# Smart Lock Motor GM2232E



Request a Quote
Name
WhatsApp
CAPTCHA
Submit
2.510402s

**PRODUCT CATEGORIES**

- Brushed Gear Motor
- Brushless Gear Motor
- Coreless Gea
- AC Shaded Pole Gear Motor
- Smart Lock Motor

Contact Us




# Smart Lock Motor GM2232F

## Main Applications

### Smart Door Locks

Drive for latch / bolt transmission mechanisms requiring compact packaging, low-voltage operation and repeatable opening/closing motion.

### Electronic Cabinet & Locker Locks

Suitable for compact electromechanical locking mechanisms where installation space and controlled actuation are important.

### Hotel / Access-Control Lock Mechanisms

Can be evaluated for lock-body actuation requiring repeated cycles and consistent low-voltage drive performance.

### Customized Locking Mechanisms

For non-standard lock bodies, the motor, ratio, pinion/interface, lead wire and terminal can be evaluated against the customer's mechanism and test standard.

## FAQ

### Q1. How can noise be reduced in a smart lock gear motor?

Low-noise performance depends on motor speed, gear material and accuracy, gear ratio, backlash, lubrication, assembly consistency, lock-body resonance, and the control profile. For reliable evaluation, noise should be tested in the actual smart lock mechanism, including startup, running, reversing, and end-position impact, rather than relying only on no-load motor noise.

### Q2. Can a smart lock motor still provide enough torque when the battery is low?

Yes, but the motor and gearbox must be selected based on the minimum operating voltage of the battery, not only the rated voltage. Low-voltage testing should simulate real conditions such as increased latch friction, door pressure, low tempera repeated unlock

**Request a Quote**

2.510402s

Contact Us

to verify starting current, unlocking time, torque margin, and temperature rise.

### Q3. How should stall or jam protection be handled in a smart lock motor system?

Stall protection should be handled by the motor, lock mechanism, and control system together. Common methods include current detection, operation timeout, end-position detection, reverse recovery, mechanical limits, and fault alarms. Peak current and stall duration should also be controlled to reduce the risk of motor overheating or mechanical damage.

### Q4. How do I place an order with Shunli Motor?

Please send us your application requirements or motor specifications. Our engineering team will develop a suitable solution, confirm the technical details, and provide samples for evaluation. Once the samples are approved, we will arrange mass production. Shipping methods can be selected based on your delivery requirements.

Share:

Inquire Now

Next Product

## Product Overview

Compact 4.5 VDC Smart Lock Gearmotor for Electronic Lock Actuation The GM2232F Smart Lock Motor is a compact 4.5 VDC DC gearmotor designed for smart door locks, electronic locks, cabinet locks, and access-control mechanisms requiring stable low-speed drive in a compact housing. The supplied GM2232FMN20-09180 reference configuration uses a 1:267 gear ratio, delivering 44 RPM rated speed and 40 mN·m (400 gf·cm) rated torque, with gearbox efficiency of 45%–60%. Its integrated output gear, compact mounting geometry, and 26AWG lead-wire interface support embedded lock-body transmission layouts.

## Model Information

| Model | Motor Type | Product Category |
| --- | --- | --- |
| GM2232F / GM2232FMN20-09180 | DC Brushed Gearmotor | Smart Lock / Electronic Lock Motor |

Request a Quote

2.510402s

Contact Us

## Main Parameters

**Technical Data**

| Rated Voltage | 4.5 VDC |
|---|---|
| Gear Ratio | 1:267 |
| Gearbox Efficiency | 45%–60% |
| Max. Rated Gearbox Torque | 2–3 kgf·cm |
| Max. Gearbox Break Torque | 5–6 kgf·cm |
| Overall Height Shown | 34.5 mm |
| Housing Width Shown | 21 mm |
| Housing Depth Shown | 15 mm |

**Technical Data**

| Gearmotor Model | Ratio | Voltage | No-Load Speed | No-Load Current | Rated Speed | C |
|---|---|---|---|---|---|---|
| GM2232FMN20-09180 | 1:267 | 4.5 VDC | 55 RPM | ≤ 80 mA | 44 RPM | ≤ 180 mA |

**Technical Data**

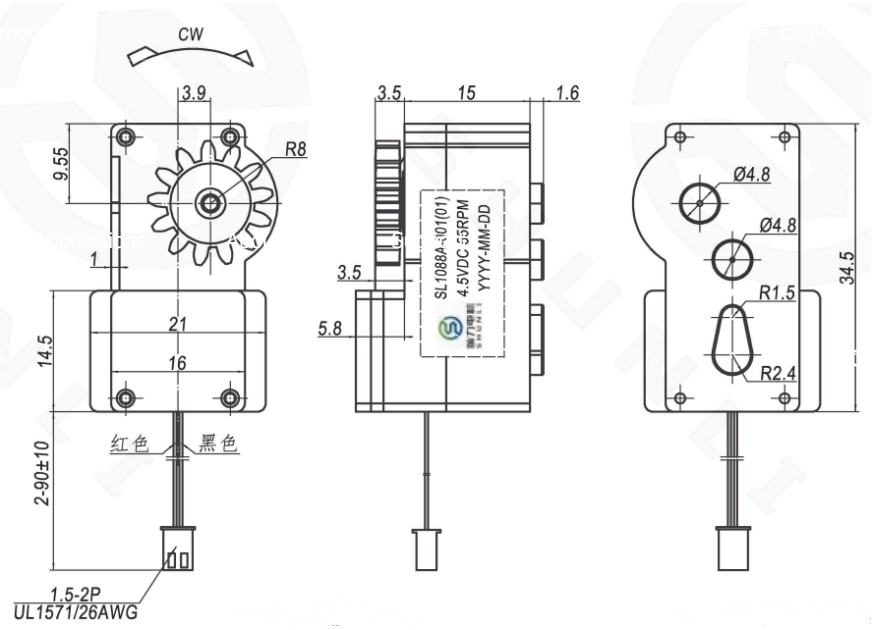
| Overall height shown | 34.5 mm |
|---|---|
| Lower housing width shown | 21 mm |
| Inner body width shown | 16 mm |
| Housing depth shown | 15 mm |
| Output gear reference | R8 (Ø16 mm reference) |
| Center interface holes shown | 2 × Ø4.8 mm |
| Lead / connector shown | 1.5-2P; UL1571 / 26AWG; 90 ± 10 mm |
| Rotation reference | CW |

## Dimension Drawing

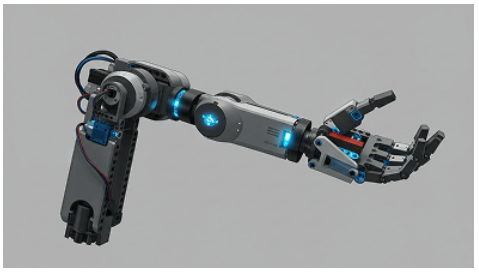


2.510402s

Contact Us

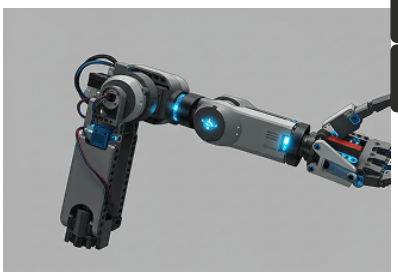



## Main Applications



**Industrial Automation**

Industrial valves, dampers, gates, low-speed rotary platforms, adjustment mechanisms, and



**Industrial Automation**

Industrial valves, dampers, gates, low-sp
rotary platforms, adjustment mechanisms

## Customization Range

- Electrical Configuration
- Working voltage / winding configuration, rotation direction, lead wire length and terminal options.
- Performance Matching
- Gear ratio, target output speed, rated load point, current limit and torque margin based on the real lock mechanism.
- Mechanical Interface
- Output pinion / shaft interface, mounting features and connection to the customer's lock-body transmission.
- Noise & Reliability
- Gear meshing, backlash, lubrication, motor operating point, assembly consistency and complete-lock resonance optimization.
- Control / Feedback Integration

**Request a Quote**

2.510402s

Hall sensor, encoder or other feedback functions can be evaluated when required by the project; availability depends on the final structure and specification.

## FAQ

Applications About Us Support News

Contact Us

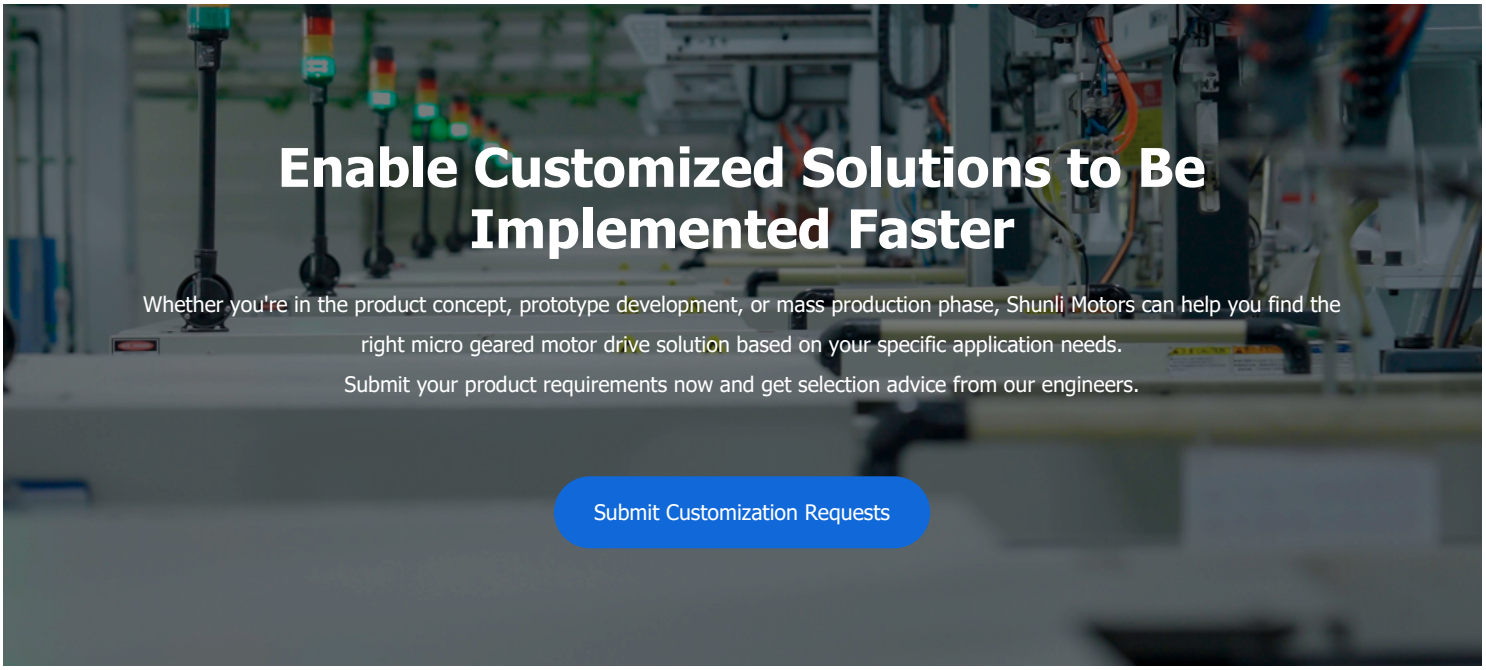
**Q1: What types of projects are best suited to the GM58EM DC Worm Gear Motor?**

Yes. Provide the product structure, space, load, and motion requirements, and our engineering team can assist with parameter conversion and solution evaluation.

Q2: What types of projects are best suited to the GM58EM DC Worm Gear Motor?

Q3: What types of projects are best suited to the GM58EM DC Worm Gear Motor?

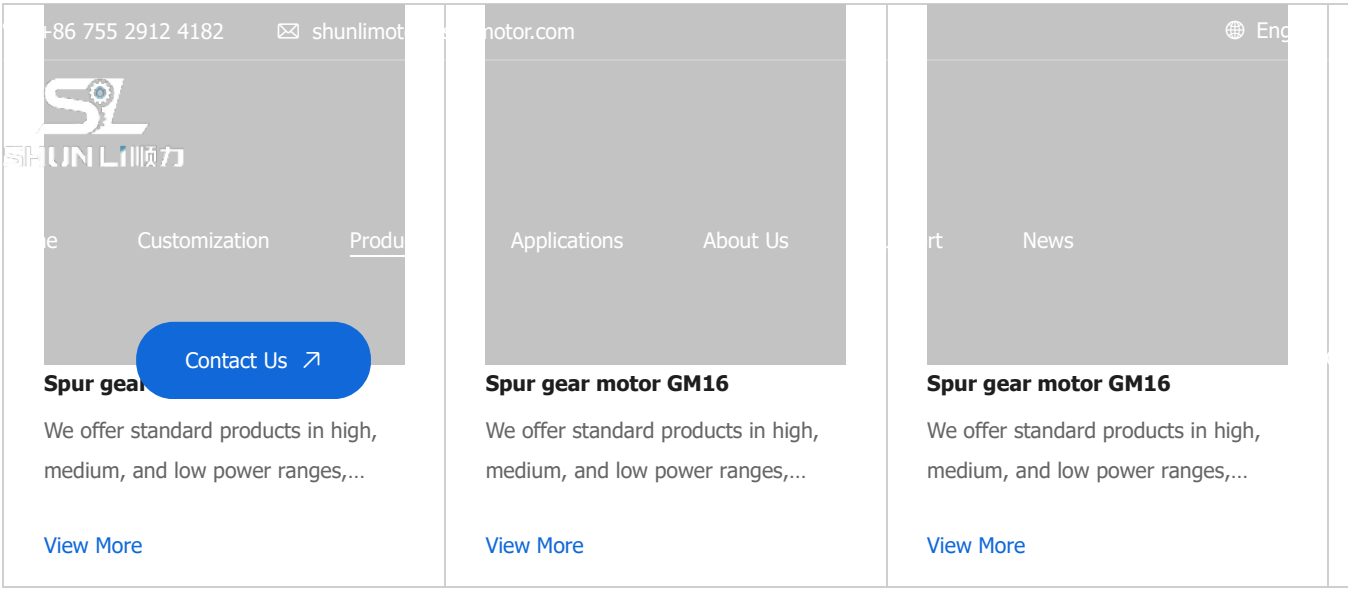
Q4: What types of projects are best suited to the GM58EM DC Worm Gear Motor?




## Related Products

Request a Quote

2.510402s







**Contact Us**

Tel.: +86 755 2912 4182
+86 189 2746 6971
E-mail: shunlimotor@szslmotor.com
WhatsApp: +86 18927467041


**Get in Touch**

* E-mail
* Message
* Submit

Copyright @ Shenzhen Shunli Motor Co., Ltd. All Rights Reserved | Powered by Reanod

**Request a Quote**

2.510402s