

OVERVIEW

The WM product line with spool valve design is an economical motor with enhanced rotor technology. Intended for light-duty applications, the WM series offers many advantages such as compact size, high speed, medium torque and extreme low weight. The WM series motors are used primarily in the mobile, industrial and agricultural markets.

FEATURES / BENEFITS

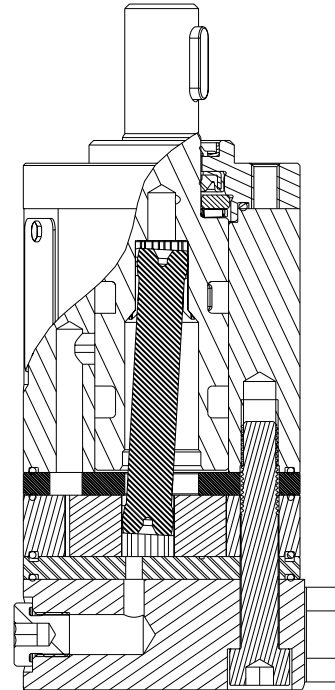
- Built-in check valves offer versatility and increased seal life.
- Bolt-on mounting flange relates to easy serviceability.
- Spool valve design gives superior performance and smooth operation over a wide speed and torque range.
- Enhanced rotor design provides smooth performance, compact volume and low weight.

TYPICAL APPLICATIONS

agriculture equipment, conveyors, carwashes, sweepers, food processing, grain augers, spreaders, feed rollers, augers, brush drives and more

SERIES DESCRIPTIONS

125/126 - Hydraulic Mini Motor
Standard



SPECIFICATIONS

CODE	Displacement cm ³ [in ³ /rev]	Max. Speed rpm		Max. Flow lpm [gpm]		Max. Torque Nm [lb-in]		Max. Pressure bar [psi]		
		cont.	inter.	cont.	inter.	cont.	inter.	cont.	inter.	peak
008	8.4 [0.5]	1864	2293	16 [4]	20 [5]	11 [97]	14 [124]	100 [1450]	140 [2030]	200 [2900]
012	13.1 [0.8]	1521	1871	20 [5]	25 [7]	17 [150]	22 [195]	100 [1450]	140 [2030]	200 [2900]
020	20.1 [1.2]	989	1229	20 [5]	25 [7]	26 [230]	34 [301]	100 [1450]	140 [2030]	200 [2900]
032	31.8 [1.9]	622	767	20 [5]	25 [7]	40 [354]	55 [487]	100 [1450]	140 [2030]	160 [2320]
040	40.2 [2.5]	495	620	20 [5]	25 [7]	49 [434]	64 [566]	100 [1450]	140 [2030]	160 [2320]
050	50.3 [3.0]	397	487	20 [5]	25 [7]	59 [531]	81 [708]	100 [1450]	140 [2030]	160 [2320]

► Performance data is typical. Performance of production units varies slightly from one motor to another. Running at intermittent ratings should not exceed 10% of every minute of operation.

DISPLACEMENT PERFORMANCE

008		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
8 cm ³ [0.5 in ³] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				Theoretical rpm
		2 [0.5]	3 [25]	5 [44]	7 [62]	10 [89]	11 [97]	
Flow - lpm [gpm]	4 [1]	3 [25]	5 [44]	8 [71]	10 [89]	12 [106]	12 [106]	474
	8 [2]		5 [44]	7 [62]	10 [89]	12 [106]	14 [124]	949
	12 [3]		5 [41]	7 [62]	11 [97]	12 [106]	14 [124]	1423
	16 [4]		4 [35]	7 [58]	10 [89]	12 [106]	13 [115]	1898
	20 [5]		4 [35]	6 [53]	9 [80]	12 [106]	12 [106]	2372
		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>						
Rotor Width		Theoretical Torque - Nm [lb-in]						
3.3 [130]		4 [36]	7 [59]	9 [83]	13 [119]	17 [148]	19 [166]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						

012		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
13 cm ³ [0.8 in ³] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				Theoretical rpm
		3 [0.8]	5 [44]	8 [71]	11 [97]	16 [142]		
Flow - lpm [gpm]	5 [1.3]	6 [53]	9 [80]	12 [106]	17 [150]	19 [168]		383
	10 [2.6]	5 [44]	9 [80]	11 [97]	16 [142]	19 [168]	22 [195]	766
	15 [4.0]	4 [35]	8 [71]	11 [97]	16 [142]	18 [159]	21 [186]	1149
	20 [5.3]	3 [27]	6 [53]	10 [89]	14 [124]	17 [150]	21 [186]	1533
	25 [6.6]		5 [44]	9 [80]	13 [115]	17 [150]	19 [168]	1916
		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>						
Rotor Width		Theoretical Torque - Nm [lb-in]						
5.2 [205]		6 [55]	10 [92]	15 [129]	21 [184]	25 [221]	29 [257]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						

020		Pressure - bar [psi]			Max. Cont.		Max. Inter.	
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]	
20 cm ³ [1.2 in ³] / rev								
Max. Max. Inter. Cont.		Torque - Nm [lb-in], Speed rpm		Intermittent Ratings - 10% of Operation				Theoretical rpm
		3 [0.8]	8 [12]	13 [115]	13 [115]			
Flow - lpm [gpm]	5 [1.3]	8 [71]	13 [115]	18 [159]	25 [221]	31 [274]		248
	10 [2.6]	7 [62]	12 [106]	18 [159]	26 [230]	29 [257]	34 [301]	497
	15 [4.0]	6 [29]	12 [106]	18 [159]	25 [221]	29 [257]	34 [301]	745
	20 [5.3]	5 [44]	11 [97]	16 [142]	24 [212]	28 [248]	33 [292]	994
	25 [6.6]	4 [35]	10 [89]	14 [124]	22 [195]	26 [230]	31 [274]	1242
		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>						
Rotor Width		Theoretical Torque - Nm [lb-in]						
8.0 [316]		10 [85]	16 [142]	22 [199]	32 [284]	38 [336]	45 [397]	
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]						

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 6.

DISPLACEMENT PERFORMANCE

032		Pressure - bar [psi]		Max. Cont.		Max. Inter.			
		30 [435]	50 [725]	70 [1015]	100 [1450]	120 [1740]	140 [2030]		
32 cm ³ [1.9 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation			
Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	12 [106] 84				94		
		5 [1.3]	12 [106] 148	21 [186] 139	28 [248] 113		157		
		10 [2.6]	12 [106] 301	20 [177] 293	28 [248] 284	39 [345] 269	46 [407] 254	55 [487] 234	314
		15 [4.0]	11 [97] 456	19 [168] 448	28 [248] 437	40 [354] 423	44 [389] 412	52 [460] 396	472
		20 [5.3]	9 [80] 622	18 [159] 610	26 [230] 601	38 [336] 589	42 [372] 547	51 [451] 514	629
		25 [6.6]	7 [62] 767	16 [142] 754	24 [212] 741	35 [310] 718	42 [372] 679	48 [425] 633	786
		Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>					
		Theoretical Torque - Nm [lb-in]							
		12.7 [501]		15 [134] 25 [224] 35 [314] 51 [448] 61 [538] 71 [627]					
		mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]					

040		Pressure - bar [psi]		Max. Cont.		Max. Inter.			
		30 [435]	50 [725]	70 [1015]	100 [1450]	130 [1885]	140 [2030]		
40 cm ³ [2.5 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation			
Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	15 [133] 71				75		
		5 [1.3]	16 [142] 116	25 [221] 110	33 [292] 102			124	
		10 [2.6]	16 [142] 238	24 [212] 237	35 [310] 224	47 [416] 209	54 [478] 167	64 [566] 142	249
		15 [4.0]	14 [124] 367	24 [212] 359	34 [301] 354	49 [434] 345	53 [469] 300	62 [549] 277	373
		20 [5.3]	11 [97] 495	22 [195] 487	33 [292] 479	48 [425] 465	52 [460] 434	59 [522] 416	498
		25 [6.6]	9 [80] 620	18 [159] 609	29 [257] 602	44 [389] 576	50 [443] 558	58 [513] 528	622
		Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>					
		Theoretical Torque - Nm [lb-in]							
		16.0 [631]		19 [170] 32 [283] 45 [397] 64 [567] 83 [736] 90 [793]					
		mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]					

050		Pressure - bar [psi]		Max. Cont.		Max. Inter.			
		30 [435]	50 [725]	70 [1015]	100 [1450]	125 [1815]	140 [2030]		
50 cm ³ [3.1 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation			
Max. Max. Inter. Cont.	Flow - lpm [gpm]	3 [0.8]	20 [178] 53				60		
		5 [1.3]	19 [169] 90	32 [284] 85	44 [391] 77			99	
		10 [2.6]	17 [151] 195	29 [257] 190	41 [364] 176	59 [524] 155	73 [348] 132	81 [719] 114	198
		15 [4.0]	13 [115] 297	25 [222] 289	38 [337] 279	55 [488] 257	68 [604] 236	77 [684] 220	298
		20 [5.3]	7 [62] 397	20 [178] 393	33 [293] 383	50 [444] 366	63 [559] 347	73 [648] 332	398
		25 [6.6]		14 [124] 487	26 [231] 485	44 [391] 472	57 [506] 457	65 [577] 445	497
		Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>					
		Theoretical Torque - Nm [lb-in]							
		20.0 [787]		23 [334] 39 [566] 55 [798] 79 [1146] 99 [1436] 111 [1610]					
		mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]					

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 6.

HOUSINGS

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

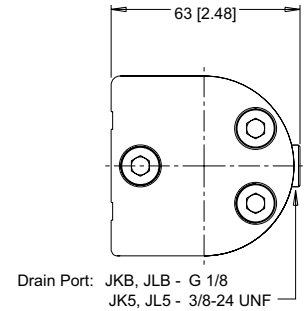
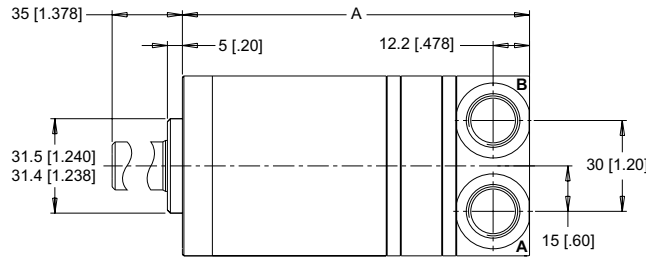
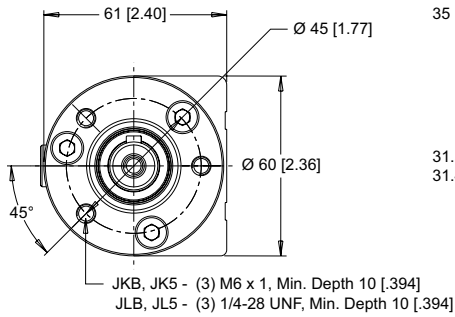
3-HOLE, ROUND MOUNT, ALIGNED SIDE PORTS

JKB G 3/8

JK5 9/16-18 UNF

JLB G 3/8

JL5 9/16-18 UNF



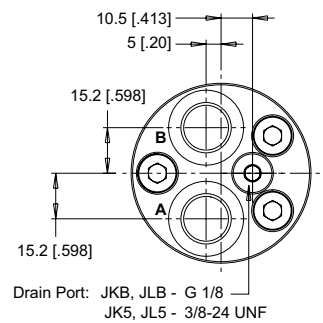
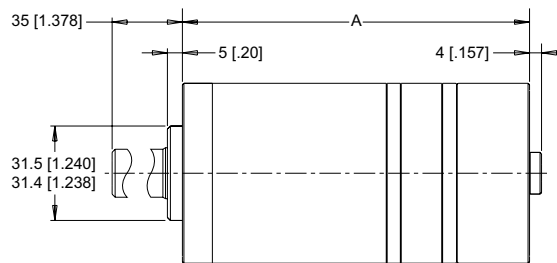
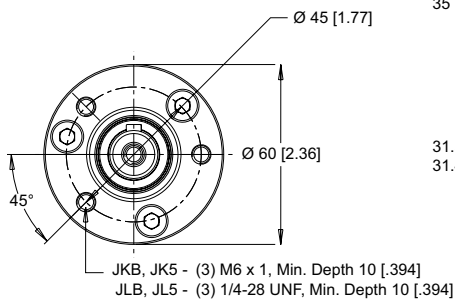
3-HOLE, ROUND MOUNT, ALIGNED END PORTS

JMB G 3/8

JM5 9/16-18 UNF

JNB G 3/8

JN5 9/16-18 UNF

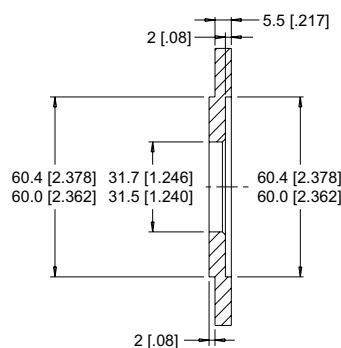
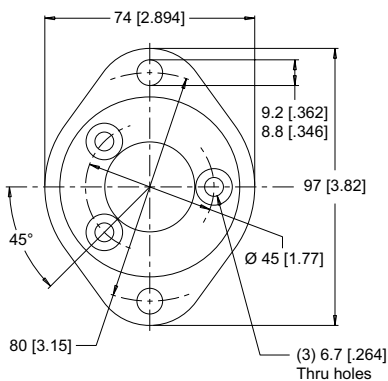


2-HOLE FLANGE MOUNTING KIT (OPTIONAL)

LENGTH & WEIGHT CHART

Dimension A is the overall motor length from the rear of the motor to the mounting flange surface and is referenced on detailed housing drawings above.

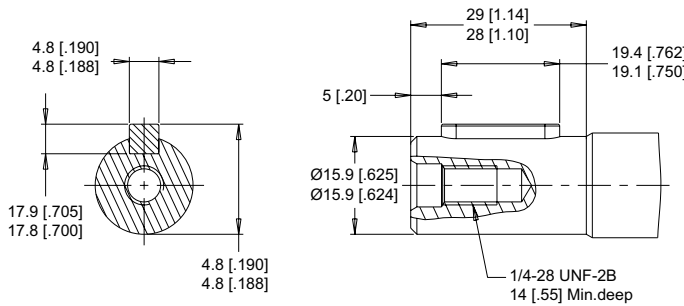
A	Length	Weight
#	mm [in]	kg [lb]
008	106 [4.16]	2.2 [4.8]
012	108 [4.23]	2.2 [4.9]
020	110 [4.34]	2.3 [5.0]
032	115 [4.53]	2.3 [5.1]
040	118 [4.66]	2.4 [5.2]
050	122 [4.80]	2.5 [5.5]



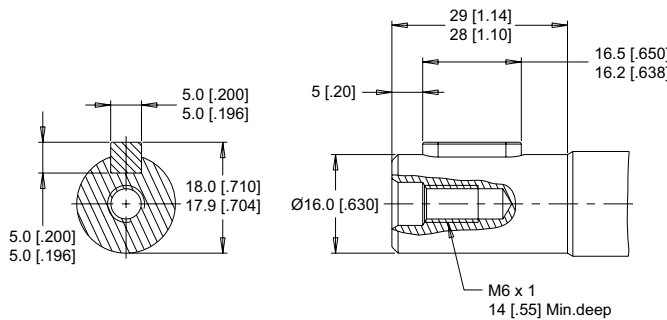
► Reference part number 125017004 when ordering the 2-Hole flange mounting kit. The kit contains three M6 and three 1/4" bolts to accommodate either thread type. The recommended mounting flange bolt torque is 10 ±1 Nm [88.5 ±9 lb-in].

SHAFT & TECHNICAL INFORMATION

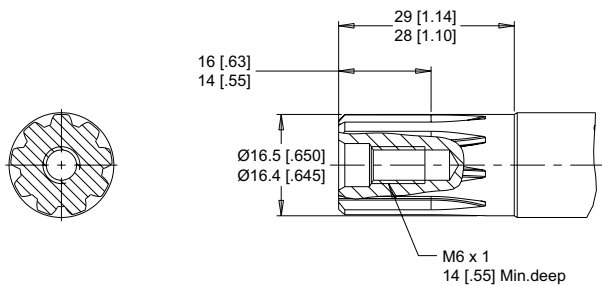
C3 5/8" Straight



C4 16mm Straight

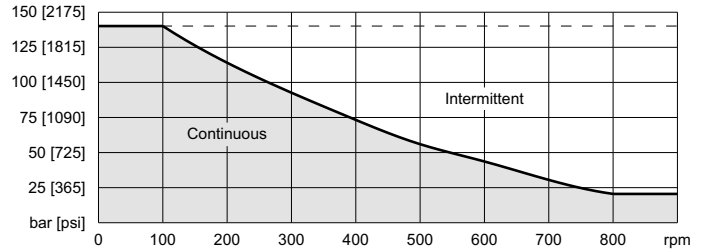


C5 16mm, 9 Tooth Spline

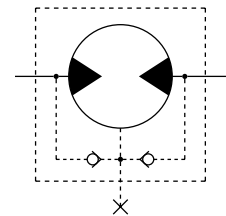


PERMISSIBLE SHAFT SEAL PRESSURE

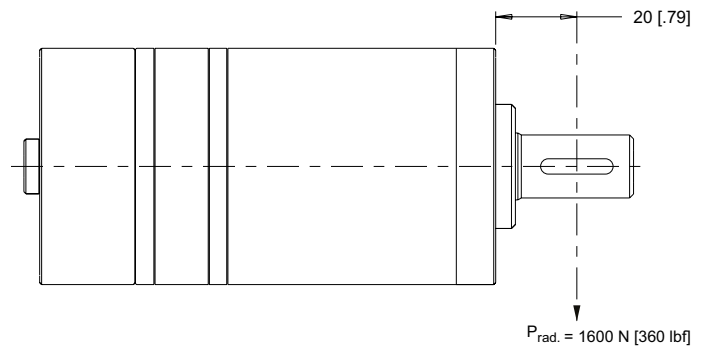
The curve below represents allowable seal pressure at various speeds. Operation in the gray area results in maintaining the rated life of the shaft seal. Actual shaft seal pressure depends on motor configuration.



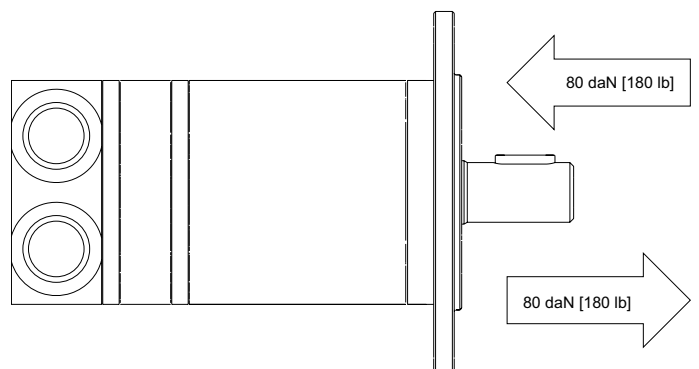
▶ With check valves and drain connection, the shaft seal pressure equals pressure in the drain line. With check valves and no drain connection, shaft seal pressure is identical to output pressure.



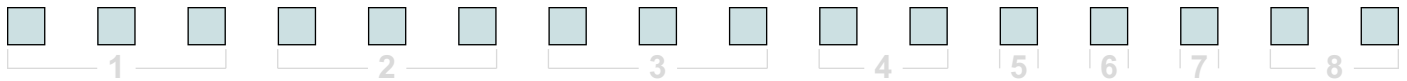
PERMISSIBLE SHAFT SIDE LOAD / AXIAL LOAD



THRUST LOAD



125 & 126 SERIES MODEL CODE BUILDER



1. CHOOSE SERIES DESIGNATION

125 Standard Rotation **126** Reverse Rotation

► The 125 & 126 series are bi-directional.

2. SELECT A DISPLACEMENT OPTION

008	8 cm ³ /rev	[0.5 in ³ /rev]	032	32 cm ³ /rev	[1.9 in ³ /rev]
012	13 cm ³ /rev	[0.8 in ³ /rev]	040	40 cm ³ /rev	[2.5 in ³ /rev]
020	20 cm ³ /rev	[1.2 in ³ /rev]	050	50 cm ³ /rev	[3.1 in ³ /rev]

3. SELECT A MOUNT & PORT OPTION

JKB	3-Hole, M6 Round Mount, Side Ports, G 3/8
JK5	3-Hole, M6 Round Mount, Side Ports, 9/16-18 UNF
JLB	3-Hole, 1/4" Round Mount, Side Ports, G 3/8
JL5	3-Hole, 1/4" Round Mount, Side Ports, 9/16-18 UNF
JMB	3-Hole, M6 Round Mount, End Ports, G 3/8
JM5	3-Hole, M6 Round Mount, End Ports, 9/16-18 UNF
JNB	3-Hole, 1/4" Round Mount, End Ports, G 3/8
JN5	3-Hole, 1/4" Round Mount, End Ports, 9/16-18 UNF

4. SELECT A SHAFT OPTION

C3	5/8" Straight	C5	16mm, 9 Tooth Spline
C4	16mm Straight		

5. SELECT A PAINT OPTION

A	Black
B	Black, Unpainted Mounting Surface

6. SELECT A VALVE CAVITY / CARTRIDGE OPTION

A	None
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7. SELECT AN ADD-ON OPTION

A	Standard
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8. SELECT A MISCELLANEOUS OPTION

AA	None
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OVERVIEW

The WD motor series is an economical solution for light duty applications requiring high torque. It has a smaller outline yet still provides high efficiency across a wide performance range. Its integral check valves and a provision for a case drain reduce pressure on internal seals to improve product life. The compact package is suitable for industrial and mobile applications including car wash brushes, food processing equipment, conveyors, machine tools, agricultural equipment, sweepers, skid steer attachments, and more.

FEATURES / BENEFITS

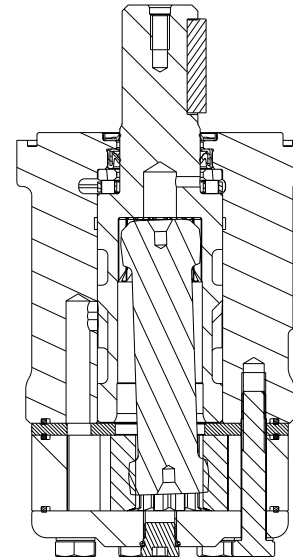
- Built-in check valves offer versatility and increased seal life.
- A variety of mounts and shafts provide flexibility in application design.
- Spool valve design gives superior performance and smooth operation over a wide speed and torque range.
- Integral rotor design provides smooth performance, compact volume and low weight.
- Low port profiling is suitable for applications with limited space.

TYPICAL APPLICATIONS

agriculture equipment, conveyors, carwashes, sweepers, food processing, grain augers, spreaders, feed rollers, augers, brush drives and more

SERIES DESCRIPTIONS

145/146 - Hydraulic Motor
Standard



SPECIFICATIONS

CODE	Displacement cm ³ [in ³ /rev]	Max. Speed rpm		Max. Flow lpm [gpm]		Max. Torque Nm [lb-in]		Max. Pressure bar [psi]		
		cont.	inter.	cont.	inter.	cont.	inter.	cont.	inter.	peak
025	24.6 [1.5]	1361	1502	35 [9]	40 [11]	34 [301]	47 [416]	100 [1450]	140 [2030]	225 [3260]
032	30.8 [1.9]	1244	1388	40 [11]	45 [12]	42 [372]	57 [505]	100 [1450]	140 [2030]	225 [3260]
040	39.7 [2.4]	1124	1312	45 [12]	53 [14]	66 [584]	79 [699]	124 [1800]	155 [2250]	225 [3260]
050	48.2 [2.9]	900	1012	45 [12]	53 [14]	91 [805]	114 [1009]	138 [2000]	173 [2500]	225 [3260]
060	59.4 [3.6]	880	970	53 [14]	60 [16]	110 [974]	136 [1204]	138 [2000]	173 [2500]	225 [3260]
080	79.6 [4.9]	752	934	60 [16]	75 [20]	141 [1248]	175 [1549]	138 [2000]	173 [2500]	225 [3260]
100	96.0 [5.9]	628	786	60 [16]	75 [20]	170 [1505]	220 [1947]	138 [2000]	173 [2500]	225 [3260]
125	122.8 [7.5]	483	604	60 [16]	75 [20]	225 [1991]	274 [2425]	138 [2000]	173 [2500]	225 [3260]
160	158.0 [9.6]	383	479	60 [16]	75 [20]	284 [2513]	345 [3054]	138 [2000]	173 [2500]	225 [3260]
200	196.5 [12.0]	308	384	60 [16]	75 [20]	312 [2761]	411 [3638]	124 [1800]	166 [2400]	225 [3260]
250	240.5 [14.7]	248	312	60 [16]	75 [20]	317 [2806]	450 [3983]	103 [1500]	155 [2250]	225 [3260]
315	303.2 [18.5]	199	250	60 [16]	75 [20]	396 [3505]	576 [5098]	103 [1500]	155 [2250]	200 [2900]
400	385.8 [23.5]	150	189	60 [16]	75 [20]	480 [4248]	582 [5151]	97 [1400]	121 [1750]	180 [2610]

► Performance data is typical. Performance of production units varies slightly from one motor to another. Running at intermittent ratings should not exceed 10% of every minute of operation.

DISPLACEMENT PERFORMANCE

025		Pressure - bar [psi]			Max. Cont.		Max. Inter.		
		30 [435]	60 [870]	80 [1160]	100 [1450]	120 [1740]	140 [2030]		
25 cm ³ [1.5 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation			
Max. Max. Inter. Cont.	Flow - lpm [gpm]	5 [1.3]	9 [80] 186	18 [159] 167	25 [221] 138	32 [283] 115	35 [310] 106		203
		10 [2.6]	9 [80] 388	20 [177] 350	26 [230] 316	34 [301] 285	37 [327] 255	46 [407] 217	407
		15 [4.0]	8 [71] 568	19 [168] 536	27 [239] 206	33 [292] 485	38 [336] 447	47 [416] 402	610
		20 [5.3]	8 [71] 780	19 [168] 736	26 [230] 688	33 [292] 658	38 [336] 628	47 [416] 598	813
		25 [6.6]	7 [62] 970	18 [159] 922	26 [230] 885	33 [292] 855	37 [327] 830	46 [407] 780	1016
		30 [7.9]	6 [53] 1172	16 [142] 1120	24 [212] 1086	32 [283] 1046	36 [319] 1026	45 [398] 981	1220
		35 [9.2]	5 [44] 1361	13 [115] 1318	22 [195] 1285	30 [266] 1248	36 [319] 1212	43 [381] 1172	1423
		40 [10.6]		11 [97] 1502	20 [177] 1477	28 [248] 1439	35 [310] 1404	42 [372] 1365	1626
				Rotor Width					
		4.1 [1.60] mm [in]							
		Theoretical Torque - Nm [lb-in]							
		12 [104] 24 [208] 31 [277] 39 [347] 47 [416] 55 [485]							
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]							

032		Pressure - bar [psi]			Max. Cont.		Max. Inter.		
		30 [435]	60 [870]	80 [1160]	100 [1450]	120 [1740]	140 [2030]		
31 cm ³ [1.9 in ³] / rev									
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation			
Max. Max. Inter. Cont.	Flow - lpm [gpm]	5 [1.3]	12 [106] 150	24 [212] 133	32 [283] 100	40 [354] 68			162
		10 [2.6]	12 [106] 300	25 [221] 276	33 [292] 253	42 [372] 236	48 [425] 203	55 [487] 186	325
		15 [4.0]	11 [97] 460	24 [212] 433	33 [292] 415	42 [372] 398	49 [434] 375	57 [504] 346	487
		20 [5.3]	9 [80] 616	24 [212] 586	32 [283] 566	41 [363] 543	49 [434] 520	56 [496] 500	649
		25 [6.6]	8 [71] 780	23 [204] 754	32 [283] 736	40 [354] 712	48 [425] 688	56 [496] 658	812
		30 [7.9]	7 [62] 928	22 [195] 910	31 [274] 882	40 [354] 860	47 [416] 824	56 [496] 806	974
		35 [9.2]	7 [62] 1090	21 [186] 1077	31 [274] 1057	38 [336] 1035	46 [407] 1008	55 [487] 980	1136
		40 [10.6]	6 [53] 1244	19 [168] 1214	29 [257] 1198	37 [327] 1177	46 [407] 1155	54 [478] 1130	1299
		45 [11.9]		17 [150] 1388	28 [248] 1362	37 [327] 1342	45 [398] 1326	54 [478] 1300	1461
		Rotor Width							
		5.1 [2.00] mm [in]							
		Theoretical Torque - Nm [lb-in]							
		15 [130] 29 [260] 39 [347] 49 [434] 59 [521] 69 [608]							
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]							

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DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]					Max. Cont.	Max. Inter.			
040		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	155 [2250]			
40 cm ³ [2.4 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Max. Max. Inter. Cont.	Flow - lpm [gpm]	8 [2]	15 [4]	23 [6]	30 [8]	38 [10]	45 [12]	53 [14]			Theoretical rpm
		10 [89]	20 [177]	29 [257]	40 [354]					191	
		11 [97]	21 [186]	31 [274]	43 [381]	54 [478]	65 [575]	78 [690]		380	
		10 [89]	20 [177]	32 [283]	42 [372]	53 [469]	66 [584]	79 [699]		572	
		7 [62]	19 [168]	31 [274]	41 [363]	52 [460]	64 [566]	78 [690]		763	
		6 [53]	16 [142]	30 [266]	40 [354]	51 [451]	62 [549]	77 [681]		955	
		3 [27]	14 [124]	28 [248]	38 [336]	49 [434]	60 [531]	76 [673]		1144	
		14 [124]	25 [221]	38 [336]	48 [425]	60 [531]	76 [673]		1335		
Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Theoretical Torque - Nm [lb-in]											
6.6 [260]		13 [117]	26 [229]	39 [347]	52 [464]	65 [576]	78 [694]	98 [867]			
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

		Pressure - bar [psi]					Max. Cont.	Max. Inter.			
050		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]		
48 cm ³ [2.9 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Max. Max. Inter. Cont.	Flow - lpm [gpm]	8 [2]	15 [4]	23 [6]	30 [8]	38 [10]	45 [12]	53 [14]			Theoretical rpm
		14 [124]	26 [230]	40 [354]	55 [354]	65 [575]	82 [726]	88 [779]		158	
		14 [124]	27 [239]	42 [372]	56 [381]	67 [593]	83 [735]	89 [788]	114 [1009]	313	
		12 [106]	24 [212]	41 [363]	54 [372]	68 [602]	84 [743]	91 [805]	112 [991]	471	
		9 [80]	21 [186]	38 [336]	52 [363]	65 [575]	81 [717]	88 [779]	110 [974]	629	
		2 [18]	19 [168]	37 [327]	51 [354]	63 [558]	77 [681]	85 [752]	107 [947]	786	
			17 [150]	33 [292]	46 [336]	60 [531]	73 [646]	83 [735]	105 [929]	942	
		28 [248]	42 [336]	58 [513]	70 [620]	80 [708]	100 [885]		1100		
Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Theoretical Torque - Nm [lb-in]											
6.6 [260]		16 [143]	31 [278]	48 [422]	64 [564]	79 [700]	95 [842]	106 [937]	133 [1175]		
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

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060		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]		
59 cm ³ [3.6 in ³] / rev											
		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Max. Max. Inter. Cont.	Flow - lpm [gpm]	8 [2]	17 [150] 122	30 [266] 119	46 [407] 113	63 [558] 107	82 [726] 94	99 [876] 77	109 [965] 65		Theoretical rpm
		15 [4]	16 [142] 247	32 [283] 243	48 [425] 236	65 [575] 223	82 [726] 209	102 [903] 192	110 [974] 180	136 [1204] 142	
		23 [6]	15 [133] 371	29 [257] 367	47 [416] 360	66 [584] 347	81 [717] 330	99 [876] 315	107 [947] 304	135 [1195] 266	
		30 [8]	12 [106] 496	26 [230] 492	44 [389] 484	62 [549] 470	79 [699] 457	96 [850] 436	105 [929] 425	130 [1151] 386	
		38 [10]	8 [71] 626	23 [204] 618	40 [354] 608	60 [531] 596	77 [681] 582	94 [832] 567	104 [920] 558	128 [1133] 500	
		45 [12]	2 [18] 752	20 [177] 744	37 [327] 735	58 [513] 727	75 [664] 716	91 [805] 696	100 [885] 680	127 [1124] 628	
		53 [14]		15 [133] 880	31 [274] 870	48 [425] 862	71 [628] 847	87 [770] 830	97 [858] 800	121 [1071] 740	
		61 [16]		8 [71] 970	27 [239] 958	45 [398] 944	64 [566] 932	82 [726] 924	93 [823] 902	117 [1035] 842	
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>											
Rotor Width		Theoretical Torque - Nm [lb-in]									
8.0 [314]		20 [176]	39 [343]	59 [520]	79 [695]	97 [862]	117 [1038]	131 [1155]	164 [1448]		
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

080		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]		
80 cm ³ [4.9 in ³] / rev											
		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Max. Max. Inter. Cont.	Flow - lpm [gpm]	8 [2]	22 [195] 90	42 [372] 85	61 [540] 78	82 [726] 70	102 [903] 62	124 [1097] 52	138 [1221] 42		Theoretical rpm
		15 [4]	20 [177] 187	43 [381] 182	62 [549] 176	84 [743] 167	107 [947] 154	128 [1133] 143	141 [1248] 136	171 [1513] 112	
		23 [6]	19 [168] 286	41 [363] 276	63 [558] 268	83 [735] 257	104 [920] 248	125 [1106] 237	139 [1230] 227	175 [1549] 202	
		30 [8]	13 [115] 378	38 [336] 372	61 [540] 364	82 [726] 354	102 [903] 342	124 [1097] 334	137 [1212] 324	174 [1540] 297	
		38 [10]	8 [71] 474	35 [310] 469	58 [513] 460	80 [708] 448	101 [894] 440	123 [1089] 430	135 [1195] 416	165 [1460] 370	
		45 [12]	2 [18] 564	29 [257] 558	55 [487] 550	75 [664] 540	100 [885] 530	121 [1071] 519	133 [1177] 504	163 [1443] 472	
		53 [14]		26 [230] 662	48 [425] 658	70 [620] 648	96 [850] 637	115 [1018] 633	130 [1151] 609	161 [1425] 576	
		61 [16]		20 [177] 752	44 [389] 734	68 [602] 724	85 [752] 716	105 [929] 700	123 [1089] 690	154 [1363] 663	
76 [20]		11 [97] 934	32 [283] 929	54 [478] 914	74 [655] 904	94 [832] 890	108 [956] 876	148 [1310] 814			
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>											
Rotor Width		Theoretical Torque - Nm [lb-in]									
10.4 [410]		27 [236]	52 [460]	79 [697]	105 [931]	131 [1155]	157 [1391]	175 [1548]	219 [1941]		
mm [in]		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

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		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
100		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]		
96 cm ³ [5.9 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Flow - lpm [gpm]	8 [2]	28 [248] 76	57 [504] 71	82 [726] 65	108 [956] 54	132 [1168] 45	158 [1398] 33			79	
	15 [4]	25 [221] 154	56 [496] 147	80 [708] 140	106 [938] 132	130 [1151] 122	155 [1372] 113	165 [1460] 104	205 [1814] 84	157	
	23 [6]	23 [204] 235	50 [443] 226	76 [673] 219	104 [920] 212	128 [1133] 203	153 [1354] 193	170 [1505] 185	212 [1876] 162	236	
	30 [8]	19 [168] 313	47 [416] 307	74 [655] 299	104 [894] 291	125 [1106] 281	152 [1345] 270	167 [1478] 264	220 [1947] 240	316	
	38 [10]	15 [133] 392	43 [381] 389	71 [628] 384	97 [858] 375	122 [1080] 364	149 [1319] 353	167 [1478] 346	218 [1929] 314	395	
	45 [12]	11 [97] 470	37 [327] 465	70 [620] 458	94 [832] 449	120 [1062] 437	147 [1301] 429	162 [1434] 426	210 [1859] 398	473	
	53 [14]		33 [292] 550	60 [531] 545	87 [770] 532	118 [1044] 518	143 [1266] 510	160 [1416] 500	207 [1832] 473	552	
	61 [16]		27 [239] 628	55 [487] 622	82 [726] 611	114 [1009] 598	139 [1230] 584	150 [1328] 575	196 [1732] 552	631	
	76 [20]			37 [327] 786	67 [593] 770	93 [823] 758	123 [1089] 732	138 [1221] 716	190 [1682] 670	789	
	Max. Max. Inter. Cont.										
Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
13.0 [510] mm [in]		Theoretical Torque - Nm [lb-in]									
		32 [284]	63 [555]	95 [840]	127 [1123]	157 [1393]	190 [1678]	211 [1867]	264 [2340]		
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
125		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]		
123 cm ³ [7.5 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Flow - lpm [gpm]	8 [2]	31 [274] 60	64 [566] 57	102 [903] 54	136 [1204] 48	161 [1425] 44	193 [1708] 38	220 [1947] 34		62	
	15 [4]	30 [266] 120	63 [558] 118	101 [894] 115	138 [1221] 109	168 [1487] 102	201 [1779] 94	225 [1991] 87	274 [2425] 61	123	
	23 [6]	30 [266] 183	62 [549] 179	99 [876] 175	137 [1212] 170	167 [1478] 165	202 [1788] 155	223 [1974] 148	272 [2407] 126	185	
	30 [8]	28 [248] 242	59 [522] 240	96 [850] 237	134 [1186] 233	165 [1460] 228	199 [1761] 219	220 [1947] 205	269 [2381] 174	247	
	38 [10]	22 [195] 301	54 [478] 299	93 [823] 295	130 [1151] 289	161 [1425] 282	191 [1690] 275	215 [1903] 265	263 [2328] 244	309	
	45 [12]	15 [133] 362	48 [425] 360	86 [761] 356	124 [1097] 351	156 [1381] 345	184 [1628] 340	209 [1850] 329	257 [2274] 301	370	
	53 [14]	9 [80] 424	41 [363] 422	80 [708] 419	117 [1035] 415	149 [1319] 410	176 [1558] 386	204 [1805] 376	243 [2151] 342	432	
	61 [16]	2 [18] 483	32 [283] 477	70 [620] 470	104 [920] 463	136 [1204] 454	165 [1460] 444	194 [1717] 437	233 [2062] 412	493	
	76 [20]		15 [133] 604	48 [425] 595	82 [726] 584	122 [1080] 573	153 [1354] 565	178 [1575] 556	224 [1982] 526	616	
	Max. Max. Inter. Cont.										
Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
16.8 [660] mm [in]		Theoretical Torque - Nm [lb-in]									
		41 [363]	80 [710]	121 [1075]	162 [1436]	201 [1782]	242 [2146]	270 [2388]	338 [2994]		
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]									

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160		Pressure - bar [psi]					Max. Cont.		Max. Inter.	
		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	138 [2000]	173 [2500]	
158 cm ³ [9.6 in ³] / rev										
Flow - lpm [gpm]		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation			
		42 [372]	88 [779]	120 [1062]	168 [1487]	210 [1859]	246 [2177]			
Max. Max. Inter. Cont.	8 [2]	47	45	42	36	28	20			48
	15 [4]	39 [345]	85 [752]	125 [1106]	170 [1505]	211 [1867]	251 [2221]	284 [2513]	345 [3053]	96
	23 [6]	38 [336]	79 [699]	123 [1089]	168 [1487]	209 [1850]	248 [2195]	275 [2434]	351 [3106]	144
	30 [8]	33 [292]	74 [655]	118 [1044]	164 [1451]	207 [1832]	245 [2168]	270 [2390]	338 [2991]	192
	38 [10]	14 [124]	59 [522]	105 [929]	150 [1328]	192 [1699]	233 [2062]	253 [2239]	307 [2717]	240
	45 [12]	5 [44]	50 [443]	92 [814]	140 [1239]	188 [1664]	217 [1920]	242 [2142]	298 [2637]	287
	53 [14]	238	236	233	229	224	218	205	183	335
	61 [16]	287	285	283	281	276	270	261	235	384
76 [20]	5 [44]	50 [443]	92 [814]	140 [1239]	188 [1664]	217 [1920]	242 [2142]	298 [2637]	479	
	335	334	332	329	324	319	311	281		
		35 [310]	75 [664]	120 [1062]	160 [1416]	205 [1814]	233 [2062]	289 [2558]		
		383	382	378	372	363	358	333		
		12 [106]	55 [487]	92 [814]	135 [1195]	183 [1620]	204 [1805]	276 [2443]		
		479	478	475	469	460	455	434		
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>										
Theoretical Torque - Nm [lb-in]										
Rotor Width		53 [468]	103 [913]	156 [1380]	209 [1848]	259 [2293]	312 [2761]	347 [3073]	435 [3852]	
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]								
20.8 [820]		mm [in]								

200		Pressure - bar [psi]					Max. Cont.		Max. Inter.	
		21 [300]	41 [600]	62 [900]	83 [1200]	103 [1500]	124 [1800]	166 [2400]		
197 cm ³ [12.0 in ³] / rev										
Flow - lpm [gpm]		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation			
		52 [460]	109 [965]	164 [1451]	218 [1929]					
Max. Max. Inter. Cont.	8 [2]	38	35	30	23					39
	15 [4]	50 [443]	112 [991]	167 [1478]	220 [1947]	270 [2390]	310 [2744]			77
	23 [6]	48 [425]	110 [974]	165 [1460]	218 [1929]	274 [2425]	312 [2761]	411 [3637]		116
	30 [8]	46 [407]	102 [903]	159 [1407]	216 [1912]	268 [2372]	303 [2682]	406 [3593]		154
	38 [10]	36 [319]	92 [814]	151 [1336]	206 [1823]	258 [2283]	290 [2567]	398 [3522]		193
	45 [12]	22 [195]	80 [708]	142 [1257]	193 [1708]	236 [2089]	282 [2496]	386 [3416]		231
	53 [14]	230	226	223	218	210	200	167		270
	61 [16]	5 [44]	70 [620]	130 [1151]	176 [1558]	215 [1903]	272 [2407]	374 [3310]		308
76 [20]	268	266	262	258	250	240	209		385	
		58 [513]	118 [1044]	156 [1381]	198 [1752]	253 [2239]	360 [3186]			
		308	305	299	292	284	256			
		42 [372]	88 [779]	124 [1097]	173 [1531]	220 [1947]	328 [2903]			
		384	381	376	372	358	330			
Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>										
Theoretical Torque - Nm [lb-in]										
Rotor Width		66 [582]	128 [1135]	194 [1717]	260 [2298]	322 [2852]	388 [3434]	519 [4597]		
		Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]								
25.9 [1.020]		mm [in]								

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DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
250		21 [300]	41 [600]	62 [900]	83 [1200]	97 [1400]	103 [1500]	138 [2000]	155 [2250]		
241 cm ³ [14.7 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Flow - lpm [gpm]	8 [2]	58 [513] 31	118 [1044] 30	193 [1708] 28	259 [2292] 23	300 [2655] 19				32	Theoretical rpm
	15 [4]	61 [540] 62	122 [1080] 61	190 [1682] 58	254 [2248] 55	302 [2673] 51	317 [2805] 47	414 [2513] 38	450 [3983] 27	63	
	23 [6]	58 [513] 94	116 [1027] 93	185 [1637] 92	250 [2213] 87	295 [2611] 83	308 [2726] 81	412 [2434] 67	446 [3947] 57	94	
	30 [8]	51 [451] 125	112 [991] 124	178 [1575] 121	245 [2168] 117	290 [2567] 113	304 [2690] 110	406 [2390] 97	439 [3885] 88	126	
	38 [10]	40 [354] 158	98 [867] 156	169 [1496] 155	236 [2089] 151	284 [2513] 147	298 [2637] 145	390 [2319] 136	429 [3797] 121	158	
	45 [12]	29 [257] 188	83 [735] 187	156 [1381] 186	230 [2036] 184	277 [2451] 180	282 [2496] 176	372 [2239] 164	414 [3664] 150	189	
	53 [14]	22 [195] 220	67 [593] 219	138 [1221] 217	214 [1894] 214	262 [2319] 211	260 [2301] 209	355 [2142] 194	395 [3496] 181	220	
	61 [16]		52 [460] 248	123 [1089] 244	190 [1682] 241	233 [2062] 237	244 [2159] 235	335 [2062] 223	376 [3328] 210	252	
76 [20]		24 [212] 312	84 [743] 309	165 [1460] 305	202 [1788] 302	208 [1841] 300	298 [1805] 285	335 [2965] 268	315		
Max. Max. Inter. Cont.		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Rotor Width		Theoretical Torque - Nm [lb-in]									
32.5 [1.280] mm [in]		80 [712]	157 [1390]	237 [2101]	318 [2813]	371 [3288]	394 [3491]	528 [4677]	594 [5253]		
Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]											

		Pressure - bar [psi]					Max. Cont.		Max. Inter.		
315		21 [300]	41 [600]	62 [900]	90 [1300]	103 [1500]	138 [2000]	155 [2250]			
303 cm ³ [18.5 in ³] / rev		Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation				
Flow - lpm [gpm]	8 [2]	88 [779] 25	174 [1540] 22	255 [2257] 20						25	Theoretical rpm
	15 [4]	89 [788] 49	170 [1505] 47	263 [2328] 43	352 [3115] 35	396 [3505] 30				50	
	23 [6]	78 [690] 74	162 [1434] 72	246 [2177] 69	345 [3053] 59	392 [3469] 54	532 [4708] 33	576 [5098] 22		75	
	30 [8]	60 [531] 101	151 [1336] 98	240 [2124] 95	339 [3000] 90	386 [3416] 84	526 [4655] 65	566 [5009] 53		100	
	38 [10]	60 [531] 125	142 [1257] 123	230 [2036] 121	335 [2965] 115	380 [3363] 112	514 [4549] 90	558 [4938] 80		125	
	45 [12]	37 [327] 147	128 [1133] 146	220 [1947] 143	325 [2876] 139	370 [3275] 132	500 [4425] 118	536 [4744] 105		150	
	53 [14]	15 [133] 175	108 [956] 174	208 [1841] 171	318 [2814] 166	355 [3142] 160	486 [4301] 138	516 [4567] 127		175	
	61 [16]		88 [779] 199	196 [1735] 197	300 [2655] 187	340 [3009] 182	465 [4115] 166	494 [4372] 152		200	
76 [20]		60 [531] 250	180 [1593] 246	280 [2478] 240	326 [2885] 236	442 [3912] 217	468 [4142] 206		250		
Max. Max. Inter. Cont.		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
Rotor Width		Theoretical Torque - Nm [lb-in]									
40.9 [1.610] mm [in]		101 [897]	198 [1752]	299 [2649]	435 [3846]	497 [4401]	666 [5896]	748 [6623]			
Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]											

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 6.

DISPLACEMENT PERFORMANCE

		Pressure - bar [psi]				Max. Cont.	Max. Inter.
400		21 [300]	41 [600]	69 [1000]	83 [1200]	97 [1400]	121 [1750]
386 cm ³ [23.5 in ³] / rev							
		Torque - Nm [lb-in], Speed rpm				Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	Max. Max. Inter. Cont.	8 [2]	19	18	14	11	20
		15 [4]	99 [876]	207 [1832]	344 [3044]	411 [3637]	480 [4248]
23 [6]	59	57	52	43	39	32	39
30 [8]	77	75	73	67	60	49	59
38 [10]	100	97	93	89	81	70	79
45 [12]	120	117	113	109	97	84	98
53 [14]	137	134	131	129	124	113	118
61 [16]	150	154	151	148	138	130	137
76 [20]	189	187	185	182	178	178	157
		98 [867]	234 [2071]	308 [2726]	384 [3398]	486 [4301]	196
		189	187	185	182	178	
Rotor Width		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/>					
52.1 [2.050]		Theoretical Torque - Nm [lb-in]					
mm [in]		129 [1142]	252 [2229]	424 [3751]	510 [4513]	596 [5274]	743 [6579]

Displacement tested at 45°C [113°F] with an oil viscosity of 46cSt [213 SUS]

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 6.