



HYDRAULIC MOTORS

GEAR MOTORS 60 SERIES Specification Sheet



The CROSS series 60 gear type motors feature advanced design concepts which produce long service life and high reliability when operated up to rated speeds and pressures. Improved gear tooth design and pressure-balanced loading plates provide for a high volumetric and overall efficiency, while operating at a low noise level.

GENERAL SPECIFICATIONS

Displacement sizes

4.05	5.15	6.15	7.15	8.15	9.25	cu.in./Rev.
66.4	84.4	100.8	117.2	133.6	151.6	cc/Rev.

Rated working pressure (Max. relief valve setting at full flow) 3000 psi (207 bar)
 Maximum shock and surge pressure 3500 psi (242 bar)
 Maximum flow rate (input) 108 gpm (409 l/m)
 Maximum speed (continuous) up to 3,000 rpm
 Maximum horsepower (at rated speed and pressure) 189 hp (148 Kw)
 Mounting (any position) SAE "C" size, 2 and 4-bolt
 Weight Approx. 42 lbs. (19 Kg)

MATERIAL SPECIFICATIONS

End covers Die cast aluminum alloy
 Gears and shafts Hardened steel
 Bearings Pressure lubricated, Teflon impregnated sleeve
 Seals Buna N
 Body Permold aluminum alloy

STANDARD FEATURES

- Rotation: Bi-directional (Dual Rotation) • Ports: 1 1/2" SAE #24, o-ring (1 7/8 - 12) side location • 1/4" NPTF drain port • Internal check valves (no external drain required if back pressure is below shaft seal rating) • Shaft: 1 1/4" dia. with straight key • Shaft seal: 250 psi (17 bar)

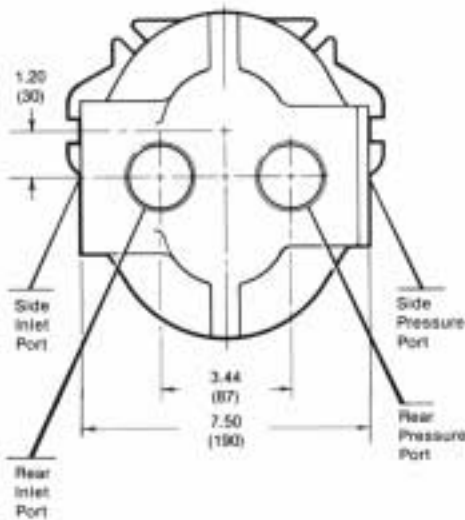
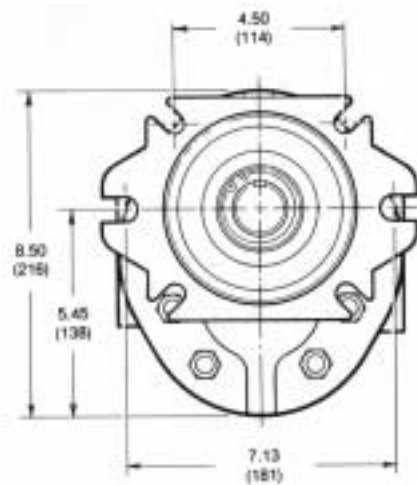
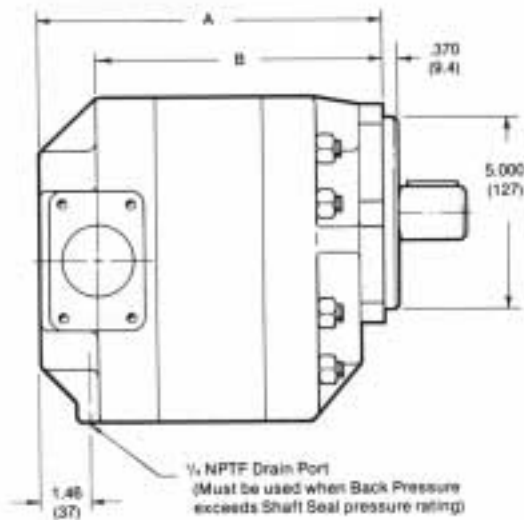
OPTIONAL FEATURES AVAILABLE

- Rotation: Right hand (clockwise); Left hand (counterclockwise)
- Ports: Straight thread inlet and outlet, rear location; 1 1/4" and 1 1/2" split flange side ports, inlet and outlet
- Shaft: 1 1/4" splined (14 tooth, 12/24 pitch, 30° P.A. flat root side fit)

NOTE: Refer to CROSS pump and motor technical/service sheet for side and end load limitations, oil recommendations, start-up procedures, etc.



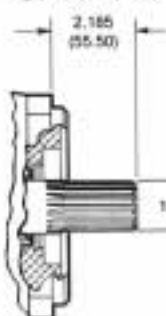
DIMENSIONAL DATA in inches and (millimeters)



Displacement		Dimension "A"		Dimension "B"	
cu.in./Rev.	cc/Rev.	inches	mm	inches	mm
4.05	(66.4)	7.75	(197)	6.24	(158)
5.15	(84.4)	8.00	(203)	6.50	(165)
6.15	(100.8)	8.27	(210)	6.77	(172)
7.15	(117.2)	8.52	(216)	7.02	(178)
8.15	(133.6)	8.77	(223)	7.27	(185)
9.25	(151.6)	9.05	(230)	7.55	(192)

OUTPUT SHAFT

SHAFT A



Splined, 14 tooth,
12/24 pitch, 30°
pressure angle, flat root
side fit, Class 6.
Diameter 1.25"
(31.75)

SHAFT C (Standard)



Keyway for straight key
is .3120 inches wide,
and .160 inches deep.
Diameter 1.25"
(31.75)



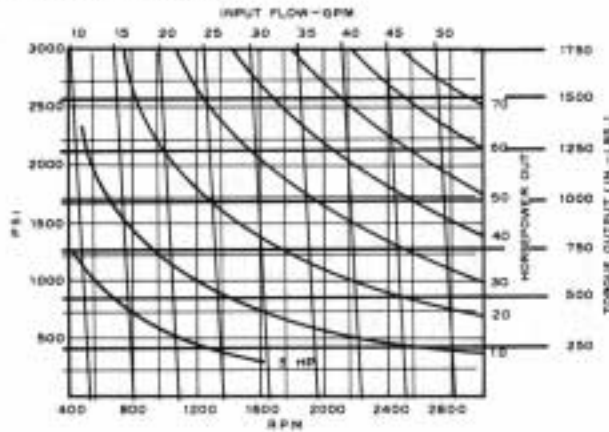
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GEAR MOTORS 60 SERIES

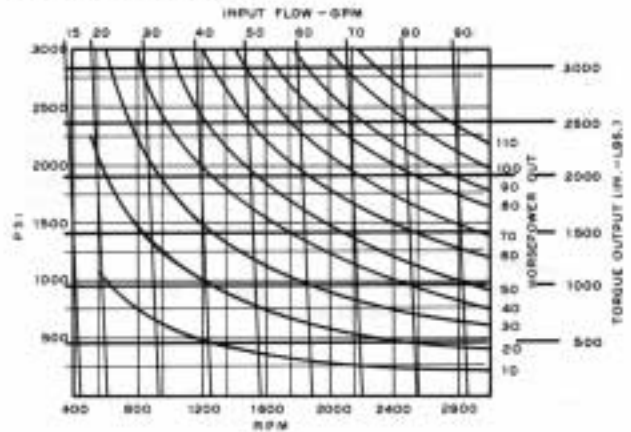
TYPICAL PERFORMANCE DATA

(FOR SPECIFIC PERFORMANCE DATA,
CONTACT CROSS ENGINEERING)

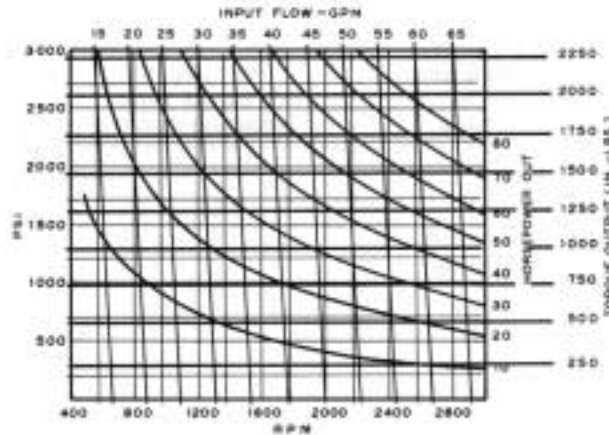
MODEL 60M040



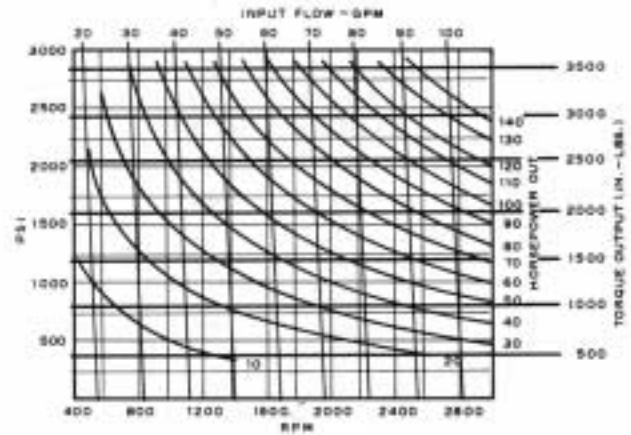
MODEL 60M071



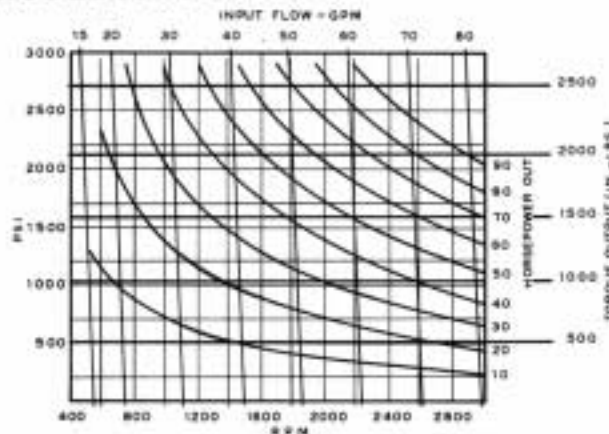
MODEL 60M051



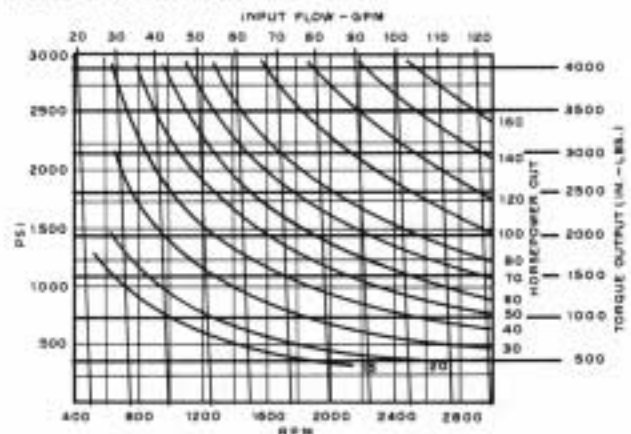
MODEL 60M081



MODEL 60M061



MODEL 60M092

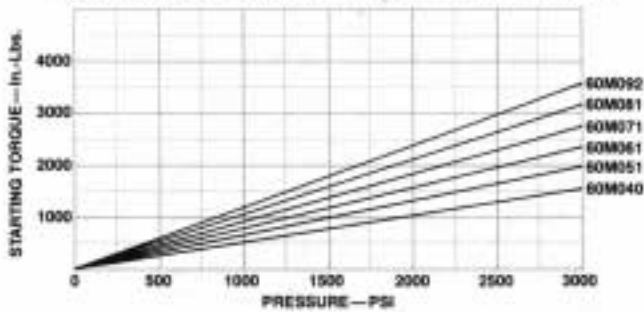




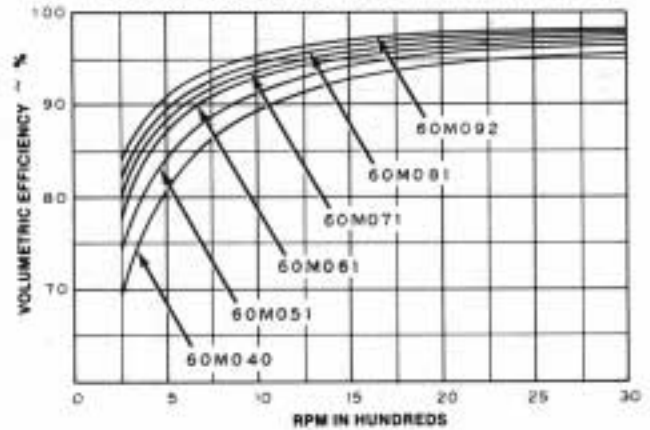
TYPICAL PERFORMANCE DATA

(FOR SPECIFIC PERFORMANCE DATA,
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STARTING TORQUE (In.-lbs.) vs. PRESSURE (PSI)



VOLUMETRIC EFFICIENCY vs RPM at 120° F



ORDERING DATA

Series	Type	Special Options	Size cu.in./ Rev. x 10	Rotation	Mounting	Shaft Size & Type	Port Location, Size & Type Inlet and Outlet	
60	M motor	H 250 psi Shaft Seal	40	D	C SAE 2 & 4 bolt combin- ation	A 1 1/4 dia. splined	SF 1 7/8 - 12 SAE #24 SH 1 1/2" spl. flg.	SIDE PORTS
			51	dual				
			61	L				
			71	left				
			81	R				
			92	right				
					C 1 1/4 dia. straight keyway	RK 1 7/8 - 12 SAE #24	REAR PORTS	

EXAMPLE: 60MH40DCCSF

Describes a Series 60 Gear Motor with 250 psi shaft seal; displacement of 4.0 cu. in. per revolution; bi-directional rotation; combination SAE two and four bolt "C" mount; 1 1/4" dia. shaft with straight keyway and 1 7/8 - 12 side ports.



CROSS MANUFACTURING, INC.
100 Factory Street
Lewis, Kansas 67552
Phone 620/324-5525 fax -5737