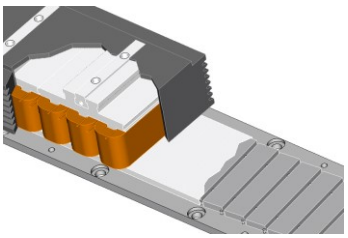
KPT Series (KLT, Platen core, Tiny size)



Motor Specifications

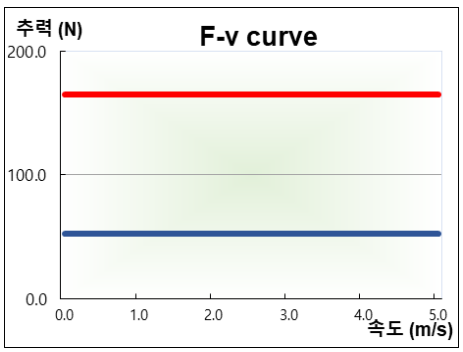
Items \ Model		KPT-1S	KPT-2S	KPT-3S	KPT-4S /(2S2P)	KPT-5S
Force [N]	Continuous	52.6	105.2	157.8	210.4	263.0
	Peak	175.7	351.4	527.1	702.8	878.5
Current [A_{rms}]	Continuous	2.4	2.4	2.4	2.4/4.8	2.4
	Peak	8.5	8.5	8.5	8.5/17.0	8.5
Back EMF Const[V_{rms}/(m/s)]		7.31	14.61	21.92	29.22/14.6	36.53
Motor Constant[N/A_{rms}] note1)		21.92	43.83	65.75	87.67/43.8	109.58
Max. Velocity[m/s] note2)		13.2	5.9	3.5	2.3/6.8	1.6
Resistance [Ω] note1)		1.0	2.0	3.0	4.0/1.0	5.0
Inductance [mH] note1)		4.0	7.9	11.9	15.8/4.0	19.8
Attraction Force[N] note3)		310.3	620.5	930.8	1,241.0	1,551.3
Mover Weight [kg]		0.6	0.8	1.0	1.2	1.4

Note1) All Parameters indicate at phase level (3-phases, Y-connection, Phase-to-Neutral) at room temperature.
Note2) Motor Driver works for 3 phases with AC 220V and maximum velocity is subjected to modified by DC link voltage.
Note3) Magnetic attraction force is between the coils and the magnets through air-gap.

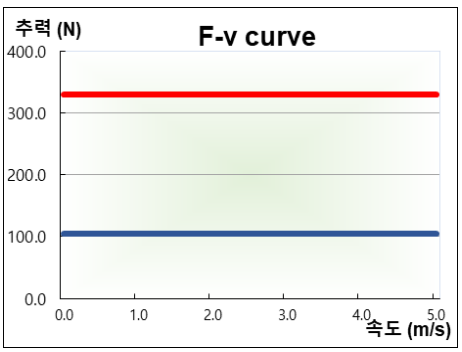
Force-Velocity Characteristics

Rated Area Peak Area

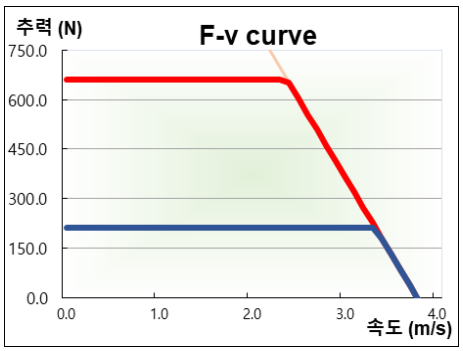
KPT-1S



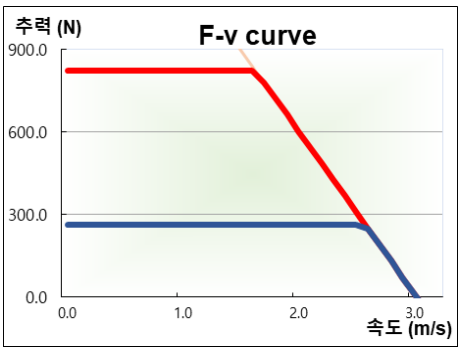
KPT-2S



KPT-4S

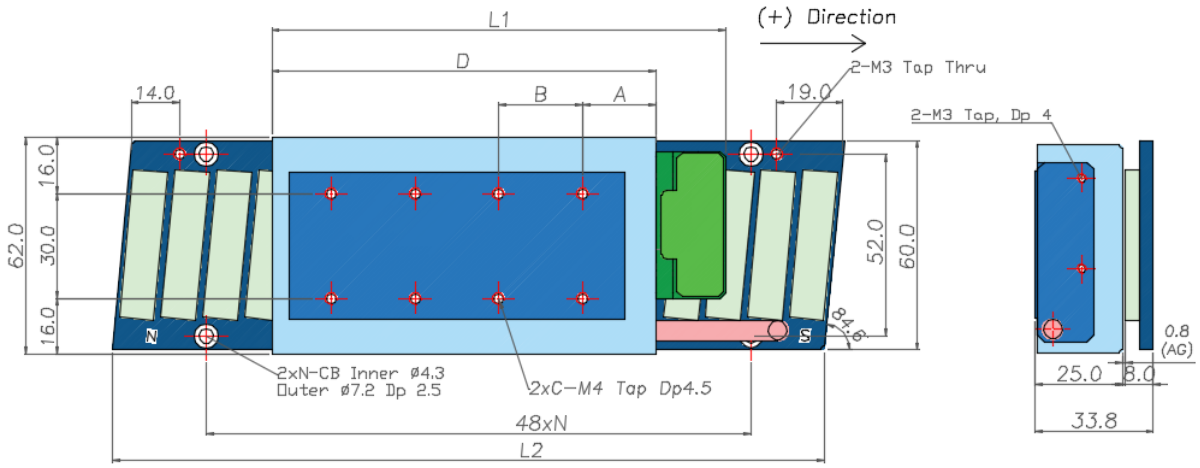


KPT-5S



Outline Dimension

Model	A [mm]	B [mm]	C(Q'ty)	D [mm]	L1 [mm]
KPT-1S	21.0	24.0	2	62.0	82.0
KPT-2S	21.0	24.0	4	110.0	130.0
KPT-3S	21.0	24.0	6	158.0	178.0
KPT-4S	21.0	24.0	8	206.0	226.0
KPT-5S	21.0	24.0	10	254.0	274.0



• Magnetic Rail shape(skew) and Mover width are changed from 2019.

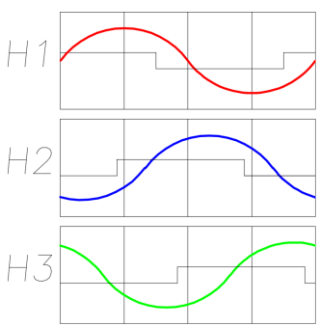
Model	L2 [mm]	N(Q'ty)	Weight [kg]	Pole Pitch [mm]
KPT-96	96.0	2	0.6	12.0
KPT-144	144.0	3	0.9	
KPT-240	240.0	5	1.2	

• Other models with special length are available.
• Pole Pitch is (N-S or S-N) magnet distance with 180 degrees.

Motor and Hall sensor Cables

Cables	Signals	Colors	Length
Motor Cable (AWG20)	U V W FG	Red White Black Green	STD: 0.6M OPTION: 1.0M, 1.5M, 2.0M, ETC
Hall Sensor Cable (AWG22)	+5V GND H1 (U) H2 (V) H3 (W)	Red Black Blue Green White	STD: 0.6M OPTION: 1.0M, 1.5M

• The Hall offset angle in each phase is 135 degree at falling edge.



* Hall Sensor phase at Back EMF.