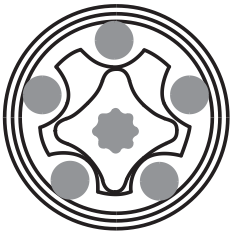
maxima®

Hydraulic motor
Series MAMM

These units provide high output torque from a very small package.
The motors are available in displacement from .50 in.^{3}/rev. [8.2 cm^3 /rev.] to 3.05 in.^{3}/rev. [50 cm^3 /rev.]
The MAMM motors are fixed displacement, gerotor type units that are know for compactness and economy.
All MAMM motors have built-in check valves assuring pressure on the shaft seal never exceeds pressure levels seen in the return line.



Specifications

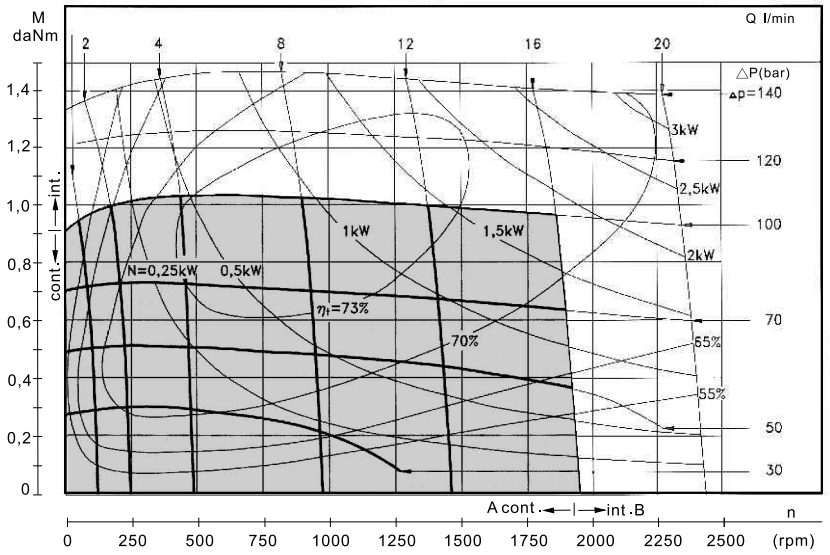
TYPE		MAMM 8	MAMM 12.5	MAMM 20	MAMM 32	MAMM 40	MAMM 50
Displacement (c.c/rev)		8.2	12.9	19.9	31.6	39.8	50.3
Max. speed (rpm)	Cont	1950	1550	1000	630	500	400
	Int(3)	2450	1940	1250	800	630	500
Max. Torque (da Nm)	Cont	1.1	1.6	2.5	4.1	4.2	4.6
	Int(3)	1.5	2.3	3.5	5.7	5.8	5.9
	Peak(4)	2.1	3.3	5.1	6.4	6.6	8
Max. output (Kw)	Cont	1.8	2.4	2.4	2.4	1.8	1.8
	Int(3)	2.6	3.2	3.2	3.2	3.0	2.1
Max. pressure drop (bar)	Cont	100	100	100	100	80	70
	Int(3)	140	140	140	140	110	90
	Peak(4)	200	200	200	200	140	125
Max.oil flow (l/min)	Cont	16	20	20	20	20	20
	Int(3)	20	25	25	25	25	25
Max. Inlet pressure (bar)	Cont	140	140	140	140	140	140
	Int(3)	175	175	175	175	175	175
	Peak(4)	225	225	225	225	225	225
Weight (kg)		1.9	2	2.1	2.2	2.3	2.4

(3) Intermittent operation rating applies to 6 sec. of every minute
(4) Peak load rating applies to 0.6 sec of every minute

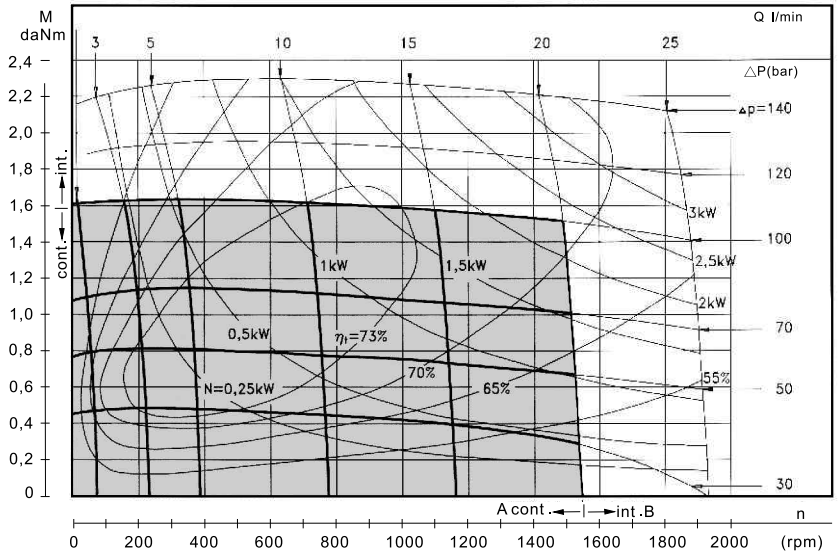
TYPE		MAMM 8	MAMM 12.5	MAMM 20	MAMM 32	MAMM 40	MAMM 50
Displacement (in.3/r)		0.5	0.79	1.21	1.93	2.43	3.07
Max. speed (rpm)	Cont	1950	1550	1000	630	500	400
	Int(3)	2450	1940	1250	800	630	500
Max. Torque (lb-in)	Cont	102	145	225	367	375	407
	Int(3)	133	204	310	504	513	522
	Peak(4)	186	292	453	566	584	708
Max. output (hp)	Cont	2.4	3.2	3.2	3.2	2.4	2.5
	Int(3)	3.5	4.3	4.3	4.3	4.0	2.8
Max. pressure drop (psi)	Cont	1430	1430	1430	1430	1200	1015
	Int(3)	2030	2030	2030	2030	1600	1300
	Peak(4)	2900	2900	2900	2900	2000	1815
Max.oil flow (gpm)	Cont	4.2	5.5	5.5	5.5	5.5	5.5
	Int(3)	5.5	6.6	6.6	6.6	6.6	6.6
Max. Inlet pressure (psi)	Cont	2030	2030	2030	2030	2030	2030
	Int(3)	2540	2540	2540	2540	2540	2540
	Peak(4)	3260	3260	3260	3260	3260	3260
Weight (lbs)		4.2	4.4	4.7	4.9	5.1	5.3

A：Continuous operation
B：Intermittent operation rating applies to 6 sec. of every minute.

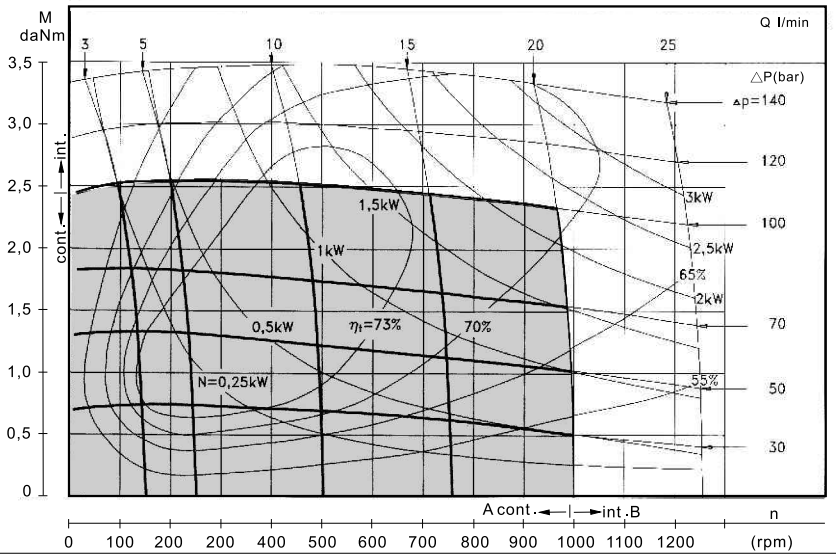
MAMM8



MAMM12.5

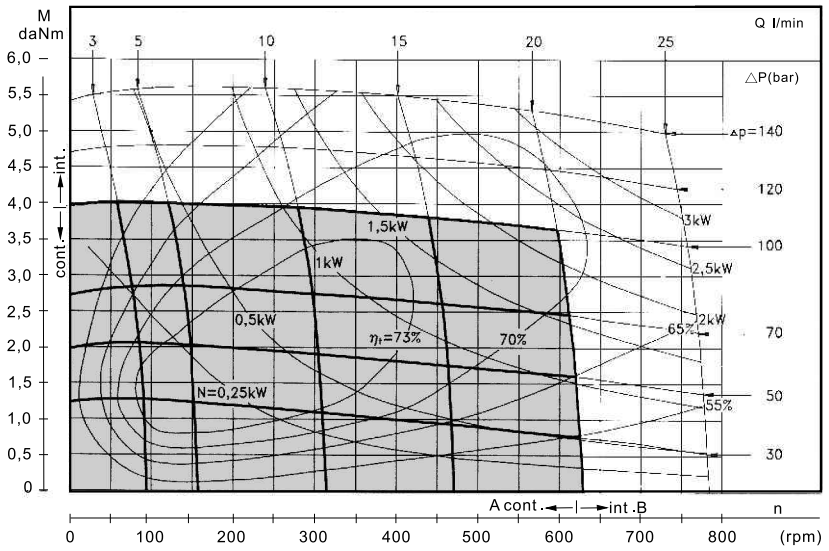


MAMM20

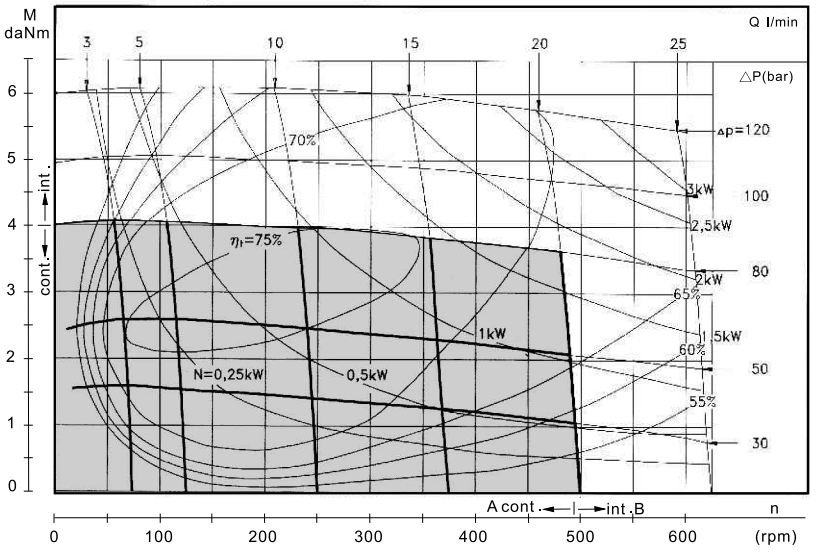


A : Continuous operation
B : Intermittent operation rating applies to 6 sec. of every minute.

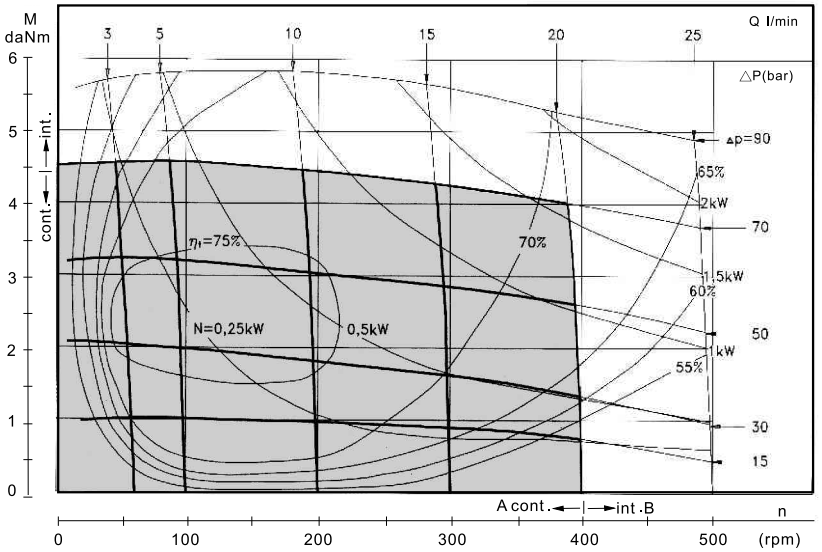
MAMM32



MAMM40

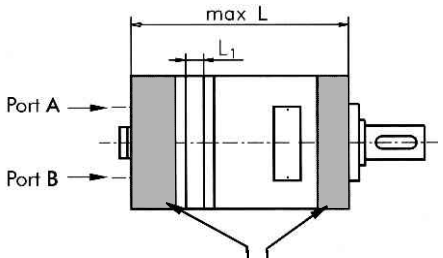


MAMM50



Dimensions and Mounting Data

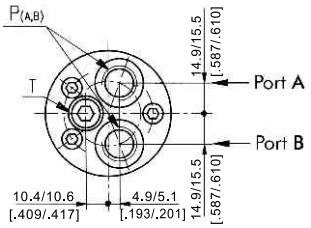
[inch] show in brackets [ ]



Porting

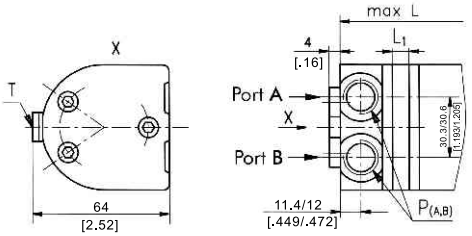
Rear Ports

Versions G M U



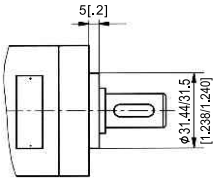
S Side Ports

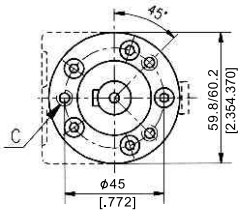
Versions G M U



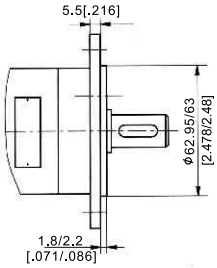
Mounting

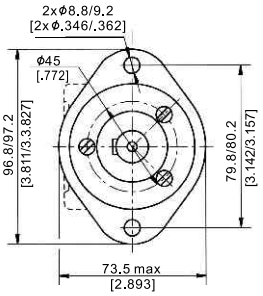
Round Flange(Three Bolts Mount)



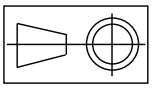


F Oval Mount (2 holes)





Code / Port	Versions		
	Omit	M	U
P(A,B)	2 x G 3/8	2 x M18 x 1.5	2 x 9/16 -18UNF
T	G 1/8	M10 x1	3/8 -24UNF
C	3 x M6-10	3 x M6-10	3 x 1/4 -28UNC

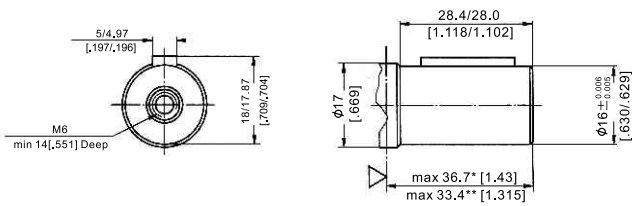


Type	Side Ports Lmax, mm[in]	Rear Ports Lmax, mm[in]	Type	Side Ports Lmax, mm[in]	Rear Ports Lmax, mm[in]	L1 mm[in]
MAMM 8	105[4.134]	104[4.094]	MAMMF 8	109[4.291]	107[4.213]	3.5[0.138]
MAMM 12.5	107[4.213]	106[4.173]	MAMMF 12.5	111[4.370]	109[4.291]	5.5[0.217]
MAMM 20	110[4.331]	109[4.291]	MAMMF 20	114[4.488]	112[4.409]	8.5[0.335]
MAMM 32	115[4.528]	114[4.488]	MAMMF 32	119[4.685]	117[4.606]	13.5[0.531]
MAMM 40	118[4.646]	117[4.606]	MAMMF 40	122[4.803]	120[4.724]	17.0[0.669]
MAMM 50	123[4.843]	122[4.803]	MAMMF 50	127[5.000]	125[4.921]	21.5[0.827]

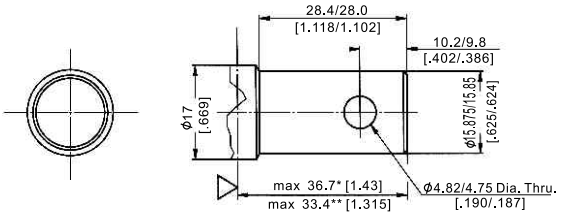
Shaft Extensions for MAMM Motor

[inch] show in brackets [ ]

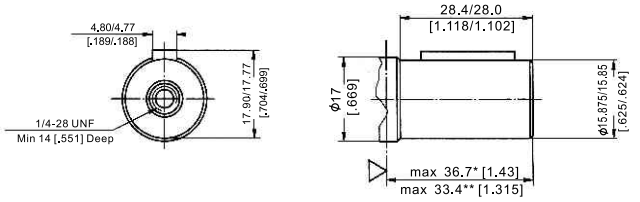
C ϕ16 straight, Parallel key 5 x 5 x16
Max. Torque 345 in-lb [3.9daNm]



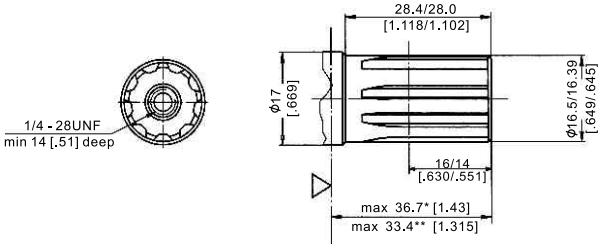
H 5/8" [15.8] straight, w/4.82[.19] Crosshole
Max. Torque 345 in-lb [3.9daNm]



CO 5/8" [15.8] straight, Parallel key 3/16" x 3/16" x 3/4"
Max. Torque 345 in-lb [3.9daNm]

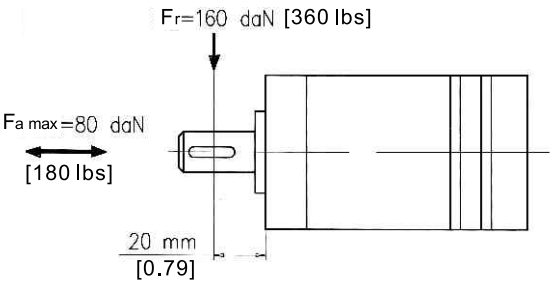


S ϕ 16.5 Splined B17 x 14
Max. Torque 390 in-lb [4.4daNm]



▽ - Motor Mounting Surface
* - For Round Flange
** - For F Flange

Permissible Shaft Loads For MAMM Motors



The permissible radial shaft load [Prad] is caculated from the distance [L] between the point load application and the mounting surface:

$$F_{rad} = \frac{600}{n} \times \frac{13040}{61.5 + L}\ , [daN]$$

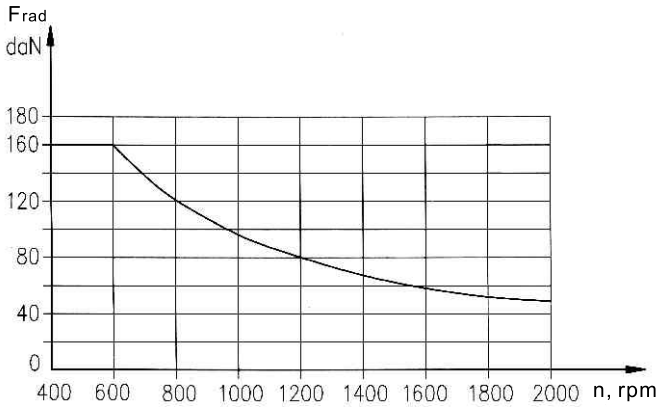
L in mm ; L≤80

$$F_{rad} = \frac{600}{n} \times \frac{1155}{2.42 + L}\ , [lbs]$$

L in inch; L≤3.12

The drawing shows the permissible radial load when L=20mm [0.79]

If the calculated shaft load exceeds the permissible, a flexible coupling must be used.



Hydraulic motor
Series MAMM Ordering Information

	1	2	3	4	5	6	7	8
MAMM								

Pos.1 Mounting Flange

Omit - Round Flange (Three bolts mount)

F Oval mount, two holes

Pos.2 Port Type

Omit - Rear Port

S Side Port

Pos.3 Displacement Code

8 - 8.2cc/0.5 [in.3/r] (not available)

12.5 - 12.9cc/0.79 [in.3/r] (not available)

20 - 20.0cc/1.21 [in.3/r]

32 - 31.8cc/1.93 [in.3/r]

40 - 40.0cc/2.43 [in.3/r]

50 - 50.0cc/3.07 [in.3/r]

Pos.4 Shaft Extensions

C - ϕ16 straight, Parallel key 5 x 5 x 16

CO - 5/8" [15.8] straight, Parallel key 3/16" x 3/16" x 3/4"

S - ϕ16.5 Splined B17 x 14

H - 5/8" [15.8] straight, w/4.82 [.19] Crosshole

Pos.5 Porting

Omit - 2 x G3/8, G1/8, BSP thread

M - 2 x M18x1.5; M10x1; metric thread

U - 2 x 9/16-18 UNF, O-ring, 3/8-24 UNF

Pos.6 Painting

Omit - Grey

B - Black

00 - No Paint

Pos.7 Rotation

Omit - Standard Rotation

R - Reverse Rotation

Pos.8 Design Series

Omit - Factory Specified