

DC-Micromotors

Graphite Commutation

20 mNm

For combination with:

Gearheads:

23/1, 26/1, 30/1, 38/1, 38/2, 38/3

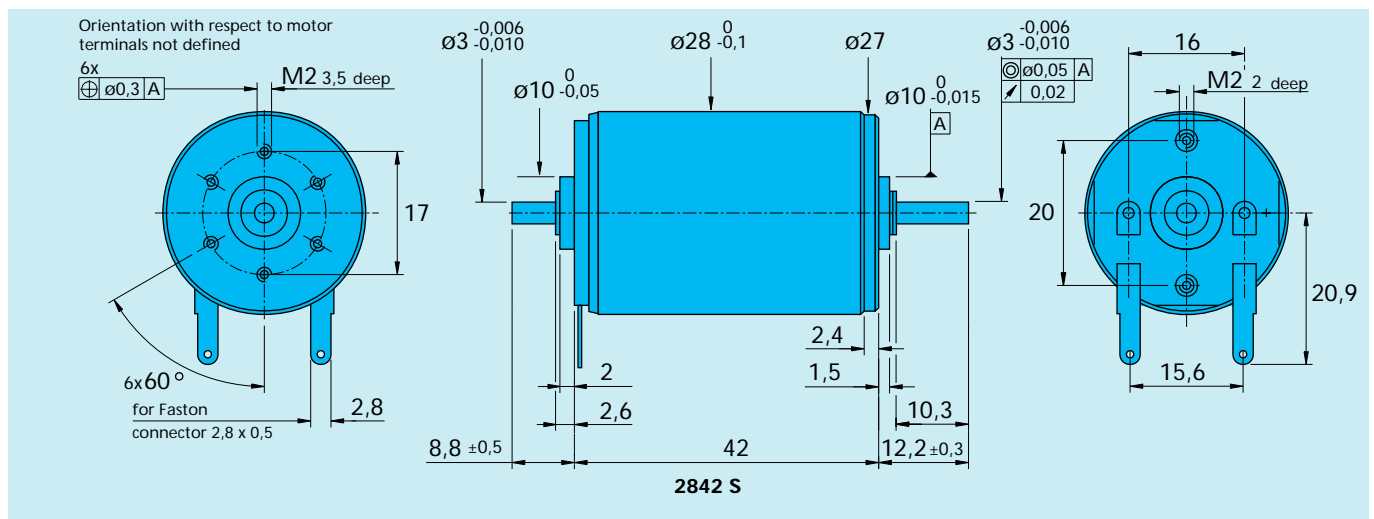
Encoders:

10/09B, 10/09BP, 5500, 5540

Series 2842 ... C

	2842 S		006 C	012 C	024 C	028 C	036 C	
1 Nominal voltage	U _N		6	12	24	28	36	Volt
2 Terminal resistance	R		1,6	5,3	21,0	28,5	46,0	Ω
3 Output power	P _{2 max.}		5,33	6,50	6,56	6,57	6,74	W
4 Efficiency	η _{max.}		72	74	74	74	74	%
5 No-load speed	n _o		5 100	5 100	5 000	5 100	5 200	rpm
6 No-load current (with shaft ø 3,0 mm)	I _o		0,100	0,050	0,025	0,022	0,017	A
7 Stall torque	M _H		39,9	48,6	50,1	49,3	49,5	mNm
8 Friction torque	M _R		1,10	1,10	1,10	1,10	1,10	mNm
9 Speed constant	k _n		873	435	213	186	148	rpm/V
10 Back-EMF constant	k _E		1,150	2,300	4,700	5,370	6,770	mV/rpm
11 Torque constant	k _M		10,90	22,00	44,80	51,30	64,70	mNm/A
12 Current constant	k _I		0,091	0,046	0,022	0,020	0,015	A/mNm
13 Slope of n-M curve	Δn/ΔM		128	105	99,8	103	105	rpm/mNm
14 Rotor inductance	L		145	580	2 500	3 200	5 000	μH
15 Mechanical time constant	τ _m		13	15	15	15	15	ms
16 Rotor inertia	J		9,7	14,0	14,0	14,0	14,0	gcm ²
17 Angular acceleration	α _{max.}		41	36	35	36	36	·10 ³ rad/s ²
18 Thermal resistance	R _{th 1} / R _{th 2}	2 / 16						K/W
19 Thermal time constant	τ _{w1} / τ _{w2}	8 / 831						s
20 Operating temperature range:								
– motor		– 30 ... + 125						°C
– rotor, max. permissible		+ 125						°C
21 Shaft bearings		ball bearings, preloaded						
22 Shaft load max.:								
– with shaft diameter		3,0						mm
– radial at 3000 rpm (3 mm from bearing)		20						N
– axial at 3000 rpm		2						N
– axial at standstill		20						N
23 Shaft play:								
– radial	≤	0,015						mm
– axial	=	0						mm
24 Housing material		steel, zinc galvanized and passivated						
25 Weight		132						g
26 Direction of rotation		clockwise, viewed from the front face						
Recommended values								
27 Speed up to	n _{e max.}		5000	5 000	5 000	5 000	5 000	rpm
28 Torque up to ¹⁾	M _{e max.}		20	20	20	20	20	mNm
29 Current up to (thermal limits)	I _{e max.}		1,550	0,870	0,430	0,370	0,290	A

¹⁾ thermal resistance $R_{th 2}$ by 40% reduced



For notes on technical data refer to "Technical Information" in the main catalogue

Specifications subject to change without notice