SIGGEAR / ELECTROMECHANICAL TRANSMISSION

SG-2878

6 Nm Hub Gear Motor | 24 VDC | Planetary 9.75:1

PUBLIC CATALOGUE REFERENCE | Rev0.1 | 2026-11-19

DIAMETER	RATED TORQUE	RATED SPEED	RATIO
99 mm	**6 Nm**	**110 rpm ±10%**	**9.75:1**

Published specifications

Rated voltage	24 VDC	Housing diameter	99 mm
Rated motor power	75 W	Body thickness	74 +/-0.2 mm
Rated current	< 4.5 A	Published overall length	125 mm
No-load output speed	130 rpm ±10%	Source 2D overall	127 +/-0.5 mm
Rated output speed	110 rpm ±10%	Gear / housing	SMF4030 / PA66
Rated output torque	6 Nm	Mechanical backlash	< 1.5°
Momentary peak torque	18 Nm	Ingress protection	IP67
Reduction ratio	9.75:1	Weight	1100 ± 20 g

Motor / controller reference

Standard feedback	Hall sensors, 120 deg	Phase inductance	0.57 +/-10% mH
Motor structure	18 slots / 20 poles	Full-range phase current	15 A max (catalogue)
Insulation	Class B	Rated bus-current limit	7.5 A max (catalogue)
Motor rated load	0.65 N.m	Locked-rotor current	< 8 A (catalogue)
Phase resistance	0.57 +/-10% mOhm (supplier label - verify unit)		

Standard: BLDC motor, planetary reduction and Hall feedback. External controller required unless explicitly included. No standard CANopen, RS485, integrated driver or full control kit is claimed.

SG-2878

6 Nm Hub Gear Motor | 24 VDC | Planetary 9.75:1

PUBLIC CATALOGUE REFERENCE | Rev0.1 | 2026-11-19

24 V factory-source test observations

Feature points copied from the supplied performance table. Ambient: 25.9 C (source screenshot). These are bench measurements, not permissible continuous duty points.

Feature point	Speed rpm	Torque N.m	Out W	U V	I A	In W	Eff.
No load	145.35	0.0000	0.000	24.029	0.5375	12.915	0.00%
Maximum efficiency	121.17	5.9085	74.967	23.999	4.1393	99.339	75.47%
Maximum output	70.029	19.525	143.17	23.998	11.975	287.37	49.82%
Maximum torque (test)	25.443	28.544	76.047	23.997	18.364	440.68	17.26%

The test table may include loads above the published momentary peak-torque rating. Maximum torque in a test is NOT a safe rated or peak operating limit.

Mechanical reference / CAD status

Reference drawing	SG2878-6Nm / revision A
Drawing date	2025-07-04
Drawing outer diameter	99 +/-0.1 mm
Drawing overall length	127 +/-0.5 mm
3D exchange format	Parasolid text transmit .x_t (not STEP)
2D source release	Reference drawing only; not approved manufacturing tolerances
CAD release	Source geometry not validated for public integration

Source reconciliation and design-in

Catalog total length 125 mm vs original drawing Rev A 127 +/-0.5 mm - engineering confirmation required.

- Confirm version-matched pilot, shaft, housing envelope and mounting requirements with SigGear engineering.
- Choose controller, continuous duty, ambient temperature and protection method for final assembly. Peak torque is not the continuous rating.
- This PDF is a public reference. Do not substitute it for the original 2D drawing, factory-controlled tolerances or an approved Parasolid / STEP design release.

Engineering enquiries

wangwanrong@siggear.com | www.siggear.com