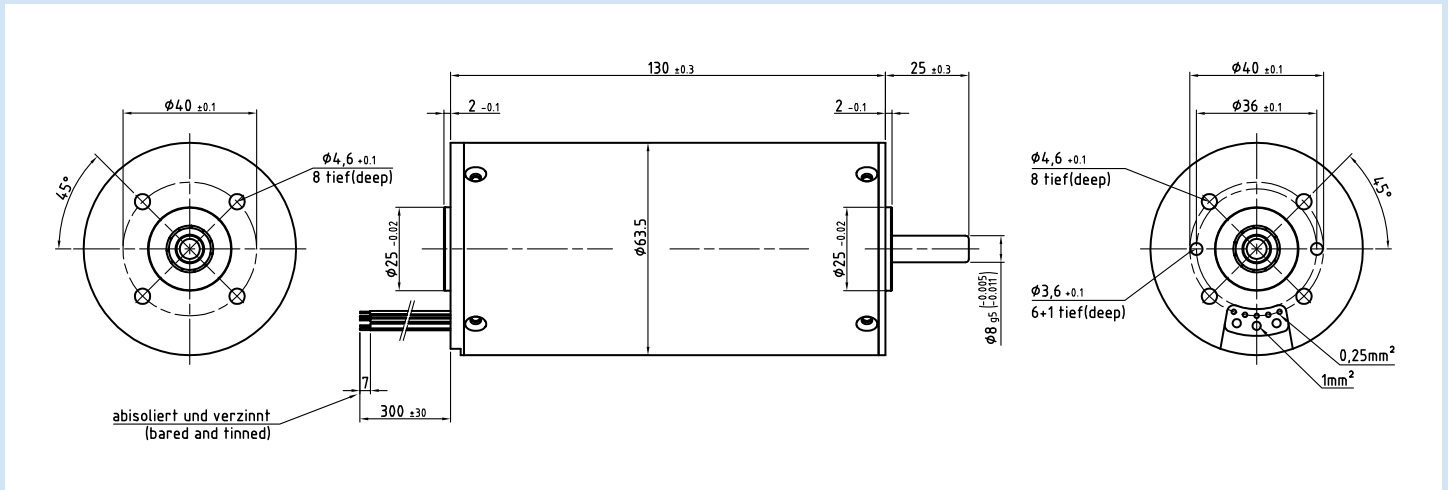


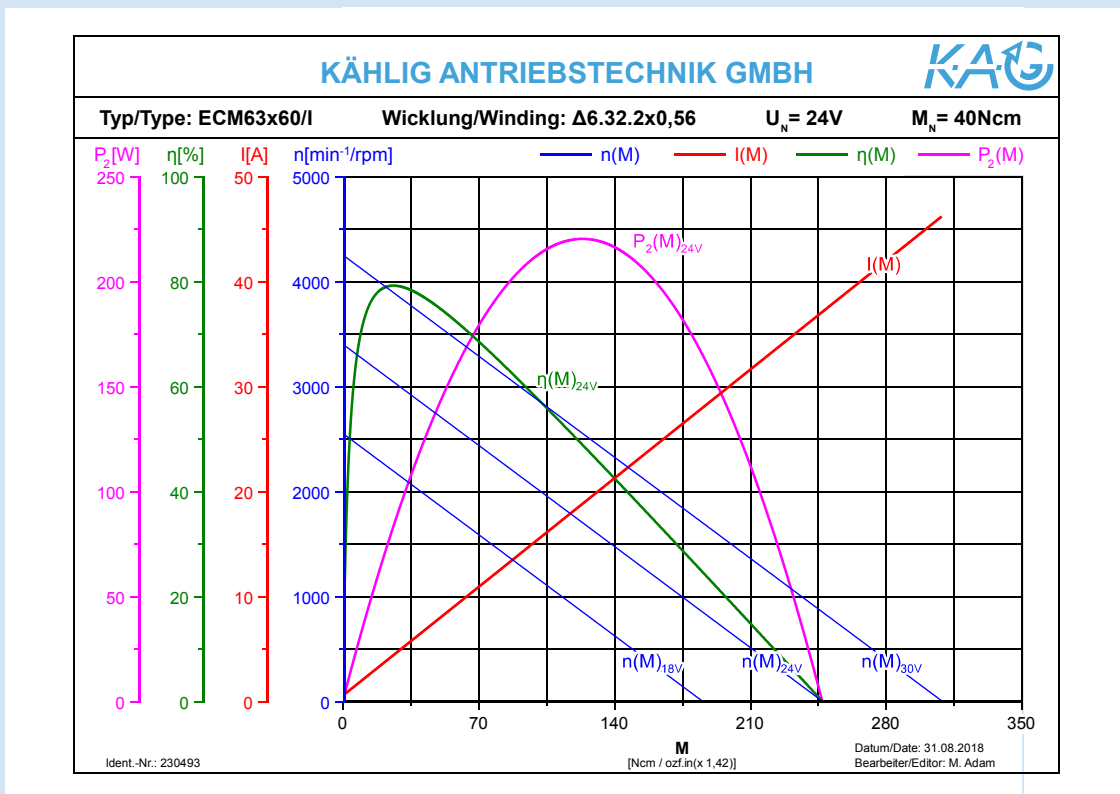
EC-Motor ECM63x60

Id.-Nr. 230493 (24V)

- 4-pole rotor with plastic-bonded magnets NeFeB
- Threefold winding connected in delta
- 3 internal Hall sensors for rotor position detection offset by 120°
- Lead wires (standard), other connections on request
- Closed aluminium housing with aluminium bearing flanges
- Direction of rotation CW / CCW
- Multiple combination possibilities with gears, encoders, brakes and control electronics



Application on request



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Performance

	Sign	Unit	Value	Tolerance
Rated voltage	U_N	V	24	
Rated torque ¹⁾	M_N	Ncm	40	
Rated speed ¹⁾	n_N	min ⁻¹	2850	±10%
Rated current ¹⁾	I_N	A	6,43	±20%
No load speed ¹⁾	n_o	min ⁻¹	3400	±15%
No load current ¹⁾	I_o	A	0,52	±50%
Rated power output ¹⁾	P_{2N}	W	119,4	
Rated power input ¹⁾	P_{IN}	W	154,3	
Rated efficiency ¹⁾	η_N	%	77,4	
Maximum power output ²⁾³⁾	P_{2max}	W	220,1	
Maximum continuous torque ²⁾³⁾	M_{max}	Ncm	40	
Maximum continuous current ²⁾³⁾	I_{max}	A	6,43	
Maximum speed ¹⁾³⁾	n_{max}	min ⁻¹	8000	
Stall torque ¹⁾	M_H	Ncm	247,3	
Stall current ¹⁾	I_H	A	37,1	
Stator resistance ¹⁾	R_A	Ω	0,34	±5%
Stator inductance [1 kHz] ¹⁾	L_A	mH	0,53	
Rise of speed-characteristics ¹⁾	k_D	Ncm/min ⁻¹	-13,75	
Torque constant ¹⁾	k_M	Ncm/A	6,77	
Voltage constant ¹⁾	k_E	V/10 ³ min ⁻¹	6,96	
Friction torque ¹⁾	M_R	Ncm	-3,52	
Mechanical time constant ¹⁾	T_M	ms	2,29	
Electrical time constant ¹⁾	T_e	ms	1,56	
Rotor inertia	J_R	gcm ²	306	
Maximum case temperature ²⁾	ϑ_G	°C	100	
Starting voltage ¹⁾	U_A	V	20	
Permissible axial shaft loads ³⁾	F_{axial}	N	110	
Permissible radial shaft loads ³⁾	F_{radial}	N	300	
Protection class DIN VDE 0530			IP50	
Duty cycle DIN VDE 0530			S1	
Insulation class DIN VDE 0530			F	
Lifetime at rated torque			≥ 20000 h	
Ambient temperature			-30°C to +40°C	
Bearing			2 ball bearings	

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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