Hydro-Gear®

M Series & MR Series
WHEEL MOTORS

WE SET THE
WHEELS
IN MOTION.®

"P Series" Motors

Features & Benefits

- Compact design
- High total efficiency
- No drain line needed
- Large bearing capacity
- High starting torque
- Paint is standard
- Parking brake mount
- Motor timing for optimized efficiency
- Parking brake and wheel hubs available from Hydro-Gear®

Specifications subject to change without notice.

Technical data

Type			HGM	HGM	HGM	HGM
Motor			-8P	-10P	-12P	-15P
Geometric Displacement	cu in [cc]		7.65 [125.0]	9.53 [155.7]	11.91 [194.6]	14.83 [242.3]
Max. Speed	rpm [min-1]	cont.	480 [480]	385 [385]	310 [310]	250 [250]
		int.[1]	600 [600]	480 [480]	385 [385]	310 [310]
Max. Torque	in-lbf [Nm]	cont.	2120 [240]	2660 [300]	3190 [360]	3190 [360]
		int.[1]	2570 [290]	3280 [370]	3980 [450]	6461 [73]
		peak[2]	3280 [370]	3810 [430]	4780 [540]	4870 [550]
Max. Output	hp [kW]	cont.	13.4 [10.0]	13.4 [10.0]	13.4 [10.0]	10.7 [8.0]
		int.[1]	16.1 [12.0]	16.1 [12.0]	16.1 [12.0]	14.1 [10.5]
Max. Pressure Drop	psi [bar]	cont.	2030 [140]	2030 [140]	2030 [140]	1520 [105]
		int.[1]	2540 [175]	2540 [175]	2540 [175]	2030 [140]
		peak[2]	3260 [225]	3260 [225]	3260 [225]	2610 [180]
Max. Oil Flow	gpm [l/min]	cont.	15.9 [60]	15.9 [60]	15.9 [60]	15.9 [60]
		int.[1]	19.8 [75]	19.8 [75]	19.8 [75]	19.8 [75]
Max. Starting Pressure with unloaded shaft	psi [bar]		130 [9]	100 [7]	75 [5]	75 [5]
Min. Starting Torque at max. pressure drop	in-lbf [Nm]	cont.	1860 [210]	2480 [280]	3010 [340]	2920 [330]
		int.[1]	2390 [270]	3100 [350]	3720 [420]	3890 [440]
Min. Speed[3]	rpm [min-1]		9 [9]	8 [8]	7 [7]	5 [5]
Shaft [Tapered]	in [mm]		1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Weight	lb [kg]		13.7 [6.2]	14.1 [6.3]	14.6 [6.6]	15 [6.8]

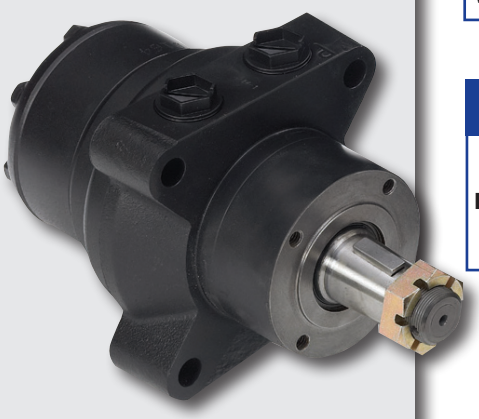
Type			Max. Inlet Pressure	Max. Return Pressure
HGM - P Series	psi [bar]	cont.	2540 [175]	725 [50]
		int.[1]	2900 [200]	1813 [125]
		peak[2]	3260 [225]	1813 [125]

1) Intermittent operation; the permissible values may occur for max. 10% of every minute.
2) Peak load: the permissible values may occur for max. 1% of every minute.
3) Operation at lower speeds may be slightly less smooth.

"E Series" Motors

Features & Benefits

- Compact design
- High total efficiency
- Integrated high pressure shaft seal
- No drain line needed
- Large bearing capacity
- Patented "Secondary Commutation"
- High starting torque
- Paint is standard
- Parking brake mount
- Motor timing for optimized efficiency
- Parking brake and wheel hubs available from Hydro-Gear®



Specifications subject to change without notice.

Code numbers and weight

Type	HGM-12E		HGM-15E		HGM-18E		HGM-24E
Series	1	2	1	2	1	2	1
Rotation cw	– 3050	– 3131	– 3051	–3132	– 3052	– 8790	– 3053
Rotation ccw	– 3054	—	– 3055	– 3138	– 3056	– 8802	– 3057

ex: **Motor** HGM – **Model** 12E – **Configuration** 3054

Technical data

Type			HGM	HGM	HGM	HGM
Motor			-12E	-15E	-18E	-24E
Geometric Displacement	cu in [cc]		12.09 [198.2]	15.14 [248.1]	18.92 [310.1]	23.84 [390.7]
Max. Speed	rpm [min-1]	cont.	300 [300]	241 [241]	190 [190]	150 [150]
		int.[1]	375 [375]	301 [301]	238 [238]	175 [175]
Max. Torque	in-lbf [Nm]	cont.	4160 [47]	4514 [51]	4602 [52]	4868 [55]
		int.[1]	4514 [51]	5045 [45]	5664 [64]	6461 [73]
		peak[2]	5045 [57]	5664 [64]	6550 [74]	7523 [85]
Max. Output	hp [kW]	cont.	14.8 [11]	13.4 [10]	10.7[8]	9.4 [7]
		int.[1]	18.8 [14]	16.1 [12]	13.4 [10]	12.1 [9]
Max. Pressure Drop	psi [bar]	cont.	2683 [185]	2321 [160]	1885 [130]	1668 [115]
		int.[1]	2901 [200]	2611 [180]	2321 [160]	2176 [150]
		peak[2]	3263 [225]	2901 [200]	2683 [185]	2538 [175]
Max. Oil Flow	gpm [l/min]	cont.	16 [60]	16 [60]	16 [60]	16 [60]
		int.[1]	20 [75]	20 [75]	20 [75]	18 [70]
Max. Starting Pressure with unloaded shaft	psi [bar]		102 [7]	102 [7]	102 [7]	102 [7]
Min. Starting Torque at max. pressure drop	in-lbf [Nm]	cont.	3717 [42]	4071 [46]	4160 [47]	4602 [52]
		int.[1]	24071 [46]	4602 [52]	5045 [57]	5930 [67]
Min. Speed[3]	rpm [min-1]		5 [5]	5 [5]	5 [5]	5 [5]
Shaft [Tapered]	in [mm]		1.25 [31.75]	1.25 [31.75]	1.25 [31.75]	1.25 [31.75]
Weight	lb [kg]		21.9 [9.9]	22.6 [10.3]	23.6 [10.7]	25.0 [11.3]

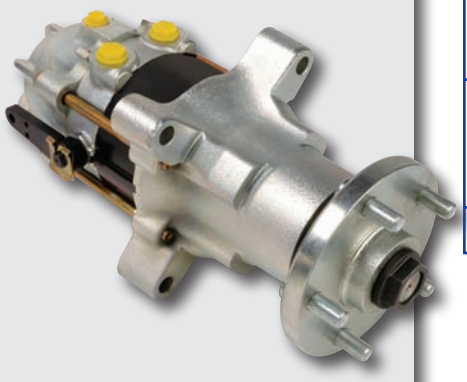
Type			Max. Inlet Pressure	Max. Return Pressure
HGM - E Series	psi [bar]	cont.	2901 [200]	2901 [200]
		int.[1]	3046 [210]	3046 [210]
		peak[2]	3263 [225]	3263 [225]

1) Intermittent operation; the permissible values may occur for max. 10% of every minute.
2) Peak load: the permissible values may occur for max. 1% of every minute.
3) Operation at lower speeds may be slightly less smooth.

"MR Series" Motors

Features & Benefits

- 14.0 cu. in. [229 cc], 16.0 cu. in. [262 cc], 18.0 cu. in. [294 cc] and 19.9 cu. in. [326 cc] displacement
- 4 and 5 bolt hub options
- Standard 1-1/4 inch tapered shaft
- High radial load capacity
- Smooth low speed operation
- Integrated mechanically applied parking brake; high brake holding capacity vs. input torque required
- Excellent volumetric efficiency
- High temperature shaft seal
- Standard case drain line
- Optional hot oil shuttle valve



Specifications subject to change without notice.

Technical data

Product Type			PRM™			
Geometric Displacement	in.³/rev. [cc/rev]		14.0 [229]	16.0 [262]	18.0 [294]	19.9 [326]
Maximum Speed	rpm	cont.	240			
		int.[1]	300			
Maximum Torque [3]	in-lbf [daNm]	cont.	1700 [14.1]	2000 [16.6]	2400 [20.0]	2700 [22.5]
		int.[1]	3800 [31.6]	4400 [36.6]	5100 [42.5]	5600 [46.6]
		peak[2]	5500 [45.8]	6400 [53.3]	7300 [60.8]	8100 [67.5]
Max. Output	hp [kW]	cont.	7 [5.2]	9 [6.7]	11 [8.2]	11 [8.2]
		int.[1]	20 [14.9]	23 [17.1]	27 [20.1]	29 [21.6]
Max. Pressure Drop	psi [bar]	cont.	1231 [84.8]	1279 [88.1]	1376 [94.8]	1266 [87.2]
		int.[1]	2693 [185.6]	2760 [180.2]	2812 [193.8]	2693 [185.6]
		peak[2]	4078 [281.1]	4241 [292.4]	4249 [292.9]	4147 [285.9]
Max. Oil Flow	gpm [l/min]	cont.	14.3 [54.1]	16.3 [61.7]	18.3 [69.2]	20.4 [77.2]
		int.[1]	17.8 [67.3]	20.4 [77.2]	22.9 [86.6]	25.5 [96.5]
Max. Starting Pressure with unloaded shaft	psi [bar]		417 [29]	349 [24]	331 [23]	315 [22]
Min. Starting Torque at max. press. drop	in-lbf [daNm]	cont.	704 [7.96]	1228 [13.87]	1558 [17.60]	1724 [19.48]
		int.[1]	3748 [42.35]	4692 [53.01]	5225 [59.03]	5752 [64.99]
Min. Continuous Speed	rpm		5			
Max. Brake Input Torque	in-lbf [daNm]		200 [2.26]			
Max. Brake Holding Torque	ft-lbf [Nm]		600 [67.8]			
Shaft	diameter		1.25" SAE J501 taper			
Motor Oil Temperature						
Max. Intermittent (hottest point)	°F		230			
	[°C]		[110]			
Normal Operating Range	°F		-10 to 200			
	[°C]		[-23 to 93]			
Fluid Viscosity Limits @230°F [110°C]						
Optimum	SUS [cSt]		70 [13]			
Minimum	SUS [cSt]		55 [9]			
Weight (filled with oil)	lbs [kg]		42.2 [19.2]			

1) Intermittent operation; the permissible values may occur for max. 10% of every minute.
2) Peak load: the permissible values may occur for max. 1% of every minute.
3) 70 SUS oil at 210°F at 15 gpm and 1000 psi and 10 gpm at 3000 psi.

Hydro-Gear®

A World Leader in Hydrostatic Transaxles • Transmissions • Pumps • LSHT Wheel Motors • Gear Drives

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