



BMM SERIES HYDRAULIC MOTOR

BMM series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

Characteristic features:

- * Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
- * Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
- * Advanced construction design, high power and low weight.

Main Specification

Type	BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
Geometric displacement (cm ³ /rev.)	8.2	12.9	19.9	31.6	39.8	50.3
Max. speed (rpm)	rated	1537	1256	814	513	358
	cont.	1950	1550	1000	630	400
	int.	2450	1940	1250	800	500
Max. torque (N•m)	rated	8	13	19	31	37
	cont.	11	16	25	40	46
	int.	15	23	35	57	70
	peak	21	33	51	64	82
Max. output (kW)	rated	1.3	1.7	1.7	1.7	1.2
	cont.	1.8	2.4	2.4	2.4	1.8
	int.	2.6	3.2	3.2	3.2	3.2
Max. pressure drop (MPa)	rated	9	9	9	9	6
	cont.	10	10	10	10	7
	int.	14	14	14	14	14
	peak	20	20	20	16	16
Max. flow (L/min)	rated	14	18	18	18	20
	cont.	16	20	20	20	20
	int.	20	25	25	25	25
Weight (kg)	1.9	2	2.1	2.2	2.3	2.4

Type	Max.inlet pressure	
BMM8-50 (MPa)	rated	14
	cont.	17.5
	int.	22.5

- * Rated speed and rated torque:output value of speed and torque under rated flow and rated pressure.
- * Continuous pressure:Max. value of operating motor continuously.
- * Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
- * Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BMM8 [8.2 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		3.5	5	7	10	12	14
Flow (L/min)	2	3	5	8	10	12	14
	4	228	218	206	156	111	58
	8	474	471	463	426	391	331
	12	953	946	926	884	855	816
	15	1444	1426	1402	1360	1324	1288
	20		4	7	10	12	14
Max.cont.	15		1912	1900	1861	1833	1780
Max.int.	20		0	6	10	11	14
			2432	2395	2350	2328	2281

BMM12.5 [12.9 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		3.5	5	7	10	12	14
Flow (L/min)	2	6	8	11	16	19	
	4	140	136	119	68	35	
	8	296	289	274	229	200	145
	12	605	596	583	543	514	469
	15	912	905	895	859	834	784
	20	1152	1144	1136	1102	1078	1036
Max.cont.	25	3	7	10	15	19	22
Max.int.	20	2	6	9	14	18	22
			1910	1891	1878	1848	1828
							1788

BMM20 [19.9 cm³/rev.]

		Pressure (MPa)						
		Max.cont.				Max.int.		
		1.7	3.5	5	7	10	12	14
Flow (L/min)	2	3	9	14	19	26	30	
	4	99	96	89	74	42	21	
	8	197	191	182	178	134	112	74
	12	398	395	391	377	340	319	288
	15	596	594	588	579	545	523	493
	20	745	741	738	728	695	684	660
Max.cont.	25	1	6	11	19	24	29	35
Max.int.	20		4	9	14	23	28	33
			998	995	991	985	962	1916
				1247	1245	1242	1189	1180
								1176

BMM32 [31.6 cc/rev.]

		Pressure (MPa)						
		Max.cont.				Max.int.		
		2	3.5	5	7	10	12	14
Flow (L/min)	2	7	15	21	28	40		
	4	61	57	52	47	16		
	8	126	121	114	106	82	67	49
	12	250	244	239	231	207	194	167
	15	378	374	369	362	338	322	297
	20	476	472	468	462	441	429	406
Max.cont.	25	3	10	17	25	37	46	55
Max.int.	20	1	8	15	23	35	43	52
			633	630	627	619	601	585
				791	789	787	783	766
								753
								732

BMM40 [39.8 cm³/rev.]

		Pressure (MPa)					
		Max.cont.			Max.int.		
		3	5	7	8.5	10	12
Flow (L/min)	2	16	27	36	44	51	
	4	45	40	34	28	17	
	8	96	93	85	79	65	52
	12	197	195	182	176	166	154
	15	293	287	282	277	268	257
	20	371	365	360	355	347	338
Max.cont.	25	10	21	31	39	48	59
Max.int.	20	7	19	29	37	44	56
			497	492	487	480	472
				622	617	612	607
							600
							591

BMM50 [50.3 cm³/rev.]

		Pressure (MPa)				
		Max.cont.			Max.int.	
		1.5	3	5	7	10
Flow (L/min)	2	11	23	36	50	
	4	37	33	27	22	
	8	76	73	68	63	55
	12	157	154	149	145	137
	15	237	234	231	226	218
	20	296	295	294	288	282
Max.cont.	25	8	14	29	44	64
Max.int.	20	4	10	25	40	59
			395	395	393	390
				498	496	494
						490
						484

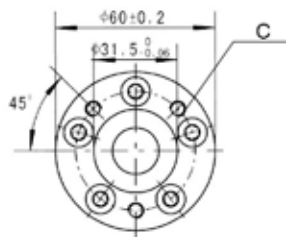
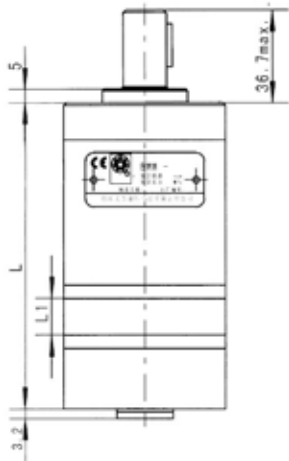
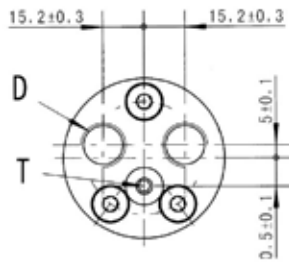
Torque (N·m) 37
Speed (rpm) 607

cont.
int.

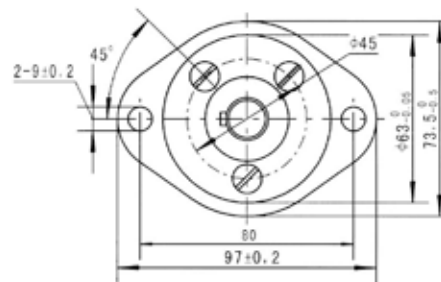
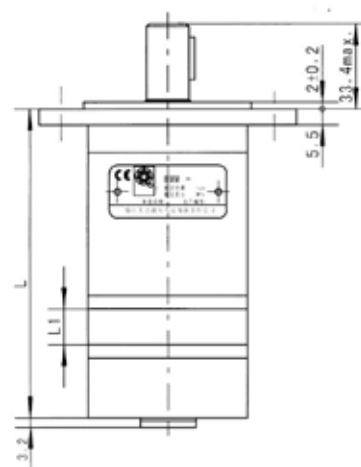
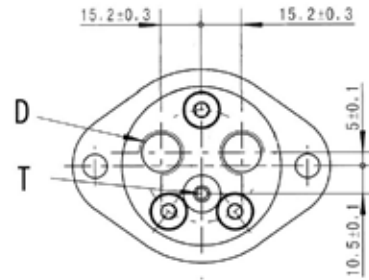
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M, U



Flange F



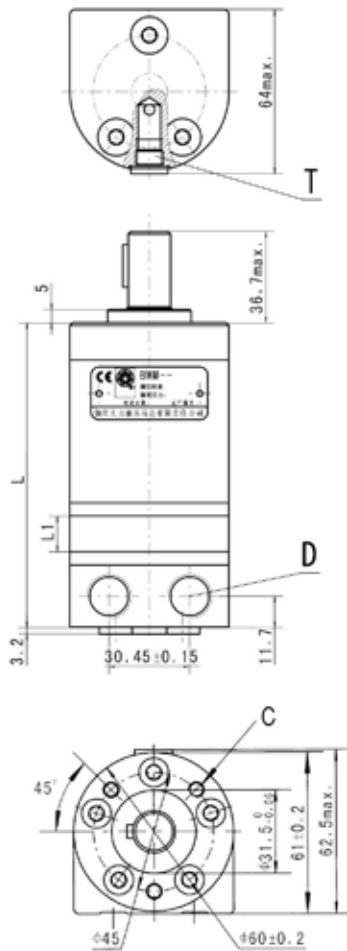
Model	M, U Flange		F Flange	
	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

Code	M, U Flange		F Flange	
	1E (depth)	1U (depth)	1E (depth)	1U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

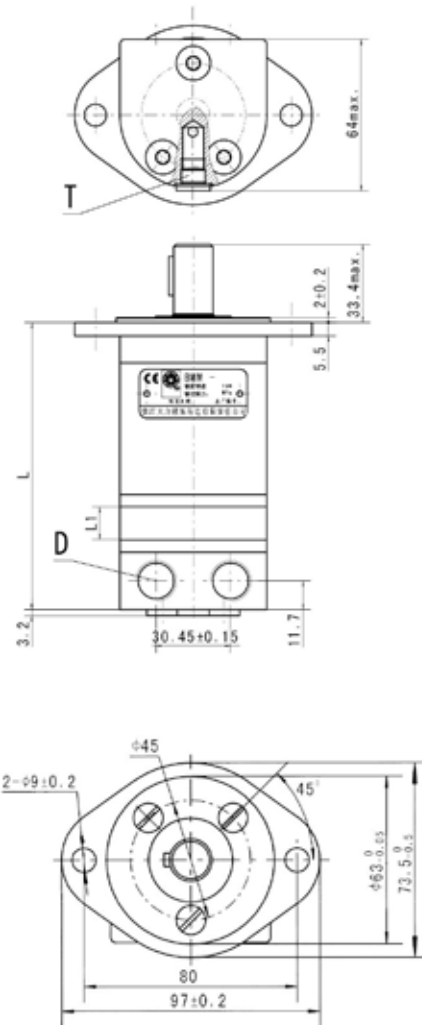
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M, U



Flange F

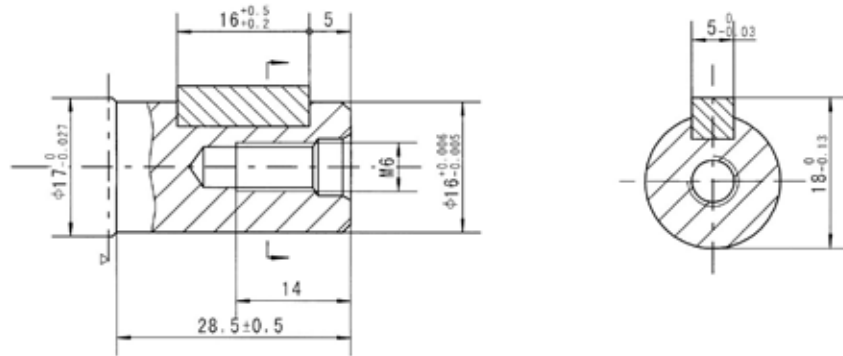


Model	M, U Flange		F Flange	
	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

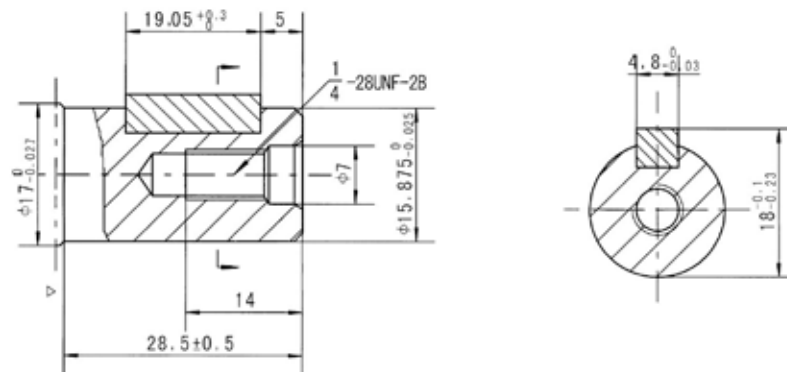
Code	M, U Flange		F Flange	
	E (depth)	U (depth)	E (depth)	U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

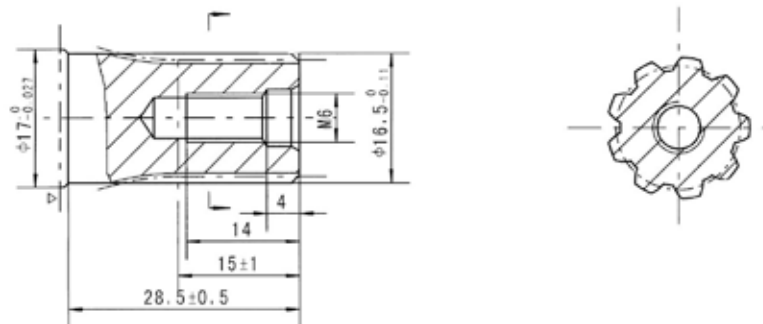
Shaft A: Cylindrical shaft $\varnothing 16$
Parallel key 5x5x16



Shaft B: Cylindrical shaft $\varnothing 15.875$
Parallel key 4.8x4.8x19.05



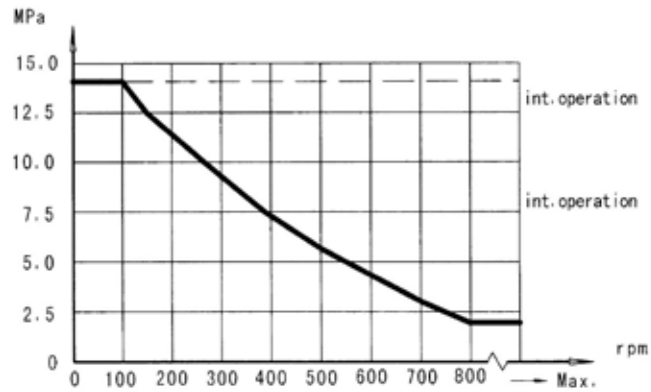
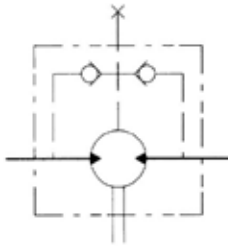
Shaft C: Involute splind shaft
B17x14 DIN5482



▷ Motor Mounting Surface

BMM Series Hydraulic Motor

Permissible shaft seal pressure



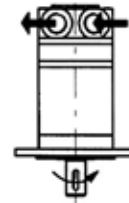
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



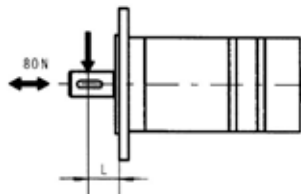
BMM END PORT



BMM SIDE PORT

Status of the shaft's radial force

$$F_r = \frac{130400}{61.5 + L} \text{ N}$$



F_r =Radial Force (N)
 L =Distance (mm)
 n =Speed (rpm)
 Rhomb-flange $L=15\text{mm}$
 Square-flange $L=20\text{mm}$



Order Information



Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
	8						
	12.5						
	16	M 3-M6 Circle-flange, pilot Ø31.5x5	A Shaft Ø16, parallel key 5x5x16	E G3/8, G1/8	Omit Standard	No paint	Omit Standard
	20	U 3-1/4-28UNF Circle flange, pilot Ø31.5x5	B Shaft Ø15.875, parallel key 4.8x4.8x19.05	U 9/16-18UNF, 3/8-24UNF	Omit Standard	Blue	Omit Standard
	32	F 2-09 Rhomb-flange, pilot Ø63x2	C Shaft Ø16.5, involute B17x14, DIN5482	1E End port G3/8, G1/8	R Opposite	Black	0 No case drain
	40			1U End port 9/16-18UNF, 3/8-24UNF		Silver grey	
	50						

Note: When the table is used, please fill the code of left rows in the table and give us, which the code information consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.