

Servo Motors

AC servo motors EM1

3.3.5 AC servo motor EM1 – 750 W

Table 3.7 Technical data EM1 – 750 W

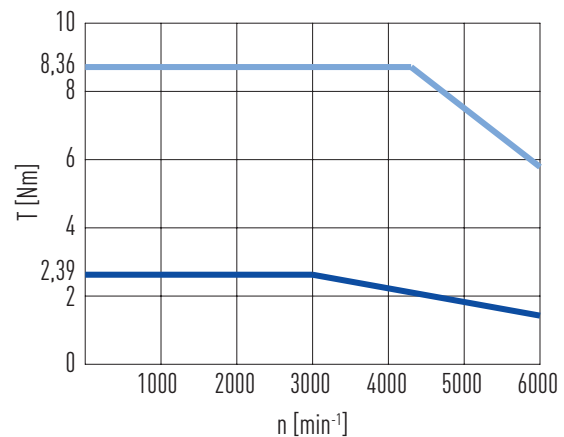
Motor data	Symbol	Unit	EM1-75
Drive input voltage	V	VAC	220
Rated power	W	W	750
Rated torque	T _C	Nm	2.39
Rated current	I _C	A _{eff}	4.65
Peak max. torque	T _P	Nm	8.36
Peak max. current	I _P	A _{eff}	18.6
Rated speed	n _N	rms	3,000
Peak max. speed	n _{max}	rms	6,000
Torque constant	K _t	Nm/A _{eff}	0.514
Back EMF constant	K _e	V _{eff} /(1,000 rms)	33.48
Resistance ¹⁾	R	Ω	1.08
Inductance ¹⁾	L	mH	4.6
Inertia of rotating parts (with brake)	J	kgm ² (×10 ⁻⁴)	1.44 (1.47)
Mass (with brake)	M	kg	2.7 (3.36)
Motor insulation level	Class F (under certification)		
Motor protection level	Total enclosed, self-cooled, IP65 (except for shaft and connector)		
Insulation resistance	10 MΩ, DC 500 V		
Insulation voltage resistance	AC 1500 V, 60 seconds		
Brake specifications ²⁾			
Static friction torque	T _b	Nm	2.4
Enabled current	A _b	A	0.358
Brake input voltage	V	VDC	24 ±10 %
Braking time	t ₀	ms	45
Release time	t _R	ms	10

¹⁾ Line to line

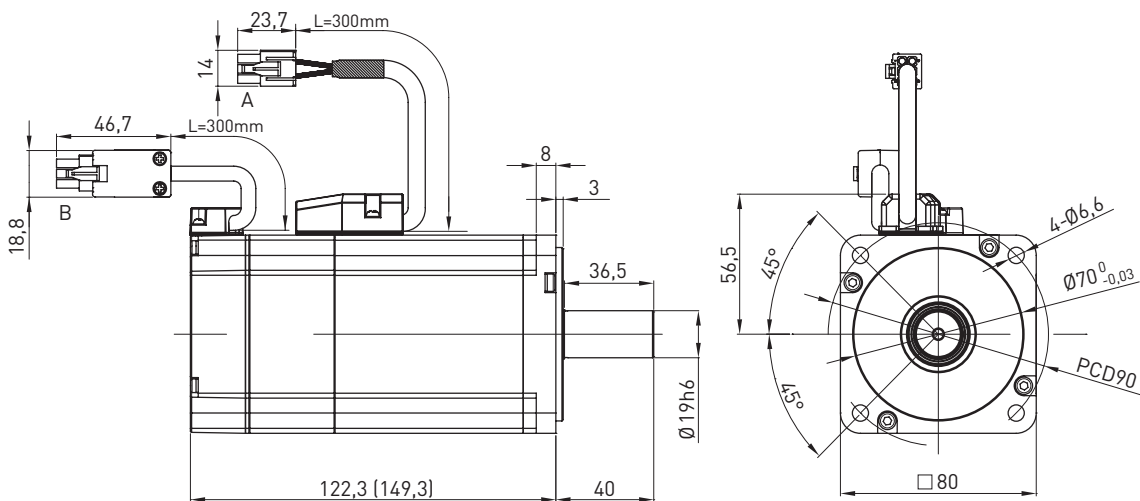
²⁾ The motor brakes are holding brakes only, not operating brakes



Torque-speed curve EM1 – 750 W:



Dimensions EM1 – 750 W:



Values in brackets apply to model with motor brake