

Description:

The popular 2000 Series provides torque up to 850 Nm. [7,500 lb-in]. This proven design is reliable and durable. Eaton has added options that make the motor more flexible to use in a wide variety of applications. The expanded displacement range using patented “Drive in Drive” technology is the latest innovation in the 2000 series of motors.



Features:

- Three zone design for longer life and true bi-directionality
- Bearings that meet the highest standards of the industry
- Options to optimize performance in every application
- Integrated cross-over relief valve option

Benefits:

- Easy to design in a system
- Proven reliability and performance in tough applications
- Compact design that maximizes power density

Applications:

- Skid steer attachments
- Swing motor
- Brush cutters & mowers
- Harvesting equipment
- Directional Boring any place pressure relief protection is optimal for system or motor performance and life
- Turf equipment

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2000 Series

Geroler element	13 Displacements
Flow l/min [GPM]	75 [20] Continuous** 115 [30] Intermittent*
Speed RPM	1215 Cont.** 1215 Inter.*
Pressure bar [PSI]	205 [3000] Cont.** 310 [4500] Inter.*
Torque Nm [lb-in]	845 [7470] Cont.** 930 [8225] Inter.*

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

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



Harvester

Paving equipment

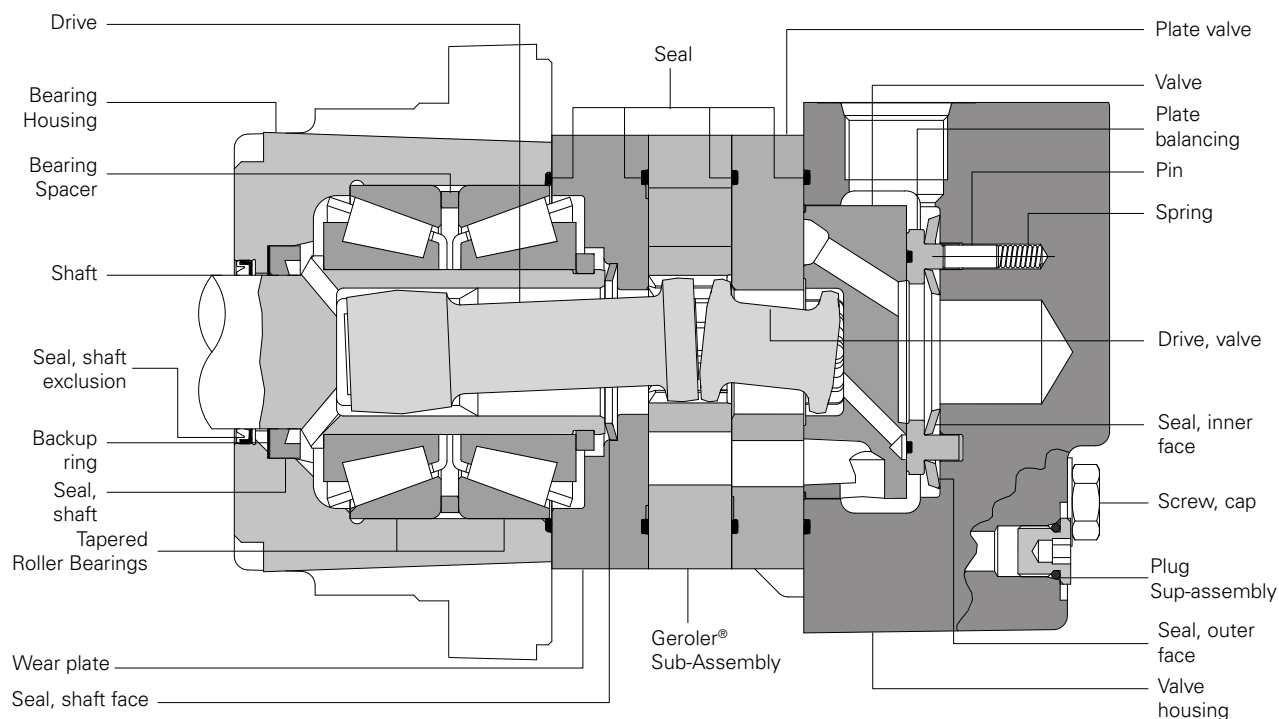
Conveyors

Boom lifts

2000 Series

Specifications

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Specification data – 2000 series motors

Displ. cm ³ /r [in ³ /r]		34	41	66	80	90	100	130	160	195	245	305	395	490
		[2.1]	[2.5]	[4.0]	[4.9]	[5.5]	[6.2]	[8.0]	[9.6]	[11.9]	[14.9]	[18.7]	[24.0]	[29.8]
Max. Speed (RPM) @ Flow	Continuous	1215	1104	1075	908	836	742	576	477	385	308	246	191	153
	Intermittent	1215	1216	1214	908	1042	924	720	713	577	462	365	335	230
Flow l/min [GPM]	Continuous	42	45	72	75	75	75	75	75	75	75	75	75	75
	Intermittent	42	53	87	75	95	95	95	115	115	115	115	115	115
Torque* Nm [lb - in]	Continuous	98	112	186	235	265	295	385	455	540	660	765	775	845
	Intermittent	142	169	276	345	390	445	560	570	665	820	885	925	930
Pressure Δ bar [Δ PSI]	Continuous	205	205	205	205	205	205	205	205	205	205	205	155	120
	Intermittent	310	310	310	310	310	310	260	260	260	260	240	190	140
	Peak	310	310	310	310	310	310	310	310	310	310	310	225	170
Weight kg [lb]	Standard or Wheel mount	8.8	8.8	8.8	9.3	9.3	9.5	9.8	10.0	10.4	11.3	11.3	11.8	12.2
	Bearingless	6.8	6.8	6.8	7.3	7.3	7.5	7.7	7.9	8.4	9.3	9.3	9.8	10.2

Maximum case pressure: See case pressure seal limitation graph. *See shaft torque ratings for limitations.

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:

310 bar [4500 PSI]

Do not exceed Δ pressure rating (see chart above).

Maximum return pressure:

310 bar [4500 PSI] with case drain line installed.

Do not exceed Δ pressure rating (see chart above).

Δ bar [Δ PSI]

The true pressure difference between inlet port and outlet port

Continuous rating:

Motor may be run continuously at these ratings

Intermittent operation:

10% of every minute

Peak operation:

1% of every minute

Recommended fluids:

Premium quality, anti-wear type hydraulic oil with a viscosity of not less than 13 cSt [70 SUS] at operating temperature.

Recommended system operating temp:

-34°C to 82°C [-30°F to 180°F]

Recommended filtration:

per ISO Cleanliness Code, 4406: 20/18/13

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 (expect when switching direction of rotation)

2000 Series

Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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]
34 cm³/r [2.1 in³/r]

[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
34	69	103	138	172	207	241	276	310

Flow LPM [GPM]	[2]	[114]	[262]	[405]	[549]					
	8	13	30	46	62					
		210	189	178	162					
	[4]	[110]	[256]	[404]	[552]	[704]	[828]	[962]		
	15	12	29	46	62	80	94	109		
		432	416	393	363	347	313	284		
	[6]	[115]	[249]	[400]	[550]	[708]	[864]	[996]	[1099]	[1250]
	23	13	28	45	62	80	98	113	124	141
		651	636	613	580	546	518	467	425	404
	[8]	[126]	[232]	[393]	[548]	[702]	[856]	[1003]	[1135]	[1244]

[231] } Torque [lb-in]
26 } Nm
1191 } Speed RPM

Δ Pressure bar [PSI]
41 cm³/r [2.5 in³/r]

[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
34	69	103	138	172	207	241	276	310

Flow LPM [GPM]	[2]	[138]	[306]	[468]	[659]					
	8	16	35	53	74					
		171	160	156	135					
	[4]	[129]	[296]	[466]	[552]	[807]	[966]	[1110]	[1316]	[1421]
	15	15	33	53	62	91	109	125	149	161
		364	352	336	363	295	272	248	235	217
	[6]	[135]	[300]	[473]	[550]	[818]	[985]	[1147]	[1292]	[1495]
	23	15	34	53	62	92	111	130	146	169
		550	535	516	491	465	437	406	352	326
	[8]	[130]	[285]	[461]	[548]	[816]	[988]	[1150]	[1320]	[1477]

Δ Pressure bar [PSI]
66 cm³/r [4.0 in³/r]

[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
34	69	103	138	172	207	241	276	310

Flow LPM [GPM]	[2]	[226]	[503]	[746]	[987]					
	8	26	57	84	112					
		103	102	93	88					
	[4]	[226]	[508]	[791]	[1072]	[1342]	[1609]	[1810]	[2012]	[2220]
	15	26	57	89	121	152	182	204	227	251
		214	208	194	188	181	172	158	136	134
	[6]	[216]	[503]	[792]	[1075]	[1353]	[1629]	[1890]	[2123]	[2332]
	23	24	57	89	121	153	184	214	240	264
		329	318	305	290	284	270	257	235	228
	[8]	[208]	[495]	[781]	[1070]	[1352]	[1633]	[1910]	[2186]	[2405]

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

Continuous

Peak

Intermittent

No operation

**Δ Pressure bar [PSI]
80 cm³/r [4.9 in³/r]**

[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
34	69	103	138	172	207	241	276	310

Flow LPM [GPM]	Δ Pressure bar [PSI] 80 cm ³ /r [4.9 in ³ /r]								
	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
[0.25]	25	45							
0.95	3	1							
[0.5]	30	56	85						
1.9	17	8	3						
[1]	330	670	990	1300	1550	1800	1950	2110	
4	35	75	110	145	175	205	220	240	
	44	40	37	34	28	22	14	2	
[2]	330	670	995	1310	1580	1840	2100	2365	2630
8	35	75	110	150	180	210	235	265	295
	90	85	81	78	72	65	57	49	42
[4]	325	670	1005	1330	1620	1920	2200	2480	2765
15	35	75	115	150	185	215	250	280	310
	182	176	170	166	159	152	140	128	117
[6]	320	665	1010	1340	1655	1975	2270	2570	2880
23	35	75	115	150	185	225	255	290	325
	273	267	259	254	246	238	223	207	192
[8]	310	660	1015	1345	1685	2020	2330	2640	2960
0	35	75	115	150	190	230	265	300	335
	365	375	349	341	333	325	306	286	266
[10]	300	650	1010	1350	1700	2050	2370	2690	3010
38	35	75	115	155	190	230	270	305	340
	456	448	439	429	420	411	388	364	341
[12]	285	640	1005	1350	1705	2065	2390	2715	3035
45	30	70	115	155	195	235	270	305	345
	547	537	530	516	507	497	470	442	415
[14]	270	625	990	1340	1705	2065	2395	2720	3030
53	30	70	110	150	195	235	270	305	340
	638	629	622	603	593	584	553	521	490
[16]	255	610	975	1330	1690	2055	2385	2700	2995
61	30	70	110	150	190	230	270	305	340
	729	720	714	689	679	670	635	599	564
[18]	230	590	955	1310	1680	2025	2355	2660	2935
68	25	65	110	150	190	230	265	300	330
	818	810	795	775	765	756	717	677	638
[20]	210	570	930	1290	1645	1985	2305	2600	2845
76	25	65	105	145	185	225	260	295	320
	908	901	880	861	851	842	799	755	712

**Δ Pressure bar [PSI]
90 cm³/r [5.5 in³/r]**

[250]	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
17	34	69	103	138	172	207	241	276	310

Flow LPM [GPM]	Δ Pressure bar [PSI] 90 cm ³ /r [5.5 in ³ /r]								
	[250]	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]
[0.25]	14	26	53						
0.95	5	2	1						
[0.5]	133	273	555	832					
.9	15	31	63	94					
	15	13	6	2					
[1]	151	358	744	1091	1424	1697	1952	2189	2368
4	17	40	84	123	161	192	221	247	268
	39	39	35	32	28	21	13	12	2
[2]	151	358	744	1099	1439	1737	2015	2293	2570
8	17	40	84	124	163	196	228	259	290
	82	80	76	72	68	61	50	38	29
[4]	151	350	732	1113	1473	1800	2132	2454	2775
15	17	40	83	126	166	203	241	277	314
	167	163	158	152	148	139	126	115	102
[6]	142	348	736	1114	1492	1851	2208	2552	2898
23	16	39	83	126	169	209	249	288	327
	250	245	240	233	227	218	203	191	176
[8]	133	338	729	1128	1509	1890	2269	2635	3000
30	15	38	82	127	170	214	256	298	339
	335	328	329	314	306	295	281	266	249
[10]	124	331	724	1130	1521	1912	2309	2670	3036
38	14	37	82	128	172	216	261	302	343
	418	410	404	395	385	373	361	342	322
[12]	106	315	714	1127	1525	1924	2326	2704	3082
45	12	36	81	127	172	217	263	306	348
	502	493	485	477	464	451	441	417	394
[14]	98	298	706	1115	1525	1924	2326	2707	3080
53	11	34	80	126	172	217	263	306	348
	585	575	567	559	543	529	521	493	467
[16]	80	285	688	1107	1510	1907	2311	2697	3070
61	9	32	78	125	171	215	261	305	347
	670	658	650	641	622	607	610	568	541
[18]	62	262	673	1087	1490	1892	2281	2662	3030
68	7	30	76	123	168	214	258	301	342
	753	740	732	719	701	685	680	643	613
[20]	53	242	644	1045	1447	1850	2246	2617	2988
76	6	27	73	118	163	209	254	296	338
	836	822	814	796	780	765	748	719	686
[22]	35	231	639	1047	1437	1836	2218	2599	2981
83	4	26	72	118	162	207	251	294	337
	920	916	907	895	876	854	749	803	774
[24]	18	204	612	1011	1366	1792	2182	2573	2963
91	2	23	69	114	154	202	247	291	335
	1003	1000	991	978	960	940	918	882	850
[25]		195	594	994	1384	1765	2173	2564	
95		22	67	112	156	199	246	290	
		1042	1033	1020	1003	984	954	921	

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[570]
65 } Torque [lb-in]
1901 } Nm
Speed RPM

2000 Series

Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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]
100 cm³/r [6.2 in³/r]**

[250]	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
17	34	69	103	138	172	207	241	276	310

**Δ Pressure bar [PSI]
130 cm³/r [8.0 in³/r]**

[250]	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]
17	34	69	103	138	172	207	241	276	310

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Flow LPM [GPM]

[0.25]	[140]	[260]							
0.95	15	30							
	4	2							
[0.5]	[150]	[300]	[620]	[940]					
1.9	15	35	70	105					
	13	9	5	2					
[1]	[170]	[390]	[830]	[1210]	[1570]	[1870]	[2130]		
4	20	45	95	135	175	210	240		
	35	34	31	28	23	15	6		
[2]	[170]	[390]	[830]	[1220]	[1590]	[1920]	[2220]	[2520]	[2810]
8	20	45	95	140	180	215	250	285	315
	73	71	68	63	59	51	38	24	14
[4]	[170]	[380]	[820]	[1240]	[1640]	[2010]	[2380]	[2750]	[3120]
15	20	45	90	140	185	225	270	310	355
	148	145	141	136	131	121	104	94	80
[6]	[160]	[380]	[820]	[1260]	[1670]	[2080]	[2480]	[2880]	[3280]
23	20	45	90	140	190	235	280	325	370
	222	219	215	209	202	192	172	163	149
[8]	[150]	[370]	[810]	[1260]	[1700]	[2130]	[2560]	[2990]	[3420]
30	15	40	90	140	190	240	290	340	385
	297	294	288	281	273	261	243	231	216
[10]	[140]	[368]	[810]	[1270]	[1720]	[2160]	[2610]	[3020]	[3440]
38	15	40	90	145	195	245	295	340	390
	371	367	362	354	344	330	316	300	283
[12]	[120]	[350]	[800]	[1270]	[1730]	[2180]	[2630]	[3070]	[3510]
45	15	40	90	145	195	245	295	345	395
	445	442	436	427	415	399	389	369	350
[14]	[110]	[330]	[800]	[1260]	[1740]	[2180]	[2630]	[3070]	[3500]
53	10	35	90	140	195	245	295	345	395
	519	516	509	500	486	469	463	437	417
[16]	[90]	[320]	[780]	[1260]	[1720]	[2160]	[2610]	[3060]	[3500]
61	10	35	90	140	195	245	295	345	395
	594	591	583	573	558	540	537	506	485
[18]	[70]	[300]	[770]	[1240]	[1700]	[2140]	[2580]	[3020]	[3460]
68	10	35	85	140	190	240	290	340	390
	668	665	657	646	630	611	609	574	552
[20]	[60]	[280]	[730]	[1180]	[1630]	[2090]	[2550]	[2980]	[3440]
76	5	30	80	135	185	235	290	335	390
	742	739	731	715	703	684	662	643	619
[22]	[40]	[260]	[720]	[1180]	[1620]	[2070]	[2500]	[2930]	[3360]
83	5	30	80	135	185	235	280	330	380
	816	813	805	794	777	758	749	712	687
[24]	[20]	[230]	[690]	[1140]	[1540]	[2020]	[2460]	[2900]	[3340]
91	1	23	80	130	175	230	280	330	375
	890	887	879	868	852	834	814	782	754
[25]		[220]	[670]	[1120]	[1560]	[1990]	[2450]	[2890]	
95		25	75	125	175	225	275	325	
		924	916	905	890	873	846	817	

Flow LPM [GPM]

[0.25]	[170]								
0.95	20								
	3								
[0.5]	[190]	[410]	[870]						
1.9	20	45	100						
	12	8	2						
[1]	[230]	[510]	[1070]	[1580]	[2050]	[2520]	[2920]	[3310]	
4	25	60	120	180	230	285	309	375	
	28	27	23	19	16	13	9	3	
[2]	[230]	[510]	[1080]	[1600]	[2090]	[2580]	[2930]	[3320]	[3640]
8	25	60	120	180	235	290	330	375	410
	56	56	53	47	42	39	36	28	21
[4]	[220]	[500]	[1080]	[1620]	[2150]	[2660]	[3100]	[3540]	[3980]
15	25	55	120	185	245	300	350	400	450
	114	113	111	104	97	95	92	85	77
[6]	[220]	[490]	[1080]	[1640]	[2190]	[2740]	[3260]	[3770]	[4280]
23	25	55	120	185	245	310	370	425	485
	172	171	169	161	153	149	146	132	118
[8]	[200]	[480]	[1080]	[1650]	[2220]	[2780]	[3310]	[3840]	[4360]
30	25	55	120	185	250	315	375	435	495
	230	224	222	219	210	204	201	192	184
[10]	[180]	[470]	[1070]	[1650]	[2230]	[2800]	[3420]	[3940]	[4450]
38	20	55	120	185	250	315	385	445	505
	287	286	282	276	269	261	255	243	231
[12]	[160]	[460]	[1060]	[1640]	[2230]	[2800]	[3350]	[3910]	[4440]
45	20	50	120	185	250	315	380	440	500
	345	344	338	333	327	317	307	295	284
[14]	[150]	[440]	[1030]	[1620]	[2220]	[3000]	[3350]	[3910]	[4440]
53	15	50	115	185	250	340	380	440	500
	403	402	395	391	385	373	360	348	336
[16]	[130]	[420]	[1010]	[1600]	[2200]	[2780]	[3330]	[3890]	[4440]
61	15	45	115	180	250	315	375	440	500
	461	460	452	447	443	430	411	397	384
[18]	[110]	[400]	[990]	[1580]	[2160]	[2750]	[3300]	[3860]	[4410]
68	10	45	110	180	245	310	375	435	500
	518	517	509	504	500	484	471	456	440
[20]	[90]	[380]	[960]	[1550]	[2130]	[2710]	[3280]	[3840]	
76	10	45	110	175	240	305	370	435	
	576	575	568	560	551	539	524	508	
[22]	[60]	[350]	[940]	[1520]	[2100]	[2680]	[3250]	[3820]	
83	5	40	105	170	235	305	365	430	
	634	633	624	619	604	597	579	560	
[24]	[40]	[325]	[920]	[1490]	[2070]	[2650]	[3220]	[3780]	
91	5	35	105	170	235	300	365	425	
	692	691	682	676	665	651	633	616	
[25]	[20]	[310]	[900]	[1480]	[2050]	[2630]	[3200]	[3700]	
95	1	35	100	165	230	295	360	420	
	720	719	712	705	692	679	662	656	

[1560]
175
890 } Torque [lb-in]
Nm
Speed RPM

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

Continuous
Intermittent

Peak
No operation

Δ Pressure bar [PSI] 160 cm³/r [9.6 in³/r]

[250]	[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[3750]
17	34	69	103	138	172	207	241	259

Flow LPM [GPM]	[0.25]	[200]							
	0.95	25							
		3							
	[0.5]	[240]	[490]	[990]	[1570]	[2140]			
	1.9	25	55	110	175	240			
		9	7	5	3	1			
	[1]	[280]	[590]	[1170]	[1730]	[2290]	[2830]	[3330]	[3820]
	4	30	65	130	195	260	320	375	430
		23	21	19	17	13	8	3	2
	[2]	[300]	[610]	[1210]	[1790]	[2350]	[2920]	[3480]	[4050]
	8	35	70	135	200	265	330	395	460
		46	45	42	39	35	34	33	28
	[4]	[320]	[630]	[1260]	[1890]	[2530]	[3170]	[3820]	[4460]
	15	35	70	140	215	285	360	430	505
		93	92	89	85	79	77	75	59
	[6]	[320]	[650]	[1300]	[1960]	[2620]	[3280]	[3940]	[4600]
	23	35	75	145	220	295	370	445	520
		142	140	137	131	124	118	113	104
	[8]	[310]	[650]	[1330]	[2010]	[2670]	[3330]	[4000]	[4660]
	30	35	75	150	225	300	375	450	525
		190	187	184	178	170	166	164	153
	[10]	[290]	[640]	[1340]	[2030]	[2850]	[3410]	[4030]	[4700]
	38	35	70	150	230	320	385	455	530
		237	235	231	226	217	212	209	193
	[12]	[270]	[620]	[1320]	[2030]	[2700]	[3370]	[4040]	[4710]
	45	30	70	150	230	305	380	455	530
		286	283	279	274	265	254	246	235
	[14]	[240]	[590]	[1300]	[2020]	[2690]	[3360]	[4030]	[4700]
	53	25	65	145	230	305	380	455	530
		334	331	326	322	312	305	297	286
	[16]	[220]	[570]	[1270]	[1980]	[2660]	[3330]	[4010]	[4680]
	61	25	65	145	225	300	375	455	530
		382	378	374	369	360	349	339	326
	[18]	[190]	[540]	[1240]	[1960]	[2640]	[3320]	[3990]	
	68	20	60	140	220	300	375	450	
		429	426	422	416	407	394	387	
	[20]	[170]	[510]	[1210]	[1920]	[2630]	[3310]	[3940]	
	76	20	60	135	215	300	375	445	
		477	474	469	462	451	440	430	
	[22]	[150]	[480]	[1170]	[1880]	[2600]	[3290]	[3920]	
	83	15	55	130	210	295	370	445	
		525	522	517	510	501	484	473	
	[24]	[120]	[450]	[1150]	[1860]	[2570]	[3260]	[3900]	
	91	15	50	130	210	290	370	440	
		572	569	564	556	546	531	522	
	[25]	[90]	[440]	[1140]	[1840]	[2560]	[3230]	[3880]	
	95	10	50	130	210	290	365	440	
		596	593	587	580	566	553	544	
	[30]		[330]	[1040]	[1750]	[2470]	[3140]	[3800]	
	114		35	120	200	280	355	430	
			713	706	696	682	672	658	

[330] } Torque [lb-in]
35 } Nm
713 } Speed RPM

C-1

2000 Series

Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

	Continuous		Peak
	Intermittent		No operation

Δ Pressure bar [PSI] 195 cm³/r [11.9in³/r]

[250]	[500]	[750]	[1000]	[1250]	[1500]	[1750]	[2000]	[2250]	[2500]	[2750]	[3000]	[3250]	[3500]	[3750]
17	34	52	69	86	103	121	138	155	172	190	207	224	241	259

C-1

Flow LPM [GPM]

[0.25]	[240]	[590]													
0.95	25	65													
	4	2													
[0.5]	[290]	[640]	[990]	[1340]											
1.9	35	70	110	150											
	8	6	5	2											
[1]	[380]	[730]	[1100]	[1430]	[1790]	[2120]	[2450]	[2720]	[2990]	[3260]	[3540]	[3810]	[4080]	[4350]	[4620]
4	45	80	125	160	200	240	275	305	340	370	400	430	460	490	520
	17	16	15	14	13	11	9	7	5	4	3	2	2	1	1
[2]	[390]	[755]	[1135]	[1470]	[1860]	[2195]	[2535]	[2880]	[3120]	[3680]	[4090]	[4500]	[4800]	[5100]	[5400]
8	45	85	130	165	210	250	285	325	355	415	460	510	540	575	610
	37	35	34	33	32	31	28	26	24	21	20	19	17	14	14
[4]	[405]	[795]	[1185]	[1540]	[1970]	[2310]	[2675]	[3040]	[3420]	[3790]	[4160]	[4520]	[4890]	[5260]	[5630]
15	45	90	135	175	225	260	300	345	385	430	470	510	550	595	635
	76	74	73	72	71	70	66	64	62	61	59	57	55	51	45
[6]	[405]	[815]	[1220]	[1590]	[2035]	[2395]	[2780]	[3170]	[3560]	[3940]	[4320]	[4700]	[5070]	[5450]	[5830]
23	45	90	140	180	230	270	315	360	400	445	490	530	570	615	660
	115	113	111	110	109	108	104	102	100	99	96	94	91	87	81
[8]	[400]	[820]	[1230]	[1625]	[2065]	[2450]	[2850]	[3260]	[3670]	[4040]	[4410]	[4780]	[5150]	[5520]	[5890]
30	45	90	140	185	235	275	320	370	415	455	500	540	580	625	665
	154	151	149	148	147	146	143	140	137	135	132	130	127	123	117
[10]	[380]	[810]	[1230]	[1645]	[2095]	[2480]	[2895]	[3310]	[3730]	[4100]	[4470]	[4840]	[5210]	[5590]	
38	45	95	140	185	235	280	325	375	420	465	505	545	590	630	
	193	190	188	187	186	184	181	177	175	173	170	168	164	160	
[12]	[355]	[790]	[1215]	[1650]	[2100]	[2485]	[2915]	[3340]	[3760]	[4120]	[4480]	[4850]			
45	40	90	135	185	235	280	330	375	425	465	505	550			
	231	229	227	226	224	221	219	218	215	211	208	204			
[14]	[320]	[765]	[1190]	[1645]	[2090]	[2475]	[2915]	[3350]	[3770]	[4130]	[4480]	[4860]			
53	35	85	135	185	235	280	330	380	425	465	505	550			
	269	267	267	264	261	260	257	254	250	248	245	241			
[16]	[290]	[730]	[1160]	[1625]	[2070]	[2455]	[2900]	[3340]	[3760]	[4130]	[4490]	[4860]			
61	30	80	130	185	235	275	330	375	425	465	505	550			
	308	306	305	303	299	296	294	290	286	283	279	276			
[18]	[290]	[690]	[1120]	[1590]	[2035]	[2420]	[2870]	[3310]	[3730]	[4100]	[4480]				
68	30	80	125	180	230	270	325	375	420	465	505				
	346	345	345	342	337	334	333	327	321	315	308				
[20]	[210]	[650]	[1080]	[1550]	[1995]	[2380]	[2830]	[3270]	[3690]	[4070]	[4450]				
76	25	75	120	175	225	270	320	370	415	460	500				
	385	384	383	380	375	372	371	367	363	359	355				
[22]	[170]	[610]	[1040]	[1500]	[1955]	[2340]	[2785]	[3220]	[3640]	[4050]					
83	20	70	120	170	220	265	315	365	410	460					
	424	423	422	418	414	410	408	404	399	395					
[24]	[135]	[570]	[1000]	[1440]	[1910]	[2300]	[2735]	[3170]	[3600]	[4020]					
91	15	65	115	165	215	260	304	353	402	451					
	462	461	460	457	453	449	441	436	432	432					
[25]	[120]	[550]	[980]	[1410]	[1890]	[2280]	[2695]	[3120]	[3560]	[3990]					
95	15	60	110	160	215	260	286	332	384	384					
	484	482	479	476	473	469	459	454	449	449					
[30]		[420]	[860]	[1290]	[1700]	[2120]	[2530]	[2940]	[3400]						
114		45	95	145	190	240	285	330	385						
		577	575	571	567	562	556	550	542						

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

Continuous

Intermittent

Peak

No operation

Δ Pressure bar [PSI] 245 cm³/r [14.9 in³/r]

[250]	[500]	[750]	[1000]	[1250]	[1500]	[1750]	[2000]	[2250]	[2500]	[2750]	[3000]	[3250]	[3500]	[3750]
17	34	52	69	86	103	121	138	155	172	190	207	224	241	259

Flow LPM [GPM]	[0.5]	410	850																
	1.9	45	95																
		4	2																
	[1]	450	930	1420	1850	2320	2780	3250	3650	4100	4540	4980	5430	5870	6310				
		50	105	160	210	260	315	365	410	465	515	560	615	665	715				
	4	14	13	12	11	10	9	8	6	5	4	4	3	2	1				
	[2]	460	960	1460	1900	2400	2860	3340	3780	4320	4770	5210	5660	6110	6570	6950			
		50	110	165	215	270	325	375	425	490	540	590	640	690	740	785			
	8	29	28	27	26	25	23	22	20	19	18	17	15	14	12	10			
	[4]	470	1000	1540	1980	2510	3010	3480	3980	4450	4910	5380	5850	6320	6780	7250			
		55	115	175	225	285	340	395	450	505	555	610	660	715	765	820			
	15	60	59	58	56	54	53	51	49	48	47	47	46	45	44	42			
	[6]	460	1020	1550	2040	2580	3110	3590	4120	4580	5050	5520	5980	6440	6910				
		50	115	175	230	290	350	405	465	515	570	625	675	730	780				
	23	91	90	89	87	84	83	81	78	76	73	71	69	67	65				
	[8]	460	1010	1560	2080	2630	3170	3670	4210	4680	5160	5630	6110	6590					
		50	115	175	235	295	360	415	475	530	585	635	690	745					
	30	122	121	120	118	115	113	111	108	106	104	102	101	99					
	[10]	440	1000	1550	2110	2650	3200	3730	4250	4730	5210	5720	6230						
		50	115	175	240	300	360	420	480	535	589	645	705						
	38	153	152	150	148	146	144	142	139	137	135	133	130						
	[12]	410	960	1530	2100	2640	3190	3760	4260	4740	5220	5730							
		45	110	175	235	300	360	425	480	535	590	645							
	45	184	183	182	180	177	175	173	170	168	165	162							
	[14]	380	910	1500	2080	2600	3160	3760	4230	4710	5190								
		40	105	170	235	295	355	425	480	530	585								
	53	215	214	213	211	209	207	204	201	198	195								
	[16]	340	860	1460	2040	2570	3120	3740	4180	4660	5140								
		40	95	165	230	290	355	425	470	525	580								
	61	246	245	244	242	240	238	235	232	227	223								
	[18]	290	810	1420	2000	2520	3060	3700	4130	4610	5090								
		30	90	160	225	285	345	420	465	520	575								
	68	277	276	275	273	271	269	266	263	258	253								
	[20]	250	800	1350	1910	2460	3010	3630	4110	4610									
		30	90	155	215	280	340	410	465	520									
	76	308	306	304	302	300	298	295	291	288									
	[22]	200	710	1300	1870	2390	2940	3560	4010	4510									
		25	80	145	210	270	330	400	455	510									
	83	339	337	337	334	332	330	327	323	318									
	[24]	150	670	1240	1790	2330	2880	3460	3960	4460									
		15	75	140	200	265	325	390	445	505									
	91	370	369	367	364	362	360	357	353	344									
	[25]	120	660	1210	1750	2300	2860	3410	3950	4470									
		15	75	135	200	260	325	385	445	505									
	95	385	384	382	379	377	375	372	367	363									
	[30]		520	1080	1620	2180	2720	3260	3790										
			60	120	185	245	305	370	430										
	114		462	460	458	456	453	450	447										

[3790] Torque [lb-in]
430 } Nm
447 Speed RPM

2000 Series

Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

 Continuous

 Intermittent

 Peak

 No operation

Δ Pressure bar [PSI] 305 cm³/r [18.7in³/r]

[250]	[500]	[750]	[1000]	[1250]	[1500]	[1750]	[2000]	[2250]	[2500]	[2750]	[3000]	[3250]	[3500]
17	34	52	69	86	103	121	138	155	172	190	207	224	241

C-1

Flow LPM [GPM]

[0.5]	[500]	[1050]												
1.9	55	120												
	4	2												
[1]	[610]	[1180]	[1750]	[2330]	[2870]	[3440]	[3930]	[4410]	[4900]	[5380]				
4	70	135	200	260	325	390	445	500	555	610				
	12	11	11	10	10	9	8	6	3	1				
[2]	[620]	[1210]	[1800]	[2400]	[2970]	[3510]	[4050]	[4600]	[5140]	[5680]	[6220]	[6750]	[7290]	[7820]
8	70	135	205	270	335	395	460	520	580	640	705	765	825	885
	24	24	23	22	22	20	19	18	17	15	13	11	8	
[4]	[680]	[1250]	[1880]	[2500]	[3120]	[3690]	[4260]	[4840]	[5410]	[5980]	[6550]	[7120]	[7690]	
15	75	140	210	280	355	415	480	545	610	675	740	805	870	
	49	49	48	47	47	45	43	42	40	38	36	34	33	
[6]	[620]	[1270]	[1920]	[2560]	[3230]	[3810]	[4390]	[4970]	[5560]	[6130]	[6710]	[7290]		
23	70	145	215	290	365	430	495	560	630	695	760	825		
	74	74	72	72	71	69	66	64	61	58	55	52		
[8]	[600]	[1270]	[1940]	[2600]	[3290]	[3880]	[4470]	[5070]	[5660]	[6250]	[6840]			
30	70	145	220	295	370	440	505	575	640	705	775			
	98	98	97	96	95	93	90	86	83	80	77			
[10]	[570]	[1250]	[1940]	[2610]	[3310]	[3920]	[4530]	[5150]	[5760]	[6370]				
38	65	140	220	295	375	440	510	580	650	720				
	123	122	121	120	119	117	113	110	106	102				
[12]	[530]	[1220]	[1920]	[2600]	[3300]	[3920]	[4530]	[5150]	[5760]	[6370]				
45	60	140	215	295	375	440	510	580	650	720				
	148	147	145	144	143	142	138	133	128	124				
[14]	[480]	[1180]	[1870]	[2560]	[3260]	[3900]	[4510]	[5120]	[5730]					
53	55	135	210	290	370	440	510	580	645					
	172	172	170	168	167	165	160	156	152					
[16]	[430]	[1120]	[1820]	[2500]	[3210]	[3870]	[4480]	[5080]	[5690]					
61	50	125	205	280	365	440	505	575	645					
	196	196	194	192	191	188	183	178	174					
[18]	[370]	[1060]	[1760]	[2440]	[3140]	[3800]	[4420]	[5050]						
68	40	120	200	275	355	440	500	570						
	221	221	218	217	215	212	207	202						
[20]	[320]	[980]	[1680]	[2360]	[3050]	[3710]	[4370]	[5020]						
76	35	110	190	265	345	420	495	565						
	246	245	243	241	239	236	231	226						
[22]	[240]	[920]	[1620]	[2300]	[2990]	[3560]	[4190]	[4820]						
83	25	105	185	260	340	400	475	545						
	271	270	268	266	263	260	258	255						
[24]	[180]	[870]	[1550]	[2240]	[2920]	[3420]	[4020]	[4630]						
91	20	100	175	255	330	385	455	525						
	296	294	293	290	288	285	283	280						
[25]	[150]	[840]	[1520]	[2200]	[2890]	[3340]	[3930]	[4520]						
95	15	95	170	250	325	375	445	510						
	308	307	305	303	300	298	295	293						
[30]		[680]	[1360]	[2040]	[2720]	[3140]	[3810]							
114		75	155	230	305	355	430							
		365	362	360	357	356	352							

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

Continuous
Intermittent

Peak
No operation

Δ Pressure bar [PSI] 395 cm³/r [24.0 in³/r]

[250]	[500]	[750]	[1000]	[1250]	[1500]	[1750]	[2000]	[2250]	[2500]	[2750]
17	34	52	69	86	103	121	138	155	172	190

Flow LPM [GPM]	[0.5]	[560]	[1310]																	
	1.9	65	150																	
		4	3																	
	[1]	[770]	[1540]	[2290]	[3080]	[3780]	[4480]	[5170]	[5880]	[6580]	[7270]	[7980]								
	4	85	175	260	350	430	505	585	665	745	820	900								
		9	9	9	8	8	7	7	6	5	4	3								
	[2]	[790]	[1580]	[2360]	[3180]	[3930]	[4680]	[5430]	[6180]	[6840]	[7500]	[8170]								
	8	90	180	265	360	445	530	615	700	775	845	925								
		18	18	18	17	17	16	15	14	13	11	10								
	[4]	[810]	[1660]	[2480]	[3320]	[4130]	[4940]	[5740]	[6550]	[7230]	[7880]									
	15	90	190	280	375	465	560	650	740	815	890									
		37	37	37	36	36	35	34	33	31	28									
	[6]	[820]	[1700]	[2550]	[3420]	[4250]	[5080]	[5920]	[6750]	[7420]	[8000]									
	23	90	190	290	385	480	575	670	765	840	905									
		57	56	56	55	54	52	50	49	47	45									
	[8]	[820]	[1700]	[2580]	[3460]	[4300]	[5130]	[5960]	[6800]											
	30	90	190	290	390	485	580	675	770											
		76	75	75	74	73	71	69	68											
	[10]	[800]	[1700]	[2590]	[3480]	[4320]	[5160]	[6000]	[6840]											
	38	90	190	295	395	490	585	680	775											
		95	94	94	93	92	90	88	86											
	[12]	[770]	[1680]	[2570]	[3470]	[4310]	[5150]	[5990]	[6830]											
	45	85	190	290	390	485	580	675	770											
		114	113	113	112	111	109	106	103											
	[14]	[740]	[1640]	[2530]	[3430]	[4280]	[5120]	[5960]												
	53	85	185	285	390	485	580	675												
		133	132	132	131	129	127	124												
	[16]	[690]	[1590]	[2480]	[3370]	[4220]	[5060]	[5910]												
	61	80	180	280	380	475	570	670												
		153	152	152	150	149	146	144												
	[18]	[640]	[1530]	[2420]	[3310]	[4160]	[5010]	[5870]												
	68	70	170	275	375	470	565	665												
		172	171	171	170	169	167	164												
	[20]	[580]	[1470]	[2370]	[3260]	[4110]	[4960]	[5820]												
	76	65	165	270	370	465	560	660												
		191	190	190	189	188	186	184												
	[22]	[510]	[1390]	[2290]	[3170]	[4030]	[4880]													
	83	60	155	260	360	455	550													
		210	209	209	208	207	206													
	[24]	[440]	[1330]	[2220]	[3100]	[3950]	[4800]													
	91	50	150	250	350	445	540													
		230	229	228	227	225	224													
	[26]	[350]	[1240]	[2130]	[3020]	[3880]	[4730]													
	98	40	140	240	340	440	535													
		249	248	247	246	244	242													
	[28]	[270]	[1150]	[2050]	[2930]	[3790]	[4650]													
	106	30	130	230	330	430	525													
		268	267	265	264	261	259													
	[30]	[180]	[1060]	[1960]	[2850]	[3710]	[4570]													
	114	20	120	220	320	420	515													
		287	286	284	283	281	277													
	[35]		[840]	[1760]	[2640]	[3480]														
	132		95	200	300	395														
			335	334	333	332														

[1760]
200 } Torque [lb-in]
334 } Nm
Speed RPM

2000 Series

Performance data

Motors run with high efficiency in all areas designated with a number for torque and speed. For best motor life select a motor to run with a torque and speed range shown 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.

 Continuous

 Intermittent

 Peak

 No operation

Δ Pressure bar [PSI] 490 cm³/r [29.8in³/r]

[250]	[500]	[750]	[1000]	[1250]	[1500]	[1750]	[2000]
17	34	52	69	86	103	121	138

C-1

Flow LPM [GPM]

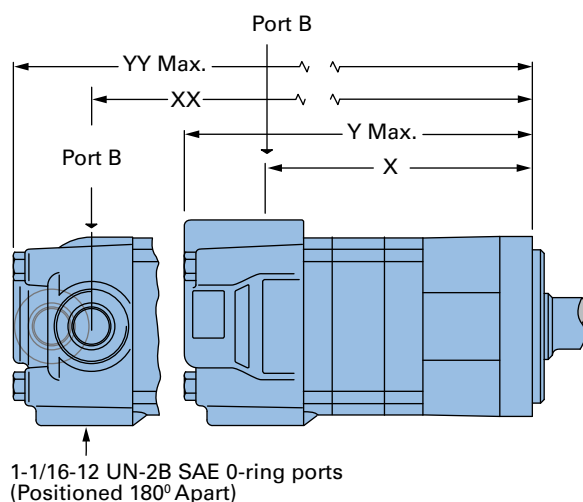
[0.5]	[670]	[1600]						
1.9	75	180						
	2	1						
[1]	[920]	[2000]	[2990]	[3900]	[4880]			
4	105	225	340	440	550			
	7	6	5	4	2			
[2]	[950]	[2060]	[3110]	[4080]	[5110]	[6320]		
8	105	235	350	460	575	715		
	14	13	12	10	9	7		
[4]	[980]	[2130]	[3230]	[4270]	[5350]	[6370]	[7380]	[7980]
15	110	240	365	480	605	720	835	900
	30	29	28	27	26	24	22	20
[6]	[980]	[2120]	[3230]	[4300]	[5370]	[6420]	[7470]	[8225]
23	110	240	365	485	605	725	845	930
	45	44	43	42	41	39	37	35
[8]	[980]	[2110]	[3220]	[4330]	[5400]	[6470]	[7550]	
30	110	240	365	490	610	730	855	
	61	60	59	58	57	55	52	
[10]	[920]	[2050]	[3170]	[4300]	[5390]	[6460]	[7550]	
38	105	230	360	485	610	730	855	
	76	75	74	73	72	70	68	
[12]	[860]	[1990]	[3120]	[4260]	[5370]	[6460]	[7560]	
45	95	225	355	480	605	730	855	
	91	90	90	89	87	85	84	
[14]	[790]	[1930]	[3055]	[4185]	[5300]	[6400]		
53	90	220	345	475	600	725		
	106	105	105	104	102	100		
[16]	[720]	[1870]	[2990]	[4110]	[5230]	[6340]		
61	80	210	340	465	590	715		
	122	121	120	119	118	116		
[18]	[630]	[1770]	[2890]	[4020]	[5140]	[6260]		
68	70	200	325	455	580	705		
	137	136	135	134	133	131		
[20]	[550]	[1670]	[2800]	[3940]	[5060]	[6180]		
76	60	190	315	445	570	700		
	153	152	151	150	149	146		
[22]	[450]	[1570]	[2700]	[3830]	[4960]	[6070]		
83	50	175	305	435	560	685		
	168	168	167	165	164	161		
[24]	[360]	[1480]	[2600]	[3730]	[4860]	[5970]		
91	40	165	295	420	550	675		
	184	184	183	181	179	177		
[26]	[270]	[1390]	[2510]	[3640]	[4770]			
98	30	155	285	410	540			
	199	195	194	192	190			
[28]	[1260]	[2370]	[3520]	[4630]				
106	140	270	400	525				
	212	211	209	207				
[30]	[1130]	[2240]	[3400]	[4500]				
114	125	255	385	510				
	230	229	227	224				

Standard mount

Ports

7/8 -14 UNF-2B SAE O-ring staggered ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 1 1/16 -12 UN-2B SAE O-ring ports (positioned 180° apart) (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 7/8 -14 UNF-2B SAE O-ring end ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1) or
 G 1/2 (BSP) staggered ports (2)
 G 1/4 (BSP) case drain port (1)

Standard mount

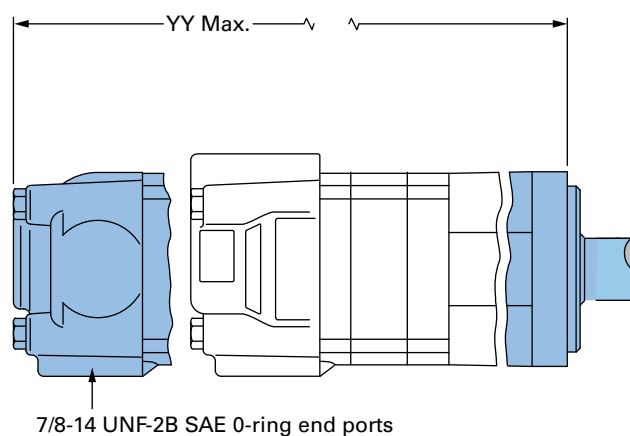


Manifold mount

7/16 -20 UNF-2B SAE O-ring case drain port (1)

Standard rotation viewed from shaft end

Port A Pressurized — CW
 Port B Pressurized — CCW



Standard mount motor dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]	XX mm [inch]	YY mm [inch]
34 [2.1]	126.7 [4.99]	174.0 [6.85]	129.0 [5.08]	175.3 [6.90]
41 [2.5]	128.0 [5.04]	175.3 [6.90]	130.5 [5.14]	176.8 [6.96]
66 [4.0]	133.9 [5.27]	181.1 [7.13]	136.1 [5.36]	182.4 [7.18]
80 [4.9]	136.9 [5.39]	184.2 [7.25]	139.2 [5.48]	185.4 [7.30]
100 [6.2]	141.5 [5.57]	189.0 [7.44]	143.8 [5.66]	190.3 [7.49]
130 [8.0]	147.9 [5.83]	195.4 [7.69]	150.2 [5.92]	196.6 [7.74]
160 [9.6]	147.9 [5.83]	195.4 [7.69]	150.2 [5.92]	196.6 [7.74]
195 [11.9]	154.7 [6.09]	202.2 [7.96]	157.0 [6.18]	203.2 [8.00]
245 [14.9]	163.7 [6.45]	211.1 [8.31]	166.0 [6.54]	212.4 [8.36]
305 [18.7]	175.1 [6.90]	222.3 [8.75]	177.4 [6.99]	223.5 [8.80]
395 [24.0]	191.0 [7.52]	238.6 [9.39]	193.3 [7.61]	239.8 [9.44]
490 [29.8]	208.4 [8.21]	255.8 [10.07]	210.7 [8.30]	257.0 [10.12]

2000 Series

Dimensions

Standard mount with integral relief valve

Ports

7/8 -14 UNF-2B SAE O-ring staggered ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1) or
 G 1/2 (BSP) staggered ports (2)
 G 1/4 (BSP) case drain port (1)

Standard rotation viewed from shaft end

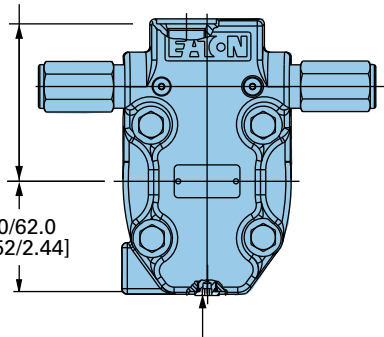
Port A pressurized — CW
 Port B pressurized — CCW

Standard mount with integral relief valve

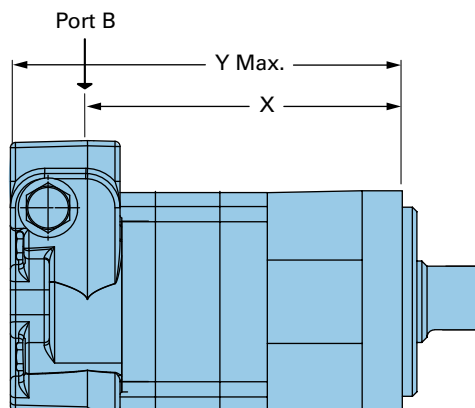
C-1

2X 93.7/91.7
 [3.69/3.61]

64.0/62.0
 [2.52/2.44]



Case drain 7/16-20 UNF-2B
 SAE O-ring port or G 1/4 (BSP)



Standard mount motor dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]
34 [2.1]	126.7 [4.99]	174.0 [6.85]
41 [2.5]	128.2 [5.05]	175.5 [6.91]
66 [4.0]	133.9 [5.27]	181.2 [7.13]
80 [4.9]	137.0 [5.40]	184.5 [7.26]
100 [6.2]	141.6 [5.58]	189.0 [7.44]
130 [8.0]	147.9 [5.83]	195.4 [7.69]
160 [9.6]	147.9 [5.83]	195.4 [7.69]
195 [11.9]	154.8 [6.10]	202.2 [7.96]
245 [14.9]	163.7 [6.45]	211.1 [8.31]
305 [18.7]	175.1 [6.90]	222.6 [8.76]
395 [24.0]	191.1 [7.53]	238.6 [9.39]
490 [29.8]	208.4 [8.21]	255.8 [10.07]

Wheel mount

Ports

7/8 -14 UNF-2B SAE O-ring staggered ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 1 1/16 -12 UN-2B SAE O-ring ports (positioned 180° apart) (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 7/8 -14 UNF-2B SAE O-ring end ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 G 1/2 (BSP) staggered ports (2)
 G 1/4 (BSP) case drain port (1)

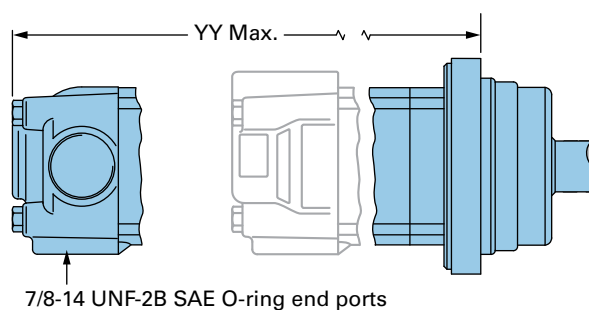
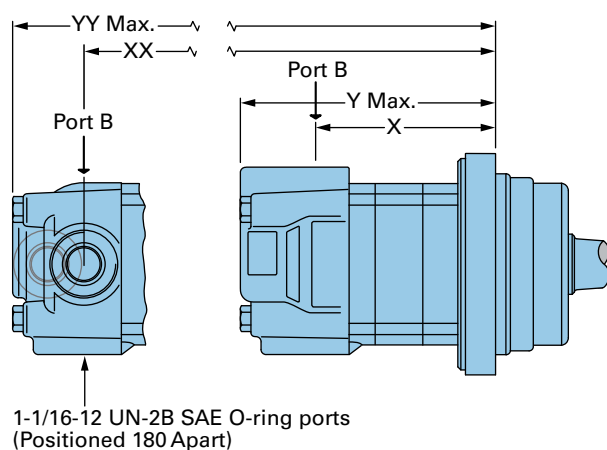
Manifold mount

7/16 -20 UNF-2B SAE O-ring case drain port (1)

Standard rotation viewed from shaft end

Port A pressurized — CW
 Port B pressurized — CCW

Wheel mount



Wheel mount motor dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]	XX mm [inch]	YY mm [inch]
34 [2.1]	86.5 [3.41]	133.8 [5.27]	88.8 [3.50]	135.1 [5.32]
41 [2.5]	88.0 [3.47]	135.3 [5.33]	90.3 [3.56]	136.6 [5.38]
66 [4.0]	93.7 [3.69]	141.0 [5.55]	96.0 [3.78]	142.3 [5.60]
80 [4.9]	96.8 [3.81]	144.0 [5.67]	99.1 [3.90]	145.3 [5.72]
100 [6.2]	101.3 [3.99]	148.9 [5.86]	103.6 [4.08]	150.2 [5.91]
130 [8.0]	107.8 [4.25]	155.2 [6.11]	110.1 [4.34]	156.5 [6.16]
160 [9.6]	107.8 [4.25]	155.2 [6.11]	110.1 [4.34]	156.5 [6.16]
195 [11.9]	114.6 [4.51]	161.8 [6.37]	116.8 [4.60]	163.1 [6.42]
245 [14.9]	123.5 [4.87]	171.0 [6.73]	125.8 [4.96]	125.8 [4.96]
305 [18.7]	135.0 [5.32]	182.1 [7.17]	137.4 [5.41]	183.4 [7.22]
395 [24.0]	150.9 [5.94]	198.4 [7.81]	153.2 [6.03]	199.7 [7.86]
490 [29.8]	168.2 [6.63]	215.7 [8.49]	170.7 [6.72]	217.0 [8.54]

2000 Series

Dimensions

Wheel mount with intergal relief valve

Ports

7/8 -14 UNF-2B SAE O-ring staggered ports (2)
7/16 -20 UNF-2B SAE O-ring case drain port (1)

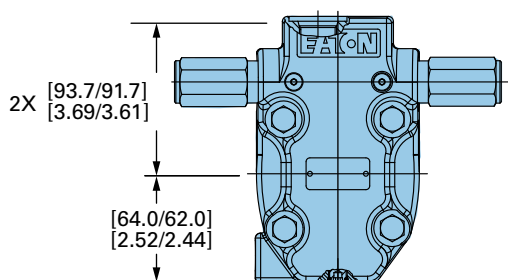
G 1/2 (BSP) staggered ports (2)
G 1/4 (BSP) case drain port (1)

Standard rotation viewed from shaft end

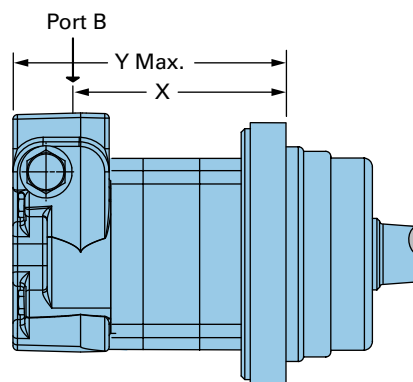
Port A pressurized — CW
Port B pressurized — CCW

Wheel mount with integral relief valve

C-1



Case drain 7/16-20 UNF-2B SAE O-ring port or G 1/4 (BSP)



Wheel mount motor dimensions

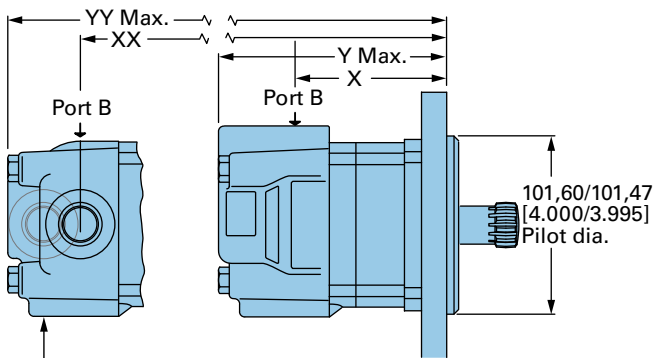
Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]
34 [2.1]	86.5 [3.41]	133.8 [5.27]
41 [2.5]	88.0 [3.47]	135.3 [5.33]
66 [4.0]	93.7 [3.69]	141.0 [5.55]
80 [4.9]	96.9 [3.82]	144.3 [5.68]
100 [6.2]	101.4 [4.00]	148.9 [5.86]
130 [8.0]	107.8 [4.25]	155.2 [6.11]
160 [9.6]	107.8 [4.25]	155.2 [6.11]
195 [11.9]	114.6 [4.52]	162.1 [6.38]
245 [14.9]	123.5 [4.87]	171.0 [6.73]
305 [18.7]	135.0 [5.32]	182.4 [7.18]
395 [24.0]	151.0 [5.95]	198.4 [7.81]
490 [29.8]	168.2 [6.63]	215.7 [8.49]

Bearingless

Ports

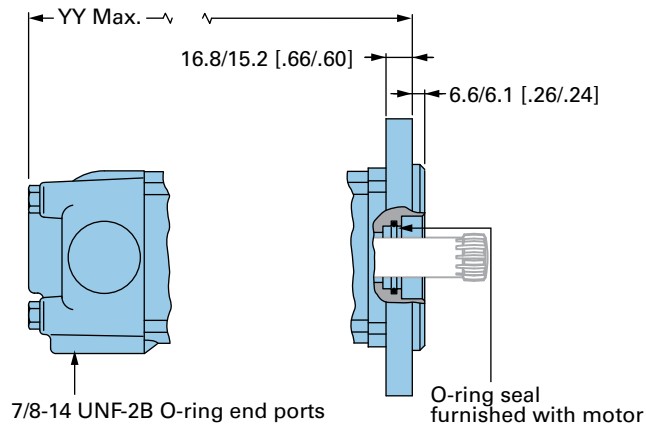
7/8 -14 UNF-2B SAE O-ring staggered ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 1 1/16 -12 UN-2B SAE O-ring ports (positioned 180° apart) (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 7/8 -14 UNF-2B SAE O-ring end ports (2)
 7/16 -20 UNF-2B SAE O-ring case drain port (1)
 G 1/2 (BSP) staggered ports (2)
 G 1/4 (BSP) case drain port (1)

Bearingless



1 1/16-12 UN-2B SAE O-ring ports (Positioned 180° Apart)

For 2000 Series bearingless motor application information contact your Eaton representative (mating coupling blanks available from Eaton Hydraulics).



7/8-14 UNF-2B O-ring end ports

Manifold mount

7/16 -20 UNF-2B SAE O-ring case drain port (1)

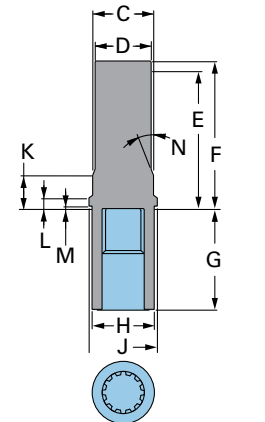
Standard rotation viewed from drive end

Port A pressurized — CW

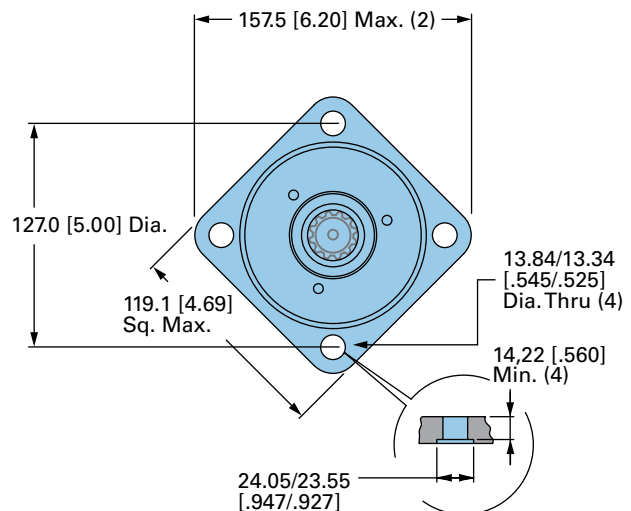
Port B pressurized — CCW

Blank Dimensions

C	35.87 [1.412] Dia.
D	34.04 [1.340] Dia.
E	81.0 [3.19] Min. Full form dia
F	86.1 [3.39] Max.
G	62.10 [2.445] full form dia.
H	38.40 [1.512] Dia.
J	43.7 [1.72] Dia.
K	725.91 [1.020]
L	8.25 [.325]
M	0.89 [.035]
N	15°



Mating coupling blank
Eaton Part no. 13307-003



Bearingless motors dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]	XX mm [inch]	YY mm [inch]
34 [2.1]	68.7 [2.70]	116.3 [4.58]	70.9 [2.79]	117.6 [4.63]
41 [2.5]	70.1 [2.76]	117.7 [4.63]	72.4 [2.85]	119.1 [4.69]
66 [4.0]	75.7 [2.98]	123.4 [4.86]	78.1 [3.08]	124.8 [4.91]
80 [4.9]	79.0 [3.11]	126.5 [4.98]	81.3 [3.20]	127.8 [5.03]
100 [6.2]	83.5 [3.29]	131.4 [5.17]	85.8 [3.38]	132.6 [5.22]
130 [8.0]	89.9 [3.54]	137.7 [5.42]	92.2 [3.63]	139.0 [5.47]

Bearingless motors dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]	XX mm [inch]	YY mm [inch]
160 [9.6]	89.9 [3.54]	137.7 [5.42]	92.2 [3.63]	139.0 [5.47]
195 [11.9]	96.8 [3.81]	144.6 [5.68]	99.0 [3.90]	145.5 [5.73]
245 [14.9]	105.6 [4.16]	153.5 [6.04]	107.9 [4.25]	154.7 [6.09]
305 [18.7]	117.1 [4.61]	164.9 [6.48]	119.4 [4.70]	165.9 [6.53]
395 [24.0]	133.1 [5.24]	180.9 [7.12]	135.4 [5.33]	182.1 [7.17]
490 [29.8]	150.3 [5.92]	198.2 [7.80]	152.7 [6.01]	199.3 [7.85]

2000 Series

Dimensions

Bearingless with integral relief valve

Ports

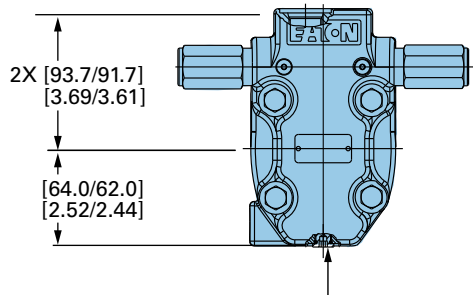
7/8 -14 UNF-2B SAE O-ring Staggered Ports (2)
7/16 -20 UNF-2B SAE O-ring Case Drain Port (1)

G 1/2 (BSP) Staggered Ports (2)
G 1/4 (BSP) Case Drain Port (1)

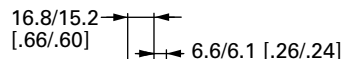
Standard rotation viewed from shaft end

Port A Pressurized — CW
Port B Pressurized — CCW

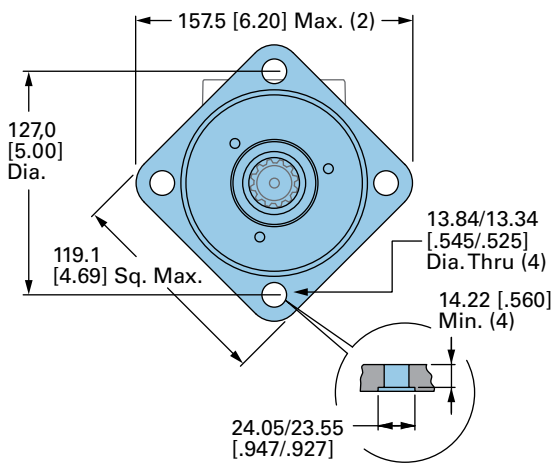
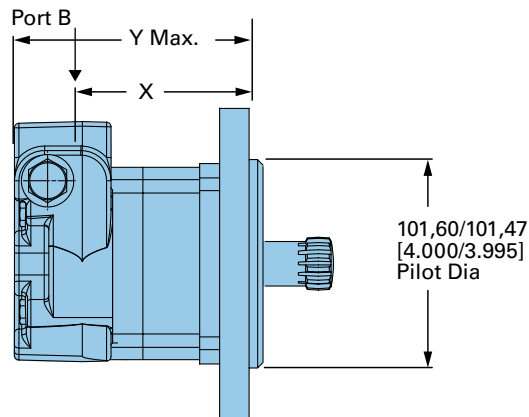
C-1



Case drain 7/16-20 UNF-2B SAE O-ring port or G 1/4 (BSP)



O-ring seal furnished with motor



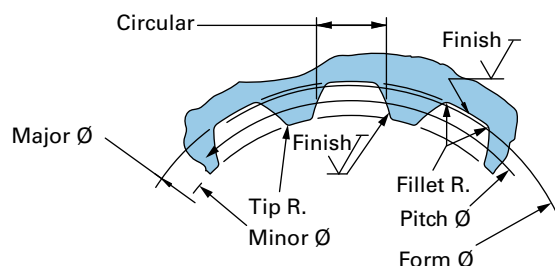
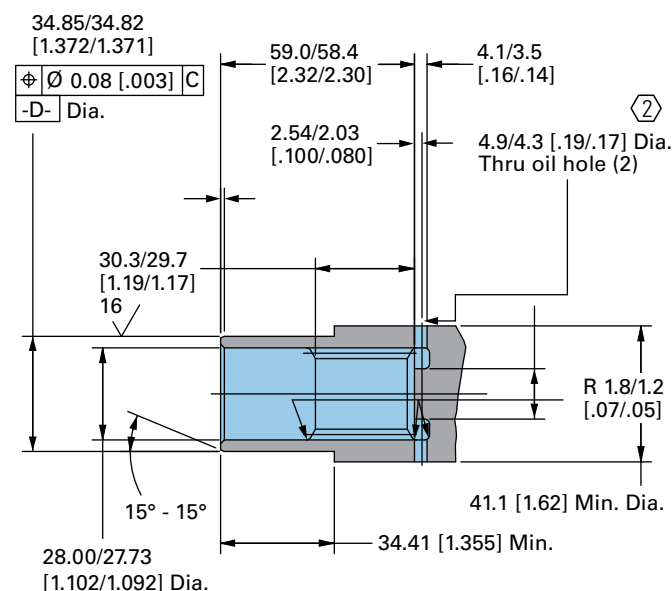
Bearingless motors dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]
34 [2.1]	68.6 [2.70]	116.3 [4.58]
41 [2.5]	70.1 [2.76]	117.8 [4.64]
66 [4.0]	75.8 [2.99]	123.5 [4.86]
80 [4.9]	79.0 [3.11]	126.8 [4.99]
100 [6.2]	83.5 [3.29]	131.4 [5.17]
130 [8.0]	89.9 [3.54]	137.7 [5.42]

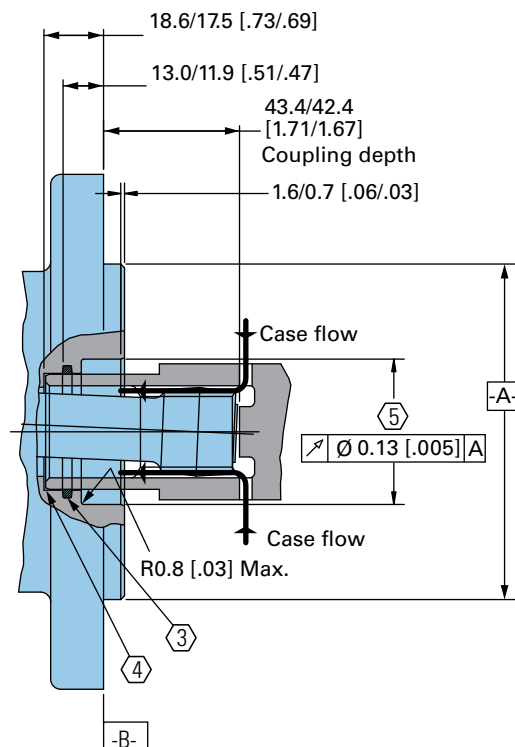
Bearingless motors dimensions

Displacement cm ³ /r [in ³ /r]	X mm [inch]	Y mm [inch]
160 [9.6]	89.9 [3.54]	137.7 [5.42]
195 [11.9]	96.8 [3.81]	144.6 [5.69]
245 [14.9]	105.6 [4.16]	153.5 [6.04]
305 [18.7]	117.1 [4.61]	164.9 [6.49]
395 [24.0]	133.1 [5.24]	180.9 [7.12]
490 [29.8]	150.3 [5.92]	198.2 [7.80]

1. Internal spline in mating part to be per spline data.
Specification material to be ASTM A304, 8620H vacuum degassed alloy steel carbonize to a hardness of 59-62 HRc with case depth (to 50HRc) of 0,076 -1,02 [.030 -.040]. Dimensions apply after heat treat.
2. Mating part to have critical dimensions as shown. Oil holes must be provided and open for proper oil circulation.
3. Seal to be furnished with motor for proper oil circulation thru splines.
4. Means of maintaining clearance between shaft and mounting flange must be provided.
5. Counter bore designed to adapt a standard sleeve bearing 35.010-35.040 [1.3784 -1.3795] I.D. by 44.040 - 44.070 [1.7339 -1.7350] O.D. (Oilite Bronze Sleeve Bearing AAM3544-22).

Bearingless

Spline pitch	12/24
Pressure angle	30°
Number of teeth	12
Class of fit	Ref. 5
Type of fit	Side
Pitch diameter	Ref. 25.400000 [1.0000000]
Base diameter	Ref. 21.997045 [.8660254] $\text{C} \text{ } 0.21 \text{ } [.008] \text{ } \text{D}$
Major diameter	(27.74 [1.092] Max. 27.59 [1.086] Min.)
Minor diameter	23.097 - 23.224 [.9093 - .9143]
Form diameter, min	29.93 [1.060]
Fillet radius	0.64 - 0.76 [.025 - .030]
Tip radius	0.25 - 0.38 [.010 - .015]



Finish	1.6 (63)
Involute profile variation	+0.000 -0.025 [+0.0000 -0.0010]
Total index variation	0.038 [.0015]
Lead variation	0.013 [.0005]
Circular space width:	
Maximum actual	4.318 [1.700]
Minimum effective	4.216 [1.660]
Maximum effective	Ref. 4.270 [1.681]
Minimum actual	Ref. 4.247 [1.672]
Dimension between two pins	Ref. 19.020 - 19.190 [.7488 - .7555]
Pin diameter	4.496 [1.770] Pins to have 3.38 [.133] Wide flat for root clearance

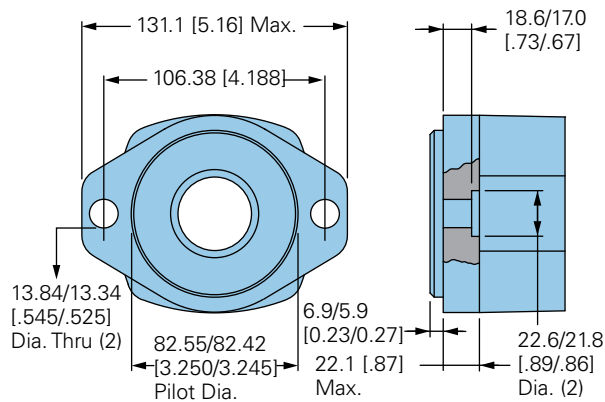
C-1

2000 Series

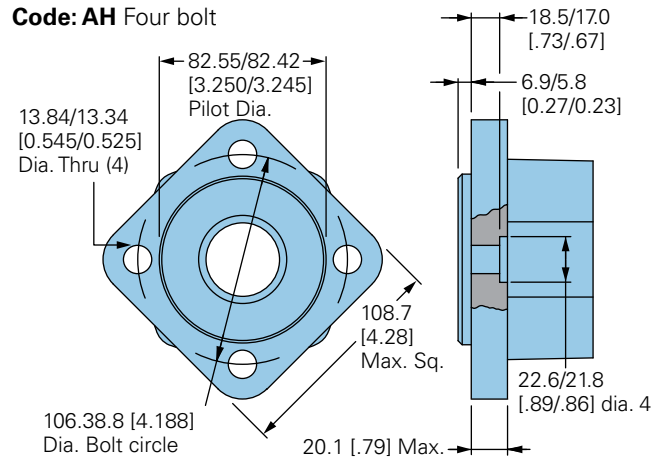
Dimensions

Mounting options

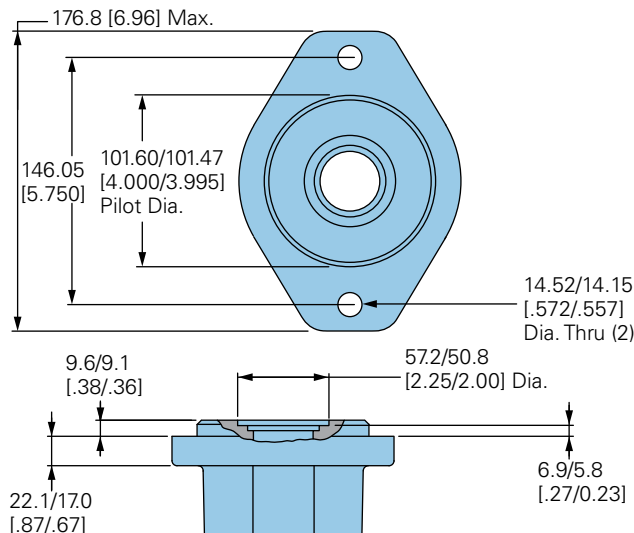
Code: AC SAE A - Two bolt (Standard motor)



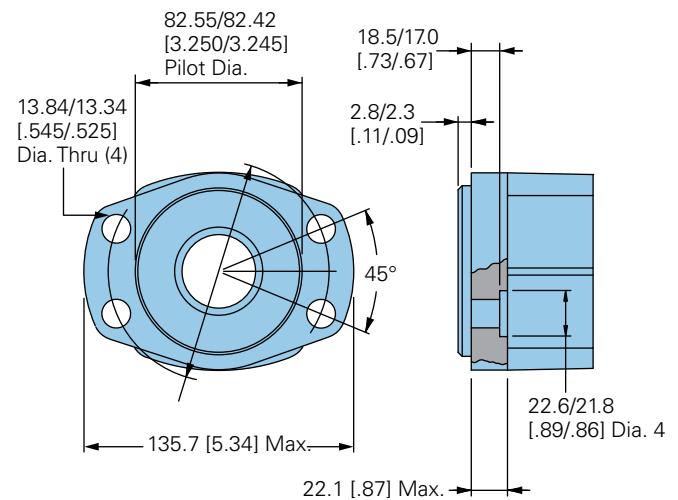
Code: AH Four bolt



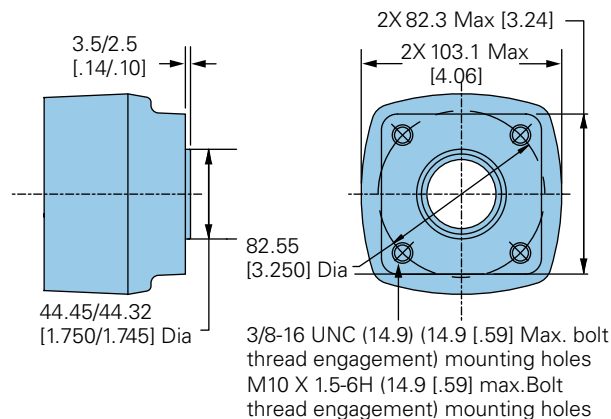
Code: AF SAE B - Two bolt



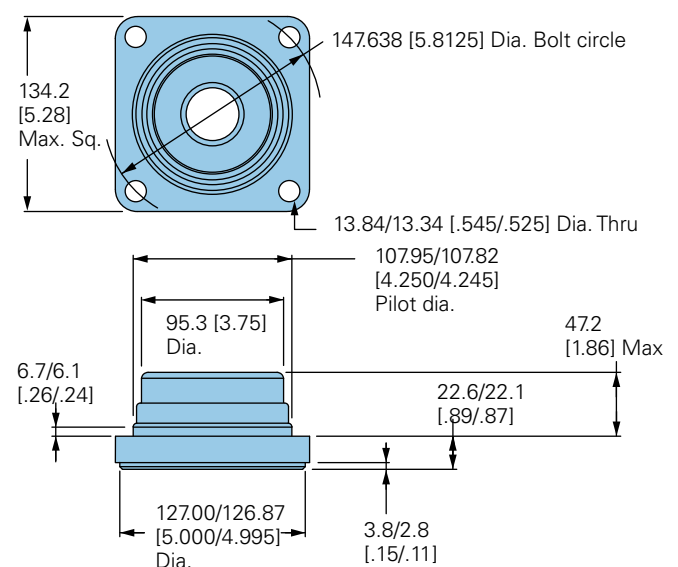
Code: AJ Four bolt magneto



Code: BY Four bolt (Standard motor)



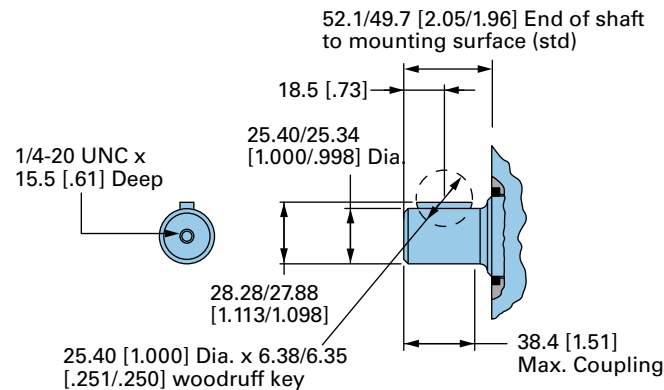
Code: AB Four bolt (Wheel motor)



Shafts

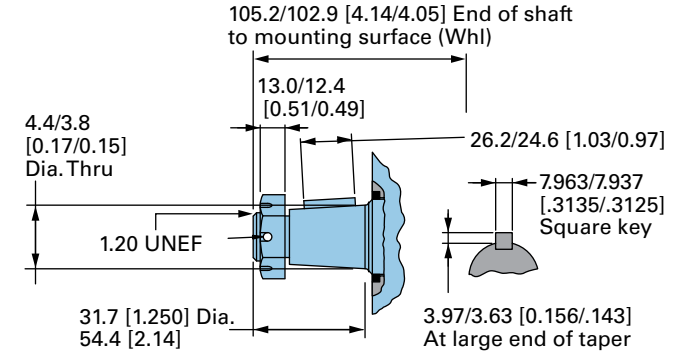
Code: 01 1 Inch straight

395 [3500] Max. Torque Nm [lb-in]

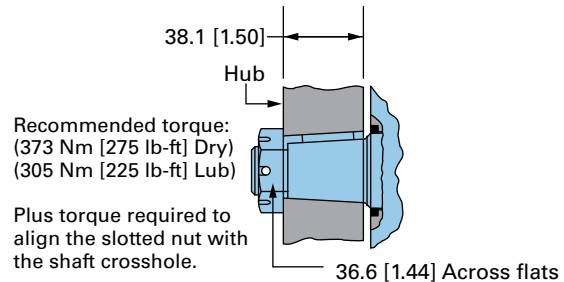


Code: 03 1 1/4 Inch tapered

768 [6800] Max. Torque Nm [lb-in]

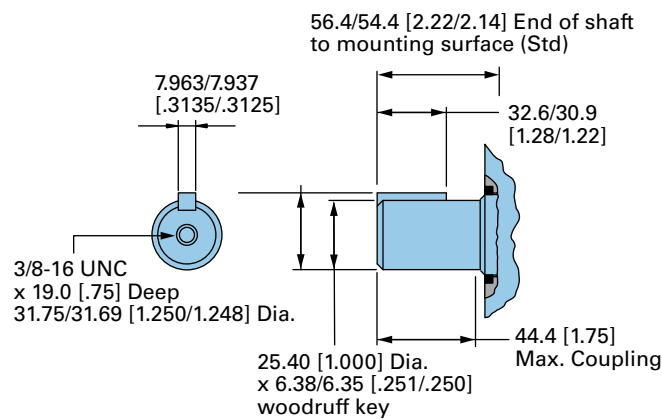


SAE J501 Standard tapered shaft 125.00±0.17 Taper per meter [1.500±.002 Taper per foot]



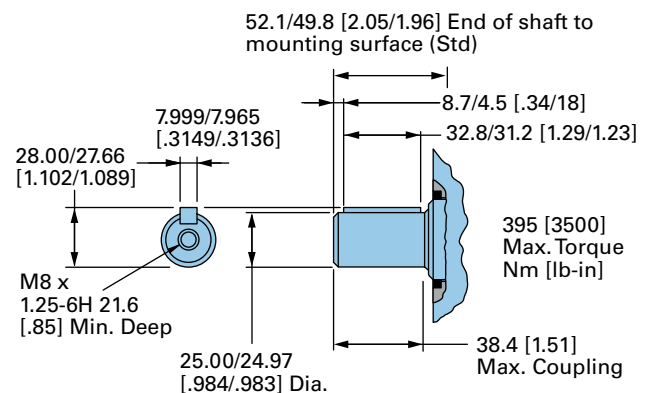
Code: 02 1 1/4 Inch straight

768 [6800] Max. Torque Nm [lb-in]



Code: 19 25 mm straight

395 [3500] Max. Torque Nm [lb-in]



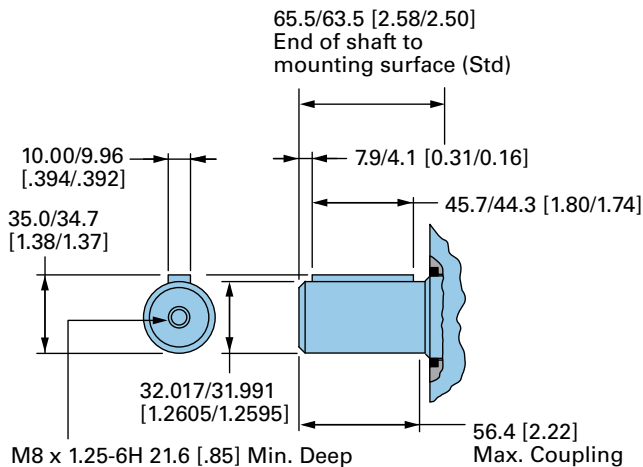
2000 Series

Dimensions

Shafts

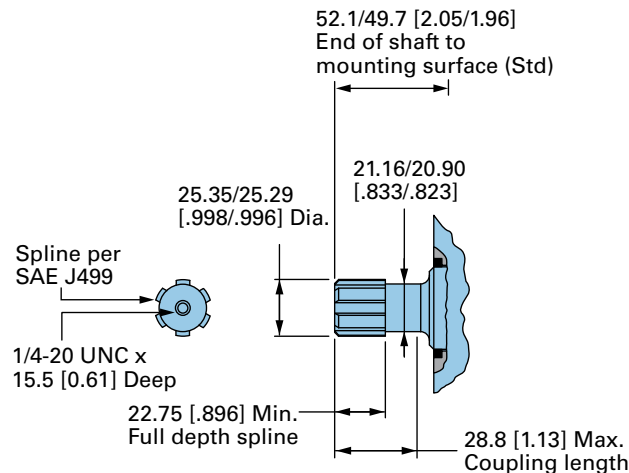
Code: 16 32 mm straight

768 [6800] Max. Torque Nm [lb-in]



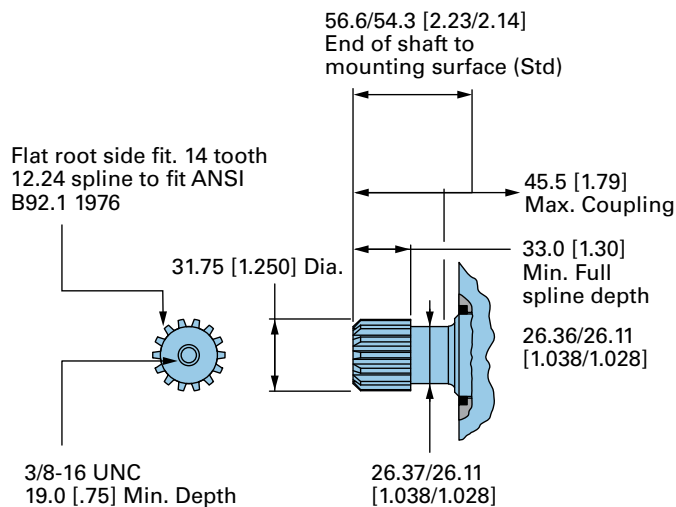
Code: 05 SAE 6B splined

395 [3500] Max. Torque Nm [lb-in]



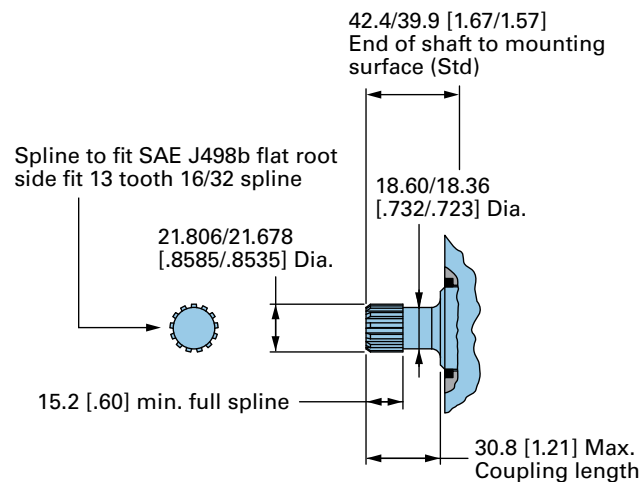
Code: 04 1 1/4 -14 Tooth splined

768 [6800] Max. Torque Nm [lb-in]



Code: 07 13 Tooth splined

141 [1250] Max. Torque Nm [lb-in]

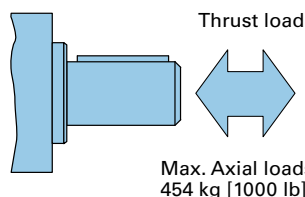


These curves indicate the radial load capacity on the motor shaft at various locations with an allowable external thrust load of 454 kg [1000 lb].

Note: Case pressure will increase the allowable inward thrust load and decrease the allowable outward thrust load. Case pressure will push outward on the shaft at 61 kg/7 Bar [135 lb/100 PSI].

Each curve is based on B 10 bearing life (2000 Hours of 12,000,000 shaft revolutions at 100 RPM) at rated output torque.

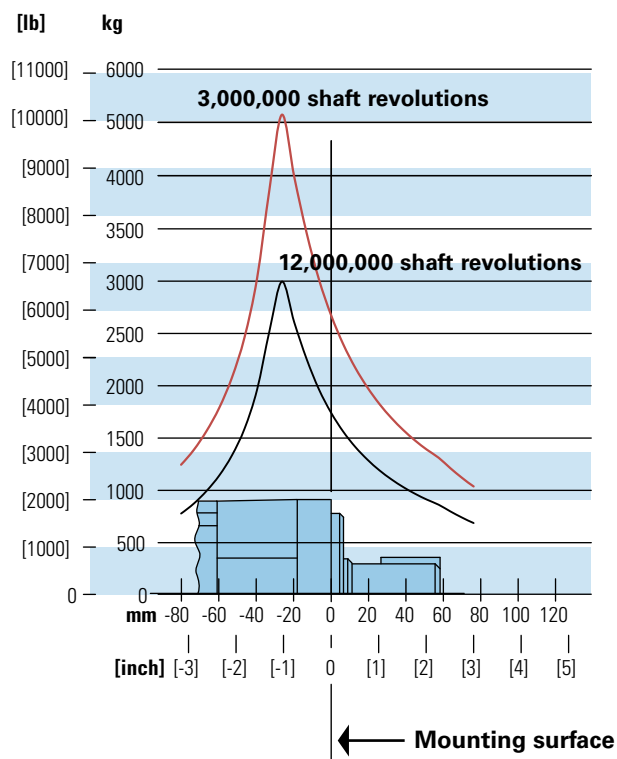
To determine radial load at speeds other than 100 RPM, multiply the load values given on the bearing curve by the factors in the chart below.



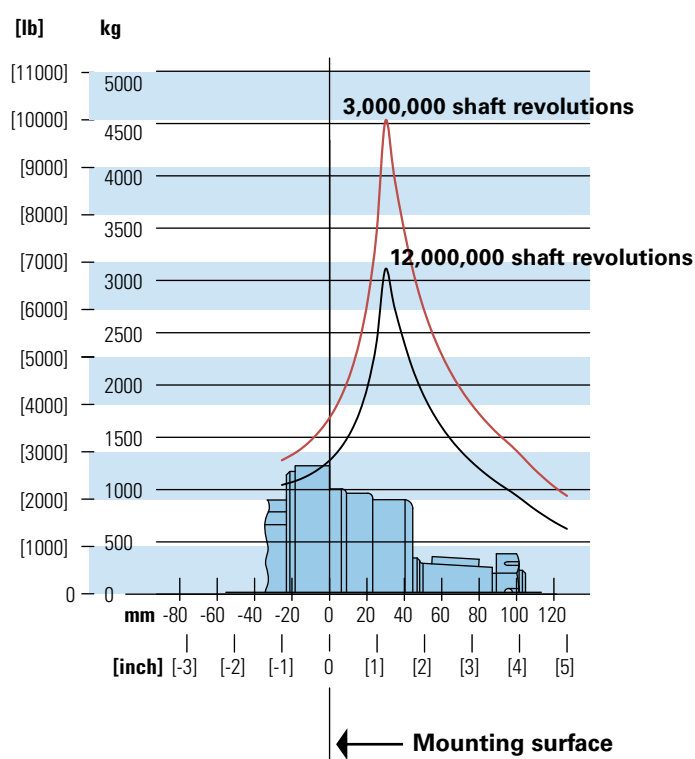
RPM	Multiplication factor
50	1.23
100	1.00
200	0.81
300	0.72
400	0.66
500	0.62
600	0.58
700	0.56
800	0.54

C-1

Standard motor straight and splined shafts



Wheel motor Tapered shaft



2000 Series

Case pressure and case porting

Char-Lynn 2000 Series motors are durable and have long life as long as the recommended case pressure is not exceeded. Allowable case pressure is highest at low shaft speeds. Consequently, motor life will be shortened if case pressure exceeds these ratings (acceptability may vary with application). Determine if an external case drain is required from the case pressure seal limitation chart.

Case porting advantages:

Contamination control — flushing the motor case.

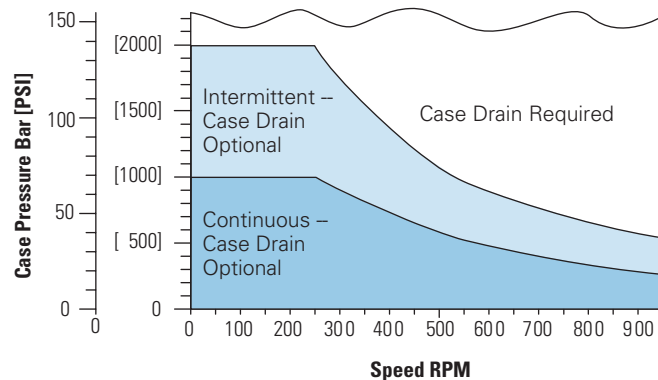
Cooler motor — exiting oil draws motor heat away.

Extend motor seal life — maintain low case pressure with a preset restriction in the case drain line.

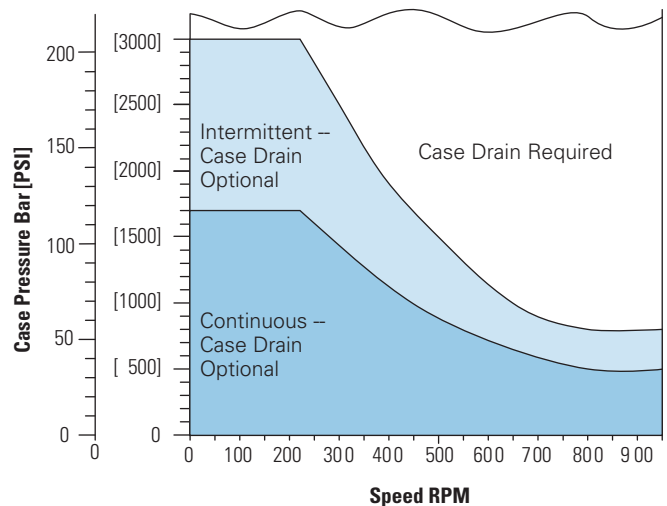
Case pressure seal limitation

Standard shaft seal

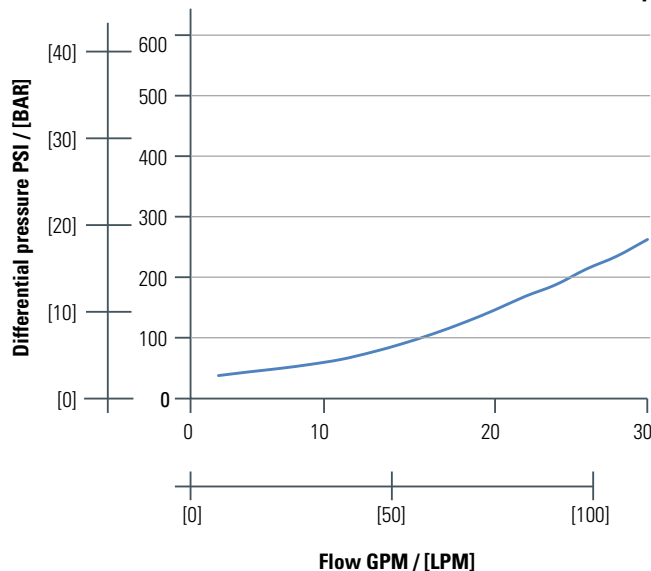
C-1



High pressure shaft seal



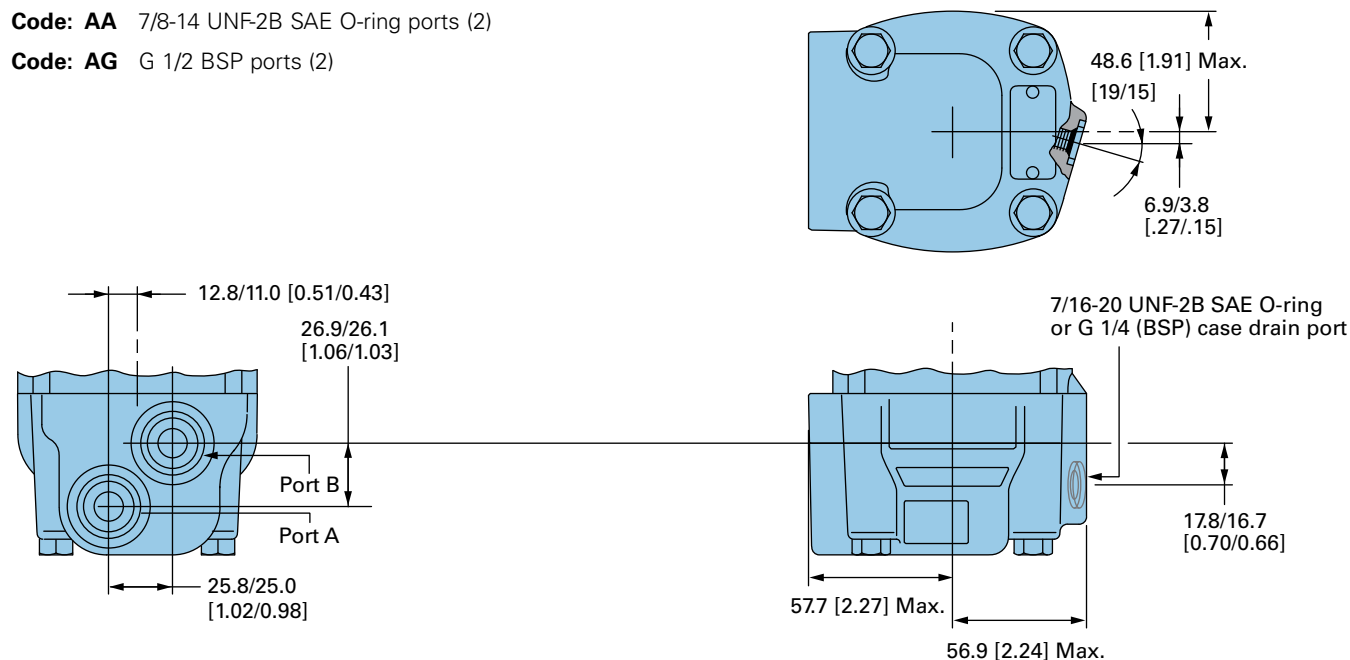
2000 Series NLPD - No Load Pressure Drop



Ports

Code: AA 7/8-14 UNF-2B SAE O-ring ports (2)

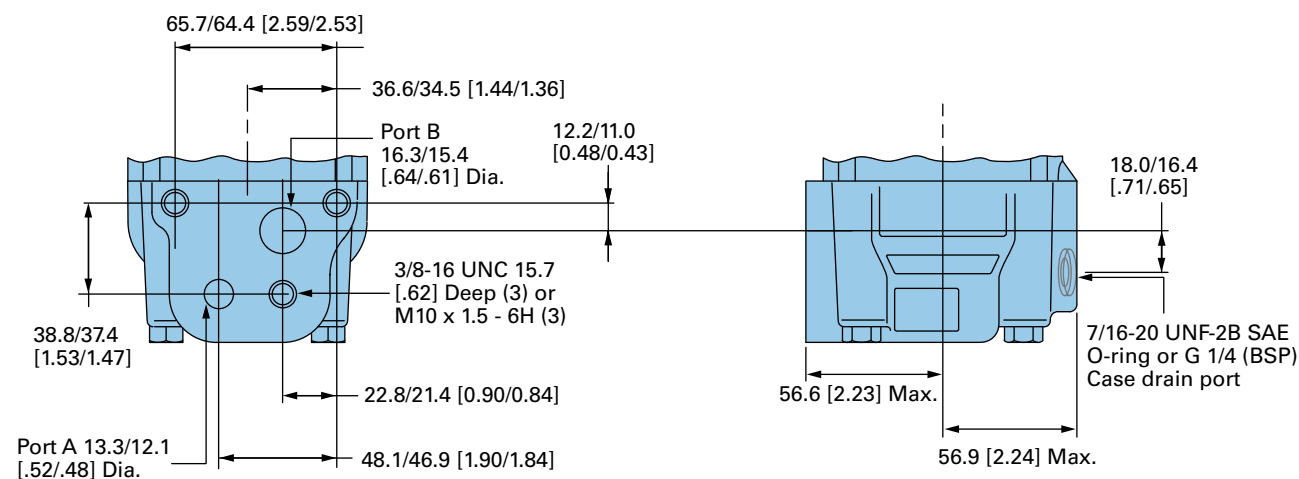
Code: AG G 1/2 BSP ports (2)



C-1

Code: AB 3/8-16 UNC threaded holes

Code: AE M10x1.5 -6H threaded holes



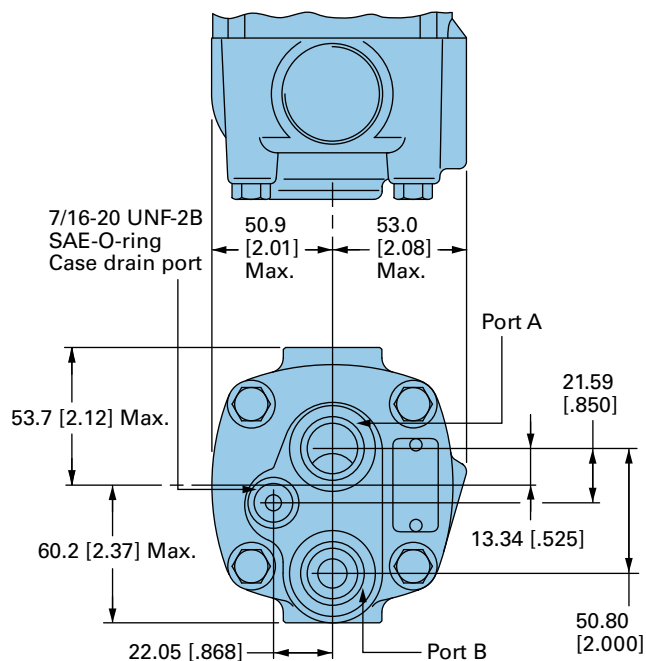
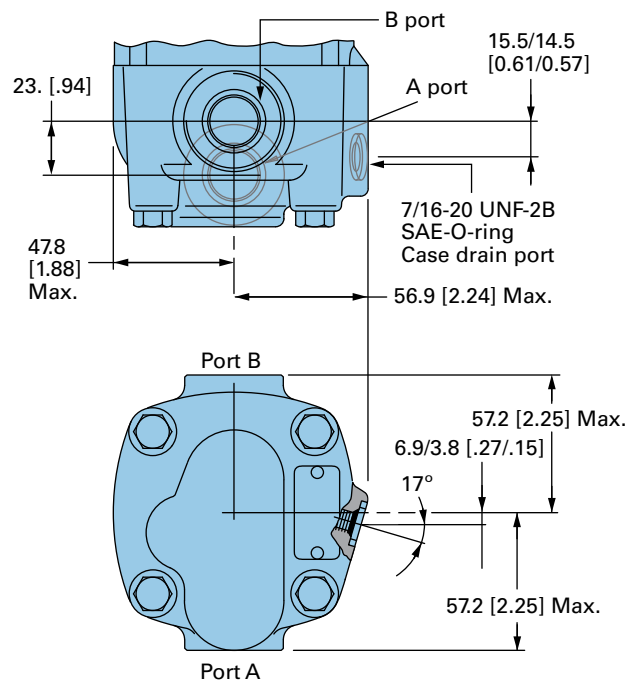
2000 Series

Dimensions

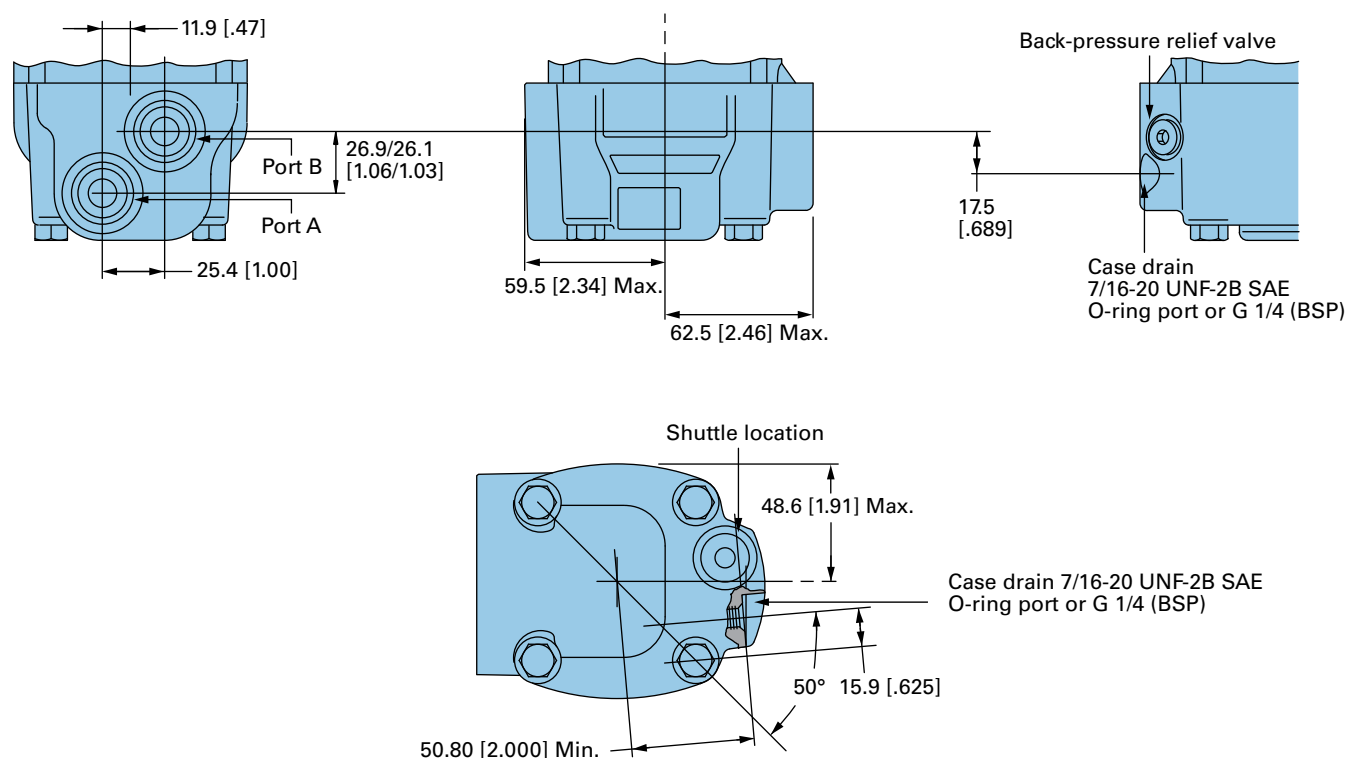
Ports

Code: AF 1-1/16-12 UN-2B SAE O-ring Ports (2) Positioned 180° Apart

Code: AD 7/8-14 UNF-2B SAE O-ring end ports (2)

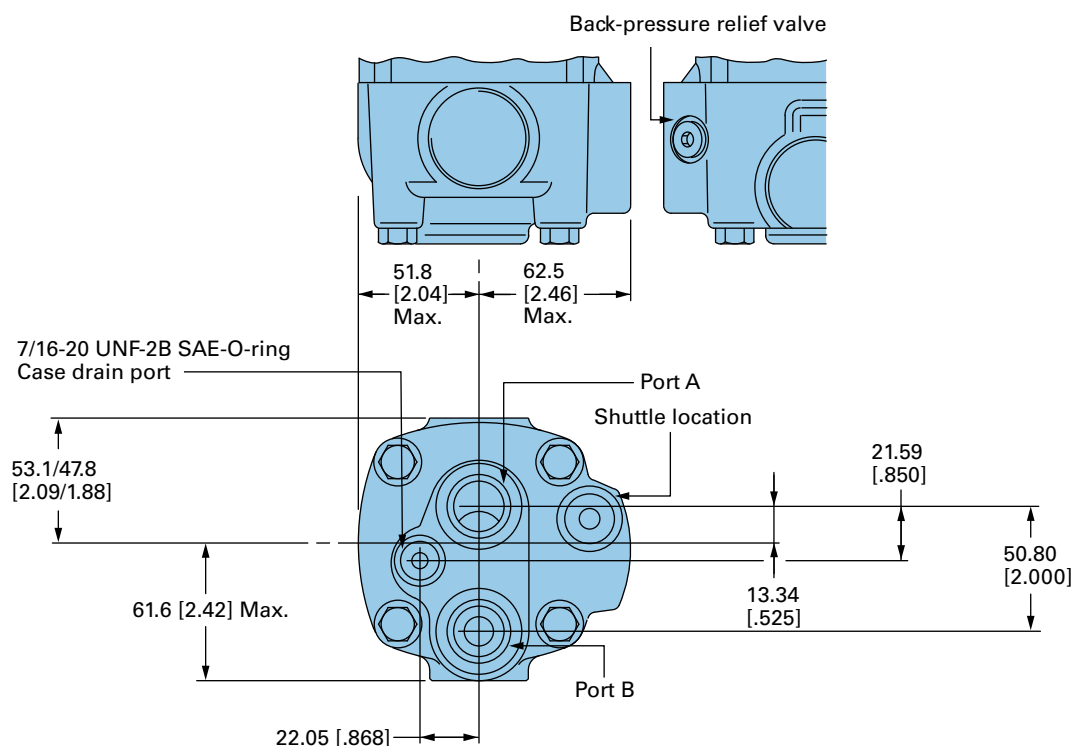


Ports with Shuttle



C-1

This port option is available with shuttle and back pressure relief valve for closed loop applications.



2000 Series

Product numbers

Note: For 2000 Series Motors with a configuration **Not Shown** in the charts below: Use model code number system on the next page to specify product in detail.

Use digit prefix — 104-, 105-, or 106- plus four digit number from charts for complete product number— Example 106-1043.

Orders will not be accepted without three digit prefix.

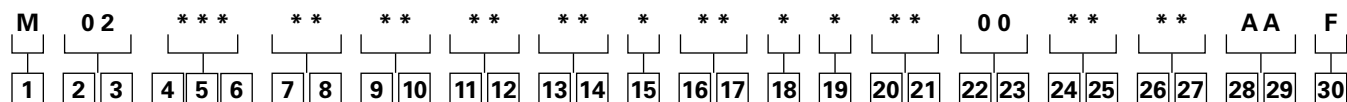
C-1

Mounting	Shaft	Port size	Displ. cm ³ / r [in ³ /r] / product number										
			41	80	90	100	130	160	195	245	305	395	490
			[2.5]	[4.9]	[5.5]	[6.2]	[8.0]	[9.6]	[11.9]	[14.9]	[18.7]	[24.0]	[29.8]
2 Bolt sae A flange	1 Inch straight	7/8 -14 O-ring staggered	104-4708	-1001	—	-1002	-1003	-1004	-1005	-1006	-1007	-1143	—
		1 1/16 -12 O-ring 180° apart	104-----	-1037	—	-1038	-1039	-1040	-1041	-1042	-1043	-1044	—
	1 ¼ Inch straight	7/8 -14 O-ring staggered	104-4774	-1022	—	-1023	-1024	-1025	-1026	-1027	-1028	-1228	-1420
		1 1/16 -12 O-ring 180° apart	104-----	-1061	—	-1062	-1063	-1064	-1065	-1066	-1067	-1068	-1421
	1 ½ Inch - 14 T splined	7/8 -14 O-ring staggered	104-4764	-1029	—	-1030	-1031	-1032	-1033	-1034	-1035	-1229	-1422
		1 1/16 -12 O-ring 180° apart	104-----	-1087	—	-1088	-1089	-1090	-1091	-1092	-1093	-1094	-1423
2 Bolt SAE B flange	1 ¼ Inch straight	7/8-14 O-ring staggered	104-----	-1200	—	1201	-1202	-1203	-1204	-1205	-1206	-1207	—
	1 ½ Inch involute SAE C splined	7/8 -14 O-ring staggered	104-----	-1208	—	-1209	-1210	-1211	-1212	-1213	-1214	-1215	—
	1 Inch SAE 6B splined	7/8 -14 O-ring staggered	104-----	-1193	—	-1194	-1195	-1196	-1197	-1198	-1199	—	—
	7/8 Inch SAE B splined	7/8 -14 O-ring staggered	104-----	-1216	—	-1217	-1218	-1219	-1220	—	—	—	—
Standard with 4 bolt flange	32 mm Straight	G 1/2 (BSP))	104-4672	-1384	—	-1385	-1386	-1387	-1388	-1389	-1390	-1391	—
	1 ¼ Inch 14 T splined	G 1/2 (BSP)	104-----	-1376	—	-1377	-1378	-1379	-1380	-1381	-1382	-1383	—
Wheel motor	1 ¼ Inch straight	7/8 -14 O-ring staggered	105-----	—	—	—	—	—	—	—	—	—	-1148
		1 1/16 -12 O-ring 180° Apart	105-----	—	—	—	—	—	—	—	—	—	-1149
	32 mm straight	G 1/2 (BSP)	105-----	-1134	—	-1135	-1136	-1137	-1138	-1139	-1140	-1141	—
	1 ½ Inch tapered	7/8 -14 O-ring staggered	105-----	-1001	—	-1002	-1003	-1004	-1005	-1006	-1007	-1060	-1152
		1 1/16 -12 O-ring 180° apart	105-----	-1071	—	-1072	-1073	-1074	-1075	-1076	-1077	-1078	—
	1 ½ Inch 14 T splined	7/8 -14 O-ring staggered	105-----	-1029	—	-1030	-1031	-1032	-1033	-1034	-1035	-1096	—
1 1/16 -12 O-ring 180° apart		105-----	-1079	—	—	—	-1082	-1083	-1084	-1085	-1086	—	
Bearingless	7/8 -14 O-ring staggered		106-----	-1008	—	-1009	-1010	-1011	-1012	-1013	-1014	-1015	-1047
	G 1/2 (BSP)		106-----	-1038	—	-1039	-1040	-1041	-1042	-1043	-1044	-1045	—

↑
106-1044

Mounting	Shaft	Port size	Displ. cm³/ r [in³/r] / product number										
			41	80	90	100	130	160	195	245	305	395	490
			[2.5]	[4.9]	[5.5]	[6.2]	[8.0]	[9.6]	[11.9]	[14.9]	[18.7]	[24.0]	[29.8]
2 Bolt SAE A flange	1 Inch straight	7/8 -14 O-ring Staggered	104-----	-1528	—	-1529	-1530	-1531	-1532	-1533	-1534	-1519	-1535
	1 1/4 Inch straight	7/8 -14 O-ring	104-----	-3615	—	-1536	-1537	-1568	-1539	-1452	-1479	-1509	-1489

The following 30-digit coding system has been developed to identify all of the configuration options for the 2000 Series motor. Use this model code to specify a motor with the desired features. All 30 digits of the code must be present when ordering.



1		Product	910		Output shaft
		M	2000 Series motor		00 None (Bearingless)
23		Product series			01 25.40 [1.000] Dia. Straight shaft with 1/4-20UNC-2B Thread in End, 6.35 [.250] wide x 25.40 [1.000] Dia. Woodruff key
		02	2000 Series Motor		02 31.75 [1.250] Dia. Straight shaft with .375-16UNC-2B Thread in end, 7.938 [.3125] Sq x 31.75 [1.250] straight key
456		Displacement			03 31.75 [1.250] Dia. 0.125:1 tapered shaft per SAE J501 with 1.000-20 UNEF-2A Threaded shaft end and slotted hex nut, 7.938 [.3125] Sq x 25.40 [1.0] straight key
		021	34.0 cm³/r [in³/r]		04 31.75 [1.250] Dia. Flat root side fit, 14 tooth, 12/24 DP 30° involute spline w/ .375-16UNC-2B Thread in end, 33.0 [1.30] Min. Full spline length
		025	40.8 cm³/r [in³/r]		05 25.40 [1.000] Dia. 6B spline per SAE J499 with .250- 20UNC-2B thread in end, 22.76 [.896] Min. Full spline length
		040	66.5 cm³/r [in³/r]		07 22.22 [.875] Dia. Flat root side fit, 13 tooth, 16/32 DP 30° SAE B Involute Spline, 15.2 [.60] Min. Full Spline Length
		049	80.6 cm³/r [4.92 in³/r]		16 32.00 [1.260] Dia. Straight Shaft with M8 x 1.25-6H Thread in End, 9.982 [.3930] W x 7.995 [.3132] H x 45.00 [1.772] L Key
		055	90.6 cm³/r [5.53 in³/r]		17 31.75 [1.250] Dia. Straight shaft with 3/8 -16 UNC-2B Thread in end, 7.938 [.3125] Sq x 31.75 [1.250] straight key, corrosion resistant (seal area to shaft end)
		062	101.6 cm³/r [6.20 in³/r]		19 25.00 [.984] Dia. Straight shaft with M8 x 1.25-6h thread in end, 7.982 [.3142]W x 6.954 [.2738]H x 31.82 [1.254]L key
		080	130.6 cm³/r [7.97 in³/r]		41 35.00 [1.378] Dia. 10:1 Tapered shaft per ISO R775 with M20 x 1.5-6g threaded shaft end and slotted hex nut, 6.00 [.236] Sq. X 20.00 [.787] Key
		096	158.1 cm³/r [9.65 in³/r]		42 35.00 [1.378] Dia. Straight shaft with M8 x 1.25-6h thread in end, 9.982 [.3930]W x 7.995 [.3132]H x 45.00 [1.772]L key
		119	194.8 cm³/r [11.89 in³/r]		
		149	244.3 cm³/r [14.91 in³/r]		
		187	306.6 cm³/r [18.71 in³/r]		
		240	393.8 cm³/r [24.03 in³/r]		
		298	489.0 cm³/r [29.84 in³/r]		
78		Mounting type			
		AB	Wheel, 4 Bolt: 108.0 [4.25] Pilot Dia. 13.59 [.535] Dia. Holes on 147.6 [5.81] Dia. Bolt circle. 127.0 [5.00] Dia. Rear mount pilot		
		AC	Standard, 2 Bolt: 82.6 [3.25] Pilot Dia. 13.59 [.535] Dia. Holes on 106.4 [4.19] Dia. Bolt circle. SAE A		
		AD	Bearingless (w/ leakage slots), 4 Bolt: 101.6 [4.00] Pilot Dia. 13.59 [.535] Dia. Holes on 127.0 [5.00] Dia. Bolt circle		
		AF	Standard, 2 Bolt: 101.6 [4.00] Pilot dia. 14.35 [.565] Dia. Holes on 146.0 [5.75] Dia. Bolt circle. SAE B		
		AH	Standard, 4 Bolt: 82.6 [3.25] Pilot Dia. 13.59 [.535] Dia. Holes on 106.4 [4.19] Dia. Bolt circle		
		AJ	Standard (Magneto), 4 Bolt: 82.6 [3.25] Pilot Dia. 13.59 [.535] Dia. Holes on 106.4 [4.19] Dia. Bolt Circle. 2.79 [1.10] Pilot Length		
		AL	Wheel (European), 4 Bolt: 125 [4.92] Pilot Dia. 13.79 [.543] Dia. Holes on 159.99 [6.299] Dia. Bolt Circle		
		AP	Wheel, 4 Bolt: 108.0 [4.25] Pilot Dia. 13.59 [.535] Dia. Holes on 147.6 [5.81] Dia. Bolt Circle. 127.0 [5.00] Dia. Rear mount pilot. Spigot reduced to 88.9 [3.50] Dia. by 25.4 [1.00] Depth.		
		AZ	Bearingless (w/ leakage slots), 4 Bolt: 100.0 [3.94] Pilot Dia. 11.0 [.43] Dia. Holes on 125.0 [4.92] Dia bolt circle (european)		

2000 Series

Model code

M	02		***			**		**		**		**		*	**		*	*	**		00		**		**		AA		F
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

11 12

Ports

- AA** .875-14 UNF-2B SAE O-ring Ports - Staggered Ports
- AB** 12.70 [.500] and 15.88 [.625] Dia. Manifold ports with 3 x .375-16 UNC-2B port block mounting holes
- AC** .875-14 UNF-2B SAE O-ring ports - ports oriented 180° to each other
- AE** 12.70 [.500] and 15.88 [.625] Dia. Manifold ports with 3 x M10 x 1.5-6H Port block mounting holes
- AF** 1.0625-12 UN-2B SAE O-ring ports - ports oriented 180° to each other
- AG** G-1/2 BSP straight THD ports - staggered ports
- AN** G-1/2 BSP Straight THD Ports - end ported
- AS** G-1/2 Bsp Straight THD ports - staggered port with 2 x M10 x 1.5-6H port block mounting holes - european

13 14

Case flow options

(Shuttles available with port code AA only)

- 01** .4375-20 UNF-2B SAE O-Ring Port
- 02** G 1/4 BSP Straight THD Port
- 13** Reverse flow shuttle valve w/ .4375-20 UNF-2B SAE O-Ring port, .062 Dia. Shuttle flow orifice

15

Low pressure relief

- 0** None
- A** Set at 4.5 bar [65 lbf/in²]
- B** Set at 15.2 bar [220 lbf/in²]
- C** Set at 20.7 bar [300 lbf/in²]
- E** Set at 11.03 bar [160 lbf/in²]

16 17

Pressure/flow option

- 0** None
- Integral cross-over relief valve:
- 30** Set at 103.4 bar [1500 lbf/in²]
- 31** Set at 120.6 bar [1750 lbf/in²]
- 32** Set at 137.9 bar [2000 lbf/in²]
- 33** Set at 155.1 bar [2250 lbf/in²]
- 34** Set at 172.4 bar [2500 lbf/in²]
- 35** Set at 189.6 bar [2750 lbf/in²]
- 36** Set at 206.8 bar [3000 lbf/in²]
- 37** Set at 234.4 bar [3400 lbf/in²]

18

Geroler option

- 1** Standard
- 2** Free running
- 6** Reduced side clearance, no warranty for galling

19

Seal option

- 0** Standard
- 1** Viton
- 2** Viton shaft seal
- 3** High pressure shaft seal
- 4** Seal guard
- 5** Extreme duty seal guard
- 6** High pressure shaft seal, seal guard

20 21

Accessories

- 00** None
- AA** Digital speed pickup (30 pulse), 127 [5.0] lead wire with weather pack shroud connector (A=Power, B=Signal, C=Common)
- AD** Digital speed pickup (30 pulse), M12 connector (A=Power, B=Common, C=Signal)
- AG** M12 connector (60 pulse per rev speed signal and one directional signal, (Pin 1=Power, Pin 2= Direction, Pin 3=Common, Pin 4=Speed)

22 23

Special features (hardware)

- 00** None

24 25

Special features (assembly)

- 00** None
- AA** Flange rotated 90 degrees
- AB** Reverse rotation
- AE** Flange rotated 45 degrees

26 27

Paint/packaging

- AA** No paint, indiv. Box
- AB** Low gloss black primer, indiv. Box
- AT** Epoxy coated black, individual box
- BJ** Nickel plated motor (excluding shaft), individual box

28 29

Customer ID

- AA** None

30

Design code

- F** Sixth

See Eatonpowersource.com/ for more options and configurations.

C-1