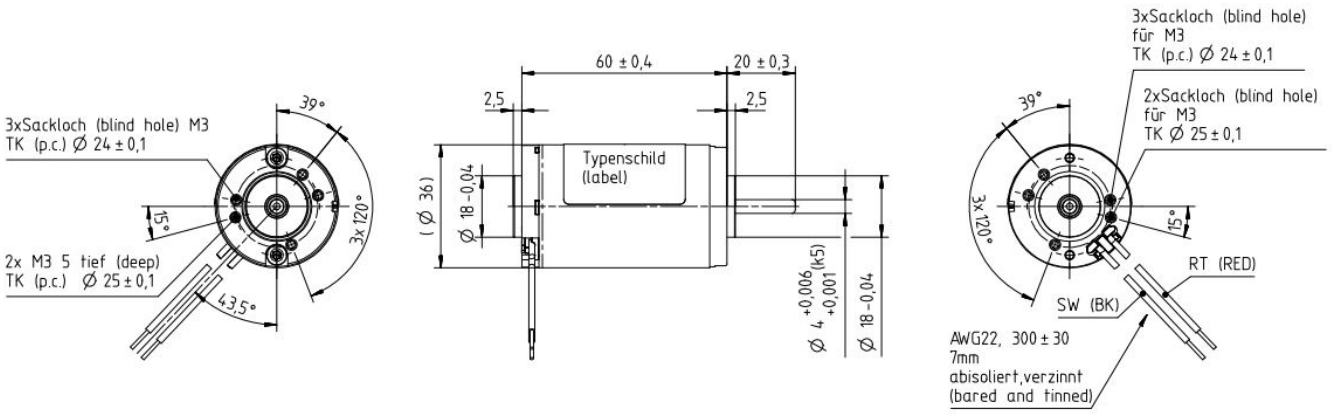
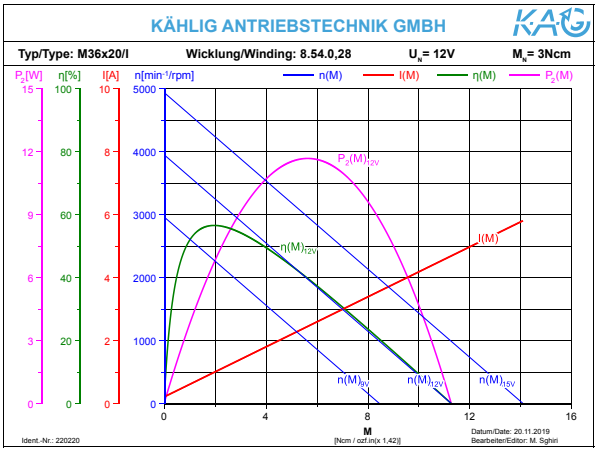
DC-Motor M36x20/I
Id.-Nr. 220343 (12V) 221904 (24V)

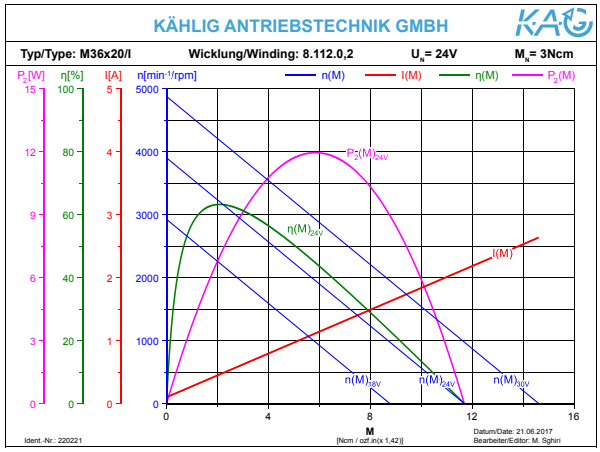
excellent drives

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



Application on request





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DC-Motor M36x20/I
Id.-Nr. 220343 (12V) 221904 (24V)

KAG excellent drives

Performance

	Sign	Unit	Value 12V	Value 24V	Tolerances
Rated Voltage	U_N	V	12	24	
Rated torque [1]	M_N	Ncm	3	3	
Rated speed [1]	n_N	min^{-1}	2900	2900	±10%
Rated current [1]	I_N	A	1,4	0,62	±20%
No load speed [1]	n_0	min^{-1}	3950	3900	±15%
No load current [1]	I_0	A	0,21	0,1	±50%
Rated power output [1]	P_{2N}	W	9,1	9,1	
Rated power input [1]	P_{1N}	W	16,8	14,9	
Rated efficiency [1]	η_N	%	54,2	61,2	
Maximum power output [2)3)]	P_{2max}	W	11,7	11,9	
Maximum continous torque [2)3)]	M_{max}	Ncm	3	3	
Maximum continous current [2)3)]	I_{max}	A	1,4	0,62	
Maximum speed [1)3)]	n_{max}	min^{-1}	10000	10000	
Anhaltemoment [1]	M_H	Ncm	11,3	11,7	
Stall torque [1]	I_H	A	4,7	2,2	
Demagnetization current	I_E	A	7,1	3,4	
Connecting resistance	R	Ω	2,56	10,98	
Armature resistance [1]	R_A	Ω	2,3	9,85	±5%
Armature inductance [1 kHz] [1]	L_A	mH	1,86	8	
Rise of speed-characteristic [1]	k_D	Ncm/min	- 350	- 333,3	
Torque constant [1]	k_M	Ncm/A	2,5	5,6	
Voltage constant [1]	k_E	$V/10^3 min^{-1}$	2,9	5,9	
Friction torque [1]	M_R	Ncm	- 0,5	- 0,4	
Mechanical time constant [1]	T_M	ms	10,4	10,8	
Electrical time constant [1]	T_e	ms	0,7	0,7	
Rotor inertia	J_R	gcm^2	38	38	
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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