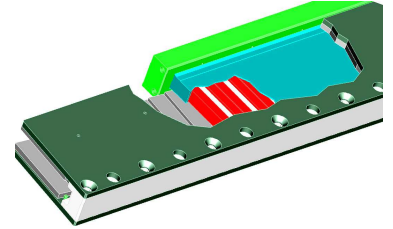


KUSA Series (KLT, U-shape coreless, Small size Rev.A)



Motor Specifications

KUSA model is updated from KUS model.

Model		KUSA-1S	KUSA-2S	KUSA-3S	KUSA-4S	KUSA-5S
Force [N]	Continuous	48.2	96.4	144.6	192.8	241.5
	Peak	168.7	337.4	506.1	674.8	843.5
Current [A _{rms}]	Continuous	2.4	2.4	2.4	2.4	2.4
	Peak	8.4	8.4	8.4	8.4	8.4
Back EMF Const[V _{rms} /(m/s)]		6.69	13.4	20.1	26.8	33.5
Motor Constant[N/A _{rms}] ^{note1)}		20.1	40.1	60.2	80.3	100.4
Max. Velocity[m/s] ^{note2)}		13.1	5.2	2.6	1.2	0.4
Resistance [Ω] ^{note1)}		1.8	3.5	5.3	7.1	8.9
Inductance [mH] ^{note1)}		1.3	2.5	3.8	5.1	6.4
Attraction Force[N] ^{note3)}		0	0	0	0	0
Mover Weight [kg]		0.4	0.6	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 200V~320V and maximum velocity is subjected to modified by DC link voltage.

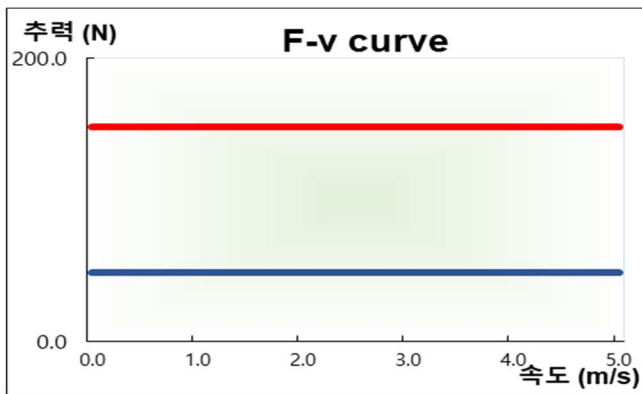
Note3) Magnetic attraction force is between the coils and the magnets through air-gap.

Force-Velocity Characteristics

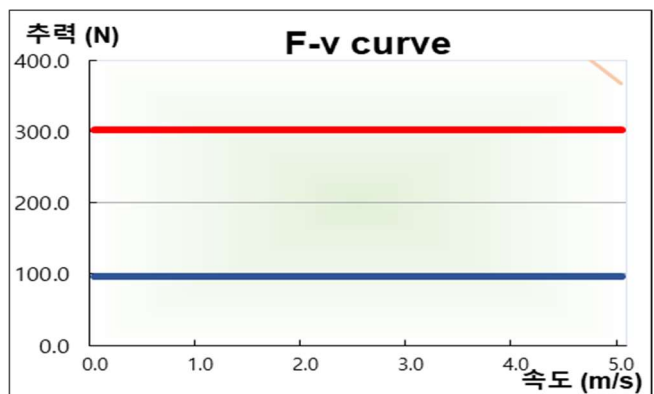
Rated Area

Peak Area

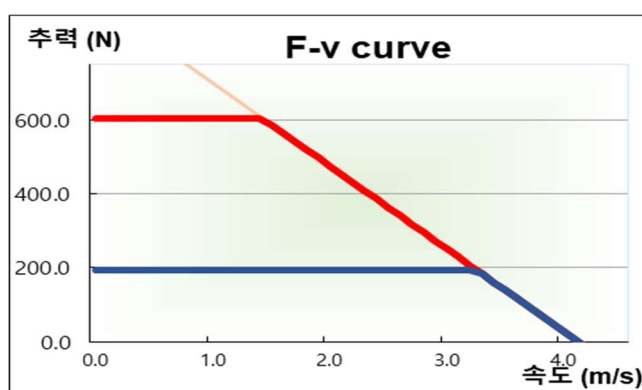
KUSA-1S



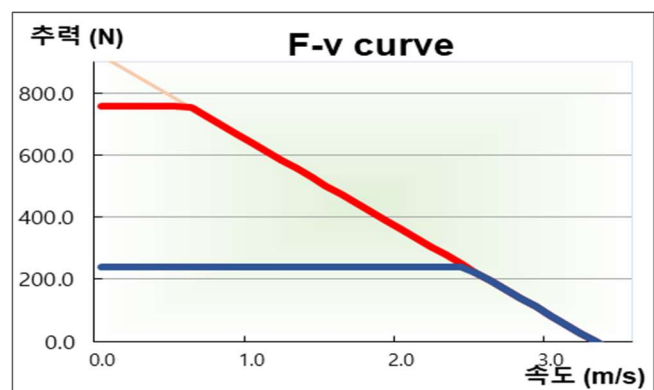
KUSA-2S



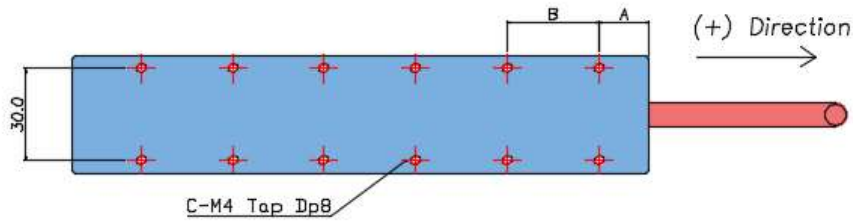
KUSA-4S



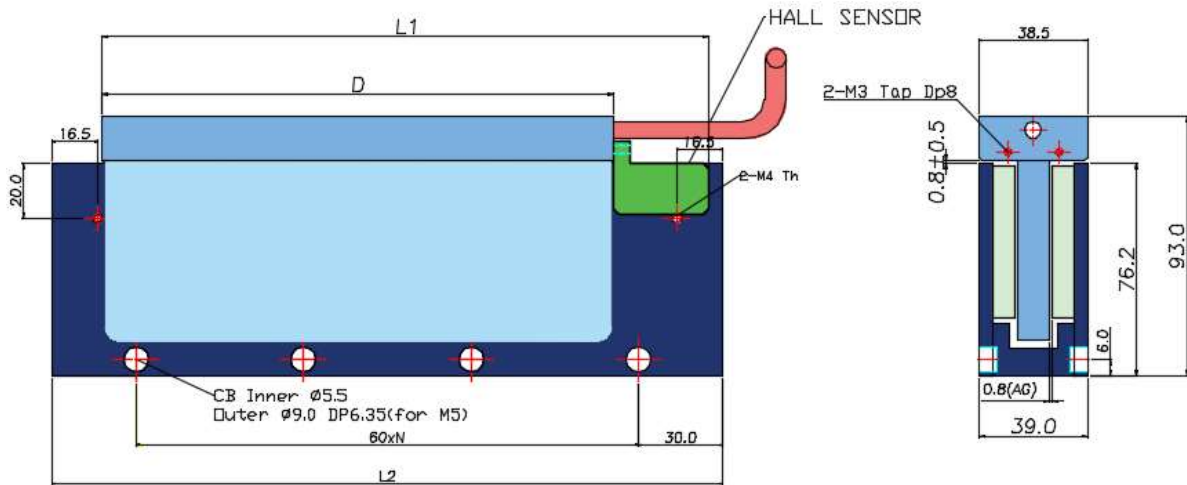
KUSA-5S



Outline Dimension



Model	A [mm]	B [mm]	C(Q'ty)	D [mm]	L1 [mm]
KUSA-1S	16.5	30.0	2	63.0	97.0
KUSA-2S	16.5	30.0	4	123.0	157.0
KUSA-3S	16.5	30.0	6	183.0	217.0
KUSA-4S	16.5	30.0	8	243.0	277.0
KUSA-5S	16.5	30.0	10	303.0	337.0

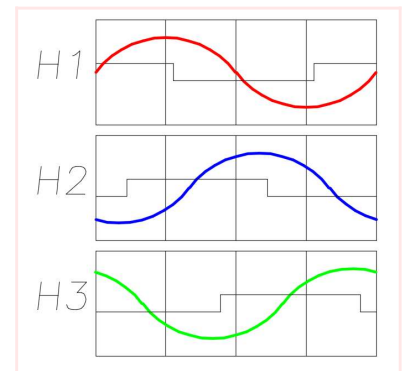


Model	L2 [mm]	N(Q'ty)	Weight [kg]	Pole Pitch
KUSA-120	120.0	2	1.8	15.0mm
KUSA-180	180.0	3	2.6	
KUSA-240	240.0	4	4.0	

- Pole Pitch is (N-S or S-N) magnet distance with 180 degrees.
- Other models with specific length can be supplied for specific order.

Motor and Hall sensor Cables

Cables	Signals	Colors 1S,2S / (3S,4S,5S)	Length
Motor Cable (AWG20)	U V W FG	Red (Red) White (Blue) Black (Yellow) Green (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 100 degree at falling edge. (120 degree for KUSA-3S, 4S & 5S).

* Hall Sensor phase at Back EMF.