

HPVR-6 AXIAL PISTON PUMPS



The HPVR series of inline axial piston variable displacement pumps, are available in five displacements and three compact frame sizes. These pumps feature medium-high working pressure capabilities that will meet most applications.

The output flow and pressure is controlled by a variety of control options, and can easily work in conjunction with external control components making them the perfect choice for almost any application. The HPVR series pumps are available in both SAE and ISO mounting 2 bolt patterns. Porting is available in rear and side locations as well as thru-drive configurations.

TYPICAL PERFORMANCE SPECIFICATIONS			
VOLUMETRIC DISPLACEMENT		cu. In./rev.	0.88
		ml/rev.	14.4
PUMP DELIVERY @ 1750 RPM	Theoretical	GPM	6.67
		LPM	25.2
OPERATING PRESSURES	Intermittent*	PSI	4500
		BAR	310
	Continuous	PSI	4000
		BAR	276
	Minimum**	PSI	200
		BAR	14
OPERATING SPEEDS	Maximum RPM		See Below
	Rated RPM		1750
	Minimum RPM		500
INPUT POWER @ 1750 RPM (Rated Flow and Pressure)	HP		18
	Kw		13.4
CASE DRAIN FLOW @ Deadhead & Rated Pressure	GPM		0.3
	LPM		1.1
MOUNTING FLANGE	SAE Type		A 2 Bolt
DRIVE SHAFT	Keyed Shaft SAE J744 A		0.75
			.8125
	Spline Shaft SAE B		13 TOOTH
SHIPPING WEIGHTS	REAR PORTS	lbs	27
		kg	12.4
	SIDE PORTS	lbs	35
		kg	15.9

* This pressure should not exceed 10% of the duty cycle and not exceed 6 consecutive seconds.

** Pumps operating at less than 150 PSI (10 Bar) may overheat and shorten pump life.

CASE AND INLET PORT SPECIFICATIONS

SPEED rpm	Minimum Inlet Pressure						Maximum Case Pressure	
	psi	Pressure Gauge bar	in.-Hg	mm-Hg	Absolute Pressure psi	bar	psi	bar
1800	-3	-0.21	-6.12	-155.46	11.7	0.81	10	0.69
2050	-3	-0.21	-6.12	-155.46	11.7	0.81	7	0.48
2100	-3	-0.21	-6.12	-155.46	11.7	0.81	5	0.34
2750	-2.53	-0.17	-4.79	-121.67	12.35	0.8	5	0.34
2900	-0.96	-0.07	-1.97	-49.94	13.74	0.9	5	0.34
3000	0.00	0.00	0.00	0.00	14.7	1.01	5	0.34

PRESSURE AND VOLUME ADJUSTMENT SENSITIVITY

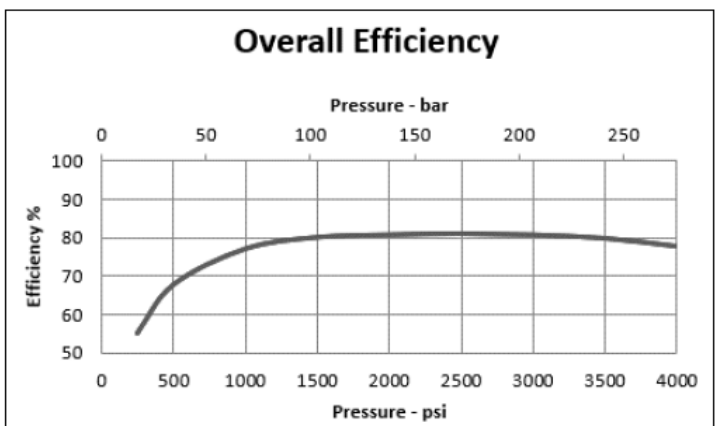
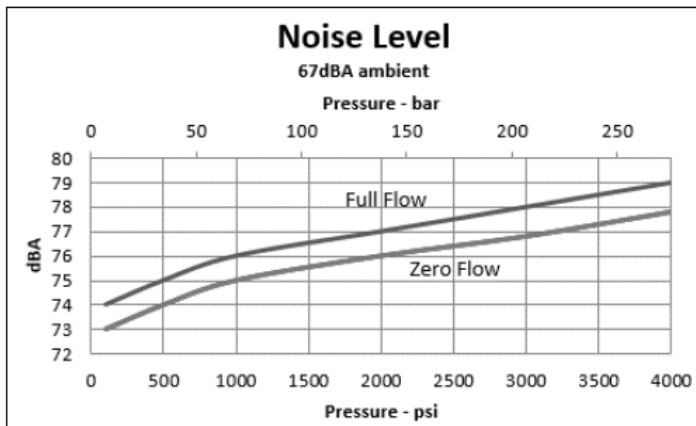
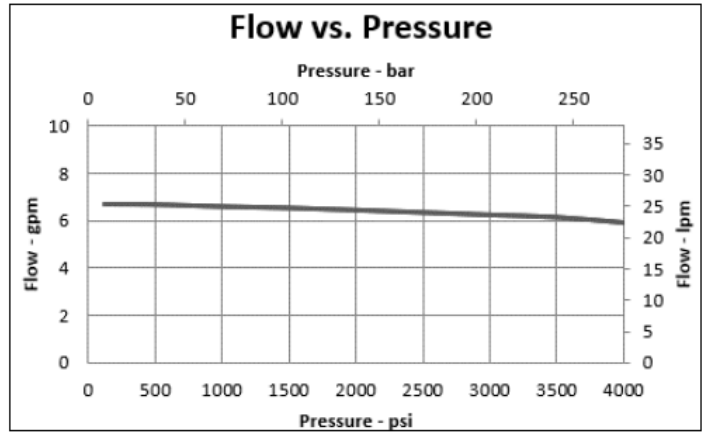
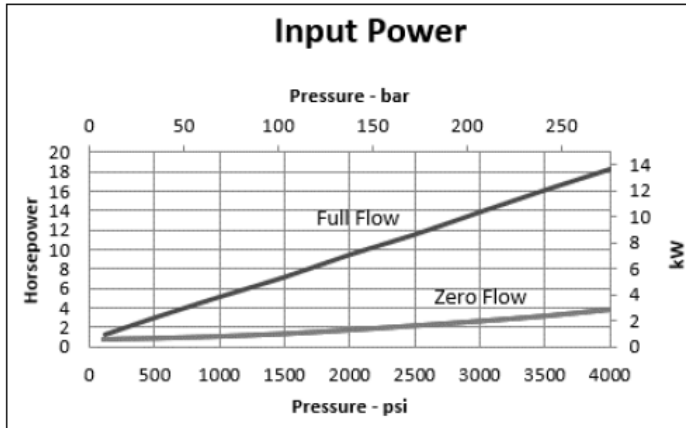
Pressure Adjustment	Pressure Change / Turn	650 PSI	44.8 Bar
Volume Adjustment	Flow Change / Turn	0.7 GPM	2.6 LPM
	Maximum Torque	28 in.-lbs	3.2 Nm



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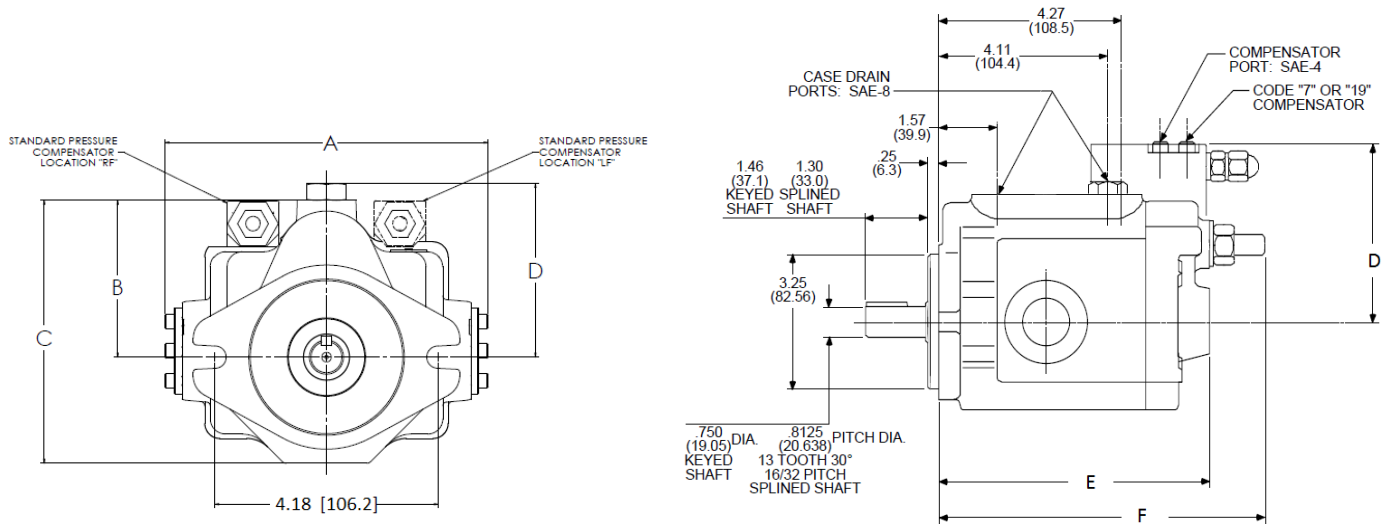
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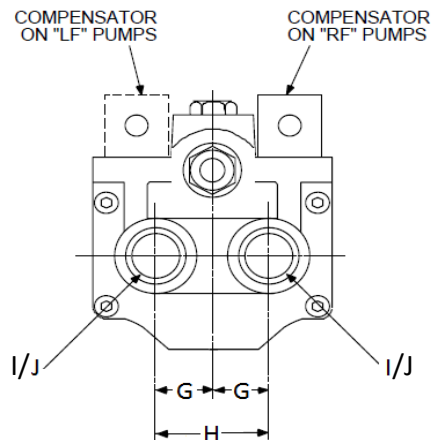
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HPVR-6 AXIAL PISTON PUMPS

Rear Port Dimension Data



Dimensional Reference Data	Inch (mm)
A	6.29 (159.8)
B	3.09 (78.49)
C	5.24 (133.1)
D (STD Pressure Compensator)	3.43 (87.12)
D (Code 7 Remote & Code 19 Load Sense)	5.06 (128.5)
E	6.40 (162.5)
F	7.76 (197.1)

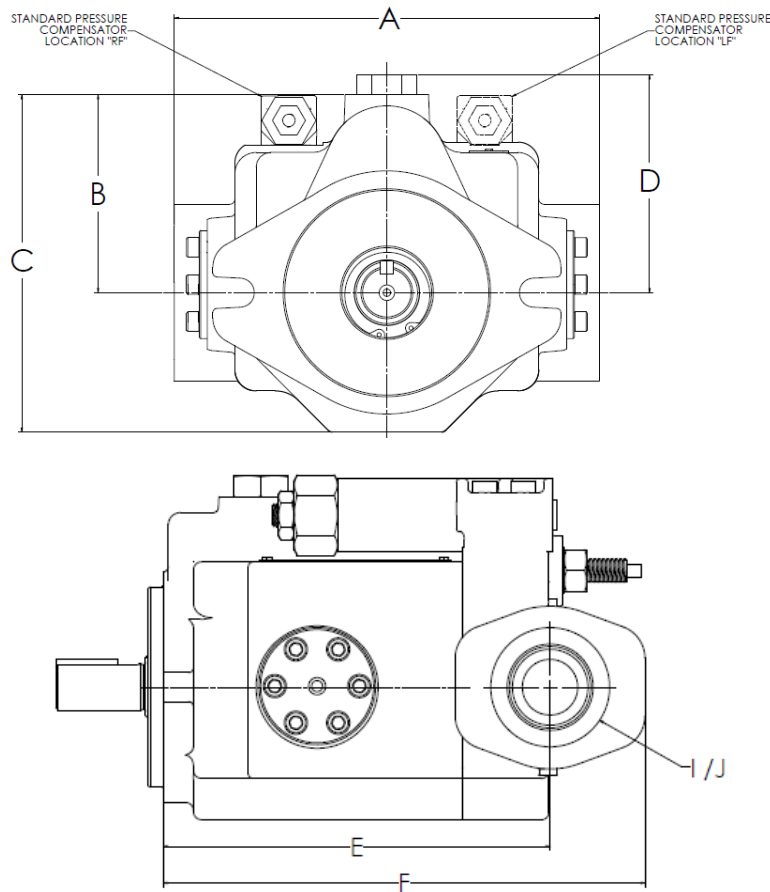


Dimensional Reference Data	Inch (mm)
G	1.13 (28.7)
H	2.26 (57.4)
I/J Code 1R - Rear SAE Porting	SAE-12
I/J Code 2R- Rear BSPP Porting	3/4 BSPP

NOTE: I = Inlet Port, J = Outlet Port

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Side Port Dimension Data



Dimensional Reference Data	Inch (mm)
A	6.29 (159.8)
B	3.09 (78.49)
C	5.24 (133.1)
D (STD Pressure Compensator)	3.43 (87.12)
D (Code 7 Remote & Code 19 Load Sense)	5.06 (128.5)
E	6.29 (159.8)
F	7.83 (198.9)
I Code 1S - Side SAE Porting	SAE-16
I Code 2s- Side BSPP Porting	1" BSPP
J Code 1S - Side SAE Porting	SAE-12
J Code 2s- Side BSPP Porting	3/4" BSPP
I Code 4S - 4 bolt Flange Metric thd.	1" S.F.
I Code 5S - 4 bolt Flange UNC thd.	1" S.F.
J Code 4S - 4 bolt Flange Metric thd.	3/4" S.F.
J Code 5S - 4 bolt Flange UNC thd.	3/4" S.F.

NOTE: Suction Flange Code 61, Pressure Flange Code 62

NOTE: I = Inlet Port, J = Outlet Port



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SIZE			
CODE	FLOW AT 1750 RPM	MAXIMUM PRESSURE	DISPLACEMENT
6B40	6 GPM	4000 PSI	in ³ /rev 0.88
			cm ³ /rev 14.4

ROTATION	
CODE	DESCRIPTION
RF	CW ROTATION (STD)
LF	CCW ROTATION

SEALS	
CODE	DESCRIPTION
O	BUNA-N (STD)
P	VITON

PORT OPTIONS	
CODE	DESCRIPTION
	See Dimensional pages for port size and Code Type
1R	SAE A 2 BOLT MOUNTING FLANGE (STD) SAE O-RING THREAD CASE DRAIN REAR SAE O-RING THREAD PORTS
2R	SAE A 2 BOLT MOUNTING FLANGE BRITISH STD PIPE (BSPP) THREAD CASE DRAIN REAR BSPP THREAD PORTS
1S	SAE A 2 BOLT MOUNTING FLANGE SAE O-RING THREAD CASE DRAIN SIDE SAE O-RING THREAD SIDE PORTS
2S	SAE A 2 BOLT MOUNTING FLANGE BRITISH STD PIPE (BSPP) THREAD CASE DRAIN SIDE BSPP THREAD PORTS
4S	SAE 4 2 BOLT MOUNTING FLANGE BRITISH STD PIPE (BSPP) THREAD CASE DRAIN SIDE SAE 4 BOLT FLANGE (METRIC THREAD)
5S	SAE 4 2 BOLT MOUNTING FLANGE SAE O-RING THREAD CASE DRAIN SIDE SAE 4 BOLT FLANGE (UNC THREAD)

CONTROL OPTIONS	
CODE	DESCRIPTION
OMIT	PRESSURE COMPENSATOR (STD)
7	REMOTE COMPENSATOR
19	LOAD SENSING COMPENSATOR

TANDEM	
CODE	DESCRIPTION
OMIT	NO TANDEM OPTION (STD)

SHAFT	
CODE	DESCRIPTION
OMIT	STRAIGHT KEY (STD) SAE J744 A .750 inch SHAFT
12	FRONT MALE SPLINE SAE B: 13 TOOTH 12/24 Pitch