

Linear Synchronous iron-less two-phase Motor series LSIM-P-40-172*25

Overall and join dimensions

Parameter	Symbol	Unit	
			LSIM-P-40-172*25
Peak force (coil at 20°C)	Fp	N	192
Continuous force (coil at 120°C), water cooling	Fw	N	89
Continuous force (coil at 120°C), air cooling	Fa	N	44
Recommended supply voltage DC	Us	V	70
Motor constant (coil at 20°C)	Ko	N/√W	47.9
Peak power dissipation (coil at 20°C)	Pp	W	759
Continuous power dissipation (coil at 120°C), water cooling	Pw	W	163
Continuous power dissipation (coil at 120°C), air cooling	Pa	W	41
Coolant flow for temperature difference 5°C by power Pw	Cf	L/min	0.1
Maximum velocity at Fp and Us (Coil at 20°C)	Vp	m/s	1.3
Maximum velocity at Fw and Us (Coil at 20°C)	Vw	m/s	3.1
Maximum velocity at Fa and Us (Coil at 20°C)	Va	m/s	3.9
Peak current (RMS) at Fp and V=0	Ip	Arms	10.6
Continuous current at 120°C with water cooling at Fw and V=0	Iw	Arms	4.9
Continuous current at 120°C with air cooling at Fa and V=0	Ia	Arms	2.5
Efficiency at Mw and 540V DC (Coil at 20°C)	Ew	%	63.0
Back EMF constant (*) (peak phase-phase)	Ku	V/(m/s)	12.8
Electrical resistance at 20°C (*)	R	Ohm	3.40
Electrical inductance (*)	L	mH	1.75

* value «terminal-terminal»