

NEW

Brushless Flat DC-Micromotors

3,8 mNm

For combination with
Speed Controller:
SC 1801

Series 2610 ... B

	2610 T	006 B	012 B	
1 Nominal voltage	U_N	6	12	Volt
2 Terminal resistance, phase-phase	R	7,0	28,2	Ω
3 Output power ¹⁾	$P_{2 \text{ max.}}$	1,92	1,91	W
4 Efficiency	$\eta_{\text{ max.}}$	78	78	%
5 No-load speed	n_0	6 200	6 200	rpm
6 No-load current	I_0	0,012	0,006	A
7 Stall torque	M_H	7,73	7,68	mNm
8 Friction torque, static	C_0	0,025	0,025	mNm
9 Friction torque, dynamic	C_v	$1,35 \cdot 10^{-5}$	$1,35 \cdot 10^{-5}$	mNm/rpm
10 Speed constant	k_n	1 055	528	rpm/V
11 Back-EMF constant	k_E	0,948	1,895	mV/rpm
12 Torque constant	k_M	9,05	18,1	mNm/A
13 Current constant	k_I	0,111	0,055	A/mNm
14 Slope of n-M curve	$\Delta n / \Delta M$	816	822	rpm/mNm
15 Terminal inductance, phase-phase	L	480	1 940	μH
16 Mechanical time constant	τ_m	69	70	ms
17 Rotor inertia	J	8,1	8,1	gcm^2
18 Angular acceleration	$\alpha_{\text{ max.}}$	9,5	9,5	$\cdot 10^3 \text{ rad/s}^2$
19 Thermal resistance	$R_{\text{th} 1} / R_{\text{th} 2}$	33 / 27		K/W
20 Thermal time constant	τ_{w1} / τ_{w2}	20 / 230		s
21 Operating temperature range		-25 ... +80		$^{\circ}\text{C}$
22 Shaft bearings		ball bearing, preloaded		
23 Shaft load max.:				
– radial at 3 000/7 000 rpm (3 mm from mounting flange)		4,0 / 3,5		N
– axial at 3 000/7 000 rpm (push-on only)		3,5 / 3,4		N
– axial at standstill (push-on only)		17,5		N
24 Shaft play:				
– radial	\leq	0,015		mm
– axial	$=$	0		mm
25 Housing material		plastic		
26 Weight		20,1		g
27 Direction of rotation		electronically reversible		
Recommended values - mathematically independent of each other				
28 Speed up to	$n_e \text{ max.}$	7 000	7 000	rpm
29 Torque up to ^{1) 2)}	$M_e \text{ max.}$	3,24 / 3,77	3,23 / 3,75	mNm
30 Current up to ^{1) 2)}	$I_e \text{ max.}$	0,416 / 0,481	0,207 / 0,240	A

¹⁾ at 5 000 rpm

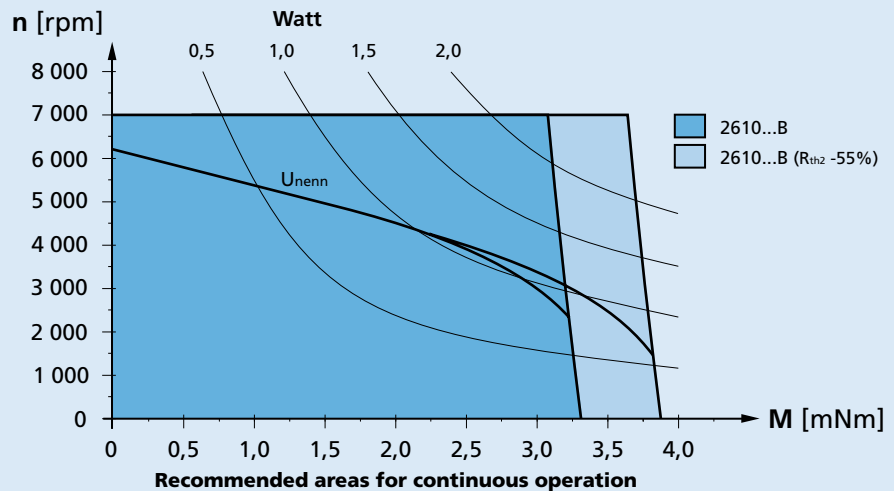
²⁾ thermal resistance $R_{\text{th} 2}$ not reduced / thermal resistance $R_{\text{th} 2}$ by 55% reduced

Note:

The diagram indicates the recommended speed in relation to the available torque at the output shaft for a given ambient temperature of 22°C.

The diagram shows the motor in a completely insulated as well as thermally coupled condition ($R_{\text{th} 2}$ 55% reduced).

The nominal voltage curve shows the operating point at nominal voltage in the insulated and thermally coupled condition. Any points of operation above the curve at nominal voltage will require a higher operating voltage. Any points below the nominal voltage curve will require less voltage.



2610 T ... B

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