Table 2-11 Standard 1FT5076 motor

1FT5076						
Technical data	Code	Units	–□AC71	–□AF71	–□AG71	–□AK71
Engineering data						
Rated speed	n_N	RPM	2000	3000	4000	6000
Rated torque (100 K)	$M_{N\ (100\ K)}$	Nm	18.5	16.5	13.0	4.0
Rated current	I_N	A	12.0	16.0	17.0	9.0
Standstill torque (60 K)	$M_{0\ (60\ K)}$	Nm	18.0	18.0	18.0	18.0
Standstill torque (100 K)	$M_{0\ (100\ K)}$	Nm	22.0	22.0	22.0	22.0
Standstill current (60 K)	$I_{0\ (60\ K)}$	A	11.5	16.5	21.5	32.0
Standstill current (100 K)	$I_{0\ (100\ K)}$	A	13.5	20.0	26.0	39.0
Moment of inertia (with brake)	J_{mot}	10^{-4} kgm^2	58.4	58.4	58.4	58.4
Moment of inertia (without brake)	J_{mot}	10^{-4} kgm^2	50.9	50.9	50.9	50.9
Limiting data						
Maximum speed	n_{max}	RPM	3200	4800	6200	7000
Maximum torque	M_{max}	Nm	72	72	72	72
Max. current	I_{max}	A	52.0	78.0	110	163
Limiting torque	M_{limit}	Nm	39.0	38.0	36.0	36.0
Physical constants						
Torque constant	k_T	Nm/A	1.63	1.10	0.85	0.57
Voltage constant	k_E	V/1000 RPM	185	125	96	65
Winding resistance	$R_{ph.}$	Ohm	0.75	0.35	0.20	0.093
Rotating field inductance	L_D	mH	9.1	4.2	2.4	1.1
Electrical time constant	T_{el}	ms	12	12	12	12
Mechanical time constant	T_{mech}	ms	2.8	2.8	2.8	2.8
Thermal time constant	T_{th}	min	45	45	45	45
Weight (with brake)	m	kg	22.5	22.5	22.5	22.5
Weight (without brake)	m	kg	21	21	21	21

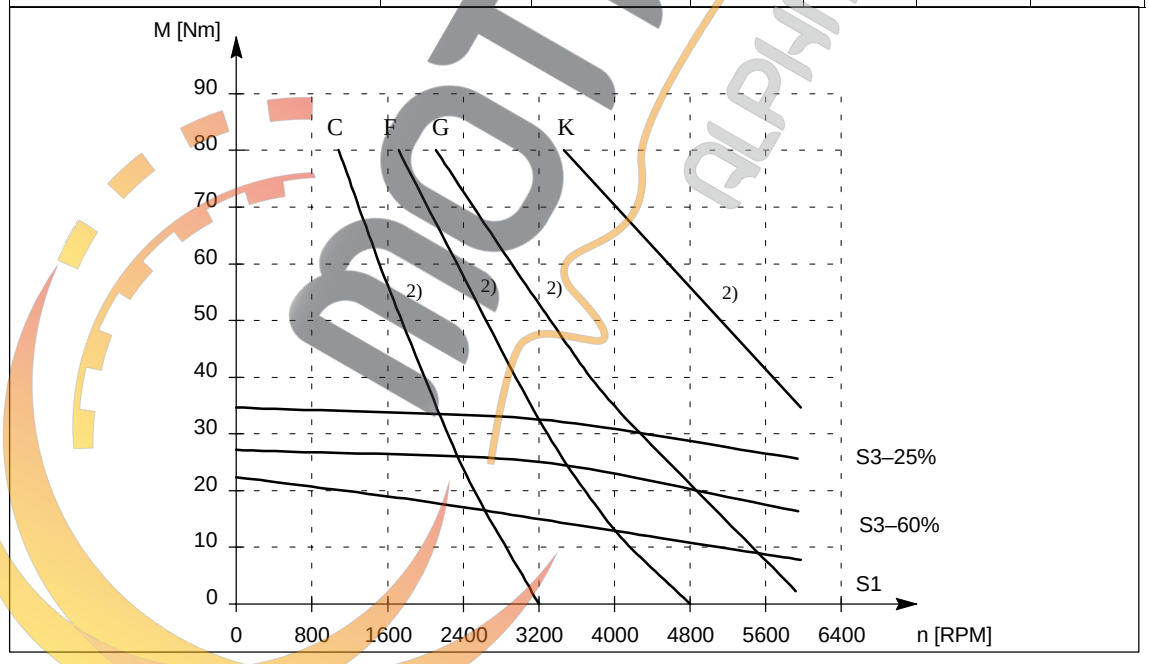

Fig. 2-11 Speed–torque diagram, 1FT5076

2) applies for a 600 V DC link voltage

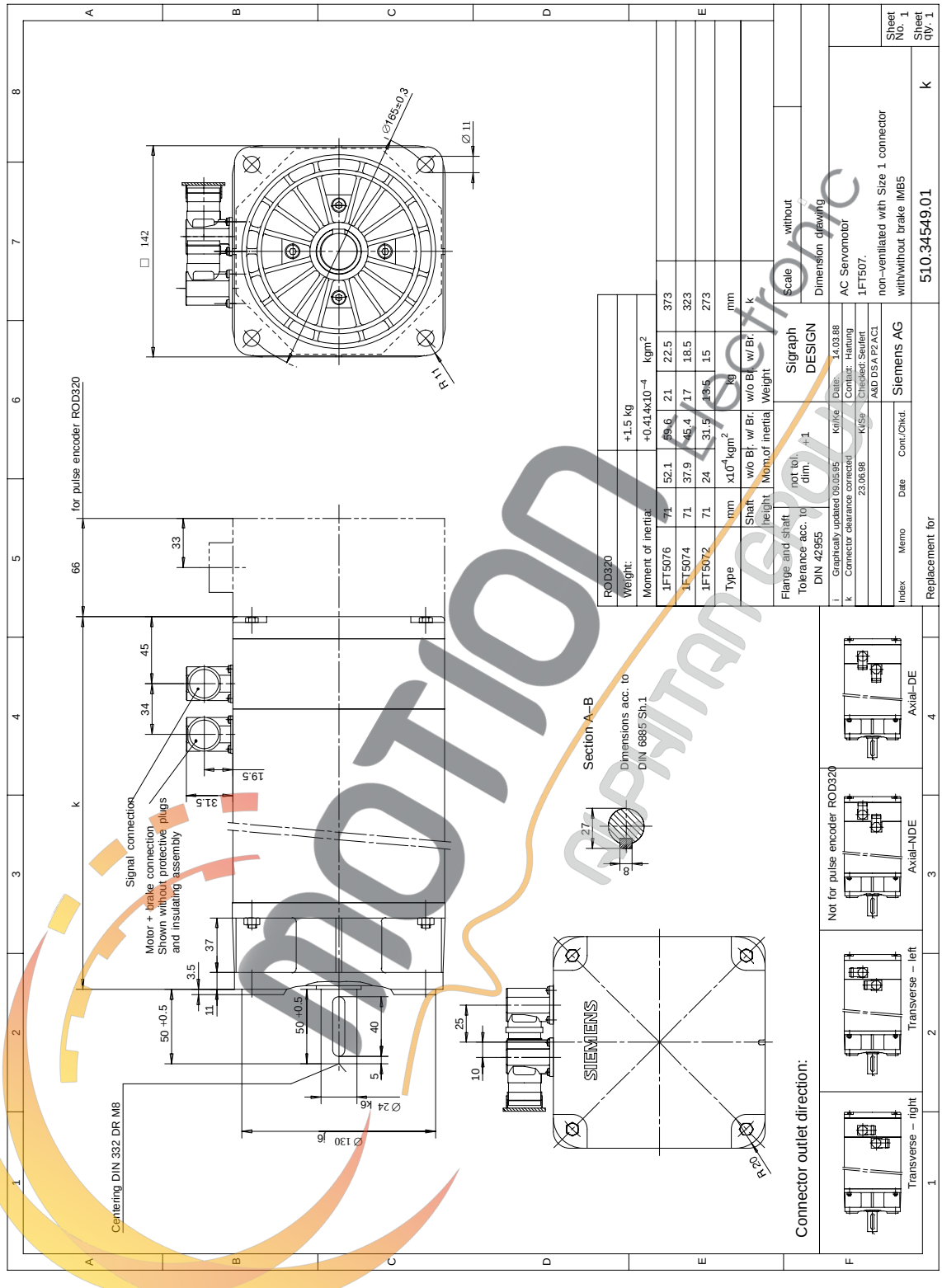

Fig. 4-4 1FT507□ non–ventilated with Size 1 connector