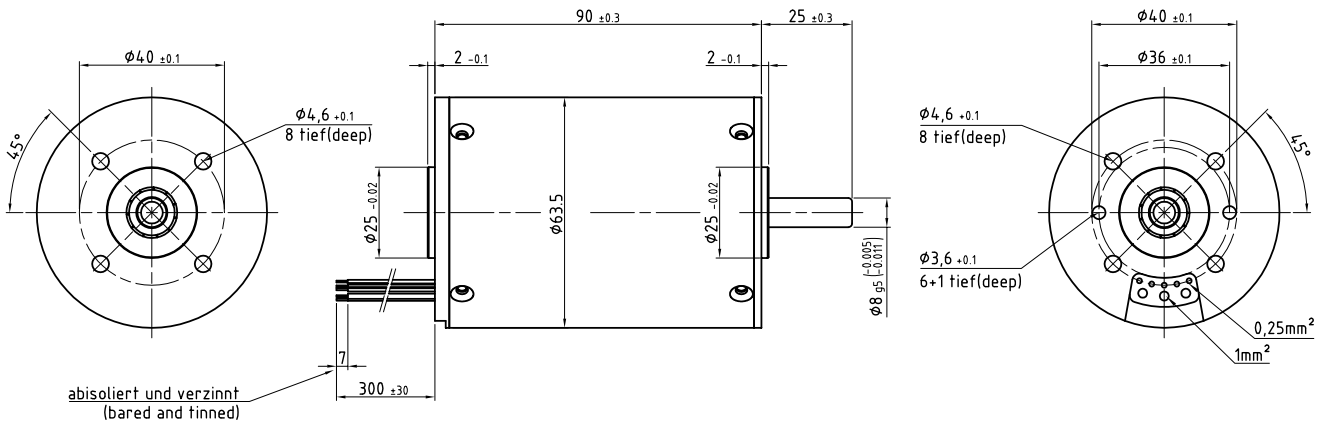
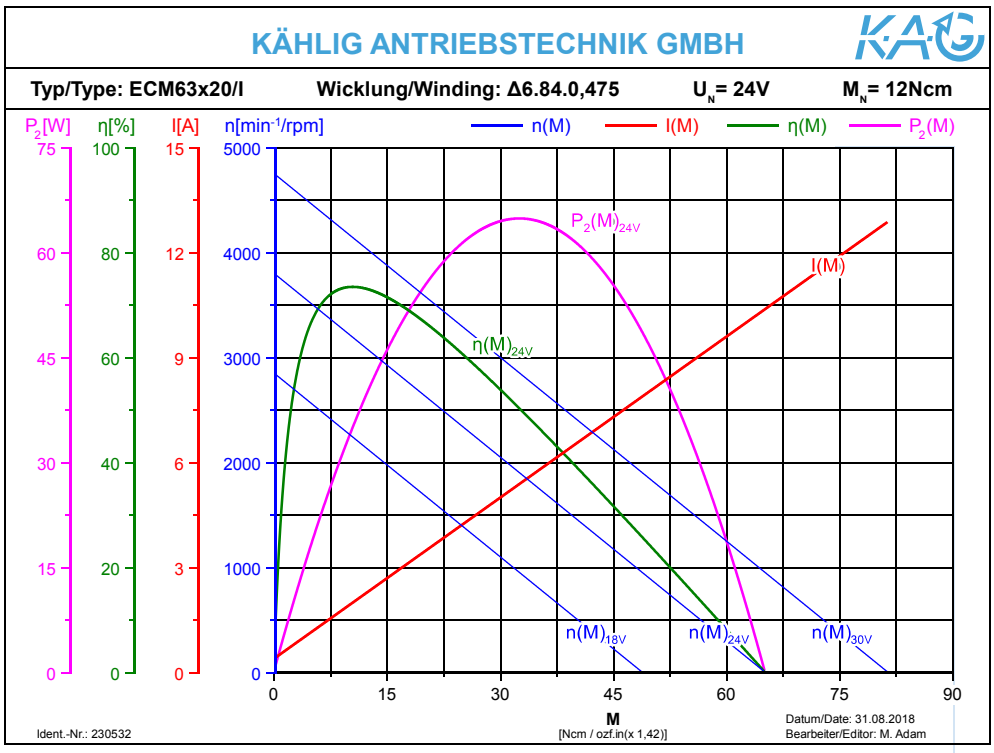
EC-Motor ECM63x20
Id.-Nr. 230532 (24V)

excellent drives

- 4-pole rotor with plastic-bonded magnets NeFeB
- Threefold winding connected in delta
- 3 internal Hall sensors for rotor position detection offest 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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Performence

	Sign	Unit	Value	Tolerance
Rated voltage	U_N	V	24	
Rated torque [1)]	M_N	Ncm	12	
Rated speed[1)]	n_N	min^{-1}	3100	±10%
Rated current [1)]	I_N	A	2,22	±20%
No load speed [1)]	n_0	min^{-1}	3800	±15%
No load current [1)]	I_0	A	0,38	±50%
Rated power output [1)]	P_{2N}	W	39	
Rated power input [1)]	P_{1N}	W	53,3	
Rated efficiency [1)]	η_N	%	73,1	
Maximum power output [2)3)]	P_{2max}	W	64,8	
Maximum continous torque [2)3)]	M_{max}	Ncm	12	
Maximum continous current [2)3)]	I_{max}	A	2,22	
Maximum speed[1)3)]	n_{max}	min^{-1}	8000	
Stall torque [1)]	M_H	Ncm	65,1	
Stall current [1)]	I_H	A	10,4	
Stator resistance [1)]	R_A	Ω	1,45	±5%
Stator inductance[1 kHz] [1)]	L_A	mH	1,52	
Rise of speed-characteristics [1)]	k_D	Ncm/min^{-1}	-58,33	
Torque constant [1)]	k_M	Ncm/A	6,52	
Voltage constant [1)]	k_E	$V/10^3min^{-1}$	6,08	
Friction torque [1)]	M_R	Ncm	-2,48	
Mechanical time constant [1)]	T_M	ms	4,23	
Electrical time constant [1)]	T_e	ms	1,05	
Rotor inertia	J_R	gcm^2	106	
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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