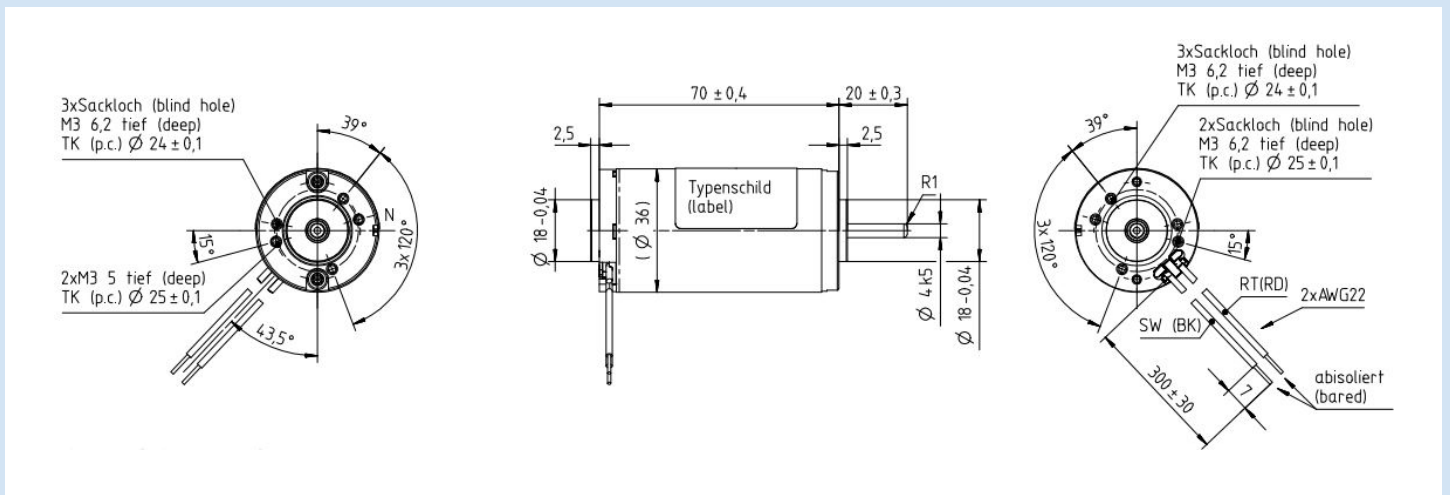


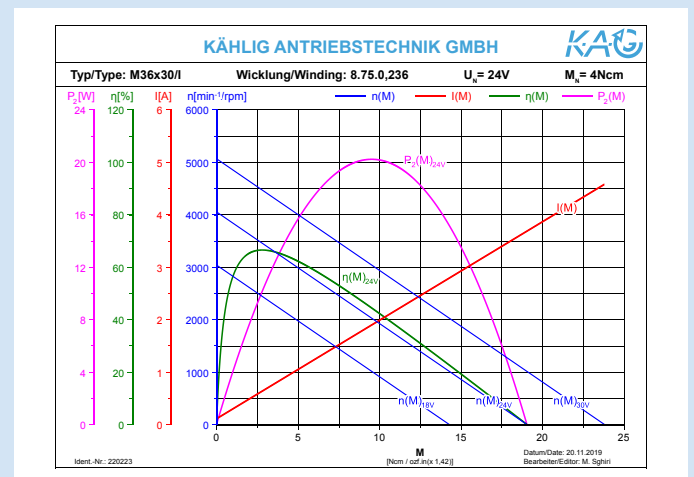
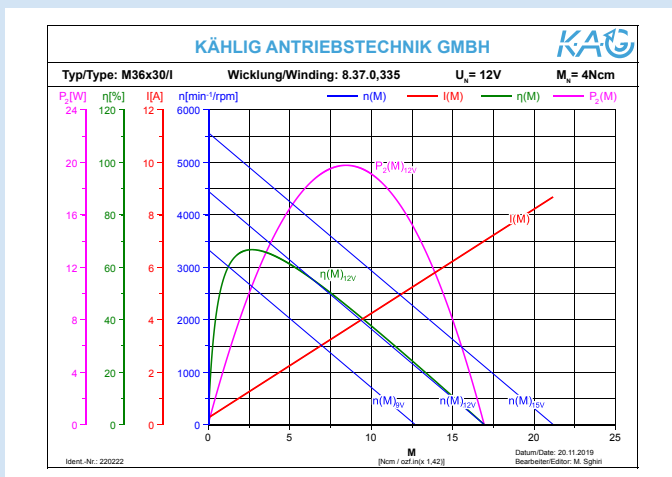
DC-Motor M36x30/I

Id.-Nr. 220344 (12V) 220623 (24V)

- Brushed DC motor with permanent magnets
- Ball bearings
- Lead wires
- Chromatised housing
- Direction of rotation CW / CCW



Application on request



Stand: 23. Juli 2020 – changes reserved

DC-Motor M36x30/I

Id.-Nr. 220344 (12V) 220623 (24V)

Performance

	Sign	Unit	Value 12V	Value 24V	Tolerances
Rated Voltage	U_N	V	12	24	
Rated torque ¹⁾	M_N	Ncm	4	4	
Rated speed ¹⁾	n_N	min ⁻¹	3400	3200	±10%
Rated current ¹⁾	I_N	A	1,84	0,86	±20%
No load speed ¹⁾	n_0	min ⁻¹	4450	4050	±15%
No load current ¹⁾	I_0	A	0,25	0,11	±50%
Rated power output ¹⁾	P_{2N}	W	14,2	13,4	
Rated power input ¹⁾	P_{IN}	W	22,1	20,6	
Rated efficiency ¹⁾	η_N	%	64,5	64,9	
Maximum power output ²⁾³⁾	P_{2max}	W	19,7	20,2	
Maximum continuous torque ²⁾³⁾	M_{max}	Ncm	4	4	
Maximum continuous current ²⁾³⁾	I_{max}	A	1,84	0,86	
Maximum speed ¹⁾³⁾	n_{max}	min ⁻¹	10000	10000	
Anhaltmoment ¹⁾	M_H	Ncm	17	19,1	
Stall torque ¹⁾	I_H	A	7	3,7	
Demagnetization current	I_E	A	10,3	5,1	
Connecting resistance	R	Ω	1,72	6,52	
Armature resistance ¹⁾	R_A	Ω	1,4	5,8	±5%
Armature inductance [1 kHz] ¹⁾	L_A	mH	1,1	4,5	
Rise of speed-characteristic ¹⁾	k_D	Ncm/min	- 262,5	- 212,5	
Torque constant ¹⁾	k_M	Ncm/A	2,5	5,3	
Voltage constant ¹⁾	k_E	V/10 ³ min ⁻¹	2,6	5,7	
Friction torque ¹⁾	M_R	Ncm	- 0,6	- 0,6	
Mechanical time constant ¹⁾	T_M	ms	11,2	9,6	
Electrical time constant ¹⁾	T_e	ms	0,6	0,7	
Rotor inertia	J_R	gcm ²	53	53	
Maximum case temperature ²⁾	ϑ_G	°C	80	80	
Starting voltage ¹⁾	U_A	V	2	2	
Permissible axial shaft loads ³⁾	F_{axial}	N	30	30	
Permissible radial shaft loads ³⁾	F_{radial}	N	80	80	
Protection class DIN VDE 0530			IP40		
Duty cycle DIN VDE 0530			S1		
Insulation class DIN VDE 0530			E		
Lifetime at rated torque _N			≥ 3000 h		
Ambient temperature			-30°C to +40°C		
Bearing			2 ball bearings		
Interference suppression			2 x L(3,9μH)		

1) ϑ_w Winding temperature ≈ 20°C 2) $\Delta\vartheta_w$ allowable = 100K
 3) The operating at maximum levels reduces the lifespan

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