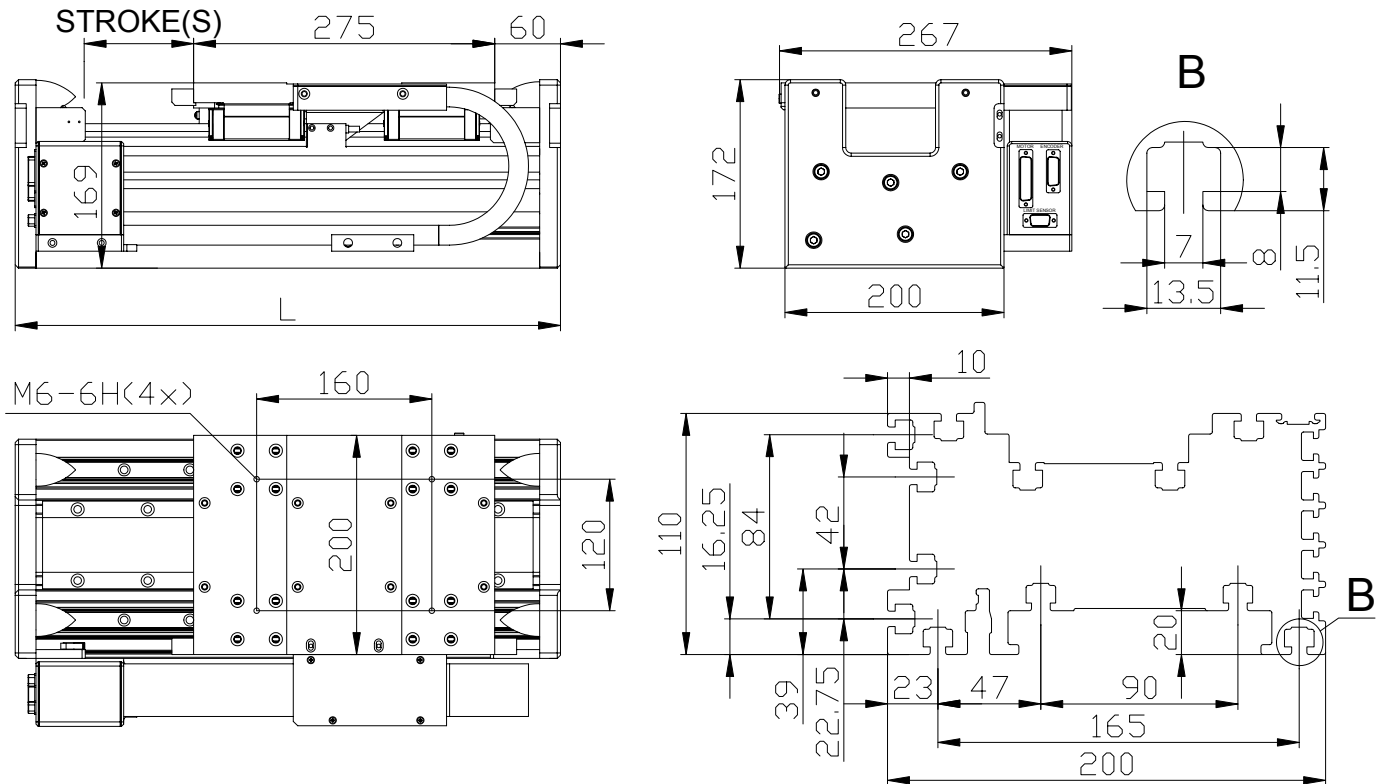


DIRECT DRIVE LINEAR STAGE LSMA-T-32



FEATURES:

Iron-core three-phase linear synchronous motor with rare-earth magnets for high force.
 Direct drive (no gear, no backlash), built on aluminium profile with precision linear guideways.
 Built-in sine magnetic encoder 1Vpp with 1mm pitch, limit switches, overheating protection.
 High dynamics, precision, repeatability and resolution, low cogging, smooth movement, maximum stroke up to 7 m.
 High stage stiffness and large bandwidth by position regulator with encoder feedback.
 Complete solution for one-axis, modular structure, easy assembling of several stages to gantry system.

CONSTRUCTION:

Motor consists of a steel plate with glued permanent magnets (stator) fixed on aluminium profile and movable iron-core lamination stack with windings (forcer). Windings are encapsulated in thermally conductive epoxy. The forcer is assembled on the carriage that is destined for installation of user's mechanisms or for joining in more complex coordinate system. The smoothness of movement is achieved by sinusoidal commutation of motor phases currents.

APPLICATIONS:

Factory automation, laser, water and plasma cutting, packaging, pick and place machines and manipulators.

LSMA-T-32-		unit	265-50-GS	265-50-GT	376-50-GT
Pole pair length 2P		mm	32	32	32
Peak force	Fp	N	865	865	1300
Continuous force air cooling	Fa	N	383	383	574
Peak current (RMS) at Fp	Ip	Arms	9,6	16,7	16,7
Continuous current with air cooling at Fa	Ia	Arms	4,0	6,9	6,9
Maximum velocity at Fp and Us	Vp	m/s	1,4	2,6	1,7
Maximum velocity at Fa and Us	Va	m/s	2,4	4,3	2,9
Back EMF constant (*) (peak phase-phase)	Ku	V/(m/c)	79,1	45,7	68,5
Detent force	Fd	N	10,4	10,4	15,6
Forcer weight	Mf	kg	4,3	4,3	6,4
Electrical resistance at 20 C (phase-phase)	R	Ohm	5,3	1,8	2,6
Electrical inductance (phase-phase)	L	mH	63,0	20,9	31,4
Recommended supply voltage DC	Us	V	310	310	540
Position accuracy with magnet encoder		mm/m	0.1	0.1	0.1
Repeatability		mm	0.01	0.01	0.01
Resolution		mm	0.001	0.001	0.001
User payload	mu	kg	200	200	200

Order key LSMA-T-32x<FORCER>-GT-<STROKE>-A, for example LSMA-T-32-265x50-GT-996-A, LSMA-T-32-376x50-GT-2916-A.
Stroke S[mm]=100+N*128, (n=0,1...70). **Stage length L**[mm]=S+397 for LSMA-T-32-265x50, L=S+508 for LSMA-T-32-376x50