

Brushless DC-Micromotors

sensorless

0,012 mNm

For combination with
Micro Planetary Gearhead:
02/1
Motion Controller: contact the manufacturer

Series 0206 ... B

	0206 H	001 B	
Nominal voltage	U_N	1	V _{eff}
Terminal resistance, phase-phase	R	7,2	Ω
Output power max. ¹⁾	$P_{2 \text{ max.}}$	0,13	W
Efficiency max.	$\eta \text{ max.}$	26,7	%
No-load speed	$n \text{ max.}$	100 000	rpm
No-load current	I_o	0,032	A
Stall torque	$M \text{ max.}$	0,0095	mNm
Friction torque, static	C_o	0,001	mNm
Friction torque, dynamic	C_v	$0,0015 \cdot 10^{-5}$	mNm/rpm
Speed constant	k_n	126 320	rpm/V
Back-EMF constant	k_E	0,00792	mV/rpm
Torque constant	k_M	0,0756	mNm/A
Current constant	k_I	13,223	A/mNm
Slope of n-M curve	$\Delta n / \Delta M$	12 030 000	rpm/mNm
Terminal inductance, phase-phase	L	3,9	μH
Mechanical time constant	τ_m	9	ms
Rotor inertia	J	0,00007	gcm ²
Angular acceleration	$\alpha \text{ max.}$	1 350	10 ³ rad/s ²
Thermal resistance	$R_{th 1} / R_{th 2}$	50 / 250	K/W
Thermal time constant	τ_{w1} / τ_{w2}	0,15 / 9,2	s
Operating temperature range		- 30 ... + 125	°C
Shaft bearings:		sleeve bearing	
Shaft load max.:			
– radial at 20 000 rpm		0,2	N
– axial at 20 000 rpm		0,2	N
– axial at standstill		1	N
Shaft play:			
– radial	≤	20	μm
– axial	≤	50	μm
Housing material		steel, nickel plated	
Weight		0,09	g
Direction of rotation		electronically reversible	
Recommended values - mathematically independent of each other			
Speed up to ²⁾	$n_e \text{ max.}$	100 000	rpm
Torque up to ^{1) 2)}	$M_e \text{ max.}$	0,012	mNm
Current up to (thermal limits) ^{1) 2)}	$I_e \text{ max.}$	0,2	A

¹⁾ at 100 000 rpm

²⁾ thermal resistance $R_{th 2}$ not reduced

