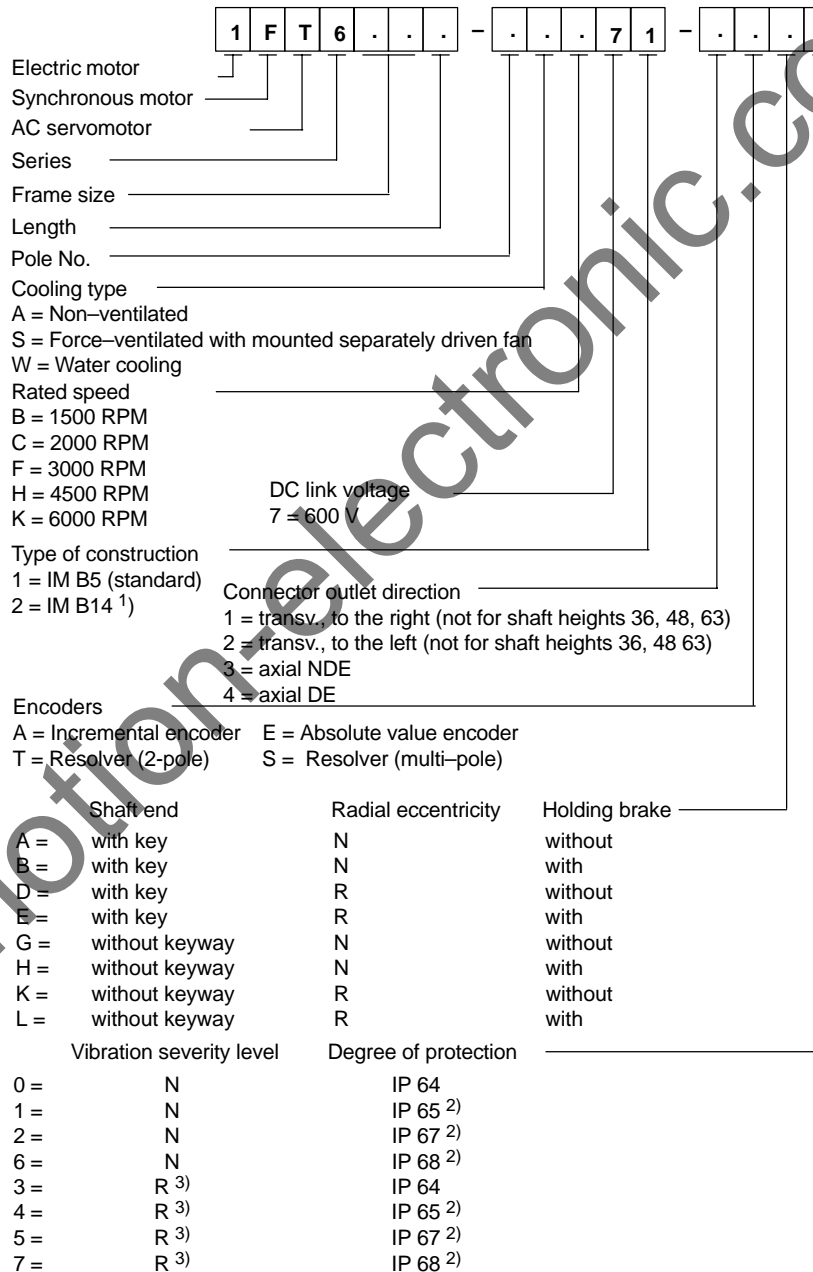


2

Order Designations

Order designation (standard type)

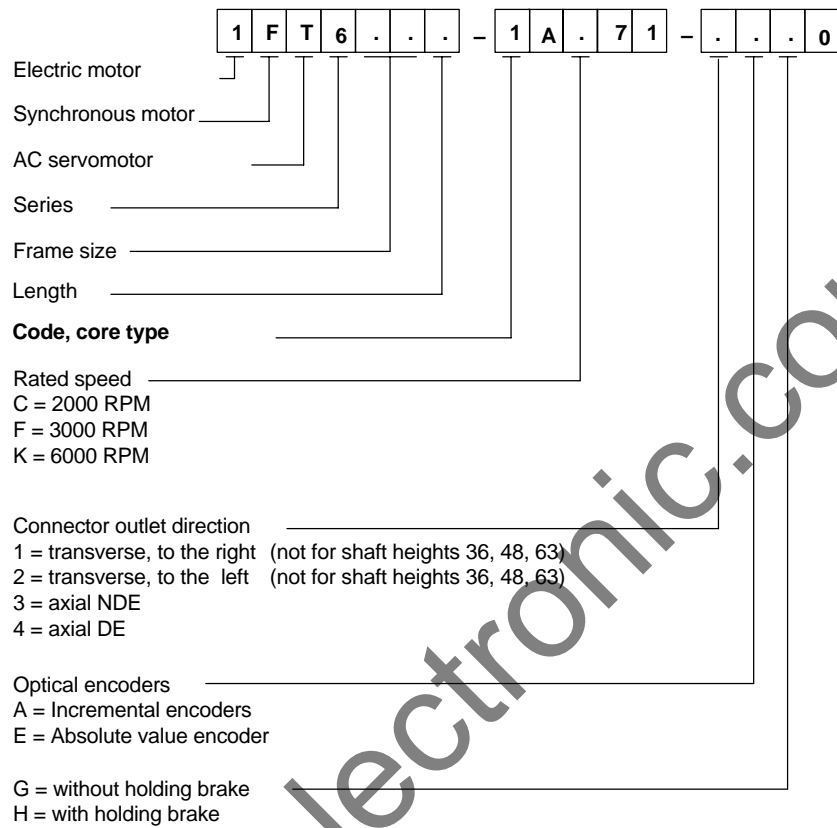


1FT6

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



www.motion-electronic.com

3.1 Speed-torque diagrams

Table 3-6 Standard motor 1FT6061

1FT6061						
Technical data	Code	Units	-□AC7	-□AF7	-□AH7	-□AK7
Engineering data						
Rated speed	n_{rated}	RPM	2000	3000	4500	6000
Rated torque	M_{rated} (100 K)	Nm	3.70	3.50	2.90	2.10
Rated current	I_{rated} (100 K)	A	1.9	2.6	3.4	3.1
Stall torque	M_0 (60 K)	Nm	3.3	3.3	3.3	3.3
Stall torque	M_0 (100 K)	Nm	4.0	4.0	4.0	4.0
Stall current	I_0 (60 K)	A	1.60	2.25	3.4	4.10
Stall current	I_0 (100 K)	A	2.00	2.75	4.10	5.00
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm ²	9.2	9.2	9.2	9.2
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm ²	6.0	6.0	6.0	6.0
Limit data						
Max. speed	n_{max}	RPM	3400	4800	7200	8750
Max. torque	M_{max}	Nm	16	16	16	16
Peak current	I_{max}	A	10.0	14.0	21.0	26.0
Limiting torque (600 V)	M_{limit}	Nm	8.9	8.8	9.5	8.3
Limiting current (600 V)	I_{limit}	A	4.5	6.2	10.2	10.8
Physical constants						
Torque constant	k_T	Nm/A	2.0	1.46	0.98	0.80
Voltage constant (phase-to-phase)	k_E	V/1000 RPM	126	90	60	49
Winding resistance	$R_{ph.}$	Ohm	9.4	4.77	2.12	1.43
Three-phase inductance	L_D	mH	59	30	13.3	9.0
Electrical time constant	T_{el}	ms	6.3	6.3	6.3	6.3
Mechanical time constant	T_{mech}	ms	4.0	4.0	4.0	4.0
Thermal time constant	T_{th}	min	27	27	27	27
Thermal resistance	R_{th}	W/K	0.29	0.29	0.29	0.29
Weight with brake	m	kg	9.5	9.5	9.5	9.5
Weight without brake	m	kg	8.0	8.0	8.0	8.0

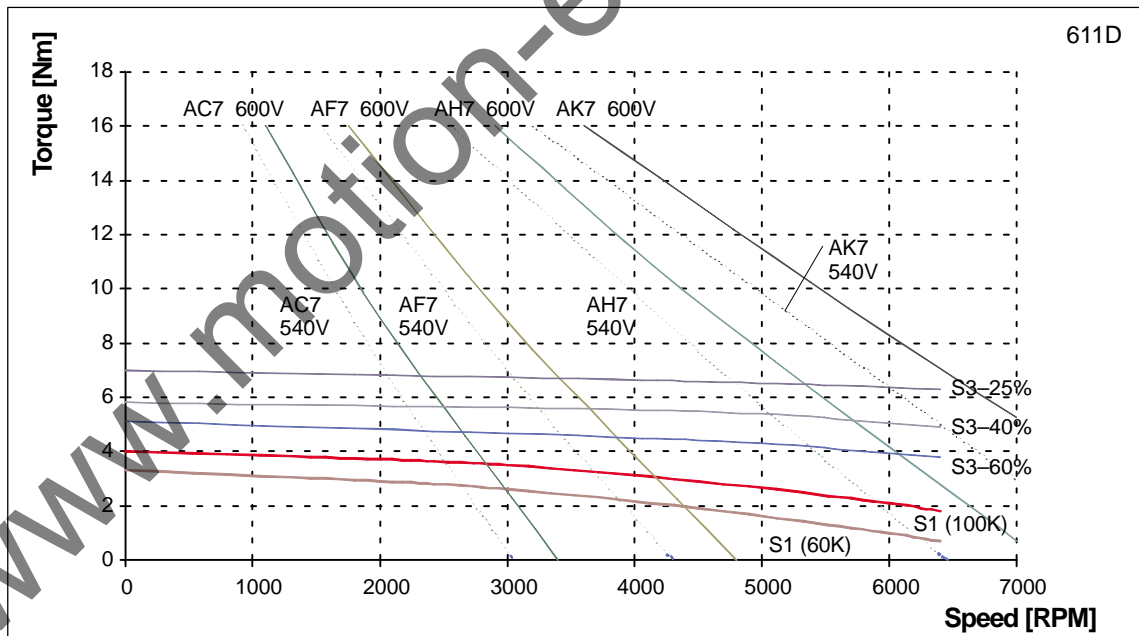


Fig. 3-7 Speed-torque diagram 1FT6061

