasonic sensors, Radio control, other sensors etc.
- Two programmable outputs to control enunciator buzzer, light or interlock
- Programmable electronic open/closed door position holding capability
- Electronic overload protection; no mechanical clutch
- Key/switch electronic operator disable
- Cycle counter
- 24VAC and 24VDC capability to power accessories



BENEFITS

- Self calibrating or manual calibration to any door size
- No mechanical limit switches required
- Closed loop system position and speed feedback ensures consistent motion profile with changing door size, weight and even mechanical wear over time
- System status LCD display on GMC-9334 for simplified on-site intelligent diagnostics
- PLUG-and-PLAY electronic controller
- Wide range of AC voltages; 115, 208, 230, 460, 575VAC single/three phase, 60Hz
- Multiple door interlock capability

ENERGY EFFICIENCY

- GDI's advanced AlgorithmDrive™ 4-quad, closed loop speed and position control technology
- Control algorithms maintain efficient operation under high torque demands in start/stop applications
- Soft start/stop peak current limiting minimizes electric energy usage costs
- HR-Drive™ Hybrid energy technology system stores regenerative energy; can provide significant energy savings

OPTIONS

- HR-Drive™ Hybrid energy technology system stores regenerative energy; can provide significant energy savings
- Operational parameter programming via RS-232/CAN communications interface
- Internet Ready! NetworkPower™ enables the networking of up to 128 GDI motor systems via a PC or over the Internet; For remote service analysis, monitoring, control and review of new installation operation
- Continuous system operation on battery power during loss of AC power (Includes intelligent battery charging)
- Power factor correction capability
- CAN/DEVICE NET and SDS communications capability
- External Regeneration Resistor Module for high inertia door applications

RELIABILITY

- Solid state, Digital signal Processor control
- All-Electronic clutch; Factory preset
- Electronic clutch prevents damage to door frame and roller guides if the open button is pressed when the door is mechanically locked
- Automatic switch-over to battery backup (optional) to continue normal operation under AC FAILURE or BROWN OUT
- Cycle counter enables scheduled maintenance

GDI Gates and Doors Inc.