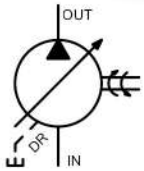
PV Axial piston pump

PV Series axial piston pump



nominal pressure: 350 bar
max. pressure: 420 bar

1.New type of swash plate and large servo piston with strong bias spring achieves fast response, reduce the noise due to active decompression of system at down stroke.

2.Nine pistons and new precompression technology (precompression filter volume) result in unbeaten low outlet flow pulsation.

3.Complete compensator program offers multiple controls.

4.Rigid and FEM-optimized body design for lowest noise level.

5.Thru drive for 100% nominal torque.

6.Pump combinations (multiple pumps) of same size and model and mounting interface for basically all metric or SAE mounting interfaces.

7.Wide application in automobile industrial, ships, forging machines, tire machines, injection molding machines, machine tools, special-purpose machine.

Quick Reference Data Chart

Size	Model	Pressure		Displacement		Pump Delivery (7 bar) 100 PSI				APPROX. Noise Levels			Speed		Weight
		nominal pressure	max. pressure	cm³/rev	In³/rev	1500 RPM		1800 RPM		dBA Full Flow and 1500 RPM			Max. RPM	Min. RPM	KG (LB)
						LPM	U.S. GPM	LPM	U.S. GPM	70 bar (1 KSI)	207 bar (3 KSI)	343 bar (5 KSI)			
1	PV016	350	420	16	0.98	24	6.3	28.8	7.6	56	60	68	2750	300	19 (42)
	PV020			20	1.2	30	7.9	36	9.5						
	PV023			23	1.4	34.5	9.1	41.4	10.9						
	PV028	280	350	28	1.7	42	11	50.4	13.2						
2	PV032	350	420	32	1.9	48	12.7	57.6	15.2	59	62	69	2400		30 (66)
	PV040			40	2.4	60	15.9	72	19						
	PV046			46	2.8	69	18.2	82.2	21.9						
	PV056	280	350	56	3.41	84	22.1	100.8	26.6						
	PV065	250	315	65	3.96	97.5	25.7	117	30.9						
3	PV063	350	420	63	3.8	94.5	25	113.4	30	66	70	74	2100		60 (132)
	PV071			71	4.3	107	28.3	128.7	34				2100		
	PV080			80	4.8	120	31.7	144	38				2000		
	PV092			92	5.6	138	36.5	165.6	43.8				1900		
	PV110	250	280	110	6.7	165	43.6	198	52.3				1900		
4	PV125	350	420	125	7.6	187.5	49.5	225	59.4	70	74	76	2200		90 (198)
	PV140			140	8.5	210	55.5	252.1	66.6						
	PV180			180	11	270	71.3	324	85.6	71	75	77			
	PV210	250	280	210	12.8	315	83	378	99.8	73	77	79	2100		
5	PV270	350	420	270	16.5	405	107	486	128.4	77	79	89	1800		172 (379)

1.Outlet port is on the top, the pipe pressure should be less than 2 bar.
2.The usage of max. Pressure for each circle never exceed 6 seconds. Please see the General Installation Information for hydraulic oil clealiness manual.
3.YEOSHE offers tandem pump or other types of pump connection. The mounting has Metric and SAE dimensions.

Type code for standard program

PV	063	GA	3	R	M	1	A	0	N	
1	2	3	4	5	6	7	8	9	10	11
Series	Size and displacement	Control device	Pressure adjusting	Rotation	Mounting	Threads	Thru drive & 2nd pump	Voltage	Seals	Design No.

E
4

Horse power
for horse power control ("P" prefix)

Series

1	Axial piston pump variable displacement high pressure version	nominal pressure:350 bar max. pressure : 420 bar	PV

Size and displacement

2	Code		016	020	023	028	032	040	046	056	065	063	071	080	092	110	125	140	180	210	270
	Size		Body 1				Body 2					Body 3					Body 4				Body 5
	Displacement	cm^3/ rev	16	20	23	28	32	40	46	56	65	63	71	80	92	110	125	140	180	210	270
		In^3/ rev	0.98	1.2	1.4	1.7	1.9	2.4	2.8	3.41	3.96	3.8	7.3	4.8	5.6	6.6	7.6	8.5	11	12.6	16.5

Control device

3	Standard pressure compensator	A0
	None pressure compensator (fixed displacement) (pressure protection required)	LN
	Electrical 2-stage flow compensator (pressure protection required)	LS
	Fixed displacement 2-stage flow compensator (pressure protection required)	LC
	Remote type	
	Remote pressure compensator with NG6 interface	GM
	Remote pressure compensator + Relief valve	GA
	Remote pressure compensator + Proportional pressure valve	GJ
	Electrical unloading type	
	Remote pressure compensator + Electrical unloading	GR
	Remote pressure compensator + 2-stage pressure control	GB
	Remote pressure compensator + Electrical unloading + 2-stage pressure control	GC
	Load-sensing type	
	Load-sensing compensator with NG6 interface	HM
	Load-sensing compensator + Relief valve	HA
	Load-sensing compensator + Proportional pressure valve	HJ
	Load-sensing + Electrical unloading type	
	Load-sensing compensator + Electrical unloading	HR
	Load-sensing compensator + 2-stage pressure control	HB
	Load-sensing compensator + Electrical unloading + 2-stage pressure control	HC
	Proportional pressure, flow type	
	Load-sensing compensator + Proportional flow valve + Relief valve	HQ
	Load-sensing compensator + Proportional pressure valve + Proportional flow valve	HK
	Horse power type	
	Horse power compensator with NG6 interface	PM
	Horse power compensator + Relief valve	PA
	Horse power compensator + Proportional pressure valve	PJ
	Horse power compensator + Electrical unloading	PR
	Horse power compensator + Electrical unloading+2-stage pressure control	PC
	Horse power load-sensing compensator + Relief valve	PH
	Horse power load-sensing compensator + Proportional flow valve + Relief valve	PQ
	Horse power load-sensing compensator + Proportional pressure valve	PS

Type code for standard program

YEOSHE

PV	063	GA	3	R	M	1	A	0	N	
1	2	3	4	5	6	7	8	9	10	11
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Pressure adjustment

4	10~140 bar (145~2030 PSI)	2
	35~250bar (507~3625 PSI)	3
	40~280bar (580~4060 PSI)	4
	50~315bar (725~4567 PSI)	5
	70~350bar (1015~5075 PSI)	6

Pressure range for each displacement:

		2	3	4	5	6
4	PV016~PV023	■	■	■	■	■
	PV028	■	■	■	-	-
	PV032~PV046	■	■	■	■	■
	PV056	■	■	■	-	-
	PV065	■	■	-	-	-
	PV063~PV092	■	■	■	■	■
	PV110	■	■	-	-	-
	PV125~PV180	■	■	■	■	■
	PV210	■	■	■	-	-
	PV270	■	■	■	■	■

Pressure range for each control device:

		2	3	4	5	6
4	A0 Standard pressure compensator	■	■	■	■	■
	LN None pressure compensator (fixed displacement) (pressure protection required)	■	■	■	■	■
	LS Electrical 2-stage flow compensator (pressure protection required)	■	■	■	■	■
	LC Fixed displacement 2-stage flow compensator (pressure protection required)	■	■	■	■	■
	Remote type					
	GM Remote pressure compensator with NG6 interface	■	■	■	■	■
	GA Remote pressure compensator + Relief valve	■	■	■	■	■
	GJ Remote pressure compensator + Proportional pressure valve	■	■	-	-	-
	Electrical unloading type					
	GR Remote pressure compensator + Electrical unloading	■	■	■	■	■
	GB Remote pressure compensator + 2-stage pressure control	■	■	■	■	■
	GC Remote pressure compensator + Electrical unloading + 2-stage pressure control	■	■	■	■	■
	Load-sensing Type					
	HM Load-sensing compensator with NG6 interface	■	■	■	■	■
	HA Load-sensing compensator + Relief valve	■	■	■	■	■
	HJ Load-sensing compensator + Proportional pressure valve	■	■	-	-	-

■ = available - = on request ※ = standard type

Type code for standard program

PV	063	GA	3	R	M	1	A	0	N	
1	2	3	4	5	6	7	8	9	10	11
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Horse power
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Pressure range for each control device:

		2	3	4	5	6
4	**Load-sensing + Electrical unloading type**					
	HR Load-sensing compensator + Electrical unloading	■	■	■	■	■
	HB Load-sensing compensator + 2-stage pressure control	■	■	■	■	■
	HC Load-sensing compensator + Electrical unloading + 2-stage pressure control	■	■	■	■	■
	Proportional pressure, flow type					
	HQ Load-sensing compensator + Proportional flow valve + Relief valve	■	■	■	■	■
	HK Load-sensing compensator + Proportional pressure valve + Proportional flow valve	■	■	-	-	-
	Horse power type					
	PM Horse power compensator with NG6 interface	■	■	■	■	■
	PA Horse power compensator + Relief valve	■	■	■	■	■
	PJ Horse power compensator + Proportional pressure valve	■	■	-	-	-
	PR Horse power compensator + Relief valve + Electrical unloading	■	■	■	■	■
	PC Horse power compensator + Electrical unloading +2-stage pressure control	■	■	■	■	■
	PH Horse power load-sensing compensator + Relief valve	■	■	■	■	■
	PQ Horse power load-sensing compensator + Proportional flow valve + Relief valve	■	■	■	■	■
	PS Horse power load-sensing compensator + Proportional pressure valve	■	■	-	-	-

Pressure adjusting (Please following page A-34~36)

	Displacement	Horse power
4	PV016~PV023,28	A 3KW B 4KW C 5.5KW D 7.5KW E 11KW
	PV032~PV046,56,65	C 5.5KW D 7.5KW E 11KW F 15KW G 18.5KW H 22KW
	PV063~PV092,110	E 11KW F 15KW G 18.5KW H 22KW I 30KW J 37KW K 45KW
	PV125,140	G 18.5KW H 22KW I 30KW J 37KW K 45KW L 55KW
	PV180,210	H 22KW I 30KW J 37KW K 45KW L 55KW M 75KW N 90KW
	PV270	J 37KW K 45KW L 55KW M 75KW N 90KW O 110KW P 132KW

Rotation

5	Clockwise	R
	Counter clockwise	L

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Type code for standard program

YEOSHE

PV	063	GA	3	R	M	1	A	0	N	
1	2	3	4	5	6	7	8	9	10	11
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Horse power
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Mounting

6	Mounting \ Body		1	2	3	4	5
	Metric	Parallel keyed	M R (A-44)	M R (A-52)	M R (A-60)	M R Q (A-67)	M R (A-75) △ A B (A-77)
		Splined	K S (A-44)	K S P (A-52)	K S (A-60)	K S P (A-67)	K S (A-74)
	Inch	Parallel keyed	N J (A-46)	N J (A-54)	N J (A-62)	N J F (A-69)	N J (A-76)
		Splined	D U (A-46)	D U G (A-54)	D U (A-62)	D U G (A-69)	D U (A-76)

(Dimensions refer to dimension diagram)

Threads

7		
	BSPP (G)	1 ※
	PT (RC)	2
	UNF (SAE)	3
	ISO 6149 (M)	7

Thru drive & 2nd pump

8	Displacement	Code
	PV016~PV270	A Single pump B Prepared for thru drive
	PV016~PV023,28	C D E I J K
	PV032~PV046,56,65	D E F I J K L
	PV063~PV092,110	D E F G I J K L M
	PV125~PV180,210	D E F G J K L M
	PV270	D E F G H J K L M N

Size

8		
	SAE AA, Ø50.8 mm	C
	SAE A, Ø82.55 mm	D
	SAE B, Ø101.6 mm	E
	SAE C, Ø127 mm	F
	SAE D, Ø152.4 mm	G
	SAE E, Ø165.1 mm	H
	Metric, Ø63 mm	I
	Metric, Ø80 mm	J
	Metric, Ø100 mm	K
	Metric, Ø125 mm	L
	Metric, Ø160 mm	M
	Metric, Ø200 mm	N

Other pumps are acceptable to order

■ = available – = on request ※ = standard type △ = custom made

Type code for standard program

PV	063	GA	3	R	M	1	A	0	N	
1	2	3	4	5	6	7	8	9	10	11
Series	Size and displacement	Control device	Pressure adjusting	Rotation	Mounting	Threads	Thru drive & 2nd pump	Voltage	Seals	Design No.

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Horse power
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Voltage

9	None	0
	AC100V (50/60HZ)	A
	AC110V (60HZ)	B
	AC200V (50/60HZ)	C
	AC220V (60HZ)	D
	DC 12V	E
	DC 24V	F

Seals

10	NBR	N	※
	VITON, FKM	V	
	Ethylen-propylene	E	

■ = available – = on request ※ = standard type