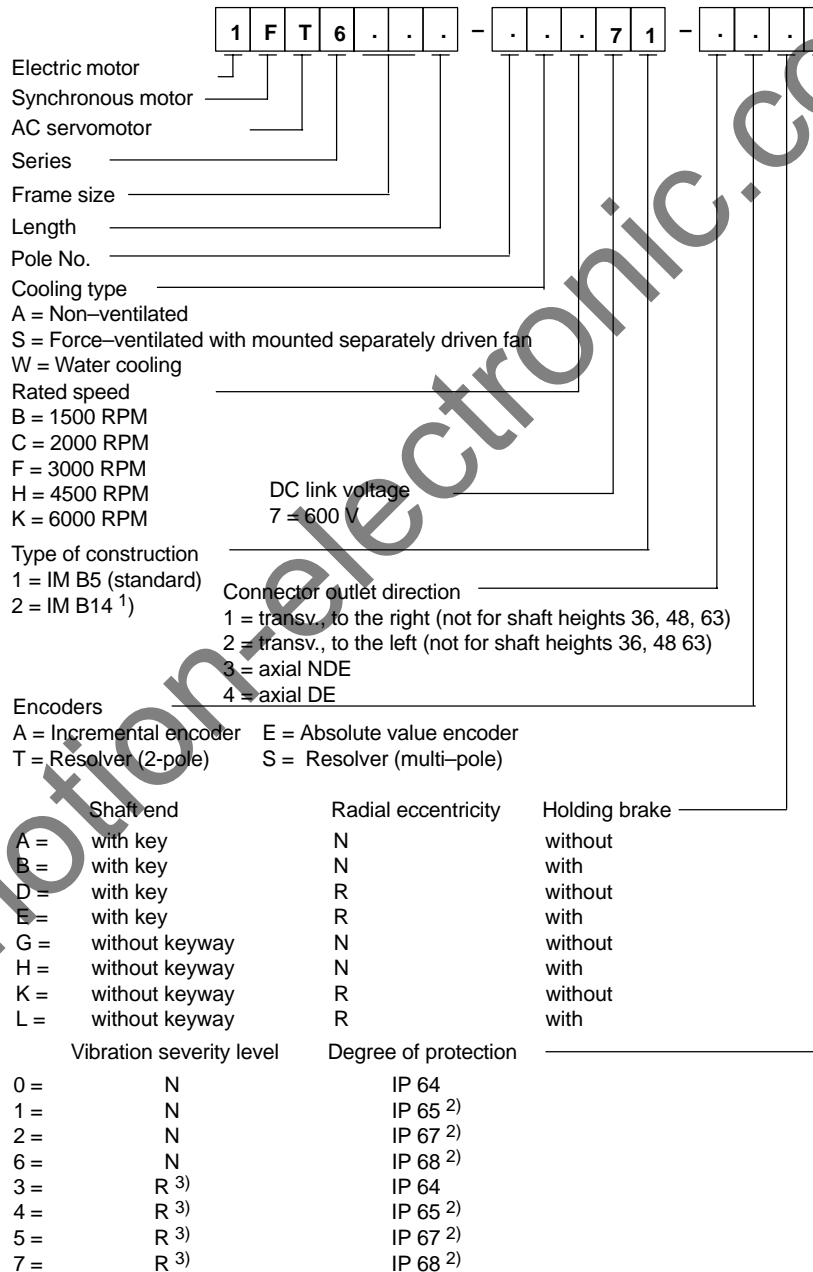


# 2

## Order Designations

### Order designation (standard type)

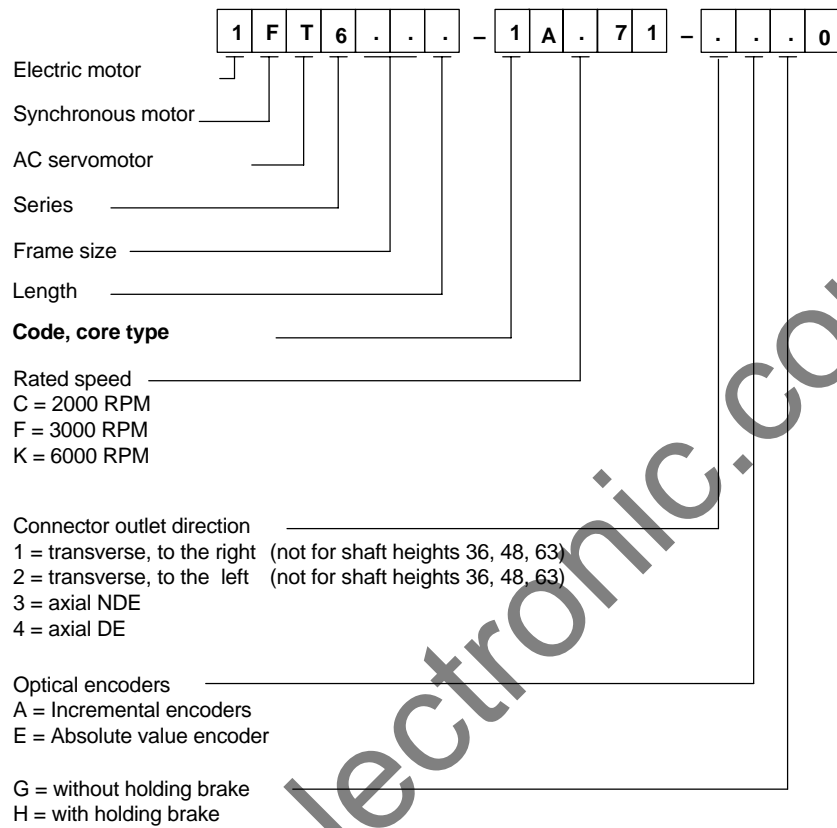


1FT6

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 3-12 Standard motor 1FT6086

1FT6086						
Technical data	Code	Units	-□AC7	-□AF7	-□AH7	
Engineering data						
Rated speed	$n_{rated}$	RPM	2000	3000	4500	
Rated torque	$M_{rated}$ (100 K)	Nm	22.50	18.50	12.00	
Rated current	$I_{rated}$ (100 K)	A	10.9	13.0	12.6	
Stall torque	$M_0$ (60 K)	Nm	22.40	22.40	22.40	
Stall torque	$M_0$ (100 K)	Nm	27.00	27.00	27.00	
Stall current	$I_0$ (60 K)	A	9.70	14.10	20.40	
Stall current	$I_0$ (100 K)	A	12.00	17.50	25.30	
Moment of inertia (with brake)	$J_{mot}$	$10^{-4}$ kgm <sup>2</sup>	80.0	80.0	80.0	
Moment of inertia (without brake)	$J_{mot}$	$10^{-4}$ kgm <sup>2</sup>	66.5	66.5	66.5	
Limit data						
Max. speed	$n_{max}$	RPM	3000	4400	6350	
Max. torque	$M_{max}$	Nm	90	90	90	
Peak current	$I_{max}$	A	48.0	71.0	102	
Limiting torque (600 V)	$M_{limit}$	Nm	52	52	49	
Limiting current (600 V)	$I_{limit}$	A	24.6	36.0	49.0	
Physical constants						
Torque constant	$k_T$	Nm/A	2.25	1.54	1.07	
Voltage constant (phase-to-phase)	$k_E$	V/1000 RPM	141	97	67	
Winding resistance	$R_{ph.}$	Ohm	0.63	0.30	0.14	
Three-phase inductance	$L_D$	mH	8.0	3.8	1.8	
Electrical time constant	$T_{el}$	ms	13.0	13.0	13.0	
Mechanical time constant	$T_{mech}$	ms	2.5	2.5	2.5	
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	29.0	29.0	29.0	
Weight without brake	$m$	kg	25.5	25.5	25.5	

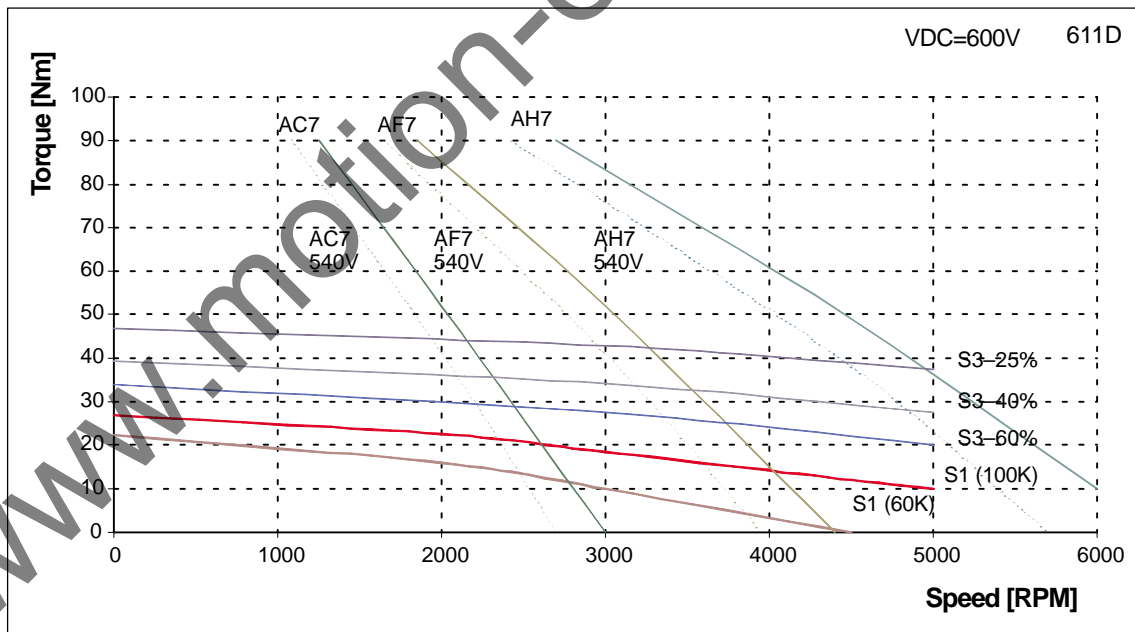


Fig. 3-13 Speed-torque diagram 1FT6086

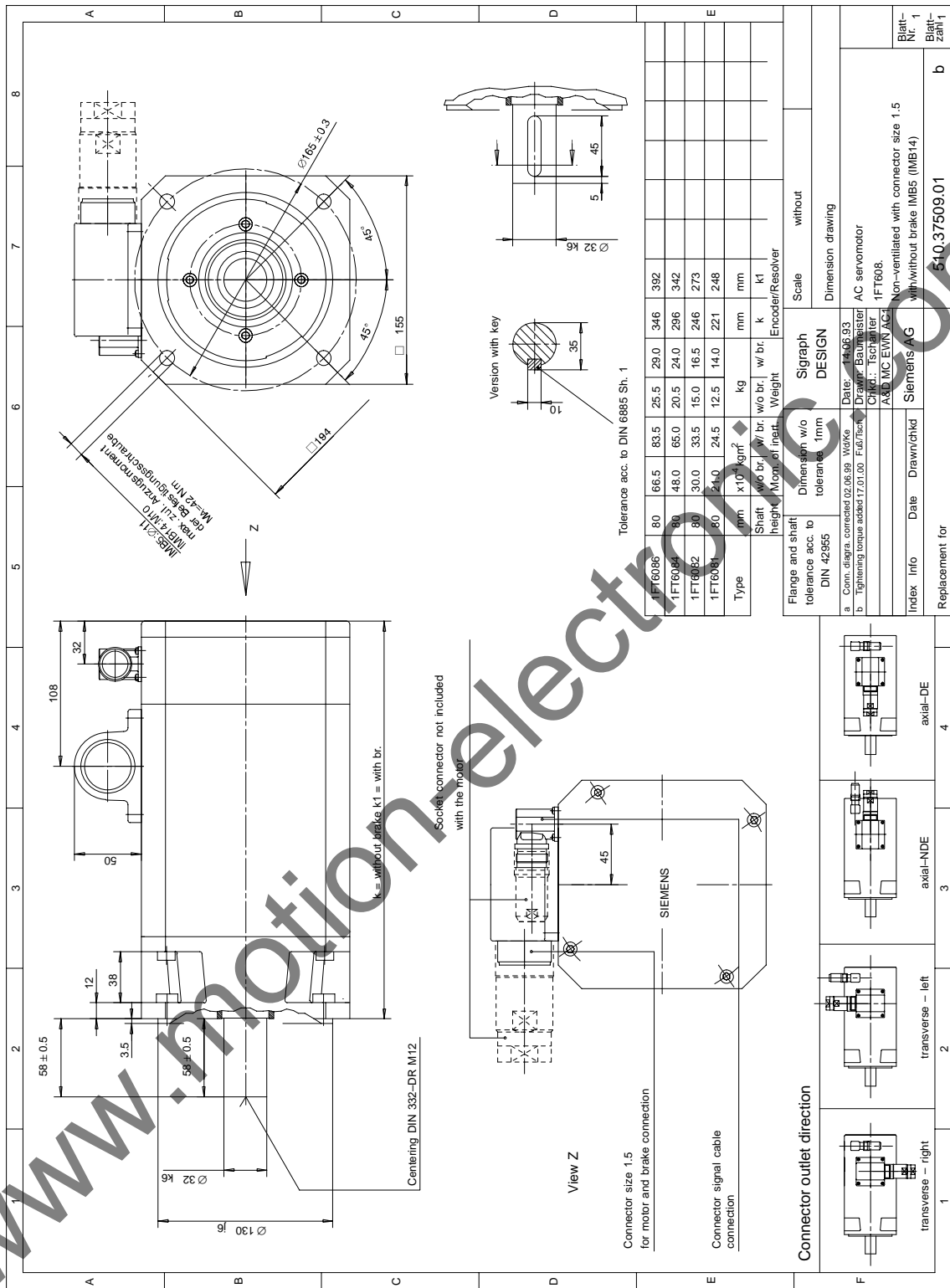


Fig. 4-5 1FT608□ non-ventilated with connector size 1.5