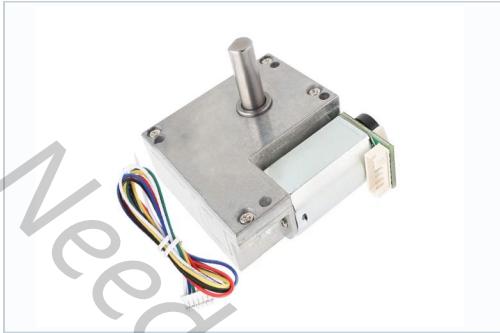


NFP-GF5560-180-EN

20mm worm gear motor / micro flat spur gear motor with encoder



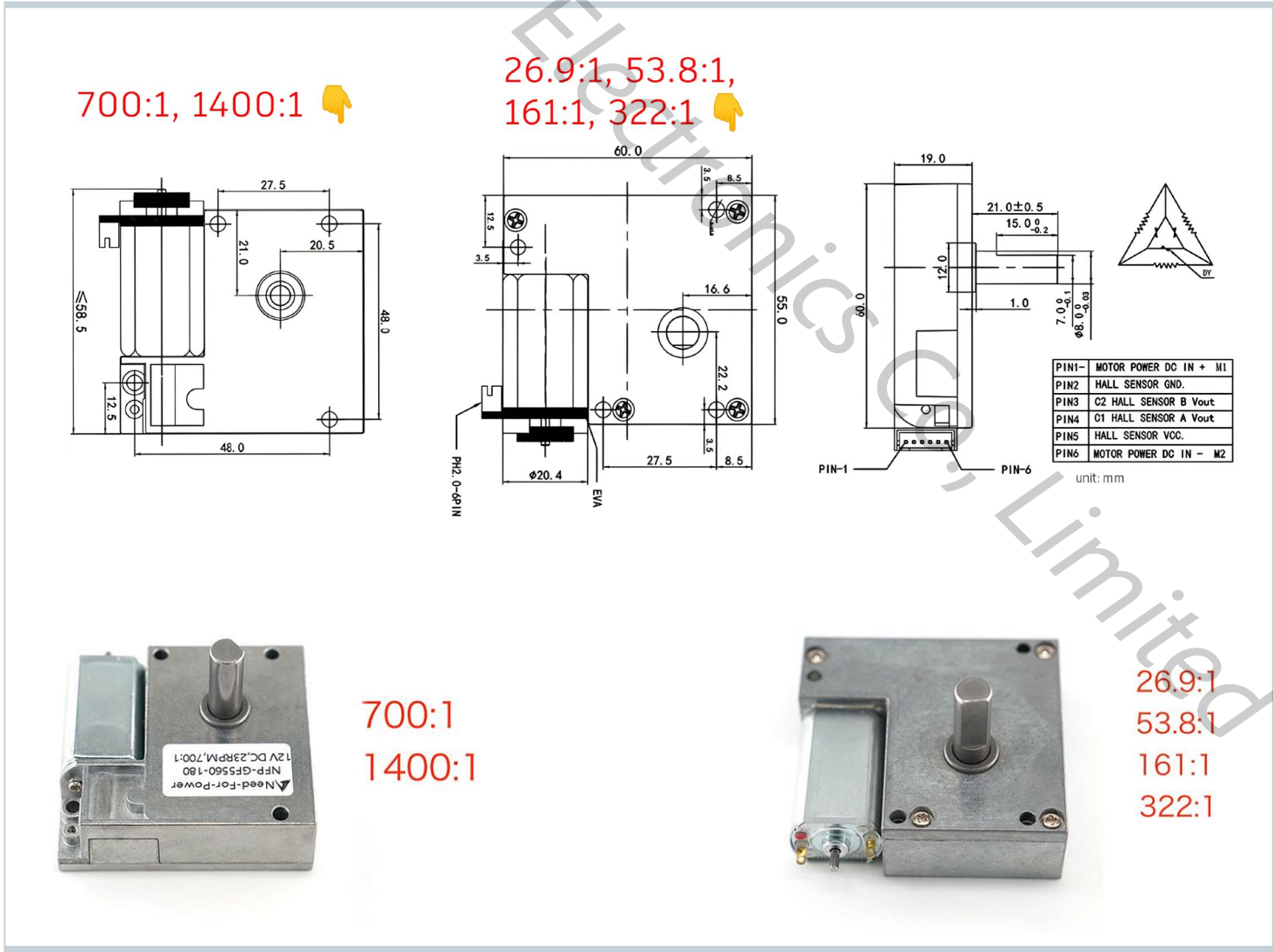
- 1. High torque: The motor gives strong torque across many gear ratios. Therefore, it works well in heavy load tasks.
- 2. Voltage options: The motor supports 6V and 12V DC. In addition, some versions also support 24V DC.
- 3. Self-locking design: The gear box can help stop back-driving. As a result, it helps keep the shaft position stable.
- 4. Compact body: The 20mm motor size saves space. Therefore, it fits small devices and tight layouts.
- 5. Durable build: The motor uses strong materials. Moreover, it can support long-term use in small drive systems.

6V / 12V / 24V PUBLISHED VERSIONS	5rpm-590rpm NO-LOAD SPEED RANGE	26.9:1-1,400:1 RATIO RANGE	\$21.50 WEB PRICE
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PUBLISHED RATIO OPTIONS

Available Ratios	26.9:1 / 53.8:1 / 161:1 / 322:1 / 700:1 / 1,400:1
Rated Speed Examples	6V: 230rpm to 4.5rpm / 12V: 460rpm to 9rpm / 24V 24150#: 200rpm to 8rpm
No-load Speed Tolerance	All reduced no-load speeds have a tolerance of ±15%.
Source	https://nfpshop.com/product/20mm-micro-spur-gear-motor-model-nfp-gf5560-180

180 METAL GEAR MOTOR OUTLINE DRAWING



Performance Data

Published performance tables from NFPshop

6V DC PERFORMANCE DATA

NFP-GF5560-180-EN, 6V DC

Ratio	No-load Speed	No-load Current	Rated Torque	Rated Speed	Rated Current	Stall Torque	Stall Current
26.9:1	290rpm	≤0.13A	0.25kg.cm	230rpm	≤1.8A	≥1kg.cm	≤0.6A
53.8:1	145rpm	≤0.13A	0.5kg.cm	110rpm	≤1.8A	≥2kg.cm	≤0.6A
161:1	50rpm	≤0.13A	1.6kg.cm	40rpm	≤1.8A	≥7kg.cm	≤0.6A
322:1	25rpm	≤0.13A	3kg.cm	19rpm	≤1.8A	≥14kg.cm	≤0.6A
700:1	11rpm	≤0.13A	6.5kg.cm	9rpm	≤1.8A	≥30kg.cm	≤0.6A
1,400:1	5.5rpm	≤0.13A	12.5kg.cm	4.5rpm	≤1.8A	≥40kg.cm	≤0.6A

12V DC PERFORMANCE DATA

NFP-GF5560-180-EN, 12V DC

Ratio	No-load Speed	No-load Current	Rated Torque	Rated Speed	Rated Current	Stall Torque	Stall Current
26.9:1	590rpm	≤0.2A	0.5kg.cm	460rpm	≤0.8A	≥2kg.cm	≤3.3A
53.8:1	295rpm	≤0.2A	1kg.cm	230rpm	≤0.8A	≥4kg.cm	≤3.3A
161:1	100rpm	≤0.2A	3kg.cm	78rpm	≤0.8A	≥14kg.cm	≤3.3A
322:1	50rpm	≤0.2A	6kg.cm	39rpm	≤0.8A	≥28kg.cm	≤3.3A
700:1	23rpm	≤0.2A	13kg.cm	18rpm	≤0.8A	≥40kg.cm	≤3.3A
1,400:1	11rpm	≤0.2A	25kg.cm	9rpm	≤0.8A	≥40kg.cm	≤3.3A

12V 24150# PERFORMANCE DATA

NFP-GF5560-180-EN, 12V 24150#

Ratio	No-load Current	No-load Speed	Rated Torque	Rated Torque	Rated Speed	Rated Current	Stall Current	Stall Torque
53.8:1	≤120mA	135rpm	0.5kg.cm	0.05N.m	100rpm	≤350mA	≤1.25A	≥1.3kg.cm
161:1	≤120mA	45rpm	1.5kg.cm	0.15N.m	33rpm	≤350mA	≤1.25A	≥4kg.cm
322:1	≤120mA	23rpm	3kg.cm	0.3N.m	17rpm	≤350mA	≤1.25A	≥10kg.cm
700:1	≤120mA	10rpm	6kg.cm	0.6N.m	8rpm	≤350mA	≤1.25A	≥18kg.cm
1,400:1	≤120mA	5rpm	12kg.cm	1.2N.m	4rpm	≤350mA	≤1.25A	≥30kg.cm

24V 24150# PERFORMANCE DATA

NFP-GF5560-180-EN, 24V 24150#

Ratio	No-load Current	No-load Speed	Rated Torque	Rated Torque	Rated Speed	Rated Current	Stall Current	Stall Torque
53.8:1	≤150mA	278rpm	0.8kg.cm	0.08N.m	200rpm	≤550mA	≤2.3A	≥3.5kg.cm
161:1	≤150mA	93rpm	2.5kg.cm	0.1N.m	70rpm	≤550mA	≤2.3A	≥10kg.cm
322:1	≤150mA	47rpm	5kg.cm	0.5N.m	36rpm	≤550mA	≤2.3A	≥20kg.cm
700:1	≤150mA	21rpm	10kg.cm	1N.m	16rpm	≤550mA	≤2.3A	≥30kg.cm
1,400:1	≤150mA	10.5rpm	20kg.cm	2N.m	8rpm	≤550mA	≤2.3A	≥40kg.cm