

# H Series (101-)

## Highlights

### Description

Designed for medium duty applications, these motors use industry-proven spool valve technology combined with state-of-the-art gerotors. In addition, a wide variety of mounting flanges, shafts, Ports and valving options provide design flexibility. Direction of shaft rotation and shaft speed can be controlled easily and smoothly throughout the speed range of the motor, and equipment can be driven direct, eliminating costly mechanical components.

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### Specifications

<b>Gerotor Element</b>	13 Displacements
<b>Flow l/min [GPM]</b>	61[16]Continuous*** 76 [20] Intermittent**
<b>Speed</b>	Up to 1021 RPM
<b>Pressure bar [PSI]</b>	141[2050] Cont.*** 177[2565] Inter.**
<b>Torque Nm [lb-in]</b>	407 [3604] Cont.*** 520[4600] Inter.**

\*\*\* Continuous— (Cont.) Continuous rating, motor may be run continuously at these ratings.

\*\* Intermittent— (Inter.) Intermittent operation, 10% of every minute.

### Features:

- Time-tested Char-Lynn drive set
- Three moving components (gerotor-star, drive, and shaft)
- Optimized drive running angle
- Three-zone pressure design (inlet, return and case)
- Variety of displacements, shafts and mounts
- Special options to meet customer needs

### Benefits:

- High efficiency
- Powerful compact package
- Design flexibility
- Extended leak-free performance

### Applications:

- Agricultural augers, harvesters, seeders
- Car wash brushes
- Food processing
- Railroad maintenance equipment
- Machine tools
- Conveyors
- Industrial sweepers and floor polishers
- Saw mill works
- Turf equipment
- Concrete and asphalt equipment
- Skid steer attachments



Conveyor



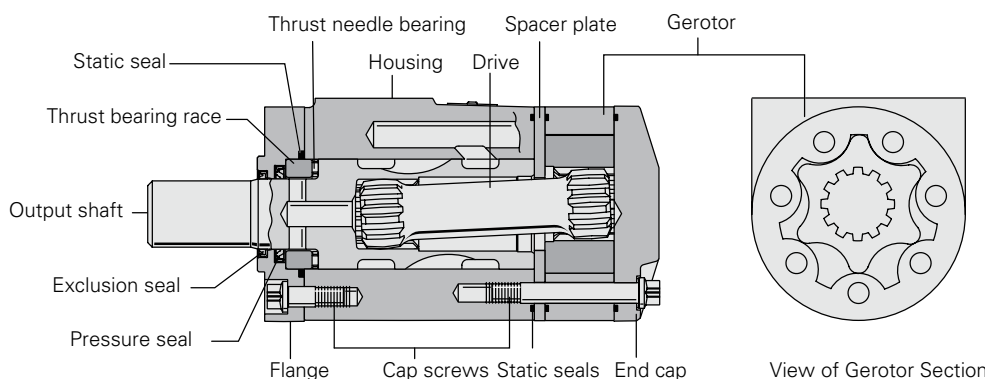
Combine



Sweeper



Salt and sand spreader



### Specification data — H motors

Displ. cm <sup>3</sup> /r [in <sup>3</sup> /r]	36	46	59	74	97	120	146	159	185	231	293	370	739
	[2.2]	[2.8]	[3.6]	[4.5]	[5.9]	[7.3]	[8.9]	[9.7]	[11.3]	[14.1]	[17.9]	[22.6]	[45.1]
Max. Speed (RPM) @ continuous flow	1021	969	993	796	620	501	411	377	324	259	205	162	79
Flow LPM [GPM]													
Continuous	38 [10]	45 [12]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]	61 [16]
Intermittent	38 [10]	53 [14]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]	76 [20]
Torque Nm [lb-in]													
Continuous	64 [566]	84 [745]	103 [913]	134 [1189]	176 [1559]	219 [1936]	268 [2370]	275 [2434]	339 [3004]	319 [2821]	351 [3110]	407 [3604]	389 [3440]
Intermittent	81 [715]	106 [937]	130 [1153]	170 [1507]	222 [1962]	276 [2442]	353 [3126]	336 [2974]	426 [3773]	427 [3780]	466 [4121]	484 [4283]	520 [4600]
Min. Starting torque Nm [lb-in]													
@ Cont. Pressure	53 [467]	67 [592]	86 [763]	108 [957]	142 [1253]	175 [1549]	213 [1881]	232 [2050]	271 [2396]	252 [2234]	282 [2500]	330 [2920]	316 [2800]
@ Int. Pressure	68 [599]	87 [770]	111 [983]	139 [1229]	182 [1614]	225 [1988]	275 [2431]	299 [2645]	349 [3090]	347 [3075]	388 [3430]	408 [3610]	434 [3840]
Pressure Δ bar [Δ PSI]													
Continuous	141 [2050]	141 [2050]	141 [2050]	141 [2050]	141 [2050]	141 [2050]	141 [2050]	141 [2050]	141 [2050]	106 [1535]	93 [1350]	86 [1250]	41 [600]
Intermittent	177 [2565]	177 [2565]	177 [2565]	177 [2565]	177 [2565]	177 [2565]	177 [2565]	177 [2565]	177 [2565]	141 [2050]	124 [1800]	103 [1500]	55 [800]
<b>End ported units only</b>													
Δ Bar [Δ PSI]													
Cont. Pressure	83 [1200]	83 [1200]	76 [1100]	76 [1100]	76 [1100]	69 [1000]	69 [1000]	69 [1000]	62 [900]	55 [800]	48 [700]	57 [825]	27 [396]
Intermittent	117 [1700]	117 [1700]	110 [1600]	110 [1600]	110 [1600]	103 [1500]	103 [1500]	103 [1500]	91 [1400]	90 [1300]	83 [1200]	68 [990]	36 [528]
Weight kg [lb]	5.1 [11.2]	5.1 [11.2]	5.2 [11.5]	5.2 [11.5]	5.4 [11.8]	5.5 [12.1]	5.6 [12.4]	5.7 [12.5]	5.8 [12.8]	6.0 [13.3]	6.3 [14.0]	6.7 [14.7]	8.4 [18.6]

Maximum case pressure: See case pressure seal limitation graph.

\*See shaft torque ratings for limitations.

### A simultaneous maximum torque and maximum speed NOT recommended.

**Note:** To assure best motor life, run motor in low speed high torque mode at approximately 30% of continuous pressure and 50% of continuous flow for 30 minutes in each direction before application of full load. Ensure that motor is filled with fluid prior to operation.

### Maximum inlet pressure:

177 Bar [2565 PSI] without regard to Δ Bar [Δ PSI] and/ or back pressure ratings or combination thereof. 6B splined or Tapered shafts are recommended whenever operation above 282 NM [2500 lb-in] of torque, especially for those applications subject to frequent reversals.

**Δ Pressure:** The true Δ bar [Δ PSI] difference between inlet port and outlet port

**Continuous rating:** Motor may be run continuously at these ratings

**Intermittent operation:** 10% of every minute

### Recommended fluids

Premium quality, anti-wear type hydraulic oil. Minimum oil viscosity (at operating temperature) should be the highest of the following: 20 cSt [100 SUS] or

$$\left[ \begin{array}{l} 300 \times \text{Bar} = \text{SUS} \\ \text{RPM} \\ 20 \times \text{PSI} = \text{SUS} \\ \text{RPM} \end{array} \right]$$

### Recommended system

#### Operating temp.:

-34°C to 82°C [-30°F to 180°F]

#### Recommended filtration:

Per ISO cleanliness code 4406, level 20/18/13

**Note:** Δ pressure is derated for end ported units.

#### Thermal shock warning:

Do not operate the motor with fluid that is 70F or more above the motor temperature.

#### Minimum delta pressure warning:

Motors must not run with equal inlet and outlet pressure 50 PSID minimum delta pressure between motor ports is required at all times (except when switching direction of rotation)

# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Continuous



Intermittent

B-2

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

**Δ Pressure bar [PSI]  
36 cm<sup>3</sup>/r [2.2 in<sup>3</sup>/r]**

		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]
		14	28	41	55	69	83	97	110	124	141	166	177
<b>Flow LPM [GPM]</b>	[2]	[49]	[103]	[162]	[216]	[270]	[325]	[379]	[432]	[489]	[556]	[650]	[694]
	8	6	12	18	24	31	37	43	49	55	63	73	78
		204	201	198	194	189	184	177	170	162	146	122	112
	[4]	[47]	[106]	[160]	[217]	[274]	[327]	[384]	[439]	[495]	[561]	[654]	[698]
	15	5	12	18	25	31	37	43	50	56	63	74	79
		408	407	402	399	394	387	381	373	365	348	323	312
	[6]	[44]	[102]	[158]	[215]	[272]	[328]	[383]	[440]	[496]	[565]	[661]	[706]
	23	5	12	18	24	31	37	43	50	56	64	75	80
		613	612	609	604	599	591	586	576	565	549	523	510
	[8]	[40]	[97]	[153]	[212]	[270]	[326]	[383]	[440]	[497]	[566]	[668]	[715]
30	5	11	17	24	31	37	43	50	56	64	75	81	
	817	817	814	807	799	793	785	776	762	747	721	707	
[10]	[36]	[90]	[148]	[207]	[265]	[322]	[380]	[438]	[495]	[565]	[664]	[713]	
<b>Max. Continuous</b>	4	10	17	23	30	36	43	49	56	64	75	81	
	1021	1021	1015	1008	1001	991	981	969	959	944	920	906	

[90] } Torque [lb-in]  
10 } Nm  
1021 } Speed RPM

**Δ Pressure bar [PSI]  
46 cm<sup>3</sup>/r [2.8 in<sup>3</sup>/r]**

		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]
		14	28	41	55	69	83	97	110	124	141	166	177
<b>Flow LPM [GPM]</b>	[2]	[64]	[136]	[212]	[284]	[355]	[426]	[497]	[567]	[641]	[728]	[852]	[909]
	8	7	15	24	32	40	48	56	64	72	82	96	103
		161	158	156	153	148	145	139	133	127	114	95	87
	[4]	[61]	[139]	[209]	[286]	[359]	[429]	[503]	[576]	[649]	[735]	[857]	[915]
	15	7	16	24	32	41	48	57	65	73	83	97	103
		323	320	316	314	310	304	300	293	287	273	253	245
	[6]	[58]	[134]	[207]	[282]	[356]	[430]	[502]	[577]	[650]	[740]	[867]	[927]
	23	7	15	23	32	40	49	57	65	73	84	98	105
		486	481	479	475	471	464	461	453	444	431	410	401
	[8]	[52]	[128]	[200]	[276]	[354]	[428]	[502]	[577]	[651]	[745]	[876]	[937]
30	6	14	23	31	40	48	57	65	74	84	99	106	
	648	643	640	635	628	623	617	610	599	586	566	556	
[10]	[47]	[118]	[194]	[269]	[347]	[423]	[498]	[575]	[649]	[742]	[871]	[934]	
38	5	13	22	30	39	48	56	65	73	84	98	106	
	808	803	798	793	787	779	771	761	753	741	722	712	
[12]	[36]	[109]	[188]	[260]	[340]	[417]	[492]	[567]	[643]	[735]	[864]	[926]	
<b>Max. Continuous</b>	4	12	21	29	38	47	56	64	73	83	98	105	
	969	964	960	952	946	938	931	922	914	899	877	867	
[14]	[25]	[98]	[175]	[249]	[327]	[404]	[484]	[559]	[634]	[733]			
<b>Max. Intermitted</b>	3	11	20	28	37	46	55	63	72	83			
	1127	1123	1115	1108	1100	1093	1086	1079	1068	1058			

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 59 cm<sup>3</sup>/r [3.6 in<sup>3</sup>/r]</b>											<b>Max. Continuous</b>	<b>Max. Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]		
		14	28	41	55	69	83	97	110	124	141	166	177		
<b>Flow LPM [GPM]</b>	[2]	[79]	[169]	[260]	[349]	[437]	[526]	[616]	[704]	[796]	[903]	[1055]	[1128]		
	8	9	19	29	39	49	59	70	80	90	102	119	127		
		127	125	123	121	117	114	109	103	96	84	65	56		
	[4]	[76]	[168]	[257]	[349]	[441]	[529]	[620]	[710]	[800]	[910]	[1065]	[1138]		
		9	19	29	39	50	60	70	80	90	103	120	129		
	15	254	254	251	249	246	241	236	230	224	211	193	184		
		[73]	[161]	[252]	[346]	[439]	[529]	[618]	[709]	[802]	[913]	[1069]	[1143]		
	[6]	8	18	28	39	50	60	70	80	91	103	121	129		
		381	381	380	377	373	368	364	358	349	338	319	309		
	[8]	[64]	[151]	[243]	[336]	[428]	[519]	[609]	[701]	[794]	[911]	[1076]	[1153]		
		7	17	27	38	48	59	69	79	90	103	122	130		
	30	508	508	508	504	500	496	491	484	476	465	446	436		
		[57]	[141]	[234]	[327]	[419]	[512]	[602]	[693]	[786]	[905]	[1071]	[1149]		
	[10]	6	16	26	37	47	58	68	78	89	102	121	130		
		635	635	634	630	626	621	614	608	601	589	571	561		
	[12]	[45]	[131]	[227]	[318]	[409]	[505]	[593]	[684]	[778]	[895]	[1058]	[1138]		
5		15	26	36	46	57	67	77	88	101	120	129			
45	762	762	762	757	753	747	741	734	728	714	694	684			
	[33]	[118]	[213]	[305]	[396]	[492]	[583]	[676]	[770]	[889]	[1055]	[1135]			
[14]	4	13	24	34	45	56	66	76	87	100	119	128			
	889	889	887	882	877	872	866	860	851	836	813	803			
[15]	[29]	[111]	[205]	[297]	[389]	[486]	[576]	[670]	[765]	[885]	[1055]	[1132]			
	3	13	23	34	44	55	65	76	86	100	119	128			
57	953	953	951	945	940	935	929	921	913	896	872	861			
	[25]	[108]	[201]	[293]	[384]	[482]	[573]	[666]	[762]	[881]	[1050]	[1129]			
[16]	3	12	23	33	43	54	65	75	86	100	119	128			
	993	992	991	991	984	978	972	965	957	944	918	905			
<b>Max. Continuous</b>	[20]	[17]	[98]	[192]	[285]	[377]	[475]	[567]	[660]	[757]	[877]				
	2	11	22	32	43	54	64	75	86	99					
<b>Max. Intermittent</b>	1080	1080	1077	1071	1067	1062	1055	1049	1040	1029					

[111] } Torque [lb-in]  
 13 } Nm  
 953 } Speed RPM

# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Continuous



Intermittent


B-2

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI]</b> <b>74 cm³/r [4.5 in³/r]</b>											<b>Max.</b> <b>Continuous</b>	<b>Max.</b> <b>Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]		
		14	28	41	55	69	83	97	110	124	141	166	177		
<b>Flow LPM [GPM]</b>	[2]	[103]	[220]	[339]	[454]	[569]	[685]	[801]	[916]	[1036]	[1175]	[1373]	[1468]		
	8	12	25	38	51	64	77	91	103	117	133	155	166		
		101	99	98	96	93	90	86	81	76	66	51	44		
	[4]	[99]	[219]	[335]	[457]	[574]	[689]	[808]	[925]	[1042]	[1185]	[1386]	[1481]		
	15	11	25	38	52	65	78	91	105	118	134	157	167		
		203	201	199	197	194	191	187	182	177	167	153	147		
	[6]	[94]	[210]	[328]	[451]	[571]	[689]	[805]	[924]	[1044]	[1189]	[1392]	[1489]		
	23	11	24	37	51	65	78	91	104	118	134	157	168		
		305	303	301	298	296	292	288	283	276	267	252	245		
	[8]	[86]	[196]	[319]	[438]	[558]	[676]	[793]	[913]	[1033]	[1186]	[1401]	[1507]		
	30	10	22	36	49	63	76	90	103	117	134	158	170		
		406	404	402	399	396	393	388	383	377	367	352	345		
[10]	[74]	[183]	[310]	[422]	[545]	[667]	[784]	[903]	[1024]	[1178]	[1394]	[1495]			
38	8	21	35	48	62	75	89	102	116	133	158	169			
	507	505	502	499	496	492	486	482	476	466	452	445			
[12]	[58]	[171]	[295]	[408]	[533]	[657]	[773]	[891]	[1013]	[1165]	[1377]	[1477]			
45	7	19	33	46	60	74	87	101	114	132	156	167			
	608	606	603	600	596	591	587	581	576	565	549	542			
[14]	[43]	[154]	[277]	[396]	[515]	[640]	[760]	[880]	[1002]	[1157]	[1374]	[1470]			
53	5	17	31	45	58	72	86	99	113	131	155	166			
	709	706	702	698	694	691	686	681	674	661	643	636			
[15]	[36]	[145]	[268]	[387]	[506]	[632]	[750]	[873]	[996]	[1153]	[1373]	[1468]			
57	4	16	30	44	57	71	85	99	113	130	155	166			
	760	757	753	749	744	740	735	729	723	709	690	683			
[16]	[31]	[138]	[261]	[382]	[500]	[627]	[744]	[869]	[991]	[1150]	[1371]	[1466]			
61	4	16	29	43	56	71	84	98	112	130	155	166			
	796	793	790	786	782	778	773	768	761	750	734	723			
<b>Max. Continuous</b>	[20]	[14]	[121]	[233]	[351]	[482]	[609]	[725]	[856]	[981]	1140				
	2	14	26	40	54	69	82	97	111	129					
<b>Max. Intermittent</b>	76	904	902	898	895	891	887	882	877	869	861				

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.

 Continuous

 Intermittent

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 97 cm<sup>3</sup>/r [5.9 in<sup>3</sup>/r]</b>											<b>Max. Continuous</b>	<b>Max. Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]		
		14	28	41	55	69	83	97	110	124	141	166	177		
<b>Flow LPM [GPM]</b>	[2]	[134]	[292]	[442]	[593]	[746]	[899]	[1054]	[1209]	[1365]	[1546]	[1806]	[1933]		
	8	15	33	50	67	84	102	119	137	154	175	204	218		
		78	76	75	73	71	68	65	61	55	47	33	27		
	[4]	[131]	[281]	[436]	[596]	[750]	[903]	[1059]	[1212]	[1367]	[1559]	[1828]	[1955]		
	15	15	32	49	67	85	102	120	137	154	176	207	221		
		156	155	153	151	149	147	143	139	134	126	113	107		
	[6]	[126]	[269]	[425]	[588]	[747]	[900]	[1054]	[1206]	[1368]	[1556]	[1823]	[1951]		
	23	14	30	48	66	84	102	119	136	155	176	206	220		
		234	233	231	230	228	224	221	217	210	202	189	182		
	[8]	[110]	[246]	[408]	[566]	[718]	[873]	[1023]	[1177]	[1339]	[1542]	[1829]	[1962]		
	30	12	28	46	64	81	99	116	133	151	174	207	222		
		312	311	310	308	305	303	300	295	291	282	269	263		
[10]	[96]	[231]	[392]	[539]	[699]	[859]	[1005]	[1156]	[1318]	[1528]	[1821]	[1956]			
38	11	26	44	61	79	97	114	131	149	173	206	221			
	390	389	387	385	383	380	376	373	368	359	346	340			
[12]	[77]	[218]	[378]	[522]	[681]	[844]	[990]	[1142]	[1301]	[1506]	[1792]	[1925]			
45	9	25	43	59	77	95	112	129	147	170	202	217			
	468	467	465	463	460	457	453	449	445	435	421	415			
[14]	[60]	[197]	[358]	[513]	[662]	[828]	[973]	[1131]	[1293]	[1493]	[1776]	[1906]			
53	7	22	40	58	75	94	110	128	146	169	201	215			
	546	544	542	539	537	535	531	526	521	512	499	493			
[15]	[52]	[189]	[346]	[495]	[651]	[819]	[963]	[1126]	[1286]	[1490]	[1778]	[1899]			
57	6	21	39	56	74	93	109	127	145	168	201	215			
	585	583	581	578	575	573	569	564	559	550	536	530			
[16]	[46]	[181]	[339]	[489]	[643]	[813]	[960]	[1121]	[1283]	[1488]	[1773]	[1893]			
61	5	20	38	55	73	92	108	127	145	168	200	214			
	620	617	613	610	608	607	601	599	594	585	569	561			
<b>Max. Continuous</b>															
<b>Max. Intermittent</b>	[20]	[25]	[157]	[311]	[455]	[625]	[790]	[941]	[1110]	[1272]	[1482]				
	76	3	18	35	51	71	89	106	125	144	167				
		701	700	697	694	691	688	684	681	674	668				

[189] } Torque [lb-in]  
 21 } Nm  
 583 } Speed RPM

# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Continuous



Intermittent

B-2

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 120 cm<sup>3</sup>/r [7.3 in<sup>3</sup>/r]</b>										<b>Max. Continuous</b>	<b>Max. Intermittent</b>		
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]		
		14	28	41	55	69	83	97	110	124	141	166	177		
<b>Flow LPM [GPM]</b>	[2]	[162]	[357]	[544]	[736]	[927]	[1116]	[1305]	[1498]	[1687]	[1913]	[2231]	[2385]		
	8	18	40	61	83	105	126	147	169	191	216	252	269		
		62	61	61	59	58	55	53	49	45	38	26	21		
	[4]	[160]	[348]	[539]	[736]	[930]	[1119]	[1316]	[1506]	[1698]	[1936]	[2268]	[2426]		
	15	18	39	61	83	105	126	149	170	192	219	256	274		
		125	124	123	121	120	119	116	114	110	102	90	86		
	[6]	[155]	[338]	[530]	[729]	[923]	[1116]	[1310]	[1500]	[1699]	[1936]	[2271]	[2432]		
	23	18	38	60	82	104	126	148	169	192	219	257	275		
		188	187	186	185	183	180	178	175	170	163	152	147		
	[8]	[139]	[319]	[515]	[710]	[901]	[1094]	[1283]	[1476]	[1673]	[1925]	[2278]	[2442]		
	30	16	36	58	80	102	124	145	167	189	217	257	276		
		250	250	249	247	245	243	241	237	233	226	216	211		
[10]	[121]	[303]	[497]	[686]	[883]	[1081]	[1267]	[1460]	[1655]	[1911]	[2268]	[2433]			
38	14	34	56	78	100	122	143	165	187	216	256	275			
	313	312	311	309	308	306	302	300	296	289	278	273			
[12]	[102]	[288]	[480]	[664]	[862]	[1060]	[1246]	[1440]	[1640]	[1885]	[2232]	[2397]			
45	12	33	54	75	97	120	141	163	185	213	252	271			
	375	374	373	371	370	367	365	361	358	350	338	333			
[14]	[78]	[263]	[458]	[652]	[841]	[1041]	[1228]	[1420]	[1616]	[1865]	[2213]	[2375]			
53	9	30	52	74	95	118	139	160	183	211	250	268			
	438	437	435	433	431	430	427	423	419	412	401	396			
[15]	[67]	[253]	[446]	[632]	[828]	[1030]	[1214]	[1411]	[1608]	[1856]	[2205]	[2370]			
57	8	29	50	71	94	116	137	159	182	210	249	268			
	469	468	466	464	462	460	458	454	450	442	430	425			
[16]	[59]	[241]	[436]	[619]	[819]	[1020]	[1206]	[1402]	[1602]	[1847]	[2196]	[2363]			
61	7	27	49	70	93	115	136	158	181	209	248	267			
	501	499	497	495	493	491	488	485	482	476	465	460			
<b>Max. Continuous</b>	[20]	[20]	[202]	[384]	[581]	[778]	[971]	[1169]	[1356]	[1559]	1810				
<b>Max. Intermittent</b>	76	2	23	43	66	88	110	132	153	176	205				
		626	624	621	618	617	614	611	609	606	603				

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		Δ Pressure bar [PSI] 146 cm <sup>3</sup> /r [8.9 in <sup>3</sup> /r]													Max. Continuous	Max. Intermittent
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1700]	[1800]	[2050]	[2300]	[2565]		
		14	28	41	55	69	83	97	110	117	124	141	159	177		
<b>Flow LPM [GPM]</b>	[2]	[198]	[435]	[664]	[897]	[1130]	[1361]	[1591]	[1827]	[1942]	[2050]	2333	[2611]	[2911]		
	8	22	49	75	101	128	154	180	206	219	232	264	295	329		
		51	50	50	49	47	45	43	40	39	36	31	24	17		
	[4]	[196]	[424]	[657]	[898]	[1133]	[1365]	[1604]	[1836]	[1954]	[2068]	2359	[2648]	[2957]		
	15	22	48	74	101	128	154	181	207	221	234	267	299	334		
		103	102	101	99	99	97	95	93	92	89	84	78	72		
	[6]	[189]	[412]	[646]	[889]	[1125]	[1361]	[1598]	[1829]	[1951]	[2066]	2360	[2653]	[2967]		
	23	21	47	73	100	127	154	181	207	220	233	267	300	335		
		154	153	152	151	150	148	146	143	141	139	134	128	121		
	[8]	[169]	[389]	[628]	[866]	[1098]	[1333]	[1564]	[1799]	[1919]	[2043]	2343	[2649]	[2969]		
	30	19	44	71	98	124	151	177	203	217	231	265	299	335		
		205	205	204	203	201	200	197	195	193	191	186	180	173		
	[10]	[148]	[369]	[605]	[836]	[1076]	[1318]	[1544]	[1780]	[1899]	[2030]	2370	[2789]	[3126]		
	38	17	42	68	94	122	149	174	201	215	229	268	315	353		
		257	256	255	253	252	251	248	246	244	242	237	231	225		
[12]	[125]	[351]	[586]	[810]	[1051]	[1293]	[1519]	[1756]	[1878]	[1999]	2301	[2606]	[2930]			
45	14	40	66	92	119	146	172	198	212	226	260	294	331			
	308	307	306	305	303	301	299	296	295	292	287	281	275			
[14]	[95]	[321]	[558]	[795]	[1026]	[1290]	[1497]	[1731]	[1851]	[1978]	2276	[2580]	[2895]			
53	11	36	63	90	116	146	169	196	209	223	257	292	327			
	359	358	357	355	354	352	350	347	346	343	338	331	325			
[15]	[82]	[308]	[544]	[771]	[1010]	[1256]	[1480]	[1720]	[1840]	[1962]	2264	[2569]	[2893]			
57	9	35	61	87	114	142	167	194	208	222	256	290	327			
	385	384	383	381	379	378	375	373	371	368	363	356	349			
[16]	[76]	[299]	[532]	[765]	[1003]	[1249]	[1475]	[1710]	[1832]	[1955]	[2245]	[2547]	[2873]			
61	9	34	60	86	113	141	167	193	207	221	254	288	325			
	411	410	408	406	405	403	400	398	396	394	390	385	375			
[20]	[24]	[246]	[468]	[708]	[948]	[1184]	[1425]	[1653]	[1780]	1902	2208					
76	3	28	53	80	107	134	161	187	201	215	249					
	513	512	509	507	506	504	501	499	498	497	494					



# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



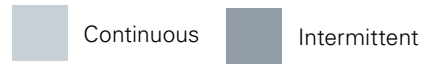
B-2

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 159 cm<sup>3</sup>/r [9.7 in<sup>3</sup>/r]</b>											<b>Max. Continuous</b>	<b>Max. Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2400]	[2565]		
		14	28	41	55	69	83	97	110	124	141	166	177		
<b>Flow LPM [GPM]</b>	[2]	[209]	[465]	[715]	[973]	[1228]	[1478]	[1724]	[1981]	[2046]	[2401]	[2764]	[2903]		
	8	24	53	81	110	139	167	195	224	231	271	312	328		
		47	46	46	45	44	42	40	38	37	31	23	20		
	[4]	[210]	[460]	[710]	[971]	[1229]	[1480]	[1745]	[1996]	[2059]	[2432]	[2813]	[2959]		
		24	52	80	110	139	167	197	226	233	275	318	334		
	15	94	94	93	91	91	90	89	87	87	82	76	74		
		[205]	[454]	[704]	[965]	[1216]	[1477]	[1738]	[1991]	[2055]	[2434]	[2824]	[2974]		
	[6]	23	51	80	109	137	167	196	225	232	275	319	336		
		141	141	140	139	138	136	134	132	132	126	119	116		
	[8]	[186]	[440]	[693]	[951]	[1205]	[1461]	[1716]	[1973]	[2038]	[2417]	[2808]	[2956]		
		21	50	78	107	136	165	194	223	230	273	317	334		
	30	188	188	187	186	185	183	181	179	178	173	166	163		
[164]		[422]	[671]	[930]	[1189]	[1451]	[1702]	[1965]	[2032]	[2404]	[2789]	[2938]			
[10]	19	48	76	105	134	164	192	222	230	272	315	332			
	235	234	234	232	232	230	228	226	225	220	213	210			
[12]	[144]	[404]	[652]	[900]	[1163]	[1421]	[1674]	[1937]	[2004]	[2379]	[2770]	[2922]			
	16	46	74	102	131	161	189	219	226	269	313	330			
45	282	281	281	279	279	277	275	273	272	267	260	257			
	[109]	[374]	[623]	[883]	[1140]	[1396]	[1653]	[1900]	[1963]	[2342]	[2727]	[2873]			
[14]	12	42	70	100	129	158	187	215	222	265	308	325			
	330	329	328	327	325	323	322	319	319	313	306	304			
[15]	[92]	[359]	[612]	[861]	[1123]	[1381]	[1633]	[1886]	[1950]	[2326]	[2712]	[2847]			
	10	41	69	97	127	156	185	213	220	263	306	322			
57	353	352	351	350	348	347	345	343	342	337	330	328			
	[87]	[344]	[591]	[848]	[1108]	[1366]	[1624]	[1877]	[1938]	[2299]	[2665]	[2808]			
[16]	10	39	67	96	125	154	183	212	219	260	301	317			
	377	376	374	373	372	370	368	366	365	361	356	354			
<b>Max. Continuous</b>	61														
	[20]	[26]	[268]	[510]	[772]	[1034]	[1290]	[1553]	[1802]	[1865]	[2179]				
<b>Max. Intermittent</b>	76	3	30	58	87	117	146	175	204	211	246				
		471	470	467	465	464	462	460	458	458	456				

[359] } Torque [lb-in]  
 41 } Nm  
 352 } Speed RPM

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 185 cm<sup>3</sup>/r [11.3 in<sup>3</sup>/r]</b>											<b>Max. Continuous</b>	<b>Max. Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1600]	[1800]	[2050]	[2150]	[2565]		
		14	28	41	55	69	83	97	110	124	141	148	177		
<b>Flow LPM [GPM]</b>	[2]	[257]	[554]	[847]	[1150]	[1447]	[1739]	[2035]	[2320]	[2607]	[2963]	[3103]			
	8	29	63	96	130	163	196	230	262	295	335	351			
		40	40	39	38	37	36	33	29	23	16	12			
	[4]	[254]	[546]	[845]	[1145]	[1448]	[1744]	[2049]	[2343]	[2635]	[3003]	[3147]	[3758]		
	15	29	62	95	129	164	197	232	265	298	339	356	425		
		81	81	80	79	78	77	76	74	70	66	63	55		
	[6]	[246]	[540]	[834]	[1137]	[1434]	[1736]	[2036]	[2337]	[2631]	[3004]	[3151]	[3773]		
	23	28	61	94	128	162	196	230	264	297	339	356	426		
		121	121	120	120	119	117	115	112	108	103	100	89		
	[8]	[224]	[520]	[820]	[1117]	[1414]	[1716]	[2014]	[2315]	[2611]	[2985]	[3133]	[3754]		
	30	25	59	93	126	160	194	228	262	295	337	354	424		
		162	162	161	160	159	157	155	152	148	143	140	129		
	[10]	[202]	[499]	[793]	[1095]	[1394]	[1699]	[1997]	[2299]	[2593]	[2966]	[3112]	[3733]		
	38	23	56	90	124	158	192	226	260	293	335	352	422		
		202	202	201	201	200	198	196	193	189	184	181	170		
	[12]	[176]	[475]	[767]	[1063]	[1368]	[1664]	[1969]	[2268]	[2565]	[2940]	[3088]	[3715]		
45	20	54	87	120	155	188	222	256	290	332	349	420			
	243	242	242	241	240	238	236	234	230	225	222	212			
[14]	[140]	[443]	[735]	[1035]	[1340]	[1637]	[1936]	[2227]	[2529]	[2902]	[3051]	[3667]			
53	16	50	83	117	151	185	219	252	286	328	345	414			
	283	283	282	281	280	279	277	274	270	265	262	252			
[15]	[120]	[425]	[719]	[1014]	[1320]	[1618]	[1914]	[2205]	[2510]	[2885]	[3023]	[3648]			
57	14	48	81	115	149	183	216	249	284	326	342	412			
	304	303	302	301	300	299	297	294	290	286	283	274			
[16]	[108]	[407]	[700]	[998]	[1301]	[1598]	[1895]	[2185]	[2490]	[2863]	[3012]	[3630]			
61	12	46	79	113	147	181	214	247	281	323	340	410			
	324	323	322	321	320	318	316	314	312	308	306	295			
[20]	[27]	[321]	[612]	[911]	[1211]	[1504]	[1795]	[2070]	[2387]	[2756]					
76	3	36	69	103	137	170	203	234	270	311					
	405	404	402	401	400	398	397	395	394	389					

# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



**B-2**

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 231 cm<sup>3</sup>/r [14.1 in<sup>3</sup>/r]</b>										<b>Max. Continuous</b>	<b>Max. Intermittent</b>	
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1400]	[1450]	[1535]	[2000]	[2050]		
		14	28	41	55	69	83	97	100	106	138	141		
<b>Flow LPM [GPM]</b>	[2]	[338]	[707]	[1074]	[1456]	[1827]	[2192]	[2572]	[2657]	[2819]				
	8	38	80	121	165	206	248	291	300	319				
		32	32	31	30	30	28	26	25	24				
	[4]	[328]	[695]	[1076]	[1447]	[1827]	[2201]	[2577]	[2669]	[2821]	[3671]	[3780]		
	15	37	79	122	163	206	249	291	302	319	415	427		
		65	65	64	63	62	62	60	60	58	50	49		
	[6]	[317]	[687]	[1057]	[1434]	[1811]	[2186]	[2555]	[2650]	[2806]	[3668]	[3766]		
	23	36	78	119	162	205	247	289	299	317	414	426		
		97	97	97	96	95	94	92	91	89	80	78		
	[8]	[289]	[659]	[1038]	[1406]	[1777]	[2160]	[2531]	[2625]	[2781]	[3644]	[3742]		
	30	33	74	117	159	201	244	286	297	314	412	423		
		130	130	130	129	128	127	124	124	122	112	112		
[10]	[265]	[631]	[1004]	[1381]	[1751]	[2131]	[2510]	[2602]	[2753]	[3608]	[3713]			
38	30	71	113	156	198	241	284	294	311	408	420			
	162	162	162	162	160	158	156	156	154	145	144			
[12]	[230]	[599]	[968]	[1345]	[1722]	[2088]	[2480]	[2571]	[2718]	[3571]	[3678]			
45	26	68	109	152	195	236	280	290	307	403	416			
	195	195	194	194	193	192	189	189	187	178	172			
[14]	[191]	[563]	[927]	[1299]	[1686]	[2058]	[2428]	[2519]	[2675]	[3532]	[3633]			
53	22	64	105	147	190	233	274	285	302	399	410			
	227	227	227	226	226	224	222	221	220	212	210			
[15]	[167]	[538]	[904]	[1279]	[1661]	[2030]	[2404]	[2493]	[2645]	[3488]	[3598]			
57	19	61	102	145	188	229	272	282	299	394	407			
	243	243	243	242	242	240	238	238	236	229	228			
[16]	[143]	[517]	[887]	[1258]	[1634]	[2002]	[2369]	[2462]	[2611]	[3444]	[3557]			
61	16	58	100	142	185	226	268	278	295	389	402			
	259	259	259	258	258	256	254	253	252	245	244			
[20]	[29]	[411]	[785]	[1152]	[1520]	[1877]	[2222]	[2318]	[2462]					
76	3	46	89	130	172	212	251	262	278					
	324	324	323	322	322	320	319	318	318					

[538] } Torque [lb-in]  
61 } Nm  
243 } Speed RPM

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI] 293 cm<sup>3</sup>/r [17.9 in<sup>3</sup>/r]</b>						<b>Max. Continuous</b>	<b>Max. Intermittent</b>
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1350]	[1800]
		14	28	41	55	69	83	93	124
<b>Flow LPM [GPM]</b>	[2]	[427]	[893]	[1361]	[1829]	[2293]	[2672]	[2977]	
	8	48	101	154	207	259	302	336	
		26	25	25	24	22	16	13	
	[4]	[419]	[886]	[1362]	[1833]	[2305]	[2771]	[3110]	[4107]
	15	47	100	154	207	260	313	351	464
		51	51	51	50	49	47	44	22
	[6]	[402]	[872]	[1342]	[1819]	[2291]	[2757]	[3098]	[4121]
	23	45	99	152	206	259	312	350	466
		77	77	76	76	74	71	68	54
	[8]	[367]	[838]	[1316]	[1785]	[2252]	[2723]	[3070]	[4086]
	30	41	95	149	202	254	308	347	462
		102	102	102	101	100	98	95	84
	[10]	[332]	[803]	[1276]	[1749]	[2215]	[2684]	[3034]	[4061]
	38	38	91	144	198	250	303	343	459
		128	128	128	127	126	123	120	108
	[12]	[289]	[760]	[1230]	[1706]	[2177]	[2634]	[2989]	[4012]
45	33	86	139	193	246	298	338	453	
	153	153	153	153	151	149	146	135	
[14]	[241]	[712]	[1176]	[1650]	[2126]	[2592]	[2935]	[3963]	
53	27	80	133	186	240	293	332	448	
	179	179	179	179	177	175	172	161	
[15]	[211]	[683]	[1149]	[1623]	[2096]	[2558]	[2905]	[3914]	
57	24	77	130	183	237	289	328	442	
	192	192	192	191	190	188	185	174	
[16]	[182]	[657]	[1128]	[1598]	[2066]	[2534]	[2884]	[3886]	
61	21	74	127	181	233	286	326	439	
	205	205	204	204	203	201	198	189	
<b>Max. Intermittent</b>	[20]	[43]	[527]	[1001]	[1463]	[1919]	[2375]	[2720]	
	5	60	113	165	217	268	307		
	76	256	256	255	255	254	252	249	

# H Series (101-)

## Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed, however for best motor life select a motor to run with a torque and speed range printed in the light shaded area.



B-2

Performance data is typical at 25 cSt [120 SUS]. Actual data may vary slightly from unit to unit in production

		<b>Δ Pressure bar [PSI]</b>							
		<b>370 cm<sup>3</sup>/r [22.6 in<sup>3</sup>/r]</b>						<b>Max. Continuous</b>	<b>Max. Intermittent</b>
		[200]	[400]	[600]	[800]	[1000]	[1200]	[1250]	[1500]
		14	28	41	55	69	83	86	103
<b>Flow LPM [GPM]</b>	[2]	[537]	[1121]	[1715]	[2285]	[2862]			
	8	61	127	194	258	323			
		20	20	20	19	16			
	[4]	[532]	[1123]	[1715]	[2308]	[2893]	[3467]	[3604]	[4274]
	15	60	127	194	261	327	392	407	483
		40	40	40	39	38	36	35	27
	[6]	[508]	[1100]	[1693]	[2294]	[2884]	[3458]	[3598]	[4283]
	23	57	124	191	259	326	391	407	484
		61	61	61	60	58	55	53	47
	[8]	[463]	[1060]	[1661]	[2255]	[2840]	[3414]	[3557]	[4254]
30	52	120	188	255	321	386	402	481	
	81	81	81	80	79	76	74	68	
[10]	[414]	[1017]	[1613]	[2203]	[2788]	[3363]	[3506]	[4212]	
38	47	115	182	249	315	380	396	476	
	101	101	101	101	99	96	94	88	
[12]	[363]	[960]	[1553]	[2152]	[2737]	[3305]	[3446]	[4152]	
45	41	108	175	243	309	373	389	469	
	121	121	121	121	119	116	115	109	
[14]	[303]	[897]	[1484]	[2086]	[2667]	[3246]	[3386]	[4092]	
53	34	101	168	236	301	367	383	462	
	142	142	142	142	140	137	136	130	
[15]	[266]	[862]	[1452]	[2050]	[2630]	[3206]	[3347]	[4054]	
57	30	97	164	232	297	362	378	458	
	152	152	152	152	150	148	147	140	
[16]	[230]	[832]	[1426]	[2020]	[2597]	[3168]	[3307]	[4010]	
61	26	94	161	228	293	358	374	453	
	162	162	162	162	161	158	157	151	
<b>Max. Continuous</b>	[20]	[61]	[671]	[1269]	[1847]	[2410]	[2987]	[3119]	
<b>Max. Intermittent</b>	76	7	76	143	209	272	337	352	
		202	202	202	202	202	199	198	

[862] } Torque [lb-in]  
 97 } Nm  
 152 } Speed RPM

		<b>Δ Pressure bar [PSI]</b>					
		<b>739 cm<sup>3</sup>/r [45.1 in<sup>3</sup>/r]</b>				<b>Max. Continuous</b>	<b>Max. Intermittent</b>
		[200]	[400]	[600]	[800]		
		14	28	41	55		
<b>Flow LPM [GPM]</b>	[2]	[1080]	[2250]	[3440]	[4570]		
	8	122	254	389	516		
		10	10	10	9		
	[4]	[1070]	[2250]	[3440]	[4600]		
	15	121	254	389	520		
		20	20	19	18		
	[6]	[1020]	[2200]	[3390]	[4590]		
	23	115	249	383	519		
		30	30	29	27		
	[8]	[945]	[2135]	[3330]	[4515]		
30	107	241	376	510			
	40	40	39	37			
[10]	[840]	[2050]	[3250]	[4430]			
38	95	232	367	501			
	50	50	48	46			
[12]	[740]	[1945]	[3130]	[4320]			
45	84	220	354	488			
	60	59	58	55			
[14]	[630]	[1820]	[3005]	[4195]			
53	71	206	340	474			
	69	68	68	66			
[15]	[540]	[1735]	[2905]	[4130]			
57	61	196	328	467			
	74	74	73	72			
[16]	[478]	[1681]	[2860]	[4060]			
61	54	190	323	459			
	79	79	78	77			
<b>Max. Continuous</b>	[20]	[143]	[1350]	[2565]	[3705]		
<b>Max. Intermittent</b>	76	16	153	290	419		
		99	98	97	96		

### Standard rotation viewed from shaft end

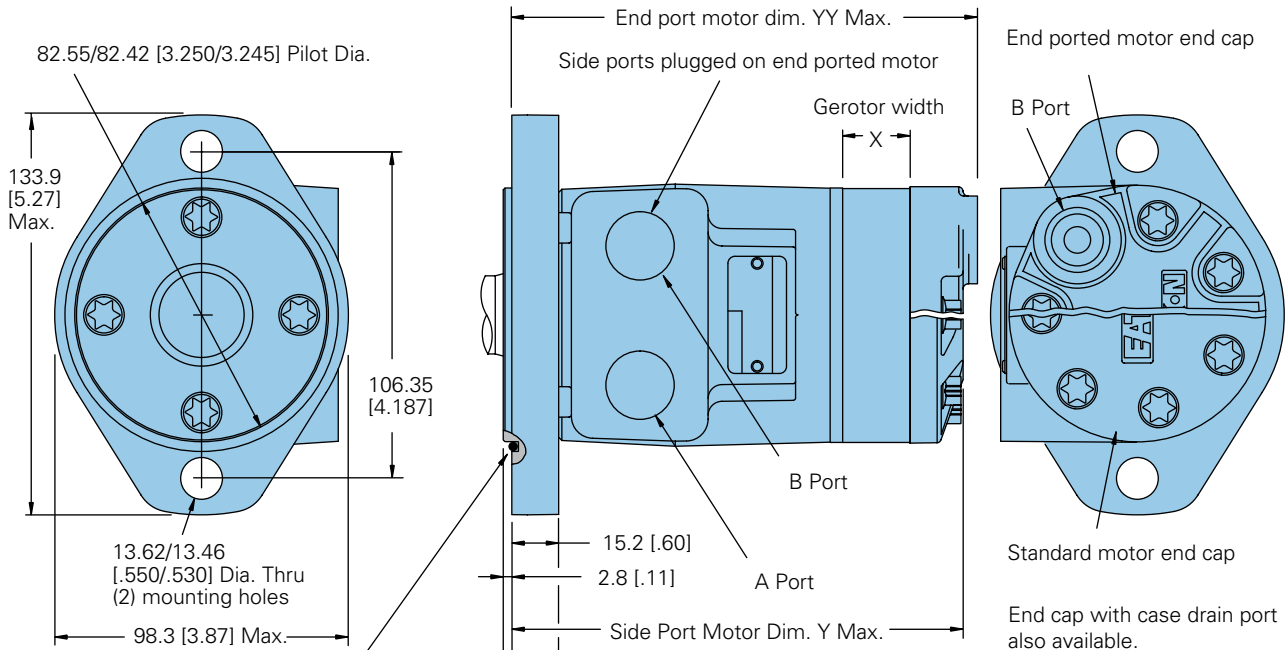
Port A pressurized — CW

Port B pressurized — CCW

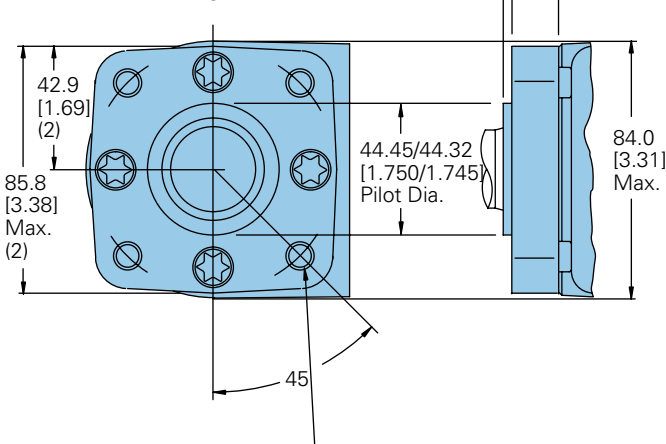
**Note:** Mounting surface flatness requirement is 13 mm [.005 inch] Max.

**Note:** End ported motor pressure is derated. Reference page B-2-18 for ratings.

**Code: AA 2 Bolt flange**



**Code: BA 4 Bolt flange**



3/8-16 UNC (15.2 [.60] Max. Bolt thread engagement) mounting holes (4) equally spaced on 82.6 [3.25] dia. bolt circle or  
M10 x 1.5 (15.2 [.60] Max. Bolt Thread Engagement ) mounting holes (4) equally spaced on 82.6 [3.25] dia. bolt circle

### 2 and 4 bolt flange

Displacement cm <sup>3</sup> /r [in <sup>3</sup> /r]	X mm [inch]	Y mm [inch]	YY mm [inch]
36 [ 2.2]	6.4 [ .25]	132.1 [5.20]	138.5 [5.45]
46 [ 2.8]	6.4 [ .25]	132.1 [5.20]	138.5 [5.45]
59 [ 3.6]	10.2 [ .40]	135.9 [5.35]	142.3 [5.60]
74 [ 4.5]	10.2 [ .40]	135.9 [5.35]	142.3 [5.60]
97 [ 5.9]	13.2 [ .52]	139.0 [5.47]	145.3 [5.72]
120 [ 7.3]	16.5 [ .65]	142.3 [5.60]	148.6 [5.85]
146 [ 8.9]	20.1 [ .79]	145.8 [5.74]	152.2 [5.99]
159 [ 9.7]	21.9 [ .86]	147.6 [5.81]	154.0 [6.06]
185 [11.3]	25.4 [1.00]	151.2 [5.95]	157.5 [6.20]
231 [14.1]	31.8 [1.25]	157.5 [6.20]	
293 [17.9]	40.4 [1.59]	166.2 [6.54]	
370 [22.6]	50.8 [2.00]	176.6 [6.95]	
739 [45.1]	101.6 [4.00]	227.4 [8.95]	

# H Series (101-)

## Product numbers

Use digit prefix —101- plus four digit number from charts for complete product number—Example 101-1001. Orders will not be accepted without three digit prefix.

### 2 Bolt flange

B-2

Shaft	Port size	Displ. cm <sup>3</sup> / r [in <sup>3</sup> / r] / product number												
		36 [2.2]	46 [2.8]	59 [3.6]	74 [4.5]	97 [5.9]	120 [7.3]	146 [8.9]	159 [9.7]	185 [11.3]	231 [14.1]	293 [17.9]	370 [22.6]	740 [45.0]
1 in. Straight w/ Woodruff key	7/8-14 O-Ring	101-1700	-1033	-1701	-1034	-1035	-1702	-1703	-1036	-1037	-1038	-1039	-1040	—
	1/2 NPTF	101-1704	-1025	-1705	-1026	-1027	-1706	-1707	-1028	-1029	-1030	-1031	-1032	—
	Manifold*	101-1708	-1041	-1709	-1042	-1043	-1710	-1711	-1044	-1045	-1046	-1047	-1048	—
1 in. SAE 6B Splined	7/8-14 O-Ring	101-1721	-1081	-1722	-1082	-1083	-1723	-1724	-1084	-1085	-1086	-1087	-1088	—
	1/2 NPTF	101-1725	-1073	-1726	-1074	-1075	-1727	-1728	-1076	-1077	-1078	-1079	-1080	—
	Manifold*	101-1729	-1089	-1730	-1090	-1091	-1731	-1732	-1092	-1093	-1094	-1095	-1096	—
1 in. Straight w/.31 Dia. Crosshole	7/8-14 O-Ring	101-1796	-1797	-1798	-1799	-1800	-1801	-1802	-1803	—	—	—	—	—
	1/2 NPTF	101-1804	-1805	-1806	-1807	-1808	-1870	—	—	—	—	—	—	—
	Manifold*	101-1811	-1812	-1813	-1814	-1815	-1816	—	-1818	—	—	—	—	—
1 in. Straight w/.40 Dia. Crosshole	7/8-14 O-Ring	101-1819	-1323	-1820	-1324	-1325	-1821	-1822	-1326	—	—	—	—	—
	1/2 NPTF	101-1823	-1319	-1824	-1320	-1825	-1826	-1827	-1828	—	—	—	—	—
	Manifold*	101-1829	-1463	-1830	-1831	-1832	-1833	-1834	-1871	—	—	—	—	—

101-1834

### 4 Bolt flange

Shaft	Port size	Displ. cm <sup>3</sup> / r [in <sup>3</sup> / r] / product number												
		36 [2.2]	46 [2.8]	59 [3.6]	74 [4.5]	97 [5.9]	120 [7.3]	146 [8.9]	159 [9.7]	185 [11.3]	231 [14.1]	293 [17.9]	370 [22.6]	740 [45.0]
1 in. Straight w/ Woodruff key O-Ring	7/8-14 O-Ring	101-1749	-1009	-1750	-1010	-1011	-1751	-1752	-1012	-1013	-1014	-1015	-1016	—
	1/2 NPTF	101-1753	-1001	-1754	-1002	-1003	-1755	-1756	-1004	-1005	-1006	-1007	-1008	—
	Manifold*	101-1757	-1017	-1758	-1018	-1019	-1759	-1760	-1020	-1021	-1022	-1023	-1024	—
1 in. SAE 6B Splined	7/8-14 O-Ring	101-1761	-1057	-1762	-1058	-1059	-1763	-1060	-1061	-1062	-1063	-1064	—	
	1/2 NPTF	101-1764	-1049	-1765	-1050	-1051	-1766	-1767	-1052	-1053	-1054	-1055	-1056	—
	Manifold*	101-1768	-1065	-1769	-1066	-1067	-1770	-1771	-1068	-1069	-1070	-1071	-1072	—
1 in. Straight w/.31 Dia. Crosshole	7/8-14 O-Ring	101-1835	-1836	-1837	-1838	-1839	-1840	-1841	-1842	—	—	—	—	—
	1/2 NPTF	101-1843	-1497	-1844	-1449	-1352	-1845	—	-1847	—	—	—	—	—
	Manifold*	101-1811	-1466	-1849	-1459	-1850	—	-1852	-1853	—	—	—	—	—
1 in. Straight w/.40 Dia. Crosshole	7/8-14 O-Ring	101-1854	-1311	-1855	-1856	-1857	-1858	-1859	-1860	—	—	—	—	—
	1/2 NPTF	101-1861	-1313	-1824	-1312	-1314	-1863	-1827	-1315	—	—	—	—	—
	Manifold*	101-1829	-1305	-1830	-1306	-1307	-1833	-1868	-1871	—	—	—	—	—

101-1834

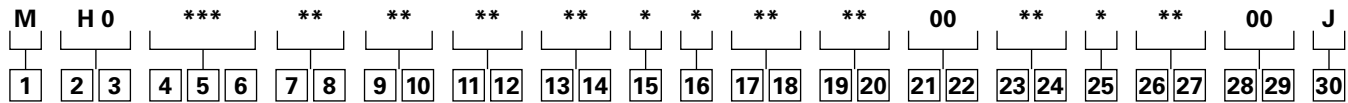
### 4 Bolt Flange with corrosion protection

Shaft	Port size	Displ. cm <sup>3</sup> / r [in <sup>3</sup> / r] / product number												
		36 [2.2]	46 [2.8]	59 [3.6]	74 [4.5]	97 [5.9]	120 [7.3]	146 [8.9]	159 [9.7]	185 [11.3]	231 [14.1]	293 [17.9]	370 [22.6]	740 [45.0]
1 in. Straight w/ Woodruff key O-Ring	1/2 NPTF	101-2032	-2014	—	—	—	—	—	-2015	-2028	—	-2030	-2031	—
	Manifold*	—	-2067	—	—	-2223	—	—	-2151	—	—	—	—	—

\* Manifold product numbers shown are for motors with four 5/16-18 port face mounting threads. Manifold, manifold mounting O-Rings and bolts are NOT included.

For H Series Motors with a configuration Not Shown in the charts above: Use the model code system on page B-2-32 to specify the product in detail.

The following 25-digit coding system has been developed to identify all of the configuration options for the H motor. Use this model code to specify a motor with the desired features. All 25-digits of the code must be present when ordering.



<b>1</b>	<b>Product</b>	<b>M</b> Motor
<b>2</b> <b>3</b>	<b>Series</b>	<b>H0</b> H Motor
<b>4</b> <b>5</b> <b>6</b>	<b>Displacement cm<sup>3</sup>/r [in<sup>3</sup>/r]</b>	<p><b>022</b> 36 [2.2]†</p> <p><b>028</b> 46 [2.8]</p> <p><b>035</b> 58 [3.5]†</p> <p><b>045</b> 74 [4.5]</p> <p><b>059</b> 96 [5.9]</p> <p><b>073</b> 120 [7.3]</p> <p><b>089</b> 146 [8.9]</p> <p><b>097</b> 159 [9.7]</p> <p><b>113</b> 185 [11.3]</p> <p><b>141</b> 231 [14.1]</p> <p><b>179</b> 294 [17.9]</p> <p><b>226</b> 370 [22.6]</p> <p><b>451</b> 739 [45.1]†</p> <p>† The H Series motors with the displacement code "022", "035", or "451" must also specify free running gerotor. (option "A" in position 15).</p>

<b>7</b> <b>8</b>	<b>Mounting type</b>	<p><b>AA</b> 2 Bolt (standard) 82.50 [3.248] Dia. x 3.05 [.120] pilot, 13.59 [.535] Dia. mounting holes on 106.35 [4.187] Dia. B.C.</p> <p><b>BA</b> 4 Bolt (standard) 44.40 [1.748] Dia. x 3.05 [.120] pilot, .375-16 UNC-2B mounting holes on 82.55 [3.250] Dia. B.C.</p> <p><b>DD</b> 2 Bolt (standard) 101.60 [4.000] Dia. x 6.10 [.240] Pilot, 14.35 [.565] Dia. Mounting holes on 146.05 [5.750] Dia. B.C. (SAE B)</p> <p><b>FA</b> 4 Bolt (standard) 44.40 [1.748] Dia. x 3.05 [.120] pilot, M10 x 1.5-6H mounting holes on 82.55 [3.250] Dia. B.C.</p> <p><b>MA</b> 2 Bolt (standard) 82.50 [3.248] Dia. x 8.13 [.320] Pilot, 13.59 [.535] Dia. Mounting holes on 106.35 [4.187] Dia. B.C.</p>
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<b>9</b> <b>10</b>	<b>Output shaft</b>	<p><b>01</b> 25.4 [1.00] Dia. Straight, woodruff key, .250-20 UNC-2B hole in shaft end</p> <p><b>02</b> 25.4 [1.00] Dia. SAE 6B Spline, .250-20 UNC-2B Hole in Shaft End</p> <p><b>08</b> 25.4 [1.00] Dia. Straight, 10.31 [4.06] Dia. Cross hole 15.7 [.62] from End, .250-20 UNC-2B hole in shaft end</p> <p><b>16</b> 22.22 [.875] Dia. SAE 13 Tooth Spline (SAE B)</p> <p><b>18</b> 25.4 [1.00] Dia. Tapered, woodruff key and nut, 34.92 [1.375] taper length</p> <p><b>24</b> 25.00 [.984] Dia. Straight, 8.00 [.315] KEY, M8 x 1.25-6H hole in shaft end</p> <p><b>39</b> 25.00 [.984] Dia. Straight (k6), 8.00 [.315] Key, M8 x 1.25-6H Hole in Shaft End</p>
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<b>11</b> <b>12</b>	<b>Ports</b>	<p><b>AA</b> .875-14 UNF-2B SAE O-Ring Ports</p> <p><b>AB</b> .500-14 NPTF Dry seal pipe thread ports</p> <p><b>AC</b> Manifold ports (.3125-18 UNC-2B mounting holes)</p> <p><b>AD</b> Manifold ports (M8 x 1.25-6H mounting holes)</p> <p><b>AF</b> G 1/2 BSP Straight Thread Ports</p> <p><b>EB††</b> End ports: .750-16 UNF-2B SAE O-Ring ports</p> <p><b>EC††</b> End ports: G 1/2 BSP straight thread ports</p> <p><b>††</b> End ported motor pressure is derated.</p> <p><b>Note</b> Reference page B-2-18 for ratings.</p>
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<b>13</b> <b>14</b>	<b>Case flow options</b>	<p><b>00</b> None</p> <p><b>01</b> .4375-20 UNF-2B SAE o-ring port (end cap)</p> <p><b>02</b> G 1/4 BSP straight THD port (end cap)</p> <p><b>A</b> Internal check valves</p>
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<b>15</b>	<b>Gerotor options</b>	<p><b>0</b> None</p> <p><b>A</b> Free running</p>
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# H Series (101-)

## Model code

The following 25-digit coding system has been developed to identify all of the configuration options for the H motor. Use this model code to specify a motor with the desired features. All 25-digits of the code must be present when ordering.

B-2

<b>M</b>	<b>H</b>	<b>0</b>	<b>***</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>*</b>	<b>*</b>	<b>**</b>	<b>**</b>	<b>00</b>	<b>**</b>	<b>*</b>	<b>**</b>	<b>00</b>	<b>J</b>												
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>

- 16** **Shaft options**
- 0** None
  - N** Electroless nickel plated

- 17** **18** **Seal options**
- 00** Standard seals
  - 02** Seal guard
  - 03** Viton seals
  - 07** High pressure shaft seal
  - A** Extreme duty shaft seal

- 19** **20** **Speed sensor options**
- 00** None
  - AA** Digital speed pickup (15 pulse), M12 connector (A=Power, B=Common, C=Signal)
  - AB** Magnetic speed pickup (60 pulse by quadrature), with M12 connector (A=Power, B=Common, C=Signal)
  - AE** Digital Speed Pickup (15 pulse), 127 [5.0] lead wire with weather pack shroud connector (A=Power, B=Signal, C=Common)

- 21** **22** **Manifold block options**
- 00** None
  - \*** Contact your Eaton sales representative for available options.

- 23** **24** **Special features (hardware)**
- 00** None
  - AB** Low speed valving
  - JM** Low flow housing and low speed valving
  - EX** ATEX certification

- 25** **Special features (assembly)**
- 0** None
  - 1** Reverse rotation
  - 2** Flange rotated 90°

- 26** **27** **Paint/special packaging**
- 00** No paint
  - AA** Low gloss black primer
  - AF** Environmental coated black
  - AY** Nickel plated motor (excluding shaft)

- 28** **29** **Eaton assigned code when applicable**
- 00** None

- 30** **Eaton assigned design code**
- J** Nine

See [Eatonpowersource.com/](http://Eatonpowersource.com/) for more options and configurations.