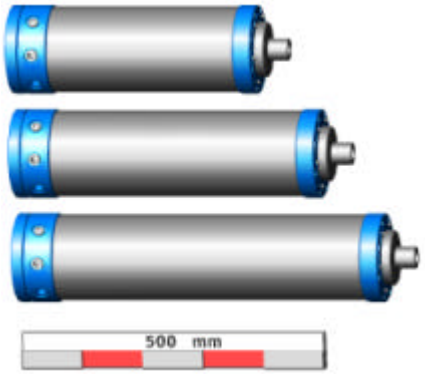
ADVANCED MOTION TECHNOLOGIES Inc

S100 Series ServoRam™



Description	Model No	S100C/30/10/MkIV	S100C/60/9/MkIV	S100C/90/8/MkIV	S100C/120/7/MkIV	S100C/150/6/MkIV	S100C/180/5/MkIV	S100C/210/4/MkIV	S100C/240/3/MkIV
	Rail Voltage								
Stroke Length (mm)	-	30	60	90	120	150	180	210	240
Magnet Sets	-	10	9	8	7	6	5	4	3
Peak Static Thrust (N)	300V	4800	4320	3840	3360	2880	2400	1920	1440
	600V	6900	6210	5520	4830	4140	3450	2760	2070
Thrust at Continuous Rated Current	300/600V	750	675	600	525	450	375	300	225
Thrust Co-efficient (N/A)	-	300	270	240	210	180	150	120	90
Damping Coefficient (A/Ms-1)	-	20	18	16	14	12	10	8	6
Peak Current (A)	300V	16	16	16	16	16	16	16	16
	600V	23	23	23	23	23	23	23	23
Continuous Rated Current (A)	300/600V	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Max Velocity (Ms-1 at zero thrust)	300V	0.4	0.8	1.2	1.6	2.0	2.4	2.6	2.9
	600V	0.5	1.1	1.6	2.2	2.7	3.3	3.4	3.5
Efficiency (N/W)		0.87	0.78	0.7	0.61	0.52	0.43	0.35	0.26
Phase Resistance (Ohms)	-	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Approximate Closed Length (mm)	-	500	500	500	500	500	500	500	500
External Diameter (mm)	-	140	140	140	140	140	140	140	140
Approximate Mass (Kgs)	-	39.4	37.8	36.2	34.6	33	31.4	29.8	28.2

Please note the forces shown above ARE NOT REQUIRED TO SUPPORT A DEAD LOAD. They are therefore fully available to manoeuvre it. The dead load is supported by the self-tuning gas spring, integral to the ram.

Gas Pressure (psi)	20	40	60	80	100	120	140
Load Supported (kg)	110	220	330	440	550	660	770
Load Supported (lbs)	242	484	726	968	1210	1452	1694

It is important to note that a ServoRam™ should not be considered to be a direct replacement for a fluid ram in any machine application. The dynamic forces need to be distinguished from the static forces, so that the electro-magnetic part of the machine handles the precision dynamic actions, whilst the slowly changing and kinetic energy recycling actions are handled by the gas spring.

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