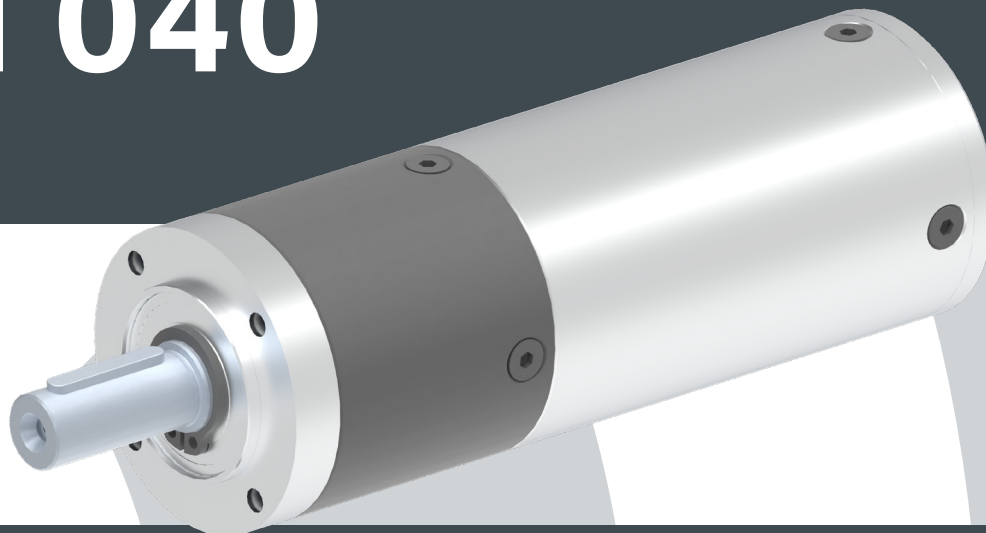


Planetary gearmotor **PCEM 040**



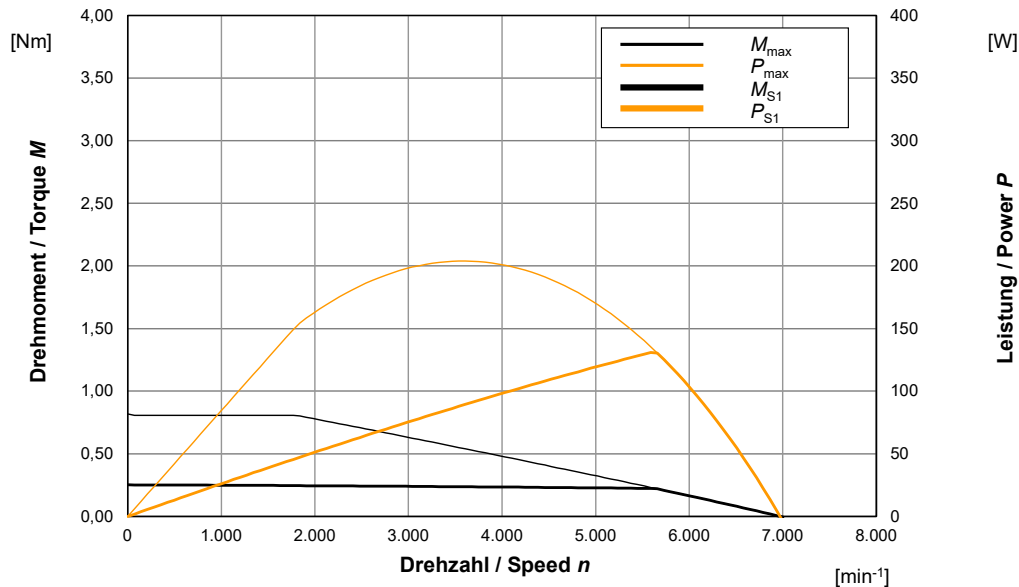
Experience the convenient combination of gearbox and motor to take the next evolutionary step in your application. The compact servomotor is suitable for the smallest installation spaces and therefore offers you maximum flexibility. We support you in selecting the right modules for your projects.

Specifications

- Highly dynamic 3-phase brushless DC motor
- Low cogging torque
- High efficiency and high power density
- Protection class IP44
- Modular design
- An integrated controller is planned for the future
- Further PCEM 060 and 080 series sizes to follow
- Combination with angular gearboxes possible (BPCEM)

Technical features

Motorkennlinie / Motor Characteristic



Zwischenkreisspannung	DC bus voltage	U_{DC}	24	V
Drehmomentkonstante	torque constant	k_m	0,040	Nm/A
Spannungskonstante	voltage constant	k_e	0,032	Vs
Motorkonstante	motor constant	k_{mot}	0,052	$\frac{\text{Nm}}{\sqrt{\text{W}}}$
Umgebungstemperatur	ambient temperature	ϑ_u	40	°C
Maximale Wicklungstemperatur	maximum winding temperature	ϑ_{\max}	140	°C
Wärmeübergangswiderstand	heat transmission resistance	R_{th}	2,300	K/W
Maximale Leistung	maximum power	P_{\max}	204	W
Maximales Drehmoment	maximum torque	M_{\max}	0,82	Nm
Maximaler Strom	maximum current	I_{\max}	25,0	A
Dauerstillstandsrehmoment	continuous stall torque	M_0	0,25	Nm
Dauerstillstandsstrom	continuous stall current	I_0	7,08	A
Leerlaufdrehzahl	idle speed	n_0	7.003	min^{-1}
Bemessungsdrehmoment	rated torque	M_n	0,22	Nm
Bemessungsstrom	rated current	I_n	6,25	A
Bemessungsdrehzahl	rated speed	n_n	5.588	min^{-1}
Anschlußwiderstand	motor terminal resistance	R_{tt}	0,393	Ω
Anschlußinduktivität	motor terminal inductance	L_{tt}	0,158	mH
Elektrische Zeitkonstante	electrical time constant	τ_e	0,4	ms
Polpaarzahl	number of pole pairs	p	3	
Massenträgheitsmoment Aktivteil	inertia active part	J	0,028	kgcm^2
Masse Aktivteil	mass active part	m	0,185	kg

Technical features

Technical Data Encoder

Power supply	Vdd = 3.3 V or 5 V $\pm 5\%$
Current consumption	Max. 35 mA
Output signals	A+, B+, Z+, A-, B- Z- (RS422)
Hysteresis	0.18°
Resolutions	32, 64, 128, 256, 512, 1024, 2048, 4096 cpr
Maximum speed	30,000 rpm
Temperature (operating and storage)	-40 °C to +85 °C (limited by FFC connector)

Technical drawing

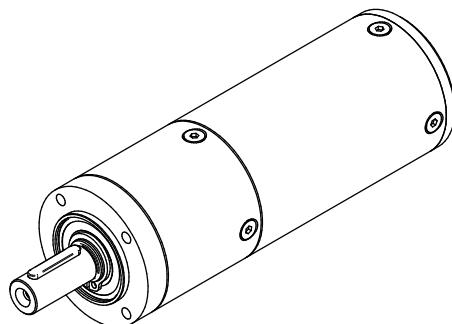
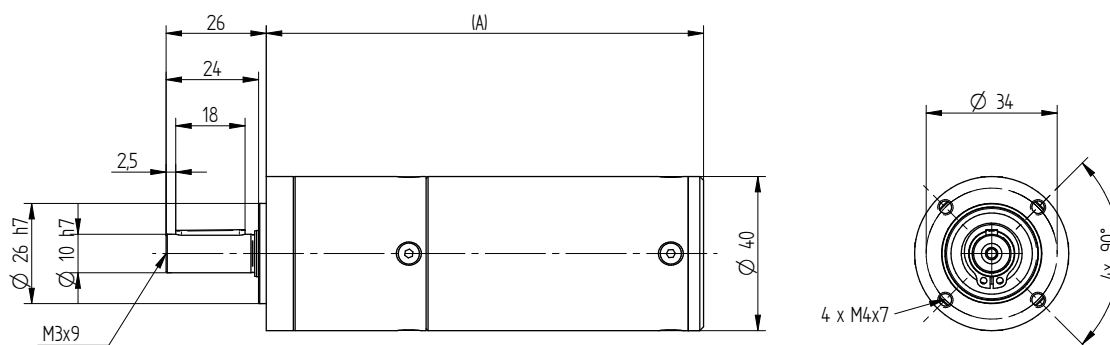
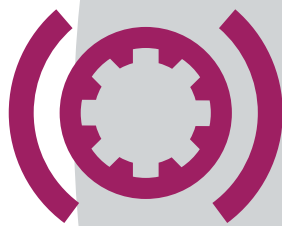


Table of dimensions	
Article	A
PCEM 040 015	105 mm
PCEM 040 030	120 mm
PCEM 040 045	135 mm
PCEM 040 060	150 mm



ATEK
DRIVE SOLUTIONS
BRAKES · GEARS · MOTORS

ATEK DRIVE SOLUTIONS GMBH
Siemensstraße 47 · D- 25462 Rellingen

E-Mail Sales Department: sales@atek.de

Phone: +49 4101/79 53-0

Fax: +49 4101/79 53-20

www.atek.de

