

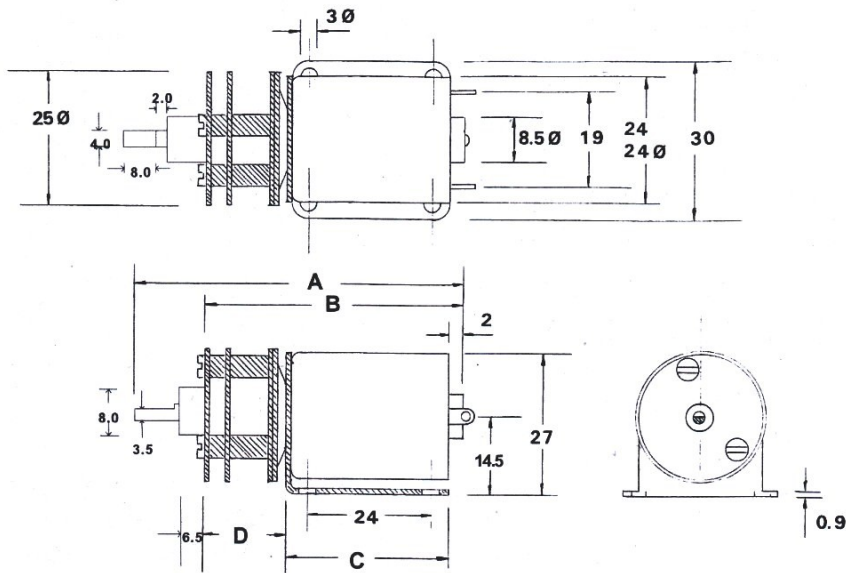
**Datasheet**

# RS PRO, 12 V dc, 488 gcm, Brushed DC Geared Motor, Output Speed 274 rpm

Stock No: 413-0638

**Specifications:**

|                       |          |
|-----------------------|----------|
| Output Speed          | 274 rpm  |
| Supply Voltage        | 12 V dc  |
| Maximum Output Torque | 488 g.cm |
| DC Motor Type         | Brushed  |
| Shaft Diameter        | 4mm      |
| Power Rating          | 1.31 W   |
| Gearhead Type         | Spur     |
| Length                | 51mm     |
| Width                 | 27mm     |
| Current Rating        | 190 mA   |
| Weight                | 78g      |



Operating relative humidity 20% ~ 85%  
 Operating temperature range -10°C ~ +60°C

| Ratio | A      | B      | C      | D      |
|-------|--------|--------|--------|--------|
| 30:1  | 67.5mm | 51.3mm | 33.5mm | 17.8mm |

|                                |                 |
|--------------------------------|-----------------|
| Gearbox Housing material       | Metal           |
| Backlash at no-load            | < 2°            |
| Bearing at output              | Sleeve bearings |
| Radial load (10mm from flange) | < 0.3 kgf       |
| Shaft axial load               | < 0.2 kgf       |
| Shaft press fit force max      | < 2 kgf         |
| Radial play of shaft           | < 0.05mm        |
| Thrust play of shaft           | < 0.3mm         |

| Reduction Ratio | Rated tolerance Torque | Max momentary Tolerance Torque | Efficiency |
|-----------------|------------------------|--------------------------------|------------|
| 1/30            | 0.6 kgf-cm Max.        | 1.8 kgf-cm                     | 65%        |

| Reduction Table RPM<br>SUPPLY VOLTAGE | 6v  | 12v | 18v | 24v |
|---------------------------------------|-----|-----|-----|-----|
| 413-0638                              | 137 | 274 | 411 | 548 |

Note: Motor speeds may vary by (+) or (-) 12.5%