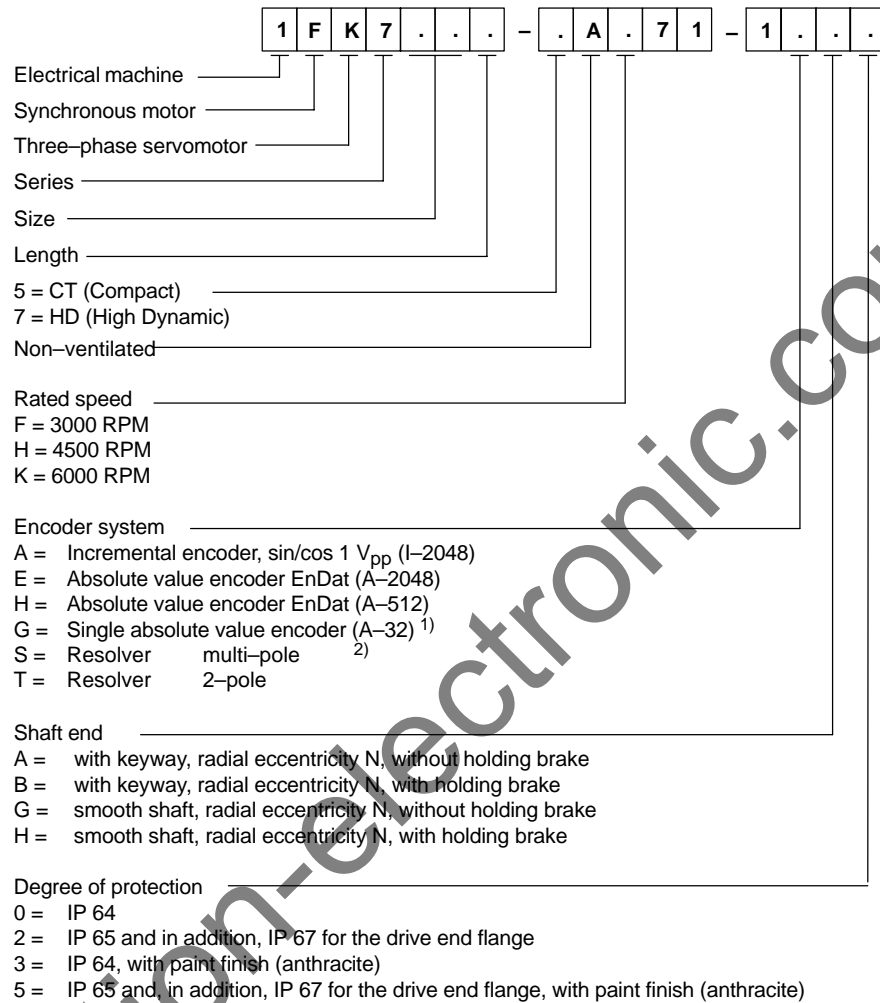


Explanation of the order designation



¹⁾ Not for shaft heights 28 and 36

²⁾ The encoder pole number corresponds to that of the motor

2.1 Speed–torque diagrams 1FK7 CT

Table 2-6 1FK7063 CT

Technical data	Code	Units	–5AF71	–5AH71
Engineering data				
Rated speed	n_N	RPM	3000	4500
Pole number	2p		8	8
Rated torque (100 K)	M_N (100 K)	Nm	7.3	3
Rated current	I_N	A	5.6	3.8
Standstill torque (60K)	M_0 (60 K)	Nm	9.1	9.1
Standstill torque (100K)	M_0 (100 K)	Nm	11	11
Standstill current (60K)	I_0 (60 K)	A	6.6	9.9
Standstill current (100K)	I_0 (100 K)	A	8.0	12.0
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm ²	17.3	17.3
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm ²	15.1	15.1
Optimum operating point				
Optimum speed	n_{opt}	RPM	3000	3300
Optimum power	P_{opt}	kW	2.29	2.32
Limiting data				
Max. perm. speed (mechan.)	n_{max}	RPM	7200	7200
Max. torque	M_{max}	Nm	35	35
Peak current	I_{max}	A	28	42
Physical constants				
Torque constant	k_T	Nm/A	1.37	0.91
Voltage constant	k_E	V/1000 RPM	87.5	58
Winding resistance at 20°C	R_{phase}	Ohm	0.65	0.29
Rotating field inductance	L_D	mH	7.7	3.2
Electrical time constant	T_{el}	ms	11.8	11
Shaft torsional stiffness	c_t	Nm/rad	35000	35000
Mechanical time constant	T_{mech}	ms	1.56	1.58
Thermal time constant	T_{th}	min	35	35
Weight with brake	m	kg	12	12
Weight without brake	m	kg	11.5	11.5

2.1 Speed-torque diagrams 1FK7 CT

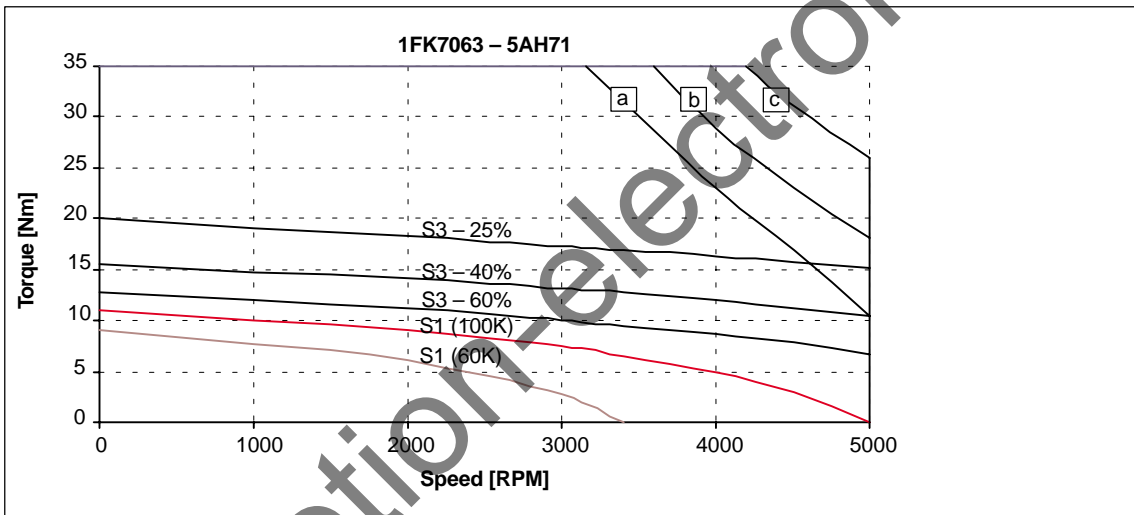
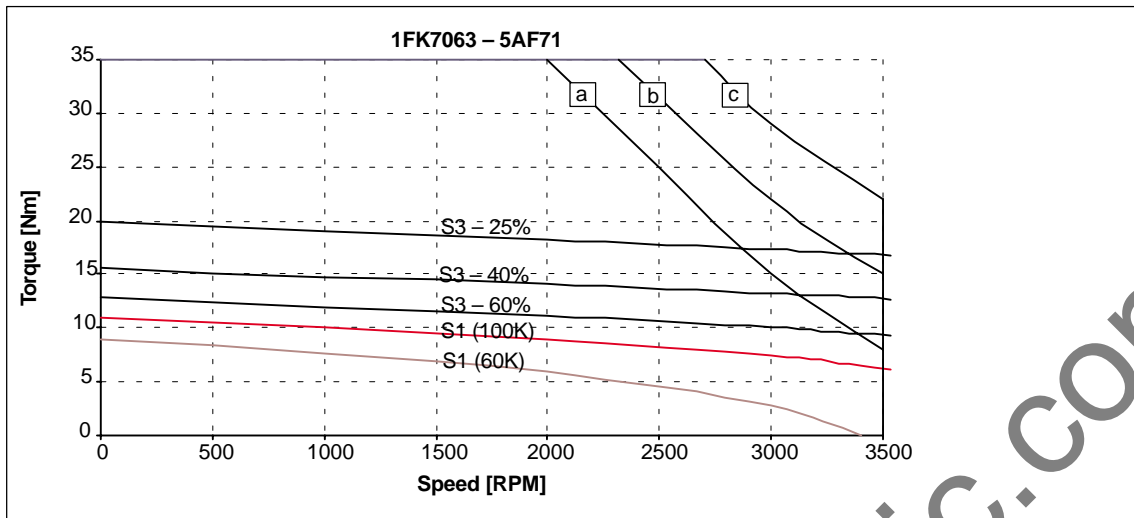


Fig. 2-6 Speed-torque diagram 1FK7063 CT

- [a] MASTERDRIVES MC, $V_{DC \text{ link}}=540V \text{ (DC)}$, $V_{mot}=340V_{rms}$
 [b] SIMODRIVE 611 (UE), $V_{DC \text{ link}}=540V \text{ (DC)}$ and MASTERDRIVES MC (AFE), $V_{DC \text{ link}}=600V \text{ (DC)}$,
 $V_{mot}=380V_{rms}$
 [c] SIMODRIVE 611 (IR), $V_{DC \text{ link}}=600V \text{ (DC)}$, $V_{mot}=425V_{rms}$

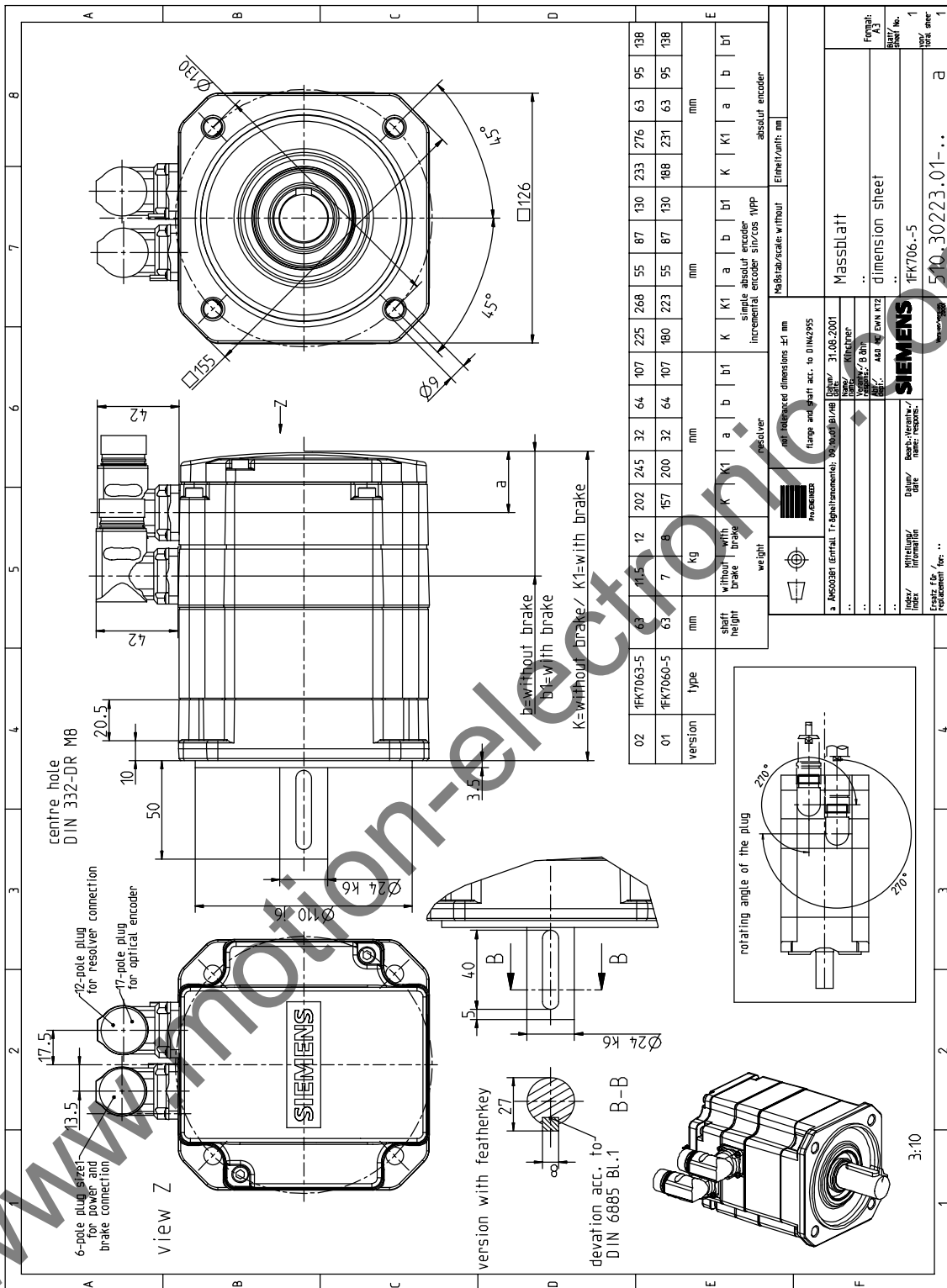


Fig. 4-4 1FK706□-5, non-ventilated with angled connector, Size 1

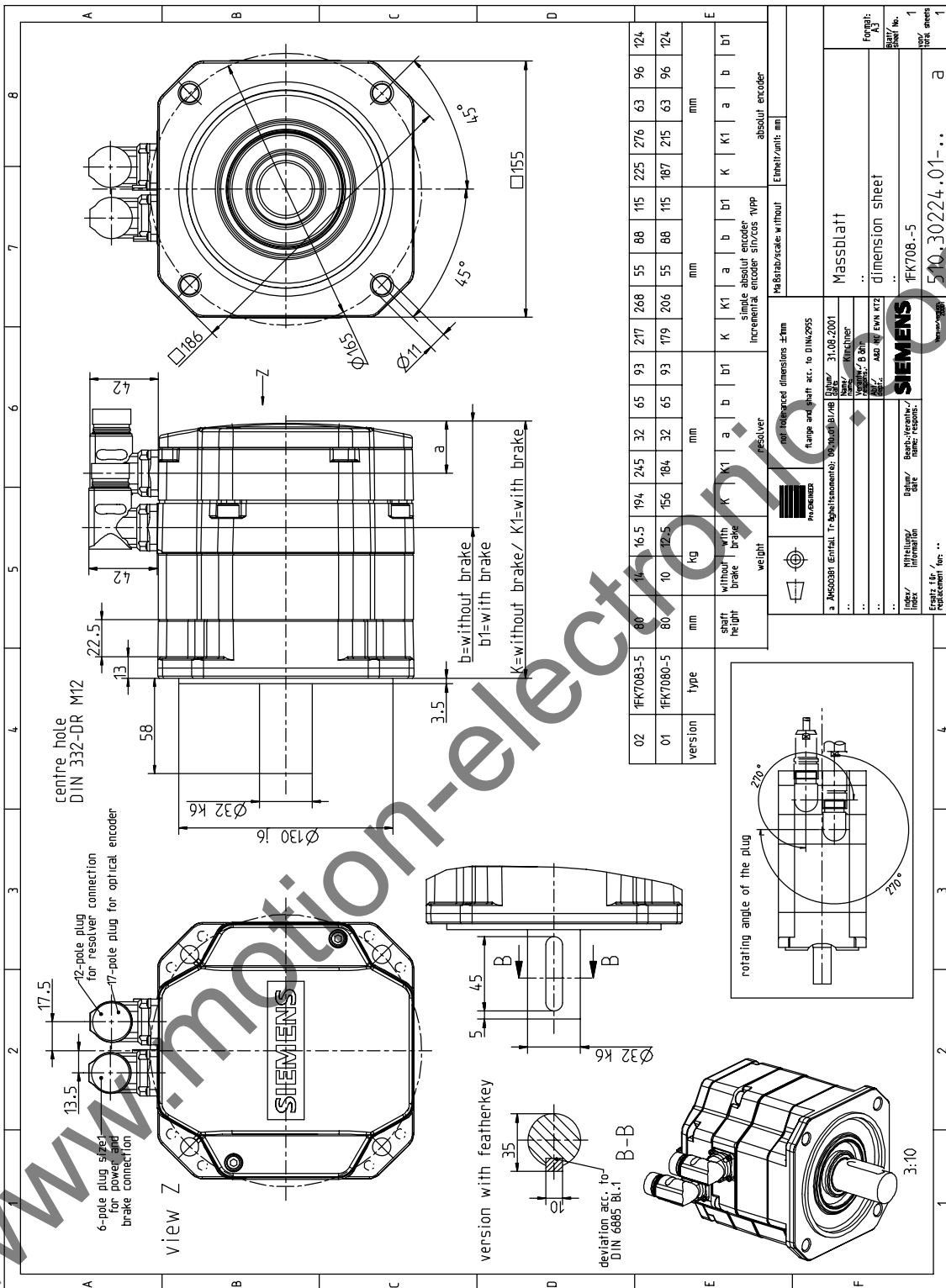


Fig. 4-5 1FK708□-5, non-ventilated with angled connector, Size 1