

5.3.5 AC servo motor FRMS 750 W

Table 5.7 Technical data FRMS 750 W

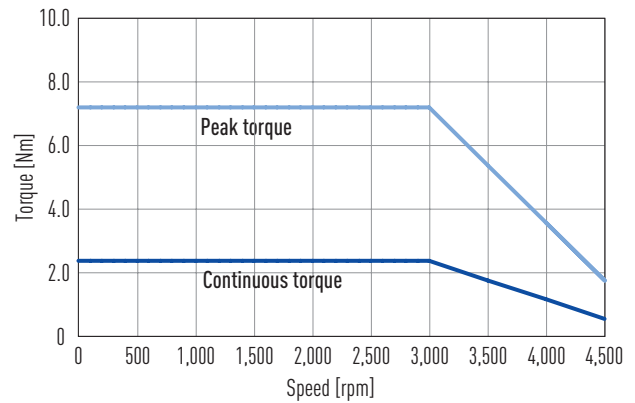
Motor data	Symbol	Unit	FRMS752 __08__
Nominal voltage	V	VAC	220
Nominal power	W	W	750
Nominal torque	T_C	Nm	2.4
Nominal current	I_C	A_{eff}	5.1
Peak torque for 1 sec.	T_P	Nm	7.2
Peak current for 1 sec.	I_P	A_{eff}	15.3
Nominal speed	n_N	rpm	3,000
Maximum speed for 1 sec.	n_{max}	rpm	4,500
Torque constant	K_T	Nm/ A_{eff}	0.47
Voltage constant	K_e	$V_{eff}/(1,000 \text{ rpm})$	28.4
Winding resistance ¹⁾	R	Ω	0.813
Winding inductance ¹⁾	L	mH	3.4
Mass inertia of rotor	J	$kgm^2 \times 10^{-4}$	1.4
Mass inertia of rotor with brake	J	$kgm^2 \times 10^{-4}$	1.46
Motor weight	M	kg	2.66
Motor weight with brake	M	kg	3.32
Motor insulation class			A
Motor brake (optional)²⁾			
Braking torque (static)	T_b	Nm	2.4
Power supply	V	VDC	$24 \pm 10 \%$
Power consumption	A	A	0.4
Rated input	W	W	8.6
Response time open	t_D	ms	45.0
Response time close	t_R	ms	10.0

¹⁾ Measured between phase-phase

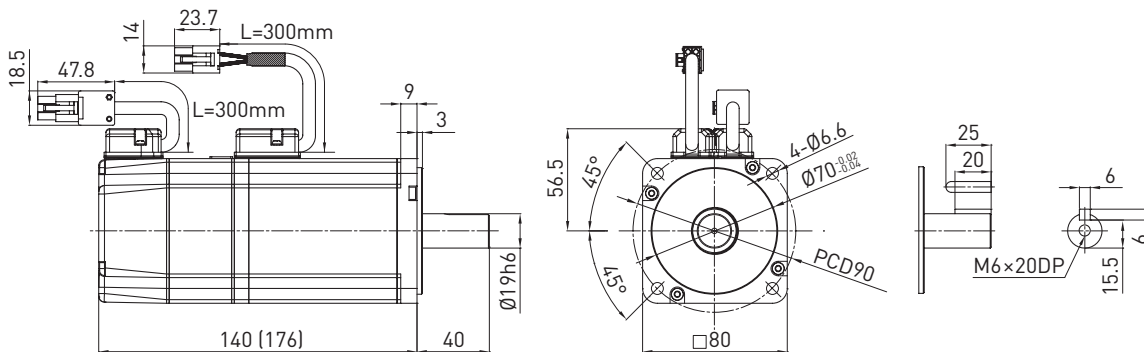
²⁾ The motor brakes are holding brakes only, not operating brakes



Torque-speed curve FRMS 750 W:



Dimensions FRMS 750 W:



Values in brackets apply to model with motor brake