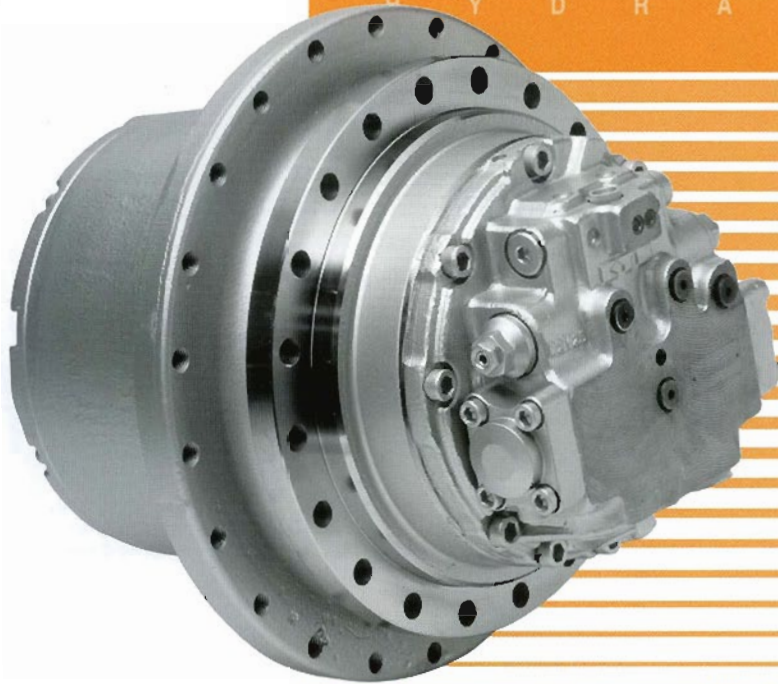




Our Precision, Your Advantage

HYDRAULIC PISTON MOTOR

MAG SERIES



PISTON MOTOR MAG SERIES



GENERAL

MAG motor is a travel motor designed for crawler type excavator. The motor is a case-rotation, high-torque motor which can be installed inside the crawler by connecting sprocket with motor case.

FEATURES

Piston motor has a variable displacement (two speed) swash plate and incorporates a brake valve and a mechanical brake needed for travelling. MAG motor, combined with a case rotation type planetary gear reducer offers outstanding features:

Hydraulically balanced piston motor ensures high-pressure, high-performance operation.

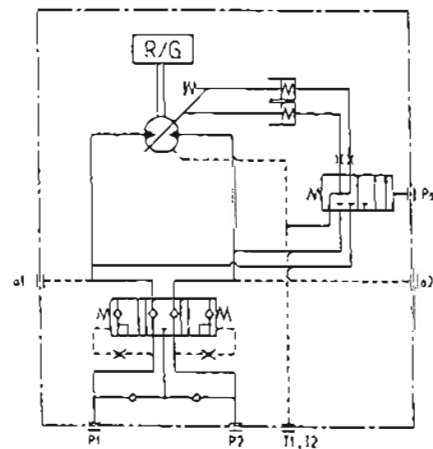
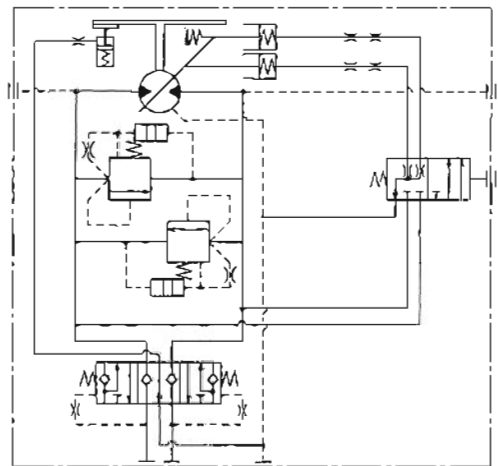
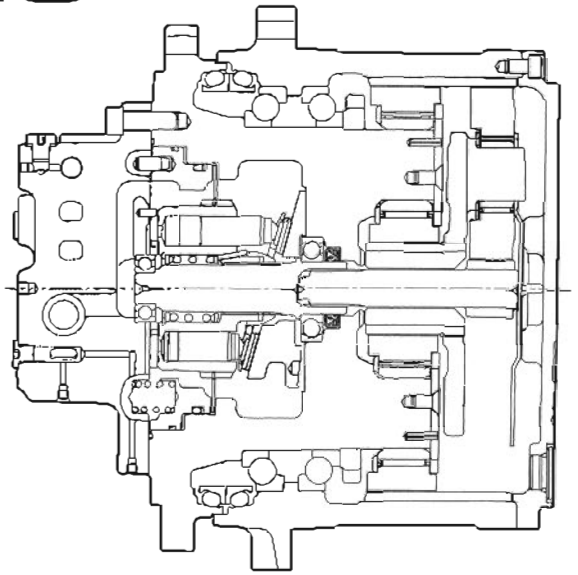
An off-set type two speed design ensures reliable changeover of the displacement by external pilot control (1.5~2:1 speed ratio).

The motor offers speed control and braking with minimum shock with a built-in double counterbalance valve and a shockless crossover relief valve. (These valves are not necessary for a closed circuit.)

The mechanical brake is a negative brake linked with the counterbalance valve. The brake is automatically activated or released when the vehicle stops or starts.

The case rotation type gear reducer has improved durability and reliability because of its simple and equally loaded design in addition to high-precision machine parts.

The motor uses heavy duty bearings to ensure long life. An efficient floating seals also prevent dust or water from entering into the motor.



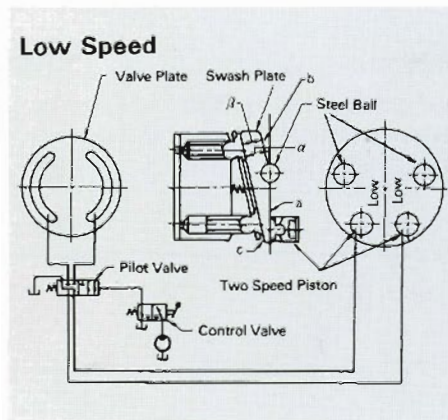
With A/C Valve

Two speed Principle and Chageover

The swash plate has a, b, and c sides and is possible to be tilted on the two steel ball on the back of the swash plate. It is operated by external pilot pressure.

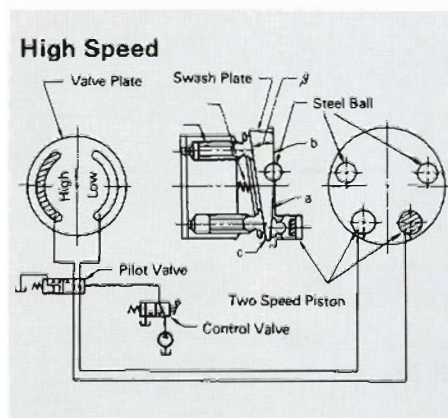
a Low speed (Large displacement)

When the pilot valve is shifted to the low speed position by the control valve, the two speed piston room on the back of the plate will be connected to the tank. In this case, the plate will be pushed so that the side "a" will contact against the motor housing and maximum tilt angle "a" is given.



High speed (Small displacement)

When the pilot valve is shifted to the high speed position by the control valve, system pressure will be applied to the two speed piston. As a result, two speed piston will push the plate toward the cylinder block. In this case, side "b" will contact the motor housing and minimum tilt angle "B" is given.



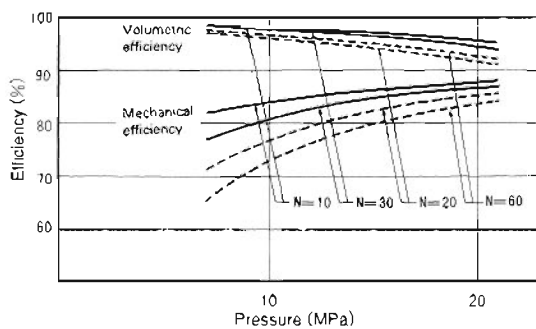
MAG SERIES

SPECIFICATIONS

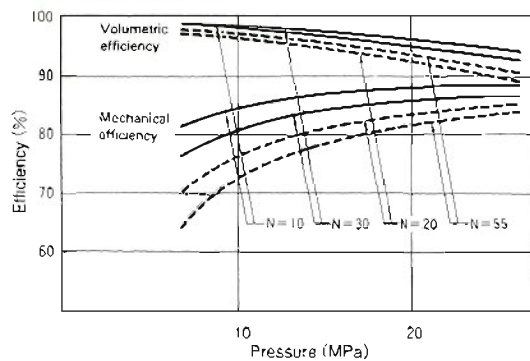
Model	Max. Output Torque	Max. Total Displacement	Max. Motor Displacement	Gear Ratio	Max. Speed rpm	Max. Shaft Speed rpm	Speed Ratio High/Low	Max. Flow	Max. Pressure	Mechanical Brake (Motor)
	N·m	cm ³ /rev	cm ³ /rev					L/min.	MPa	N·m
MAG-12V-120E	1176	486	12.5	31.0 39.0	80	4000	Max.2.0	20	20.6	20.6
MAG-18V-230F	2160	773	18.0	26.938 33.980 42.958	70	3800		30	24.5	24.5
MAG-18V-320E	3140	954		41.923 53.0	60			3500	40	27.5
MAG-26V-400	3920	1463	27.6	55		2800			50	
MAG-33V-550E	5390	1992	33.8		47.406 58.943			3300	60	34.3
MAG-44VP-800	7840	2413	44.1	41.442 47.068 54.732	50	2500		80	88.3	
MAG-85VP-1800	17700	4416	87.3	41.442 50.579 47.000 57.500			Max.1.8	150	270	22.5
MAG-85VP-2400E	23500	5020		170.0	43.246	Max.2.0				320
MAG-170VP-3800E	37300	7352	170.0	60.774 72.043	Max.1.8		320	86.2		
MAG-230VP-6000	58800	16491	228.9							

PERFORMANCE CURVE

MAG-12V-120E

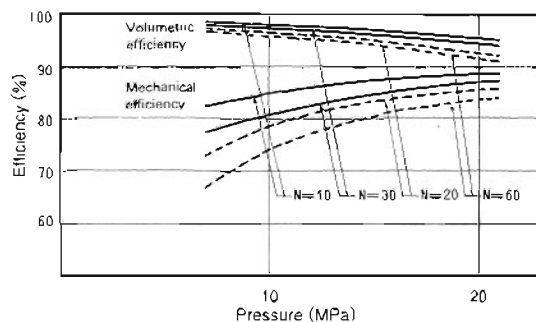


MAG-26V-400

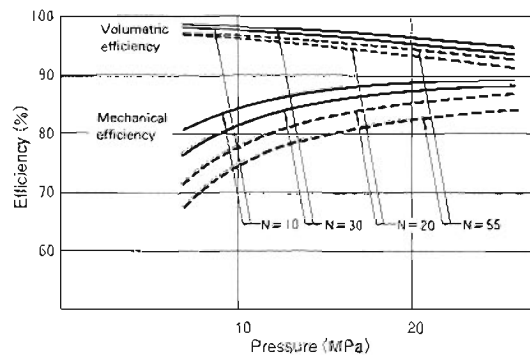


MAG-18V-230F

MAG-18V-320E



MAG-33V-550E

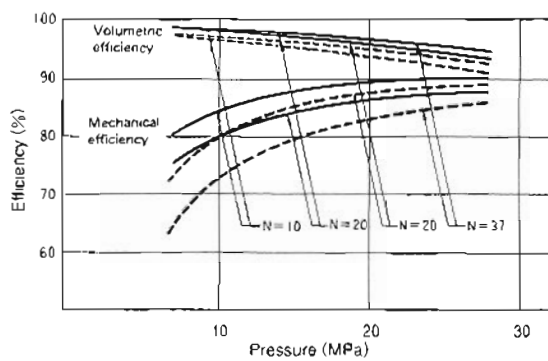


Torque	2 Speed	Automatic 2 Speed	Relief Valve	Anti-cavitation Valve	Mechanical Brake	Applicable Vehicle Mass	
						Kg	Ton
	●	▲	×	▲	▲	19	1.5
	●	▲	×	●	▲	24	2.5
	●	▲	×	●	▲	37	3.5
	●	▲	×	●	▲	42	4.5
	●	▲	×	●	▲	60	6.0
	●	▲	●	×	●	95	8.0
	●	▲	●	×	●	155	13.0
	●	▲	●	×	●	190	15.0
	●	▲	●	×	●	280	25.0
	●	▲	●	×	●	420	35.0

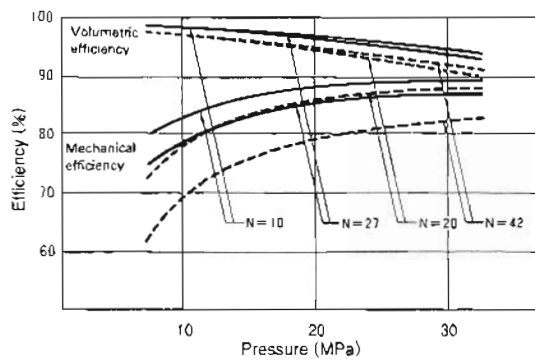
- Standard
- ▲ Option
- ×

— Large Displacement
 - - - Small Displacement

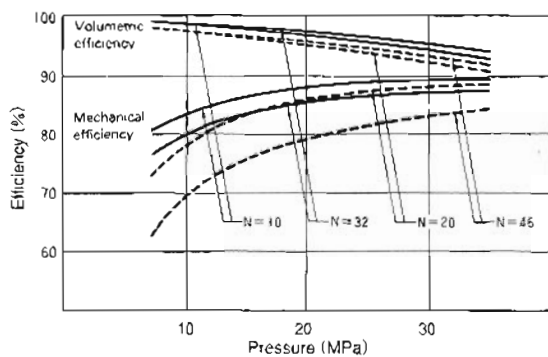
MAG-44VP-800



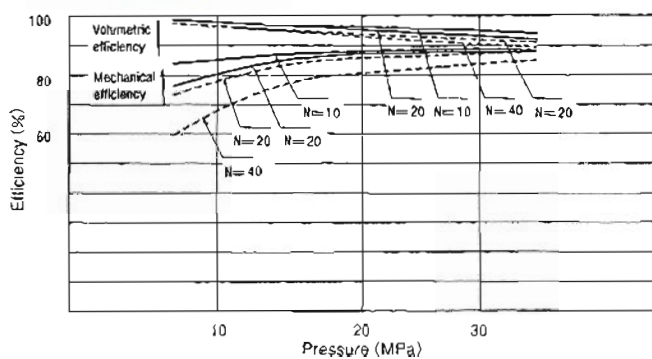
MAG-170VP-3800E



MAG-85VP-2400E

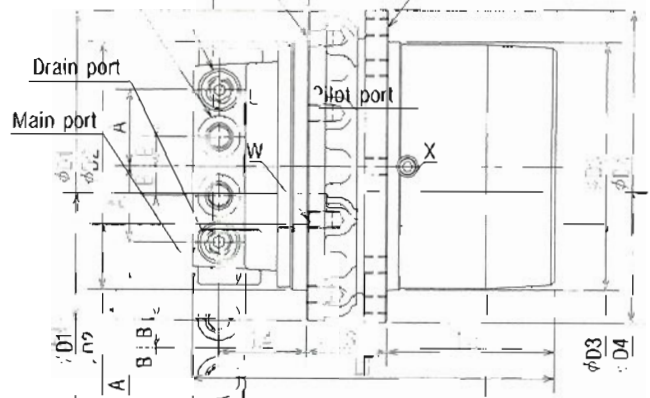
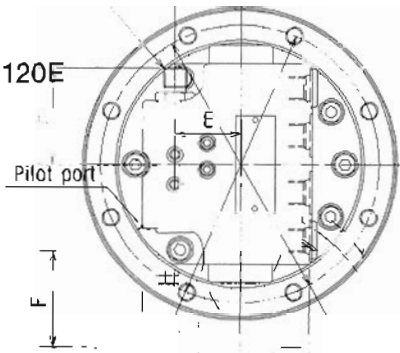


MAG-230VP-6000



PISTON MOTOR

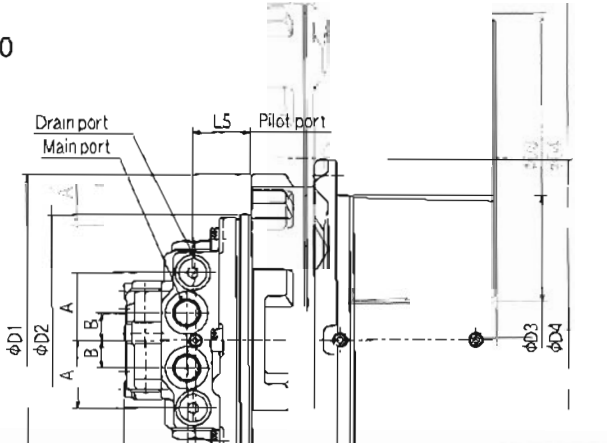
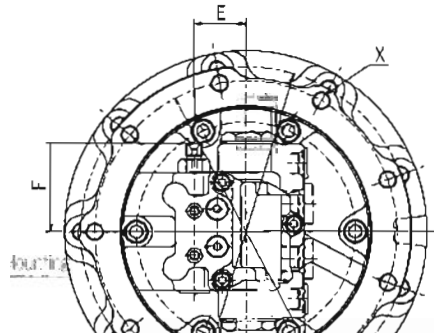
MAG-12V-120E



Model	φD1	φD2	φD3	φD4	L1	L2	L3	L4	L5	A	B	C	E	Main Port	Drain Port	Pilot Port	W	X	φY	φZ		
MAG-12V-120E	179	141 ⁰ _{-0.063}	140 ⁰ _{-0.063}	140 ⁰ _{-0.063}	177	205	95	45	50	51	43	16.5	39	37	54.5	2-PF1/4	2-PF1/4	PF1/4	8-M10	9-M10	157	157

Model	A	B	C	E	F	Main Port	Drain Port	Pilot Port	W	X	φY	φZ										
MAG-12V-120E	179	141	140	140	177	205	95	45	50	51	43	16.5	39	37	54.5	2-PF1/4	2-PF1/4	PF1/4	8-M10	9-M10	157	157

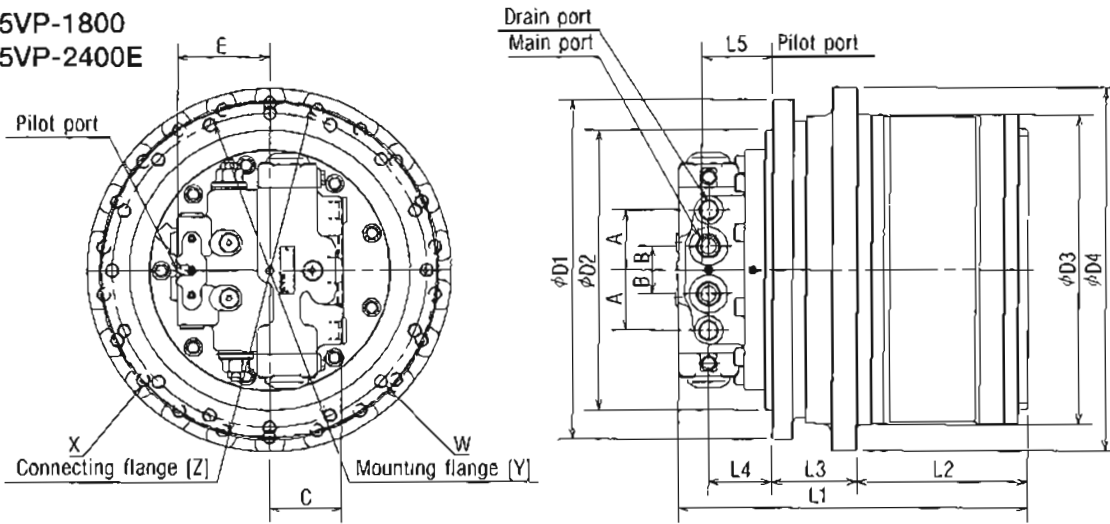
- MAG-18V-230F MAG-26V-400 MAG-44V-800
- MAG-18V-320E MAG-33V-550E



Model	φD1	φD2	φD3	φD4	L1	L2	L3	L4	L5	A	B	C	E	F	Main Port	Drain Port	Pilot Port	W	X	φY	φZ
MAG-18V-230F (W/A.C.)	190	150 ⁰ _{-0.063}	160 ⁰ _{-0.063}	200	250	104	70	46	44	46.5	19.5	40	37	62	2-PF3/8	2-PF1/4	PF1/4	8-M10	9-M10	170	180
MAG-18V-230E (W/O R.V.)	190	150 ⁰ _{-0.063}	160 ⁰ _{-0.063}	200	219	104	40	59	61	48.5	19.5	40	37	62	2-PF3/8	2-PF1/4	PF1/4	8-M10	9-M10	170	180
MAG-18V-320E (W/A.C.)	215	165 ⁰ _{-0.063}	190 ⁰ _{-0.072}	238	265	115	50	55	75	54	24	45	41	70	2-PF1/2	2-PF1/4	PF1/4	11-M12	11-M12	192	215
MAG-18V-320E (W/O R.V.)	215	165 ⁰ _{-0.063}	190 ⁰ _{-0.072}	238	235	115	50	55	75	54	24	45	41	70	2-PF1/2	2-PF1/4	PF1/4	11-M12	11-M12	192	215
MAG-26V-400 (W/A.C.)	215	165 ⁰ _{-0.063}	210 ⁰ _{-0.072}	255	289	120	70	46	45	54	22	45	41	70	2-PF1/2	2-PF1/4	PF1/4	9-M12	9-M12	192	232
MAG-26V-400 (W/O R.V.)	215	165 ⁰ _{-0.063}	210 ⁰ _{-0.072}	255	259	120	70	46	45	54	22	45	41	70	2-PF1/2	2-PF1/4	PF1/4	9-M12	9-M12	192	232
MAG-33V-550E (W/A.C.)	264	200 ⁰ _{-0.072}	230 ⁰ _{-0.072}	286	298	128	68	51.5	50	54	22	46	41	70	2-PF1/2	2-PF3/8	PF1/4	9-M14	9-M14	240	262
MAG-33V-550E (W/O R.V.)	264	200 ⁰ _{-0.072}	230 ⁰ _{-0.072}	286	268	128	68	51.5	50	54	22	46	41	70	2-PF1/2	2-PF3/8	PF1/4	9-M14	9-M14	240	262
MAG-44VP-800 (W/R.V.)	284	210 ⁰ _{-0.072}	265 ⁰ _{-0.063}	332	354	145	80	70	69	58	23	49	48	70	2-PF1/2	2-PF3/8	PF1/4	12-M16	12-M14	250	300
MAG-44VP-800 (W/O R.V.)	284	210 ⁰ _{-0.072}	265 ⁰ _{-0.063}	332	314	145	80	70	69	58	23	49	48	70	2-PF1/2	2-PF3/8	PF1/4	12-M16	12-M14	250	300

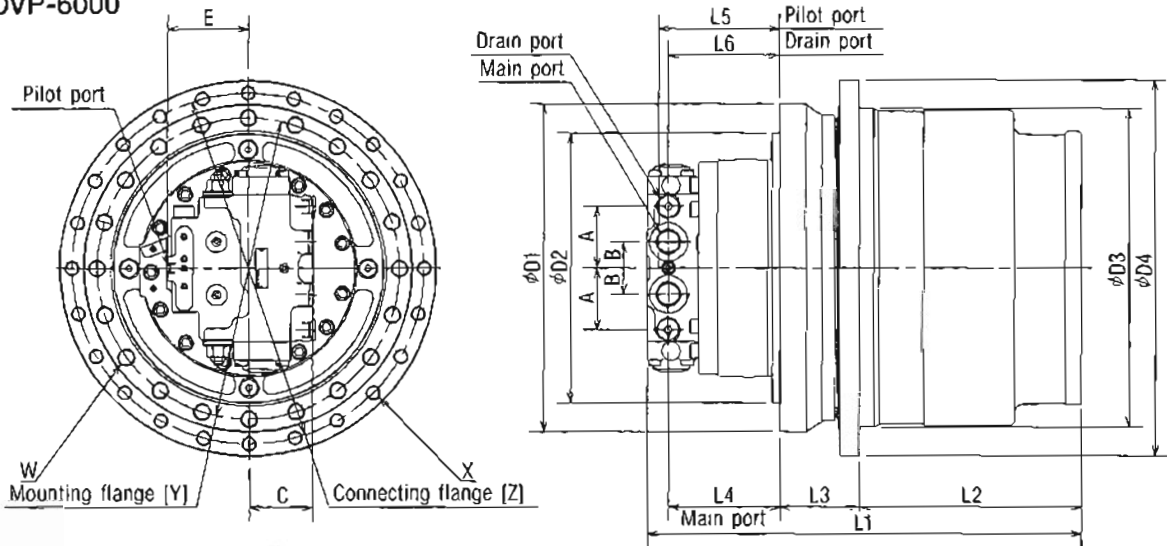
Model	φD1	φD2	φD3	φD4	L1	L2	L3	L4	L5	A	B	C	E	F	Main Port	Drain Port	Pilot Port	W	X	φY	φZ
MAG-18V-230F (W/A.C.)	190	150 ⁰ _{-0.063}	160 ⁰ _{-0.063}	200	250	104	70	46	44	46.5	19.5	40	37	62	2-PF3/8	2-PF1/4	PF1/4	8-M10	9-M10	170	180
MAG-18V-230E (W/O R.V.)	190	150 ⁰ _{-0.063}	160 ⁰ _{-0.063}	200	219	104	40	59	61	48.5	19.5	40	37	62	2-PF3/8	2-PF1/4	PF1/4	8-M10	9-M10	170	180
MAG-18V-320E (W/A.C.)	215	165 ⁰ _{-0.063}	190 ⁰ _{-0.072}	238	265	115	50	55	75	54	24	45	41	70	2-PF1/2	2-PF1/4	PF1/4	11-M12	11-M12	192	215
MAG-18V-320E (W/O R.V.)	215	165 ⁰ _{-0.063}	190 ⁰ _{-0.072}	238	235	115	50	55	75	54	24	45	41	70	2-PF1/2	2-PF1/4	PF1/4	11-M12	11-M12	192	215
MAG-26V-400 (W/A.C.)	215	165 ⁰ _{-0.063}	210 ⁰ _{-0.072}	255	289	120	70	46	45	54	22	45	41	70	2-PF1/2	2-PF1/4	PF1/4	9-M12	9-M12	192	232
MAG-26V-400 (W/O R.V.)	215	165 ⁰ _{-0.063}	210 ⁰ _{-0.072}	255	259	120	70	46	45	54	22	45	41	70	2-PF1/2	2-PF1/4	PF1/4	9-M12	9-M12	192	232
MAG-33V-550E (W/A.C.)	264	200 ⁰ _{-0.072}	230 ⁰ _{-0.072}	286	298	128	68	51.5	50	54	22	46	41	70	2-PF1/2	2-PF3/8	PF1/4	9-M14	9-M14	240	262
MAG-33V-550E (W/O R.V.)	264	200 ⁰ _{-0.072}	230 ⁰ _{-0.072}	286	268	128	68	51.5	50	54	22	46	41	70	2-PF1/2	2-PF3/8	PF1/4	9-M14	9-M14	240	262
MAG-44VP-800 (W/R.V.)	284	210 ⁰ _{-0.072}	265 ⁰ _{-0.063}	332	354	145	80	70	69	58	23	49	48	70	2-PF1/2	2-PF3/8	PF1/4	12-M16	12-M14	250	300
MAG-44VP-800 (W/O R.V.)	284	210 ⁰ _{-0.072}	265 ⁰ _{-0.063}	332	314	145	80	70	69	58	23	49	48	70	2-PF1/2	2-PF3/8	PF1/4	12-M16	12-M14	250	300

MAG-85VP-1800
MAG-85VP-2400E



Model	φD1	φD2	φD3	φD4	L1	L2	L3	L4	L5	A	B	C	E	Main Port	Drain Port	Pilot Port	W	X	φY	φZ
MAG-85VP-1800	350	290 ⁰ _{-0.061}	324 ⁰ _{-0.089}	394	387	180	83	89	107	71	28	84	108	2-PF3/4	2-PF1/2	PF1/4	16-M16	15-M16	320	364
MAG-85VP-2400E	400	330 ⁰ _{-0.083}	365 ⁰ _{-0.086}	437	412.5	200	99.5	75	93	71	28	84	108	2-PF3/4	2-PF1/2	PF1/4	16-M16	22-M16	370	405

MAG-170VP-3800E
MAG-230VP-6000

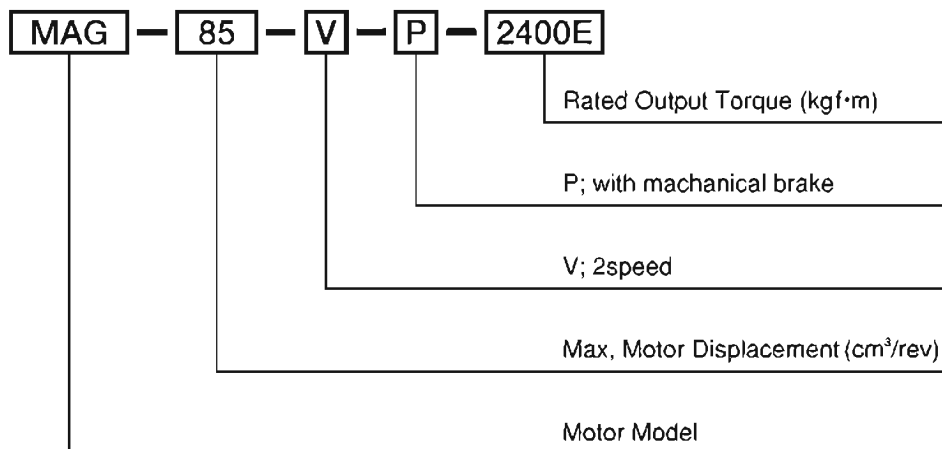


Model	φD1	φD2	φD3	φD4	L1	L2	L3	L4	L5	L6	A	B	C	E	Main Port	Drain Port	Pilot Port	W	X	φY	φZ
MAG-170VP-3800E	370	300 ⁰ _{-0.2}	402 ⁰ _{-0.2}	469	523	263	98.5	127.5	135.5	130	—	54	100	109.5	2-PF1	PF1/2	PF1/4	30-M16	22-M16	340	440
MAG-230VP-6000	462	380 ⁰ _{-0.082}	450 ⁰ _{-0.087}	530	612.5	312.5	112	157	171	157	87	37	89	113	2-PF1	2-PF1/2	PF1/4	20-M24	20-M24	425	495



PISTON MOTOR MAG SERIES

MODEL INFORMATION



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