

HHP30 Series hydraulic orbit motor



HHP30-Replace with Danfoss Char-Lynn HP30

Parameters

Two Speed		HHP30 -344	HHP30 -400	HHP30 -434	HHP30 -480	HHP30 -677
Displacement (cm ³ /r)	High speed	229	267	289	320	451
	Low speed	344	400	434	480	677
Flow (lpm)	High speed	170	170	170	170	170
	Low speed	170	170	170	170	170
Speed(rpm)	High speed	743	639	588	532	378
	Low speed	495	426	392	355	252
Pressure drop (Mpa)	Continuous	31	31	31	31	25
	Intermittent	34.5	34.5	34.5	34.5	29
High speed torque (N•m)	Continuous	1076	1251	1358	1501	1646
	Intermittent	1196	1389	1509	1669	1929
Low speed torque (N•m)	Continuous	1614	1876	2037	2252	2469
	Intermittent	1794	2084	2263	2503	2893

Parameters

Single Speed		HHP30 -344	HHP30 -400	HHP30 -434	HHP30 -480	HHP30 -677
Displacement (cm ³ /r)		344	400	434	480	677
Flow (lpm)	Continuous	170	170	170	170	170
	Low speed	265	265	265	265	265
Speed(rpm)	High speed	770	663	610	552	392
	Low speed	495	426	392	355	252
Pressure drop (Mpa)	Continuous	31	31	31	31	25
	Intermittent	34.5	34.5	34.5	34.5	29
Torque (N•m)	Continuous	1164	1876	2037	2252	2469
	Intermittent	1764	2084	2263	2503	2893

HHP30 Series hydraulic orbit motor



Selection

1	2	3	3	4
Series	CC	Configuration	Flange	Output shaft
HHP30	344	Code S1: Single speed Code S2: Two speed	Code SA : 4 bolt circle Ø162 pilot dia Ø 127	Code FD: Shaft Dia Ø38.1 Splined tooth 17-DP12/24 with M12 Metric threaded hole Code M: Shaft Dia Ø40 Parallel key 12×8×63
	400			
	434			
	480			
	677			
5	6	7	8	9
Port and drain port	Rotation direction	Valve optional	Paint	Unusually function
Code D: G1 BSP	Omit: Standard Code R: Opposite	Shuttle valve/Check valve /pressure relief	Omit: Blue Code B: Black	Omit: Standard

Performance Data

344 cm³/r [21 in³/r]

	[500] 34	[1000] 69	[1500] 103	[2000] 138	[2500] 172	[3000] 207	[3500] 241	[4000] 276	[4500] 310	[5000] 345	[5500] 379
19	[1472] 166	[3021] 341	[4579] 517	[5078] 574	[7624] 861	[9108] 1029	[10720] 1211	[12211] 1380	[13768] 1556	[15245] 1722	[16676] 1884
[5]	50	48	46	44	43	40	39	38	36	36	33
30	[1491] 169	[3068] 347	[4604] 520	[6170] 697	[7762] 877	[9319] 1053	[10876] 1229	[12445] 1406	[13984] 1580	[15485] 1750	[16891] 1908
[8]	81	76	74	74	72	70	68	66	64	64	61
45	[1462] 165	[3067] 346	[4613] 521	[6217] 702	[7779] 879	[9346] 1056	[10948] 1237	[12477] 1410	[14015] 1583	[15547] 1757	[16951] 1915
[12]	124	118	114	113	113	112	110	108	106	103	100
61	[1436] 162	[3037] 343	[4608] 521	[6178] 698	[7753] 876	[9340] 1055	[10914] 1233	[12490] 1411	[14040] 1586	[15429] 1743	[16866] 1906
[16]	167	159	154	152	151	151	150	148	145	143	140
76	[1408] 159	[3004] 339	[4576] 517	[6156] 696	[7744] 875	[9313] 1052	[10902] 1232	[12452] 1407	[13830] 1563	[15317] 1731	[16809] 1899
[20]	211	201	195	191	190	189	188	187	185	183	179
91	[1351] 153	[2969] 335	[4556] 515	[6125] 692	[7724] 873	[9301] 1051	[10897] 1231	[12470] 1409	[13972] 1579	[15407] 1741	[16679] 1885
[24]	255	243	237	232	229	227	226	226	223	220	218
106	[1340] 151	[2930] 331	[4501] 509	[6087] 688	[7665] 866	[9255] 1046	[10835] 1224	[12392] 1400	[13929] 1558	[15233] 1721	[16704] 1887
[28]	296	285	278	273	269	266	265	264	253	250	245
121	[1303] 147	[2856] 323	[4443] 502	[6011] 679	[7604] 859	[9196] 1039	[10779] 1218	[12331] 1393	[13679] 1546	[15084] 1704	[16600] 1875
[32]	341	328	319	312	308	305	303	302	301	298	294
136	[1287] 145	[2794] 316	[4378] 495	[5958] 673	[7522] 850	[9110] 1029	[10688] 1208	[12252] 1384	[13568] 1533	[15007] 1696	[16569] 1872
[36]	384	371	361	354	349	345	341	338	334	331	328
151	[1253] 142	[2698] 305	[4317] 488	[5879] 664	[7443] 841	[9019] 1019	[10586] 1196	[12107] 1368	[13451] 1520	[14944] 1688	[16505] 1865
[40]	427	414	403	395	390	385	381	379	377	374	370
170	[1237] 140	[2674] 302	[4203] 475	[5785] 654	[7331] 828	[8891] 1005	[10472] 1183	[11919] 1347	[13299] 1517	[14905] 1684	[16474] 1861
[45]	485	465	455	446	440	434	430	426	423	421	418
227	[1100] 124	[2351] 266	[3669] 415	[5550] 627	[7244] 860	[8574] 969	[10040] 1134	[11407] 1289	[12771] 1443	[14384] 1625	[16124] 1822
[60]	645	622	609	599	587	580	542	572	567	564	563
265	[2215] 250	[3487] 394	[5385] 608	[7337] 839	[9137] 1033	[10883] 1217	[12585] 1417	[14288] 1603	[15988] 1806	[17788] 2014	[19588] 2244
[70]	727	712	701	686	678	678	633	669	664	660	696

400 cm³/r [24.4 in³/r]

	[500] 34	[1000] 69	[1500] 103	[2000] 138	[2500] 172	[3000] 207	[3500] 241	[4000] 276	[4500] 310	[5000] 345	[5500] 379
15	[1696] 192	[3461] 391	[5232] 597	[7051] 797	[8788] 993	[10516] 1188	[12132] 1371	[13884] 1569	[15098] 1706	[16504] 1865	[18112] 2046
[4]	35	33	32	29	27	24	22	19	18	17	16
30	[1734] 96	[3556] 402	[5378] 608	[7198] 813	[9016] 1019	[10801] 1220	[12635] 1428	[14376] 1624	[16092] 1818	[17786] 2021	[19750] 2231
[8]	73	70	67	66	63	61	58	55	52	48	46
45	[1709] 193	[3560] 402	[5382] 608	[7225] 816	[9032] 1020	[10837] 1224	[12652] 1448	[14448] 16178	[16178] 1828	[17912] 2024	[19752] 2232
[12]	111	107	102	99	97	96	93	90	88	84	83
61	[1667] 188	[3514] 397	[5354] 605	[7194] 813	[9012] 1018	[10840] 1225	[12644] 1429	[14421] 1629	[16192] 1829	[17953] 2028	[19755] 2232
[16]	148	143	139	134	132	130	128	125	121	118	116
76	[1650] 186	[3462] 397	[5306] 599	[7147] 807	[8966] 1013	[10766] 1216	[12586] 1422	[14373] 1624	[16139] 1824	[17861] 20018	[19745] 2237
[20]	184	179	174	169	166	164	161	159	156	152	150
95	[1650] 186	[3351] 379	[5239] 592	[7074] 799	[8916] 1007	[10685] 1207	[12471] 1409	[14257] 1611	[15974] 18055	[17715] 2002	[19648] 2220
[25]	231	225	219	214	209	205	202	199	197	194	191
114	[1631] 184	[3280] 371	[5112] 578	[6957] 786	[8765] 990	[10578] 1195	[12402] 1401	[14140] 1598	[15908] 1797	[17622] 1991	[19528] 2206
[30]	278	270	264	259	254	249	245	242	238	233	231
132	[1553] 175	[3154] 356	[4986] 563	[6858] 775	[8658] 978	[10439] 1179	[12268] 1386	[14032] 1585	[15792] 1784	[17454] 1972	[19350] 2186
[35]	325	317	310	303	298	293	288	284	279	274	271
151	[1514] 171	[3081] 348	[4881] 551	[6733] 761	[8532] 964	[10342] 1168	[12116] 1369	[13934] 1574	[15659] 1769	[17415] 1968	[19301] 2181
[40]	371	363	355	348	341	335	329	323	317	310	305
170	[1492] 169	[2997] 339	[4731] 535	[6545] 739	[8342] 943	[10144] 1146	[11950] 1350	[13773] 1556	[15512] 1753	[17139] 1936	[18965] 2143
[45]	417	408	396	392	384	378	372	363	356	350	347
227	[1402] 158	[2782] 314	[4420] 499	[6147] 694	[7951] 898	[9737] 1100	[11541] 1304	[13403] 1514	[15134] 1710	[16680] 1885	[18438] 2083
[60]	557	546	529	526	514	507	498	485	474	468	464
265	[2639] 298	[4212] 476	[5882] 665	[7690] 869	[9465] 1069	[11268] 1273	[13157] 1487	[14882] 1667	[16374] 1850	[18087] 2044	[19887] 2244
[70]	637	617	615	601	593	583	566	553	546	542	542

434 cm³/r [26.5 in³/r]

		[500]	[1000]	[1500]	[2000]	[2500]	[3000]	[3500]	[4000]	[4500]	[5000]	[5500]
		34	69	103	138	172	207	241	276	310	345	379
Flow LPM [gpm]	19	[1859]	[3828]	[5846]	[7798]	[9707]	[11679]	[13580]	[15532]	[17715]	[19497]	[21425]
	[5]	210	433	660	887	1097	1320	1534	1755	2002	2203	2421
		40	38	37	35	33	32	30	28	29	26	27
	30	[1917]	[3890]	[5878]	[7878]	[9867]	[11834]	[13790]	[15797]	[17767]	[19788]	[21610]
	[8]	2774	440	664	890	1115	1337	1558	1784	2007	2236	2442
		66	64	62	60	58	56	54	52	51	49	47
	45	[1883]	[3885]	[5878]	[7881]	[9858]	[11839]	[13859]	[15853]	[17818]	[19785]	[21706]
	[12]	213	439	664	890	1114	1338	1566	1791	2013	2235	2452
		100	97	94	92	89	87	84	82	80		76
		61	[1838]	[3852]	[5847]	[7872]	[9853]	[11838]	[13862]	[15893]	[17850]	[19839]
	[16]	208	435	661	889	1113	1338	1566	1796	2017	2241	2459
		135	130	127	125	122	119	116	113	111	109	106
	76	[1794]	[3819]	[5824]	[7845]	[9843]	[11848]	[13869]	[15884]	[17843]	[19799]	[21725]
	[20]	203	431	658	886	1112	1339	1567	1798	2016	2237	2455
		169	164	160	157	154	151	148	144	141	139	138
	91	[1753]	[3779]	[5791]	[7785]	[9763]	[11791]	[13846]	[15825]	[17817]	[19801]	[21734]
	[24]	198	427	654	880	1103	1332	1564	1788	2013	2237	2456
		203	197	193	189	186	183	180	177	174	171	169
	106	[1688]	[3715]	[5742]	[7733]	[9738]	[11768]	[13789]	[15806]	[17794]	[19751]	[21696]
	[28]	191	420	649	874	1100	1330	1558	1786	2010	2232	2451
		238	231	226	222	218	215	212	209	206	203	200
	121	[1588]	[3653]	[5657]	[7678]	[9657]	[11682]	[13713]	[15711]	[17695]	[19727]	[21634]
	[32]	179	413	639	867	1091	1320	1549	1775	1999	2229	2444
		273	264	258	254	250	246	243	240	237	235	232
	136	[1549]	[3581]	[5591]	[7600]	[9607]	[11613]	[13655]	[15643]	[17650]	[19613]	[21580]
	[36]	175	405	632	859	1085	1312	1543	1767	1994	2216	2438
		307	298	292	287	282	279	275	271	267	264	261
	151	[1559]	[3492]	[5489]	[7487]	[9504]	[11523]	[13515]	[15588]	[17555]	[19507]	[21518]
	[40]	176	395	620	846	1074	1302	1527	1761	1983	2204	2431
		341	333	325	319	314	310	306	302	299	295	292
	170	[1539]	[3367]	[5382]	[7376]	[9371]	[11378]	[13423]	[15413]	[17452]	[19379]	[21348]
	[45]	174	380	608	833	1059	1286	1517	1741	1972	2189	2412
		388	376	367	361	356	350	346	341	337	331	325
	227	[1283]	[3011]	[5023]	[6812]	[9069]	[10962]	[12917]	[14902]	[17045]	[18897]	[20911]
	[60]	145	340	568	770	1025	1238	1459	1684	1926	2135	2363
		515	501	490	483	475	469	464	456	453	448	442
	265	[2845]	[4842]	[6614]	[8921]	[10802]	[12756]	[14741]	[16904]	[18843]	[20780]	
	[70]	321	547	747	1008	1220	144	1666	1910	2118	2348	
		585	573	565	556	549	544	533	531	525	518	

HHP30 Series hydraulic orbit motor



Performance Data

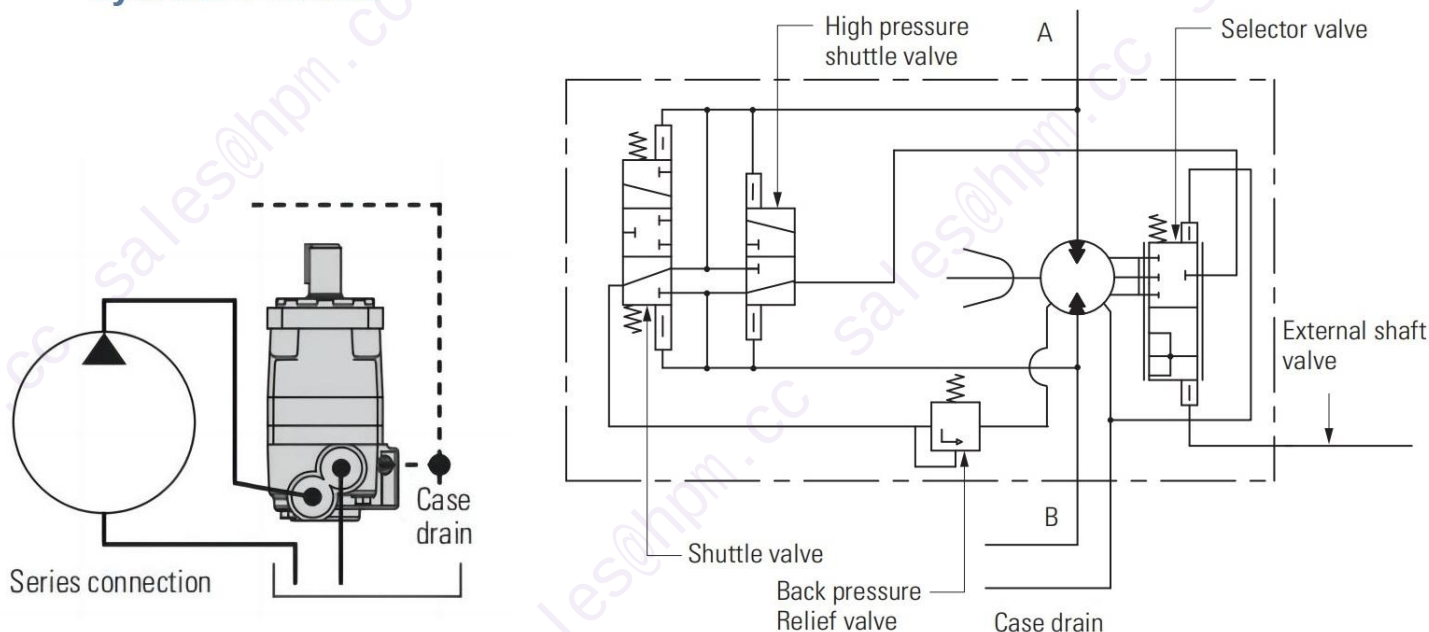
480 cm³/r [29.3 in³/r]

	[500] 34	[1000] 69	[1500] 103	[2000] 138	[2500] 172	[3000] 207	[3500] 241	[4000] 276	[4500] 310	[5000] 345	[5500] 379
19 [5]	[2030] 36	[4156] 34	[6239] 32	[8401] 31	[10381] 30	[12499] 29	[14668] 28	[16741] 27	[19004] 26	[21234] 26	[23044] 25
30 [8]	[2059] 59	[4245] 56	[6393] 54	[8526] 53	[10726] 52	[12911] 51	[15052] 50	[17096] 49	[19250] 47	[21386] 45	[23509] 44
45 [12]	[2043] 90	[4261] 86	[6424] 84	[8633] 83	[10768] 80	[12918] 79	[15167] 77	[17274] 73	[19448] 75	[21527] 73	[23674] 75
61 [16]	[2014] 121	[4232] 116	[6417] 113	[8604] 111	[10800] 109	[12956] 108	[15181] 106	[17330] 104	[19482] 103	[21545] 102	[23605] 101
76 [20]	[1971] 152	[4184] 146	[6377] 142	[8586] 139	[10764] 137	[12916] 135	[15137] 133	[17295] 132	[19378] 131	[21434] 130	[23390] 128
91 [24]	[1918] 183	[4137] 176	[6325] 172	[8538] 169	[10715] 166	[12889] 164	[15073] 163	[17201] 161	[19396] 159	[21426] 159	[23357] 158
106 [28]	[1844] 208	[4088] 214	[6270] 202	[8474] 198	[10648] 195	[12859] 193	[14966] 192	[17131] 190	[19218] 188	[21166] 188	[23211] 183
121 [32]	[1785] 202	[3990] 246	[6204] 232	[8397] 228	[10600] 224	[12798] 221	[15029] 220	[17032] 218	[19073] 215	[21209] 212	[23281] 205
136 [36]	[1682] 190	[3906] 441	[6107] 690	[8318] 940	[10479] 1184	[12680] 1433	[14802] 1793	[16928] 2150	[19033] 2375	[21022] 2607	[23073] 2967
151 [40]	[1623] 183	[3812] 431	[6014] 680	[8227] 930	[10423] 1178	[12599] 1424	[14712] 1662	[16821] 1900	[18978] 2144	[20968] 2369	[23004] 2599
170 [45]	[1593] 180	[3733] 422	[5901] 667	[8107] 916	[10256] 1159	[12453] 1407	[14601] 1650	[16702] 1887	[18803] 2125	[20837] 2354	[23039] 2603
227 [60]	[1273] 44	[3369] 449	[5528] 625	[7547] 853	[9826] 1110	[11901] 1345	[14131] 1597	[15883] 1795	[18224] 2059	[20258] 2289	[22393] 2530
265 [70]	[3202] 362	[5365] 606	[7342] 829	[9666] 1092	[11731] 1325	[13928] 1574	[15659] 1769	[17991] 2033	[20012] 2261	[22199] 2508	[24331] 2797

677 cm³/r [41.3 in³/r]

	[500] 34	[1000] 69	[1500] 103	[2000] 138	[2500] 172	[3000] 207	[3500] 241	[4000] 276	[4500] 310
19 [5]	[2891] 327	[5874] 25	[8849] 23	[11879] 22	[14733] 20	[18029] 19	[21058] 18	[24108] 18	[26345] 17
30 [8]	[2946] 42	[5976] 39	[9040] 37	[12173] 36	[15193] 34	[18209] 33	[21319] 32	[24331] 31	[27149] 30
45 [12]	[2949] 333	[6045] 683	[9153] 1034	[12250] 1384	[15322] 1737	[18427] 2082	[21576] 2438	[24476] 2765	[27610] 3119
61 [16]	[2894] 327	[6012] 679	[9092] 1027	[12148] 1373	[15242] 1722	[18400] 2079	[21479] 2427	[24558] 2759	[27562] 3114
76 [20]	[2819] 318	[5936] 671	[9011] 1018	[12090] 1366	[15221] 1720	[18322] 2070	[21481] 2427	[24547] 2773	[27517] 3109
91 [24]	[2740] 310	[5846] 661	[8918] 1008	[11991] 1355	[15079] 1704	[18242] 2061	[21380] 2416	[24421] 2759	[27386] 3094
106 [28]	[2640] 298	[5757] 650	[8843] 999	[11891] 1344	[14926] 1686	[18030] 2037	[21241] 2400	[24273] 2742	[27183] 3071
121 [32]	[2511] 284	[5621] 635	[8715] 985	[11761] 1329	[14858] 1679	[18015] 2035	[21090] 2383	[24209] 2735	[27101] 3062
136 [36]	[2364] 267	[5508] 622	[8581] 969	[11666] 1318	[14749] 1666	[17898] 2022	[20993] 2372	[24048] 2717	[26990] 3050
151 [40]	[2257] 255	[5398] 610	[8498] 960	[11591] 1310	[14680] 1659	[17844] 2016	[20981] 2371	[24035] 2716	[26911] 3041
170 [45]	[2134] 241	[5193] 587	[8294] 667	[11413] 1290	[14489] 1637	[17596] 2019	[20716] 2341	[23818] 2697	[26687] 3015
227 [60]	[1608] 182	[4641] 524	[7692] 869	[10865] 1228	[13773] 1556	[16854] 1904	[20139] 2275	[22970] 2595	[25908] 2927
265 [70]	[4381] 495	[7434] 840	[10596] 1197	[13519] 1527	[16589] 1874	[19870] 2245	[22709] 2566	[25603] 2893	[28342] 342

Two-speed hydraulic circuit

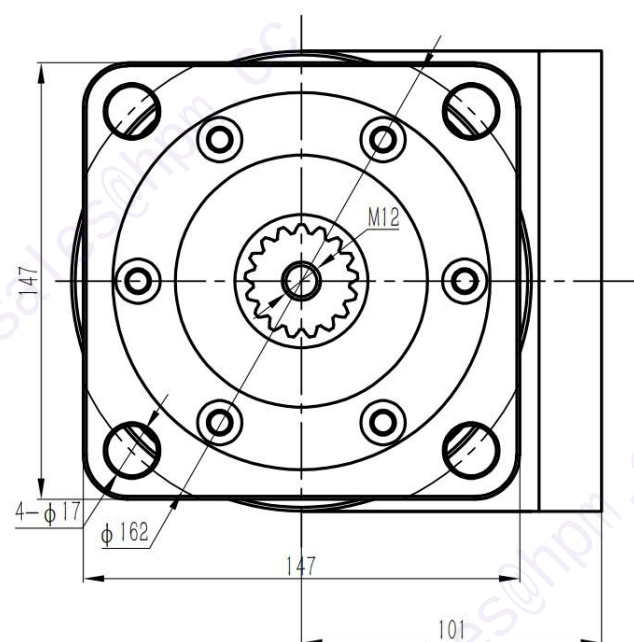
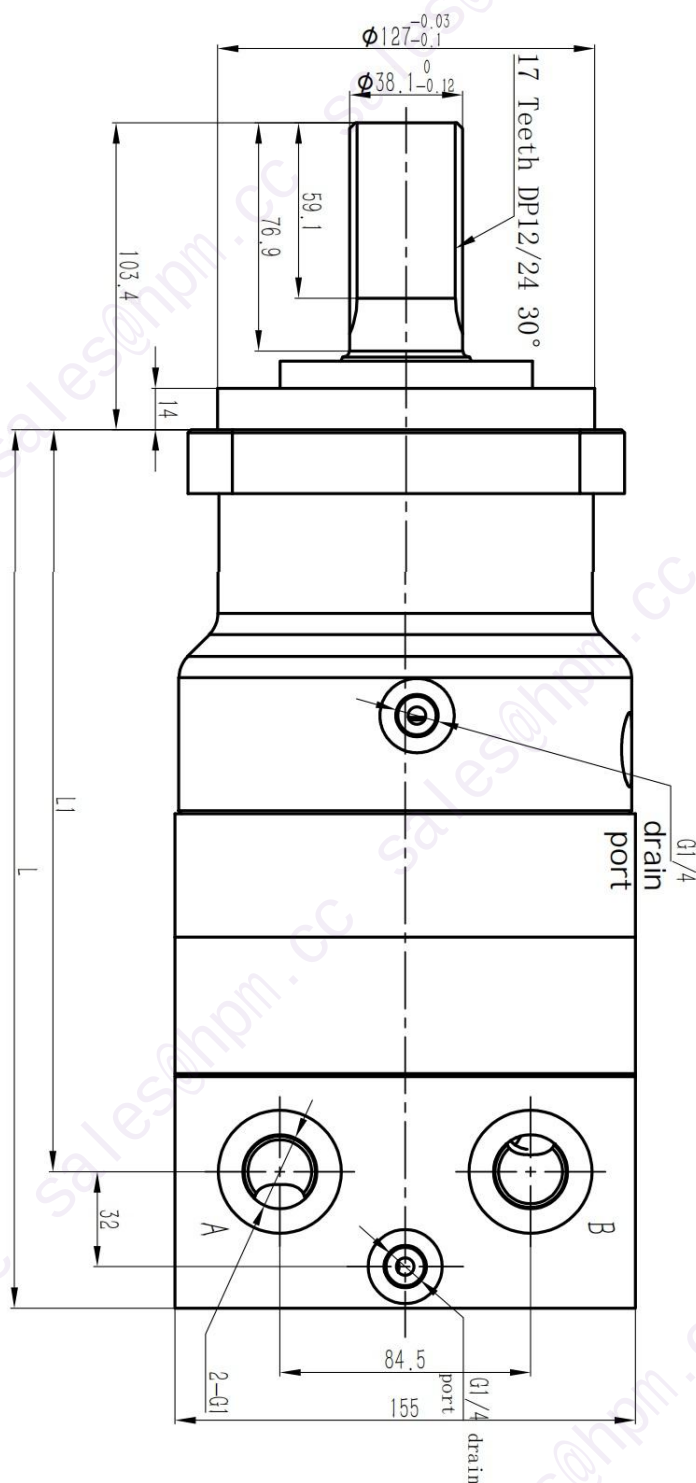


HHP30 Series hydraulic orbit motor



Popular model drawing

HHP30-S1 Single speed



Type	HHP30 -344	HHP30 -400	HHP30 -434	HHP30 -480	HHP30 -677
Displacement (cm³/r)	344	400	434	480	677
Flow (lpm)	Continuous	170	170	170	170
	Low speed	265	265	265	265
Speed(rpm)	High speed	770	663	610	552
	Low speed	495	426	392	355
Pressure drop (Mpa)	Continuous	31	31	31	25
	Intermittent	34.5	34.5	34.5	29
Torque (N•m)	Continuous	1164	1876	2037	2252
	Intermittent	1764	2084	2263	2503

HHP30 Series hydraulic orbit motor



Popular model drawing

HHP30-S2 Two speed

