# Electromagnetic Lock Reference Chart

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### Holding Force (Lbs)
- 101+: 1500
- 390DEL: 1500
- 390PIR: 1650
- 280+: 2700
- 320M: 500 @ 12V
- 390G+: 1500 @ 12V
- GF3000: 3000 @ 650 @ 24V

### Input Voltage (STD)
- All models: 12V/24V AC/DC

### Current Draw (AmPS)
- 101+: .8A @ 12VDC
- 390DEL: .8A @ 12VDC
- 390PIR: .8A @ 12VDC
- 280+: .9A @ 12VDC
- 320M: .9A @ 12VDC
- 390G+: .9A @ 12VDC
- GF3000: .9A @ 12VDC

### Option

#### Magnetic Bond Snsr.
- 101+: ✔
- 390DEL: ✔
- 390PIR: ✔
- 280+: ✔
- 320M: ✔
- 390G+: ✔
- GF3000: ✔

#### Door Status Monitoring
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: ✔
- 390G+: ✔
- GF3000: ✔

#### Relocking Time Delay
- 101+: STANDARD
- 390DEL: STANDARD
- 390PIR: STANDARD
- 280+: STANDARD
- 320M: ✔
- 390G+: —
- GF3000: STANDARD

#### Rectifier
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: ✔
- 320M: ✔
- 390G+: ✔
- GF3000: ✔

#### Herculite Door Brckt.
- 101+: ✔
- 390DEL: ✔
- 390PIR: ✔
- 280+: ✔
- 320M: ✔
- 390G+: ✔
- GF3000: ✔

#### Universal HDR. Brckt.
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Header Ext. Brckt.
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Concrete/ Wood Brckt.
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Aluminum SPCR Brckt.
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Anti-Tamper Switch
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### LED Indicator
- 101+: STANDARD
- 390DEL: STANDARD
- 390PIR: STANDARD
- 280+: STANDARD
- 320M: ✔
- 390G+: —
- GF3000: —

#### Top Jambs
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Sec. Alarm
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### BOCA Code Feature
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Custom Length HSG.
- 101+: —
- 390DEL: —
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Filler Plates
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Angle Brckt.
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: —

#### Spec. Finish
- 101+: ✔
- 390DEL: ✔
- 390PIR: —
- 280+: —
- 320M: —
- 390G+: —
- GF3000: ✔
MagForce™ Lifetime Warranty

Limited Lifetime Warranty:
Magnetic Coil Assembly. Locknetics warrants only to the End User of electromagnetic locks that the magnetic coil assembly of the electromagnetic locks will be free from defects in material and workmanship for the lifetime of such electromagnetic lock.

Limited 12 Month or 18 Month Warranty:
Electronic Module. Locknetics warrants only to the End User of electromagnetic locks that the electronic module of the electromagnetic locks will be free from defects in material and workmanship for a period of 12 months from the date of shipment of the electromagnetic locks from an authorized seller to the End User or a period of 18 months from the date of shipment of such electromagnetic locks from Locknetics to an authorized seller, whichever period is shorter.

Exclusions to Warranty:
The provisions of this limited warranty do not apply to electromagnetic locks: (i) used for purposes for which they are not designed or intended; (ii) which have been repaired or altered without Locknetics’ prior written consent; (iii) which have been subjected to misuse, abuse, negligence, or accident; (iv) which have been improperly stored, installed, maintained, or operated; (v) which have been used in violation of written instructions provided by Locknetics to an authorized seller and/or End User; (vi) which have been subjected to improper temperature, humidity, or other environmental conditions; (vii) which have been affected by normal wear and tear; or (viii) which, based on Locknetics’ or authorized seller’s examination, do not disclose to Locknetics’ or an authorized seller’s satisfaction nonconformance to the warranty.

The following costs and expenses are not covered by the provisions of this limited warranty: (i) labor costs for the removal and reinstallation of electromagnetic locks; (ii) shipping and freight expenses required to return electromagnetic locks to Locknetics or an authorized seller; (iii) normal maintenance; and (iv) economic losses.

THE PROVISIONS OF THIS LIMITED WARRANTY ARE NOT APPLICABLE TO ANYTHING OTHER THAN DEFECTS IN LOCKNETICS’ MATERIAL OR WORKMANSHIP.

End User’s Remedies:
END USER’S EXCLUSIVE AND SOLE REMEDY ON ACCOUNT OF, OR IN RESPECT OF, THE FURNISHING OF ELECTROMAGNETIC LOCKS THAT DO NOT CONFORM TO THIS AGREEMENT WILL BE TO SECURE REPAIR OR REPLACEMENT OF THE ELECTROMAGNETIC LOCKS, AT LOCKNETICS’ OPTION. IN NO EVENT WILL LOCKNETICS’ MAXIMUM LIABILITY EXCEED THE SELLING PRICE FOR THE NON-CONFORMING ELECTROMAGNETIC LOCKS.

Limitation of Liability:
IN NO EVENT WILL LOCKNETICS BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF USE OF THE ELECTROMAGNETIC LOCKS, LOSS OF PROFIT, LOSS OF REVENUE, INTEREST, LOST GOODWILL, WORK STOPPAGE, IMPAIRMENT OF OTHER GOODS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION, INCREASED EXPENSES OR OPERATION, OR CLAIMS OF END USERS, WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING, BUT NOT LIMITED TO, STRICT LIABILITY OR NEGLIGENCE), PATENT INFRINGEMENT, OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Statute of Limitations:
NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS AGREEMENT BY LOCKNETICS MAY BE BROUGHT BY END USER MORE THAN ONE (1) YEAR AFTER THE CAUSE OF ACTION HAS ARISEN.

Consumer Products:
With respect to “customer products” as defined under the Magnuson-Moss Warranty Act (“MMWA”), the following statements are made. (a) Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to the End User. (b) This warranty gives the End User specific legal rights and the End User may also have other rights which vary from state to state.
Locknetics provides the most complete selection of electromagnetic locks in the industry. The GF3000 Series Shear Lock features a patented design offering advances over any Shear Lock on the market.

Unique mounting features provide a “floating” action of both the lock assembly and the armature. This design allows the magnet assembly to move towards the armature during the locking process. In this manner, the GF3000 is able to overcome gaps of up to 1/4 inch without current inrush. Once engaged, the Shear Lock provides 3000 pounds holding force, without high operating temperatures normally associated with other Shear Locks. A microprocessor-based control module provides advanced electronic features. This circuitry automatically senses and adjusts input voltage, allowing for operation from 12 to 24 volt DC power sources.

The mortise Shear Lock offers the advantage of a totally concealed locking mechanism, providing superior security and appearance. The patented design incorporates locking “tabs” on the magnet assembly with mating grooves in the armature plate. While the strength afforded by this design is a major advantage, the flexible mounting features are as important. This design allows for normal door and frame movement.

The Shear Lock is ideally suited for commercial grade quality hollow metal doors and frames as well as herculite doors with top rail. Advances in design provide low operating temperatures, making this Shear Lock suitable for use in the growing demand for concealed locks in wood frames.

The GF3000 TRD Model is available when armature adjustment is required from the edge of the door due to flush ceiling conditions. The GF3000BRD model is available when no top rail mounting is available. All models offer built-in automatic relock features ensuring full door closure before lock engagement. Relock time delay is easily adjusted from 1 to 30 seconds from the face of the installed lock. Optional features include Magnetic Bond Sensor (MBS) to monitor the secure/not secure condition of the lock and an optional Door Status Monitor (DSM) to sense the open/closed position of the door.

The GF3000 Series of Shear Locks are UL 10C, CUL, CSFM and MEA listed for use on fire labeled openings. The locks are engineered to meet ANSI/BHMA A156.23 standard for electromagnetic locks.

Benefits of Using GF3000 Mortise Mounted Series Shear Locks

- Automatic voltage selection 12/24 VDC (Filtered)
- Innovative gravity force design provides for movement of both lock and armature to overcome gaps of up to 1/4”
- 3000 lbs. of holding force
- Requires filtered, regulated power supply
- Built-in Automatic Relock Switch
- Adjustable time delay on relock, 0-30 seconds
- Low temperature operation
- Microprocessor controlled
- Optional Magnetic Bond Sensor (MBS)
- Optional Door Status Monitor (DSM)
GF3000 Mortise Mounted Series Shear Locks

Special Application Solution

How to Order GF3000 Mortise Mount Series

GF3000TRD – DSM/MBS

1. Select Model
   - GF3000: Adjustable from top edge of door.
   - GF3000TRD: Mounting assembly which provides armature adjustable from the latch edge of the door. Recommended with zero clearance condition between top of door and ceiling.
   - GF3000BRD: Mounting assembly to mortise armature into bottom rail of door. Magnet is installed in floor/threshold. Provides solution when no top rail is available.

2. Select Options
   - DSM/MBS: Door Status Monitor/Magnetic Bond Sensor
   - DSM: Door Status Monitor
   - MBS: Magnetic Bond Sensor

GF3000
For metal door and frame or glass door with top rail and metal frame. Magnet is mortised into frame header and armature is mortised into top edge of door. Universal hardware for installation into flush or recessed (1/8” to 2-1/2”) depth door edge. Armature adjustment from top edge of the door. Magnet can also mount vertically into frame and armature into vertical edge of door, with armature adjustment from latch edge of door. The unit includes a low temperature module to facilitate wood door and frame applications.

GF3000BRD
For metal door and frame or glass door with bottom rail and metal frame. The magnet is installed in the floor/threshold and the armature is installed in the bottom edge of the door. This application provides a solution when no top rail mounting is available. Recommended mounting electronic module remote from locking mechanism.

GF3000TRD
For metal door and frame or glass door with top rail and metal frame. Recommended for zero clearance condition between top of door and ceiling. Includes top rail door mounting assembly which provides armature adjustment from the latch edge of the door.

Specifications:
- Holding Force: 2700-3000 lbs.
- Current Draw: 0.90 Amp @ 12VDC
  0.45 Amp @ 24VDC
- Weight: 7 lbs.
- Lock Body:
  - Length: 9/"*
  - Height: 1/"*
  - Depth: 1/"*
- w/ Mounting Tabs:
  - Length: 11/"n
  - Height: 1/"*
  - Depth: 1/"*
- Armature:
  - Length: 8/"*
  - Height: 1/"*
  - Depth: 1/"*
- Armature Bracket:
  - Length: 10/"*
  - Height: 1/"*
  - Depth: 1"
Locknetics provides the most complete selection of electromagnetic locks in the industry. The GF3000 Series Shear Lock features a patented design offering advances over any Shear Lock on the market.

Unique mounting features provide a “floating” action of both the lock assembly and the armature. This design allows the magnet assembly to move towards the armature during the locking process. In this manner, the GF3000 is able to overcome gaps of up to 1/4 inch without voltage or current inrush. Once engaged, the Shear Lock provides 3000 pounds holding force, without high operating temperatures normally associated with other Shear Locks. A microprocessor-based control module provides advanced electronic features. This circuitry automatically senses and adjusts input voltage, allowing for operation from 12 to 24 volt DC power sources.

The surface Shear Lock offers the advantage of a totally concealed locking mechanism, providing superior security and appearance. The patented design incorporates locking “tabs” on the magnet assembly with mating grooves in the armature plate. While the strength afforded by this design is a major advantage, the flexible mounting features are as important. This design allows for normal door and frame movement.

This Surface Shear Lock offers maximum versatility in application. The GF3000SM model provides a low profile, surface mount lock for outswinging doors. The GF3000TJ model provides a low profile, surface mount lock for inswinging doors. It provides a unique mounting solution with no brackets needed, which are standard with direct pull magnets. The GF3000SC model provides a semi-concealed variation, with the magnet mortised into the frame and the armature surface mounted on the door. The GF3000SC-HD model is also semi-concealed and includes a Herculite door bracket to mount the armature housing on a glass door with no top rail.

The GF3000SM and TJ models feature a black anodized housing with the choice of modular finish plates (see finish selection on How to Order page).

All models offer built-in automatic relock features ensuring full door closure before lock engagement. Relock time delay is easily adjusted from 0 to 30 seconds from the face of the installed lock. Optional features include Magnetic Bond Sensor (MBS) to monitor the secure/not secure condition of the lock and an optional Door Status Monitor (DSM) to sense the open/closed position of the door.

The GF3000 Series of Shear Locks are UL 10C, CUL, CSFM, and MEA Listed for use on fire labeled openings. The locks are engineered to meet ANSI/BHMA A156.23 standard for electromagnetic locks.

Benefits of Using GF3000 Surface Mounted Series Shear Locks

- Built-in Automatic Relock Switch
- Innovative Gravity Force design provides for movement of both lock and armature to overcome gaps of up to 1/4"
- 3000 lbs. of holding force
- Automatic Voltage Selection 12/24 VDC (filtered)
- Standard time delay on relock, adjustable 0-30 seconds
- Low temperature operation
- Microprocessor controlled
- Optional Magnetic Bond Sensor (MBS)
- Optional Door Status Monitor (DSM)
- Modular, slide-in in finish plates on SM and TJ models
GF3000 Surface Mounted Series Shear Locks

Special Application Solution

How to Order GF3000 Surface Mount Series

GF3000SM – DSM/MBS – 628

1. Select Model

   GF3000SM Standard Unit (outswinging doors)
   Adjustable from top edge of armature. Available in special finishes.
   GF3000TJ Top Jamb Unit (inswinging doors)
   Magnet mounts on inside top jamb. Adjustable from top edge of armature. Available in special finish.
   GF3000SC Semi-Concealed Unit (outswinging doors)
   Magnet is concealed in the frame and the armature assembly is surface mounted.
   GF3000SC-HD Semi-Concealed Unit (outswinging doors) Not Available in special finishes
   Magnet is concealed in the frame and the armature assembly is surface mounted to a glass door.

2. Select Options

   DSM/MBS Door Status Monitor/Magnetic Bond Sensor
   DSM Door Status Monitor
   MBS Magnetic Bond Sensor

3. Select Finish (for GF3000SM & GF3000TJ only)

   628 US28 Satin Aluminum, Anodized (standard)
   335 US19 Satin Black, Anodized
   613 US10B Dark Satin Bronze, Anodized
   626 US26D Satin Chrome
   606 US4 Satin Brass
   630 US32D Satin Stainless Steel
   612 US10 Satin Bronze
   625 US26 Bright Chrome
   605 US3 Bright Br lbs.

   Finishes available for GF3000SM and GF3000TJ Series only: Housing finished in Satin Black Anodized Finish - 335.
   Architectural Finish Plate furnished standard in Satin Aluminum, clear anodized.

Specifications:
Holding Force: 3000 lbs.
Current Draw: .90 Amp @ 12VDC   .45 Amp @ 24VDC
Weight: 8.5 lbs. (SM, TJ suffix)  11.5 lbs. (SC, SC-HD suffix)
Lock Body:
Length: 9 1/2"
Height: 1 1/2"
Depth: 1 1/2"
Armature:
Length: 8 3/4"
Height: 1 3/4"
Depth: 1/2"
GF3000 Surface Mounted Series Shear Locks

Special Application Solution

Surface Shear Lock Applications
The GF3000 Series Surface Shear Locks are designed for use with single or pairs of doors, inswinging or outswinging. A unique inswing model eliminates brackets, standard with direct pull electromagnetic locks.

GF3000 SM
For metal door and frame, glass door with top rail and metal frame, or wood door and frame. For outswinging door applications. Armature adjustment from top edge of the armature.

GF3000 TJ
For metal door and frame, glass door with top rail and metal frame, or wood door and frame. For inswinging door applications. Unique design eliminates brackets with top jamb application. Armature adjustment from top edge of the armature.

GF3000 SC
Semi-concealed model. Magnet is concealed in the frame and the armature assembly is surface mounted on the door. For metal door and frame, glass door with top rail and metal frame, or wood door and metal frame. For outswinging door applications. Unique design when mortise top rail application is not available. Armature adjustment from top edge of the armature.

GF3000 SC-HD
Semi-concealed model with Herculite door bracket. Magnet is concealed in the frame and the armature assembly is surface mounted on the door with a Herculite door bracket. This U-shaped bracket is used on a glass door when no top rail is present. For outswinging door applications. Armature adjustment from top edge of the armature.