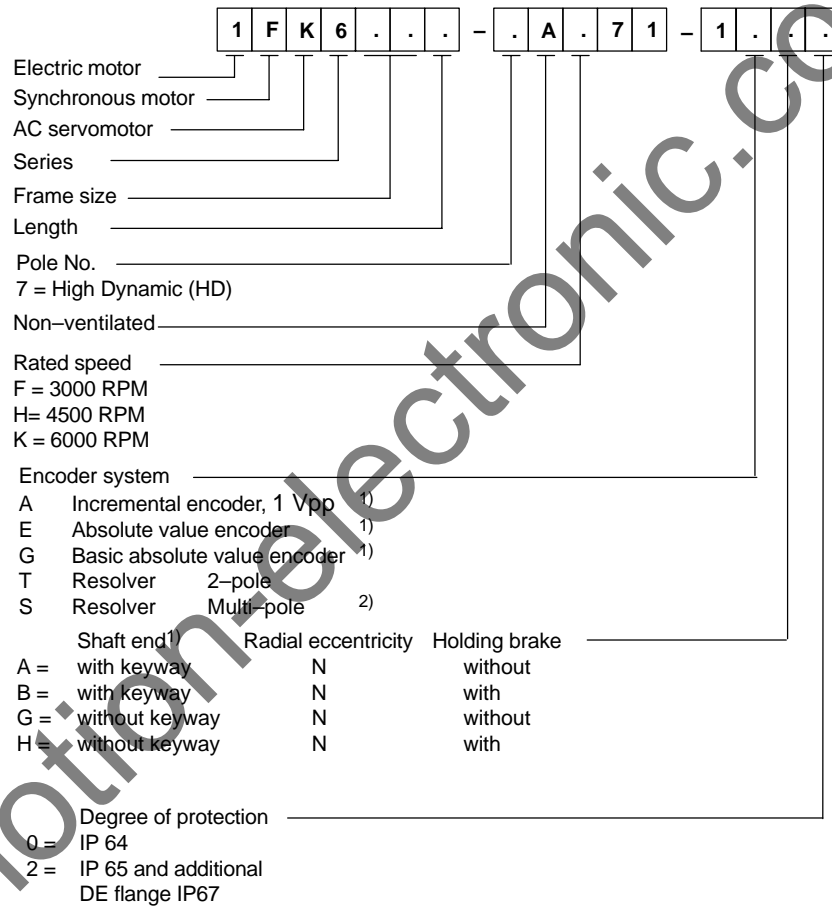


2

Order Designations

Order designation



1FK6

1) not for shaft height 36
 2) encoder pole number corresponds to that of the motor

3.1 Speed-torque diagrams

Table 3-3 Standard motor 1FK6042

1FK6042				
Technical data	Code	Units	-6AF7	
Engineering data				
Rated speed	n_{rated}	RPM	3000	
Rated torque	M_{rated} (100 K)	Nm	2.6	
Rated current	I_{rated}	A	2.4	
Stall torque	M_0 (60 K)	Nm	2.65	
Stall torque	M_0 (100 K)	Nm	3.2	
Stall current	I_0 (60 K)	A	2.2	
Stall current	I_0 (100 K)	A	2.8	
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm ²	3.68	
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm ²	3.47	
Limit data				
Max. speed	n_{max}	RPM	6200	
Max. torque	M_{max}	Nm	10.6	
Peak current	I_{max}	A	9.5	
Limiting torque	M_{limit}	Nm	10.3	
Limiting current	I_{limit}	A	9.5	
Physical constants				
Torque constant	k_T	Nm/A	1.15	
Voltage constant	k_E	V/1000 RPM	76	
Winding resistance	R_{ph}	Ohm	3.65	
Three-phase inductance	L_D	mH	13.5	
Electrical time constant	T_{el}	ms	3.7	
Mechanical time constant	T_{mech}	ms	2.9	
Thermal time constant	T_{th}	min	35	
Thermal resistance	R_{th}	W/K	0.2	
Weight with brake	m	kg	5.4	
Weight without brake	m	kg	5	

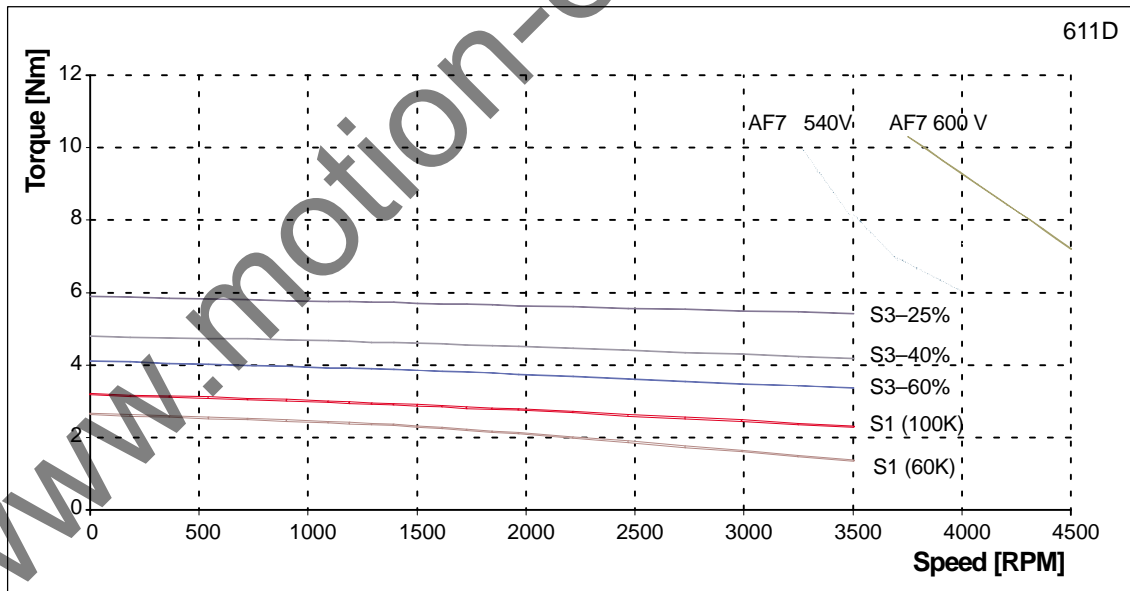
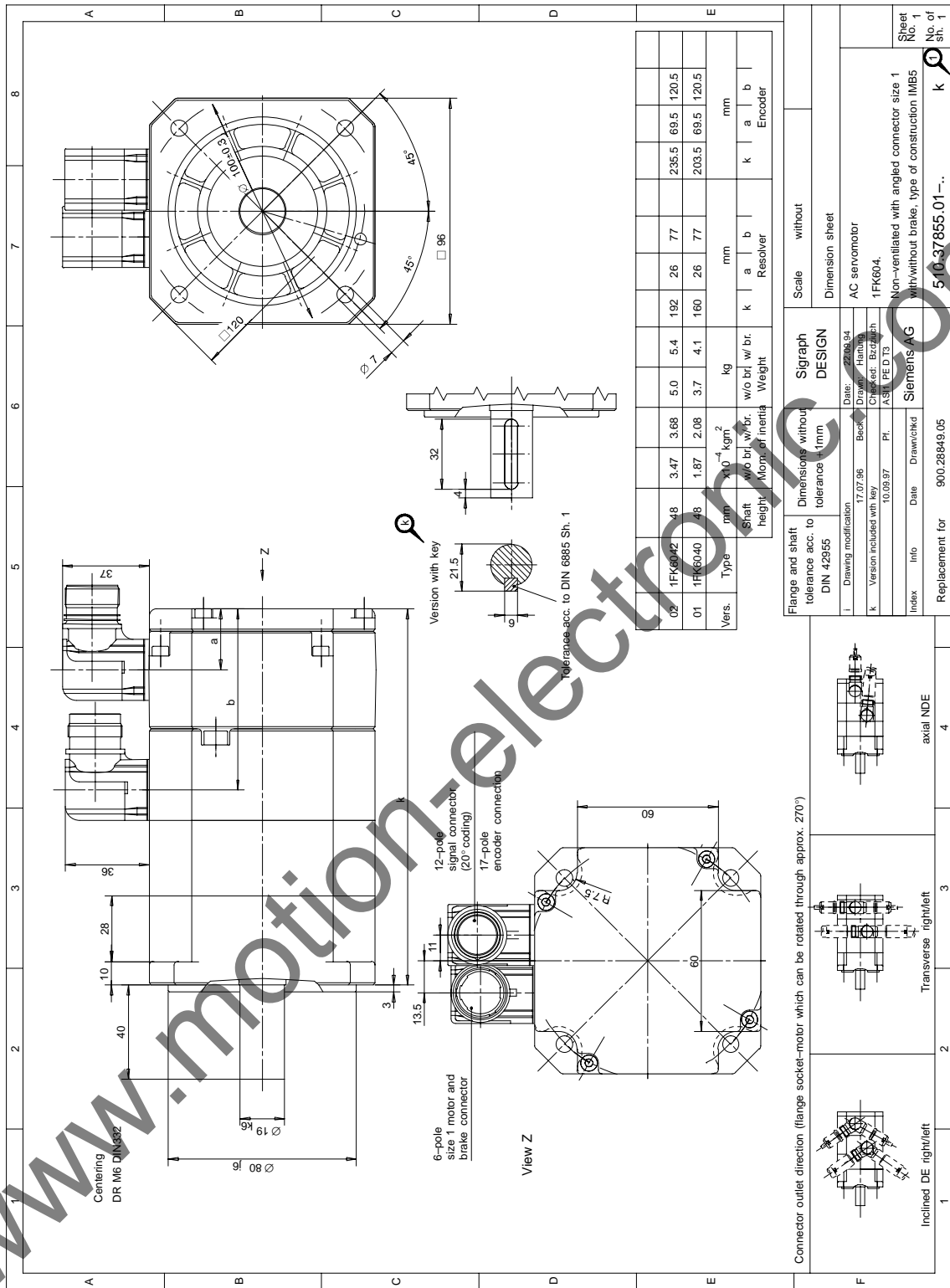


Fig. 3-3 Speed-torque diagram 1FK6042



1FK6

Fig. 4-2 1FK604□ non-ventilated with angled connector, size 1

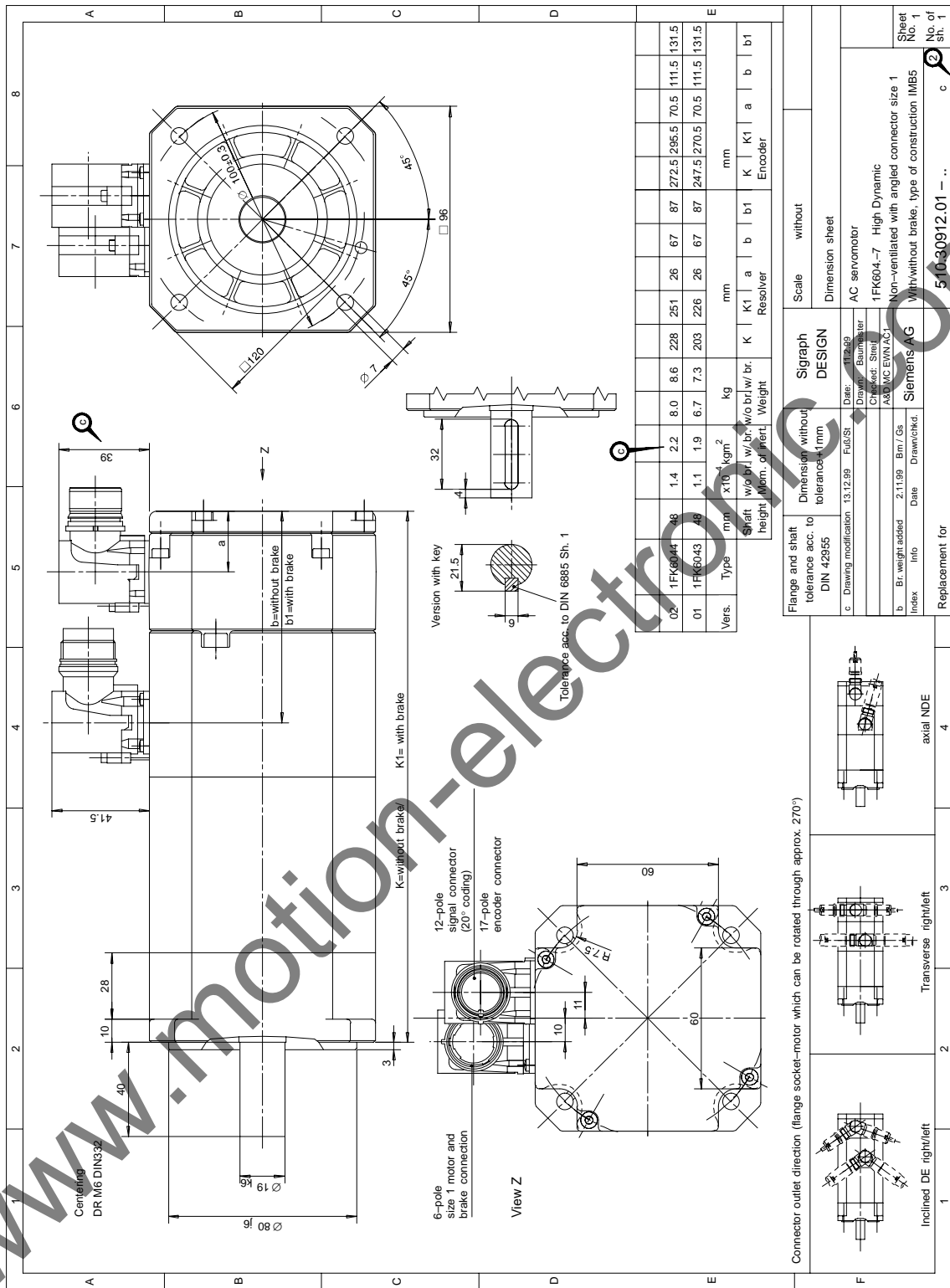


Fig. 4-3 1FK604□-7 non-ventilated with angled connector, size 1