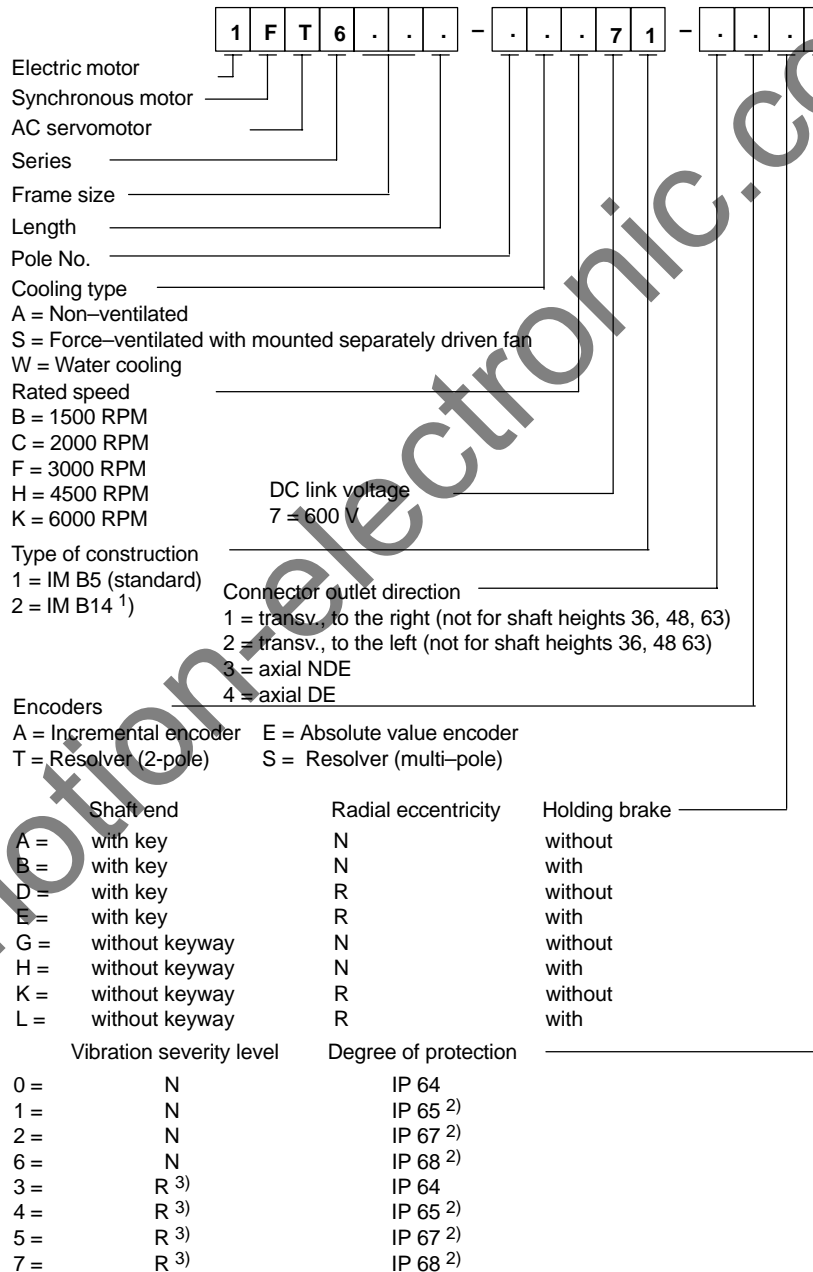


2

Order Designations

Order designation (standard type)

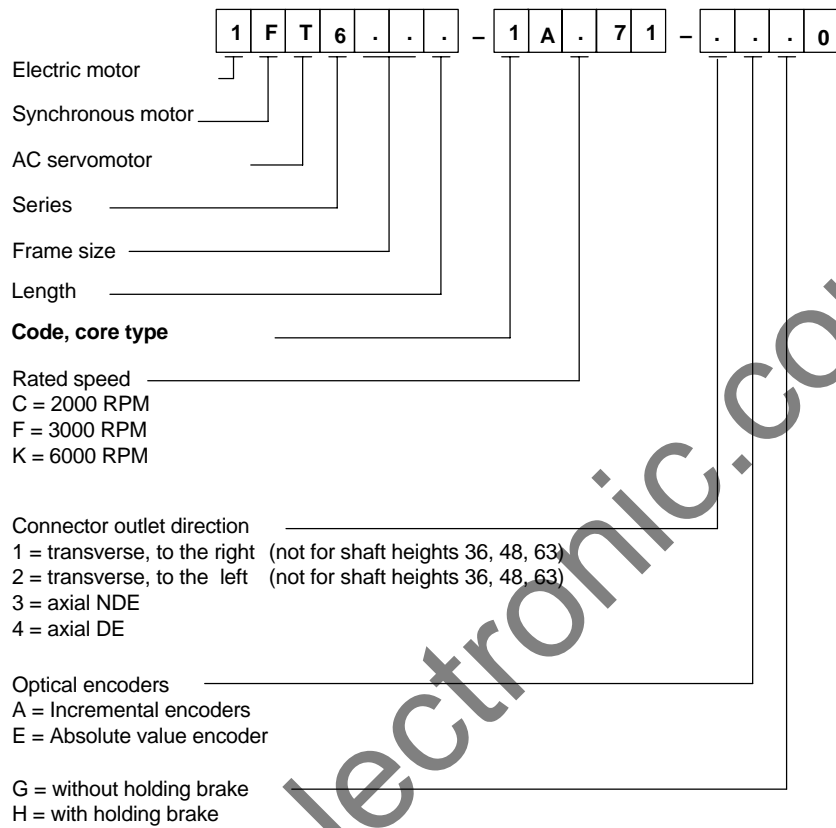


1FT6

1) only for shaft heights 63, 80, 100
2) not for motors with forced ventilation
3) not 1FT6 108-8WF7

2 Order Designations

Order designations, core types



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3.1 Speed-torque diagrams

Table 3-14 Standard motor 1FT6105

1FT6105						
Technical data	Code	Units	-□AB7	-□AC7	-□AF7	
Engineering data						
Rated speed	n_{rated}	RPM	1500	2000	3000	
Rated torque	M_{rated} (100 K)	Nm	41.00	38.00	31.00	
Rated current	I_{rated} (100 K)	A	14.5	17.6	22.5	
Stall torque	M_0 (60 K)	Nm	42.00	42.00	42.00	
Stall torque	M_0 (100 K)	Nm	50.00	50.00	50.00	
Stall current	I_0 (60 K)	A	13.80	18.40	28.00	
Stall current	I_0 (100 K)	A	17.20	22.90	34.00	
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm ²	199.8	199.8	199.8	
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm ²	168.0	168.0	168.0	
Limit data						
Max. speed	n_{max}	RPM	2250	3000	4500	
Max. torque	M_{max}	Nm	140	140	140	
Peak current	I_{max}	A	77	103	155	
Limiting torque (600 V)	M_{limit}	Nm	104	107	110	
Limiting current (600 V)	I_{limit}	A	40.0	56.0	88.0	
Physical constants						
Torque constant	k_T	Nm/A	2.91	2.18	1.45	
Voltage constant (phase-to-phase)	k_E	V/1000 RPM	191	143	95	
Winding resistance	$R_{ph.}$	Ohm	0.39	0.22	0.10	
Three-phase inductance	L_D	mH	8.4	4.7	2.1	
Electrical time constant	T_{el}	ms	21.0	21.0	21.0	
Mechanical time constant	T_{mech}	ms	2.3	2.3	2.3	
Thermal time constant	T_{th}	min	50	50	50	
Thermal resistance	R_{th}	W/K	0.07	0.07	0.07	
Weight with brake	m	kg	44.0	44.0	44.0	
Weight without brake	m	kg	39.5	39.5	39.5	

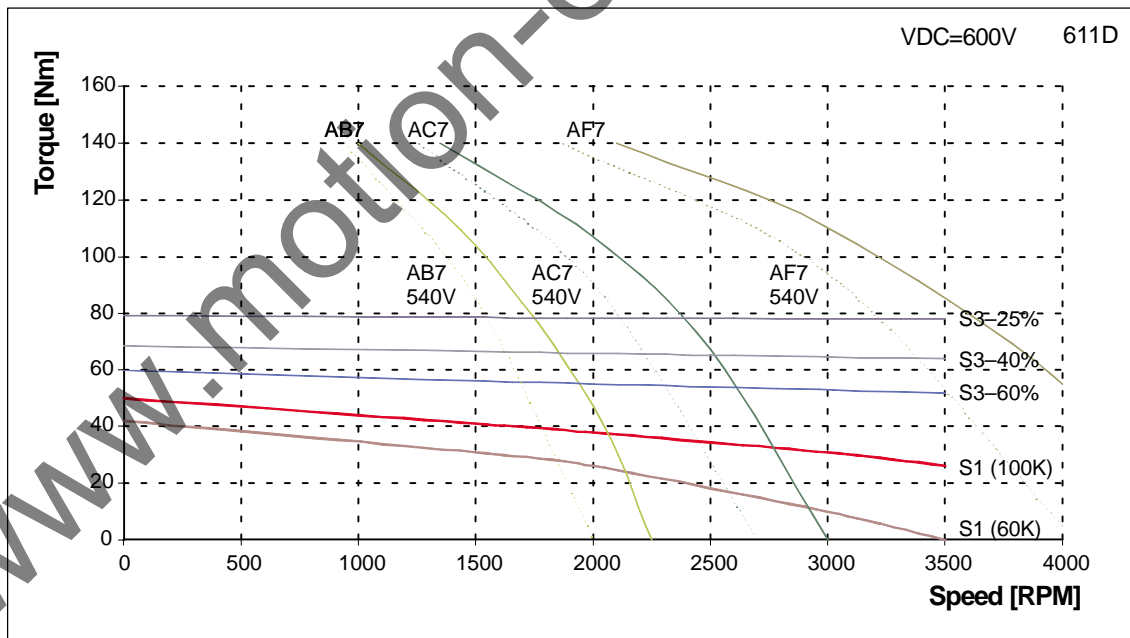
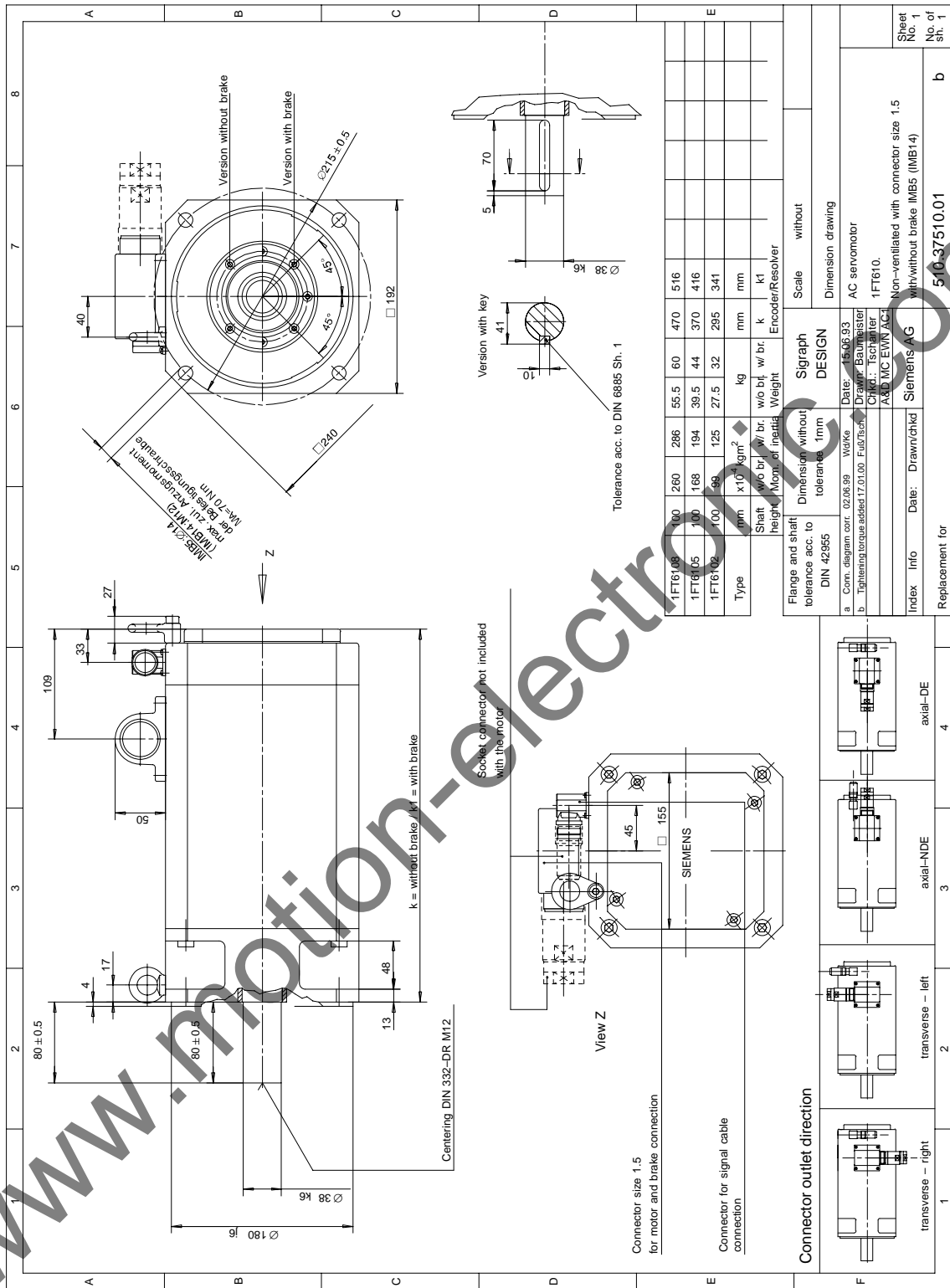


Fig. 3-15 Speed-torque diagram 1FT6105



1FT6

Fig. 4-6 1FT610 □ non-ventilated with connector size 1.5