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ZHEJIANG KEISTER HYDRAULIC CO.,LTD.

PV2R系列叶片泵
PV2R series vane pumps



PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

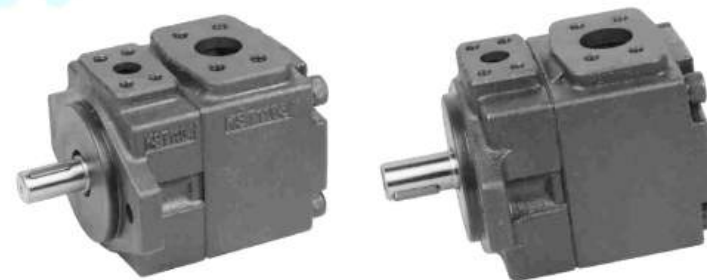
产品简介

PV2R系列高压低噪音叶片泵是本公司开发的新型产品，该泵是近年在综合国内外同类产品优点基础上研发的全国产系列产品，具有结构合理、性能先进、效率高、噪声低、脉动小、可靠性好等特点。该泵规格齐全，安装连接尺寸符合国家标准和国际标准外，还有多个派生系列安装连接尺寸，可满足国内外同类产品替代要求，极大方便用户，广泛应用于机床、塑料机械、锻压机械、工程机械、交通运输机械等领域。

Products introduction

PV2R series high pressure vane pumps with lower noise are the new developed products with the integration of the advantages of similar products at home and abroad in recent years, with the features of rational structure, high performance, high efficiency, lower noise, small pulsation, strong reliability, etc. The pumps provide extreme convenience for users and meet the substitution requirements for similar products with full specifications, national and international standard mounting dimensions, as well as derivative series mounting dimensions, making the pumps widely applied in the fields of machine tool industry, plastic machinery, forging machinery, engineering machinery, transportation machinery, etc.

单泵 Single Pumps



型号说明 Model Descriptions

PV2R1	1	—	—F	—1	—R	—A	—A
叶片泵 产品代号 Vane pumps codes	子系列号 Model of subsidiary series	公称排量 ml/r Nominal displacement	安装型式 Mounting type	轴伸形式 Shaft extension	旋转方向 Direction of rotation	排出口位置 Outlet position	吸入口位置 Inlet position
PV2R 1		6,8,10,12,14,17, 19,23,25,28,31	F: 法兰安装型	1: 大轴标准 I: Major shaft standard	(从轴端看) R: 顺时针方向 (右旋标准) (from shaft end) R: Clockwise direction (Right rotation standard)	(从轴端看) A: 上方(标准) R、B、L (排出口A设定为上方)	(从轴端看) A: 上方(标准) B: 下方 R: 右方 L: 左方
PV2R 2		26,33,41,47, 53,59,65,75	F: Flange mounting	2: 小轴 II: Minor shaft	L: 逆时针方向 (左旋) (from shaft end) L: Counterclockwise direction (Left rotation)	(from shaft end) A: Upper(Standard) R、B、L (Outlet port A is set as upper.)	(from shaft end) A: Upper(Standard) B: Bottom R: Right L: Left
PV2R 3		52,60,66,76,85,94 116,125,136,153					

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

技术参数 Technical parameters

产品型号 Model	理论排量 Theoretical displacement (mL/r)	最高使用压力 Max pressure					允许转速 Allowed driving speed (r/min)		质量 Weight (kg)
		石油系工作油 Working oil of Petroleum series			水基合成液 Water-based synthetic hydraulic fluid		最高 Max	最低 Mini	
		高压用特定油 Particular pressure oil	抗磨液压油 Anti-wear oil	普通液压油 Common oil	耐磨性水乙二醇 Anti-wear water-glyco	磷酸酯脂助酸酯 Sol phosphoric ester fatty of acid			
PV2R1-6 PV2R1-8 PV2R1-10 PV2R1-12 PV2R1-14 PV2R1-17 PV2R1-19 PV2R1-23 PV2R1-25 PV2R1-28 PV2R1-31	6.1 8.1 10.2 12.3 14.0 16.3 18.3 22.5 25.1 27.6 30.6	21	17.5	16	16	16	1800 (1200)	750	8
PV2R2-26 PV2R2-33 PV2R2-41 PV2R2-47 PV2R2-53 PV2R2-59 PV2R2-65 PV2R2-75*	25.4 32.2 40.5 46.2 52.3 58.2 64.1 74.5	21	17.5	14	16	14	1800 (1200)	600	16
PV2R3-52 PV2R3-60 PV2R3-66 PV2R3-76 PV2R3-85 PV2R3-94	51.5 62.9 67.0 79.2 84.5 93.8	21	17.5	14	16	14	1800 (1200)	600	32
PV2R3-116 PV2R3-125 PV2R3-136 PV2R3-153	113.2 122.8 135.8 152.8	17.5	16		14		1200		#34

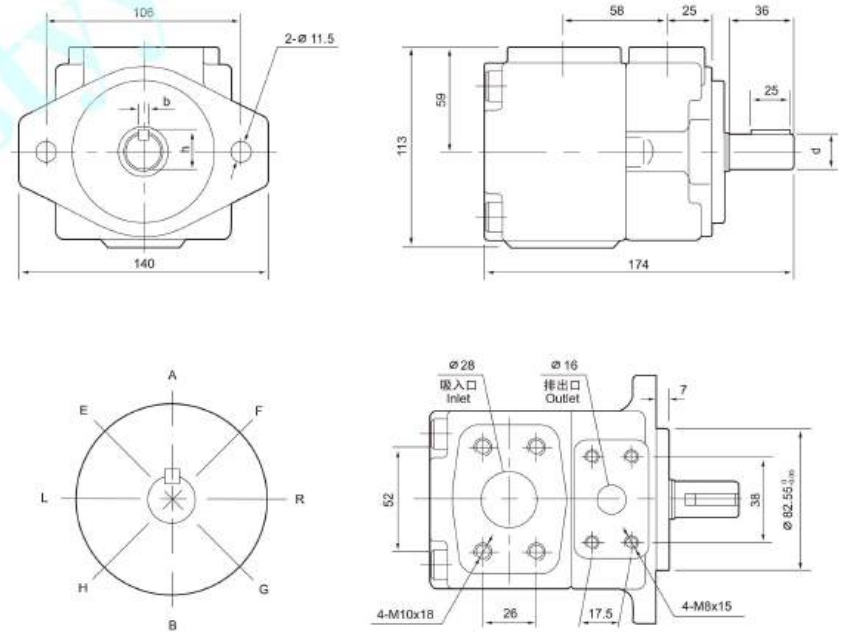
- 注:
- 公称排量“6”、“8”泵, 超过16Mpa使用时, 转速不低于1450r/min。
 - 使用水基、合成液时, 最高转速限制在1200r/min。
 - 对于严格要求低噪声的情况, 建议工作转速在1000r/min, 最高工作压力在12~14MPa。
 - 有*处为PV2R2-W组拓展规格, 有#处为PV2R3-W组2个拓展规格, 泵体加长10mm, 安装尺寸相同, 接受特殊订货。
 - 驱动功率近似计算: 泵的排量 (mL/r) X 电机转速 (r/min) X 工作压力 (MPa) / 49000。计算结果单位为KW。

- Notes:
- The rotation speed shall not be less than 1450r/min for the pumps with the nominal displacement of 6 ml/r or 8 ml/r working under the pressure exceeding 16Mpa.
 - The highest rotation speed shall be limited within 1200r/min, while applying with water-based synthetic hydraulic fluids.
 - It is recommended to work with rotation speed of 1000r/min and maximum pressure of 12-14Mpa on the occasion where lower noise is strictly required.
 - Those pumps with the marks * belong to the extension specification of PV2R2-W group. Those pumps with the marks # belong to the extension specification of PV2R3-W group. These two groups pump casing are 10mm longer than usual specification for special order.
 - The approximate calculation formula for driving power is as follows: the displacement of pump(mL/r) × the rotation speed of motor(r/min) × the working pressure (Mpa) / 49000. The unit for the final calculation result is KW.

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

外型及安装连接尺寸
Shape and installation dimensions

法兰安装型: PV2R1-* -F-I-RAA
Flange mounting: PV2R1-* -F-I-RAA

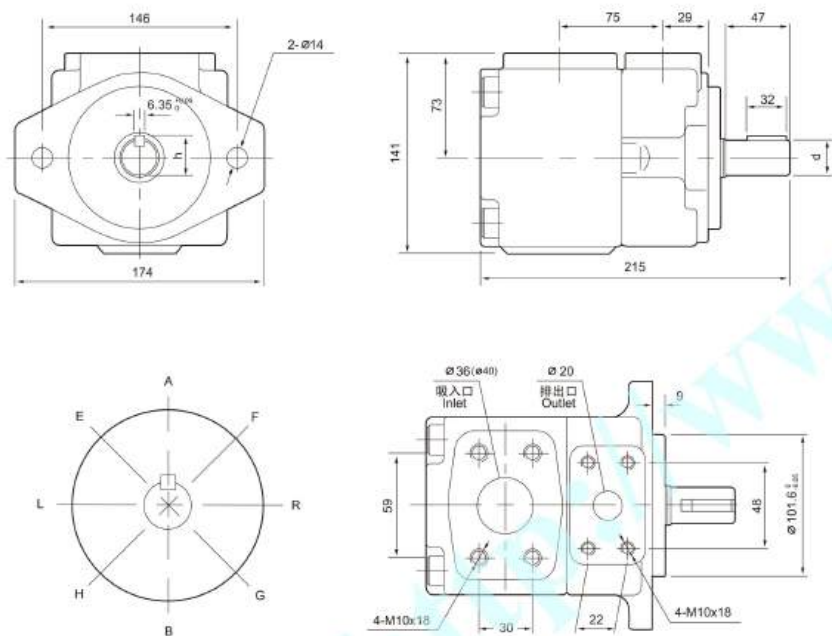


轴伸形式 Shaft extension	d	b	h	备注 Remarks
1	ø19.05 ⁰ _{-0.03}	4.75 ^{+0.03} ₀	21.24 ⁰ _{-0.18}	大轴 Major shaft
2	ø15.88 ⁰ _{-0.03}	3.97 ^{+0.03} ₀	17.68 ⁰ _{-0.18}	小轴 Minor shaft

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

外型及安装连接尺寸
Shape and installation dimensions

法兰安装型: PV2R2-*-F-I-RAA
Flange mounting: PV2R2-*-F-I-RAA

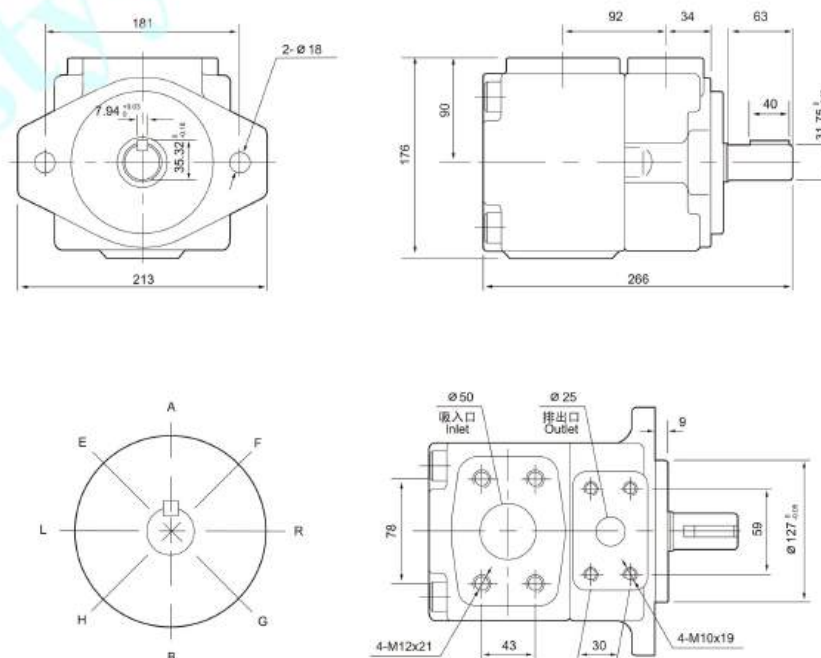


轴伸形式 Shaft extension	d	h	备注 Remarks
1	Ø25.4 ⁰ _{-0.08}	28.18 ⁰ _{-0.18}	大轴 Major shaft
2	Ø22.23 ⁰ _{-0.005}	25.01 ⁰ _{-0.18}	小轴 Minor shaft

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

外型及安装连接尺寸
Shape and installation dimensions

法兰安装型: PV2R3-*-F-I-RAA
Flange mounting: PV2R3-*-F-I-RAA



PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

技术参数 Technical parameters

产品型号 Model	油泵出口 Outlet	公称排量 Nominal displacement (ml/r)	最高使用压力 Max pressure				允许转速 Allowed driving speed (r/min)		质量 Weight (kg)									
			石油系工作油 Working oil of Petroleum series		水基合成液 Water-based synthetic hydraulic fluid		最高 Max	最低 Mini										
			高压用特定油 Particular pressure oil	抗磨液压油 Anti-wear oil	普通液压油 Common oil	耐磨性水乙二醇 Anti-wear water-glyco				磷酸酯脂肪酸酯 Sul phosaccinic ester fatty of acid								
PV2R13	测压腔 Cove end pump PV2R1	-6	21	17.5	16	16	1800	750	37.5									
		-8																
		-10																
		-12																
		-14																
		-17																
		-19																
		-23																
		-25																
		-28																
		-31																
		PV2R13								测压腔 Bearing pump PV2R3	-52	17.5	16	14	14	1200	600	1200
											-60							
											-66							
-76																		
-85																		
-94																		
-116																		
-125																		
-136																		
-153																		

注：
1. 使用水基、合成液压力时，最高转速限制在1200r/min。
2. 对于严格要求低噪声的场所，建议工作转速在1000r/min，最高工作压力在12-14MPa。

Notes:
1. The highest rotation speed shall be limited within 1200r/min, while adopting water-based synthetic hydraulic fluids.
2. It is recommended to work with rotation speed of 1000r/min and maximum pressure of 12-14Mpa on the occasion where lower noise is strictly required.

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

技术参数 Technical parameters

产品型号 Model	油泵出口 Outlet	公称排量 Nominal displacement (ml/r)	最高使用压力 Max pressure				允许转速 Allowed driving speed (r/min)		质量 Weight (kg)									
			石油系工作油 Working oil of Petroleum series		水基合成液 Water-based synthetic hydraulic fluid		最高 Max	最低 Mini										
			高压用特定油 Particular pressure oil	抗磨液压油 Anti-wear oil	普通液压油 Common oil	耐磨性水乙二醇 Anti-wear water-glyco				磷酸酯脂肪酸酯 Sul phosaccinic ester fatty of acid								
PV2R23	测压腔 Cove end pump PV2R2	-26	21	17.5	14	16	14	1800	45									
		-33																
		-41																
		-47																
		-53																
		-59																
		-65																
		PV2R23								测压腔 Bearing pump PV2R3	-52	17.5	16	14	14	1200	1200	1200
											-60							
											-66							
											-76							
											-85							
											-94							
											-116							
-125																		
136																		
153																		

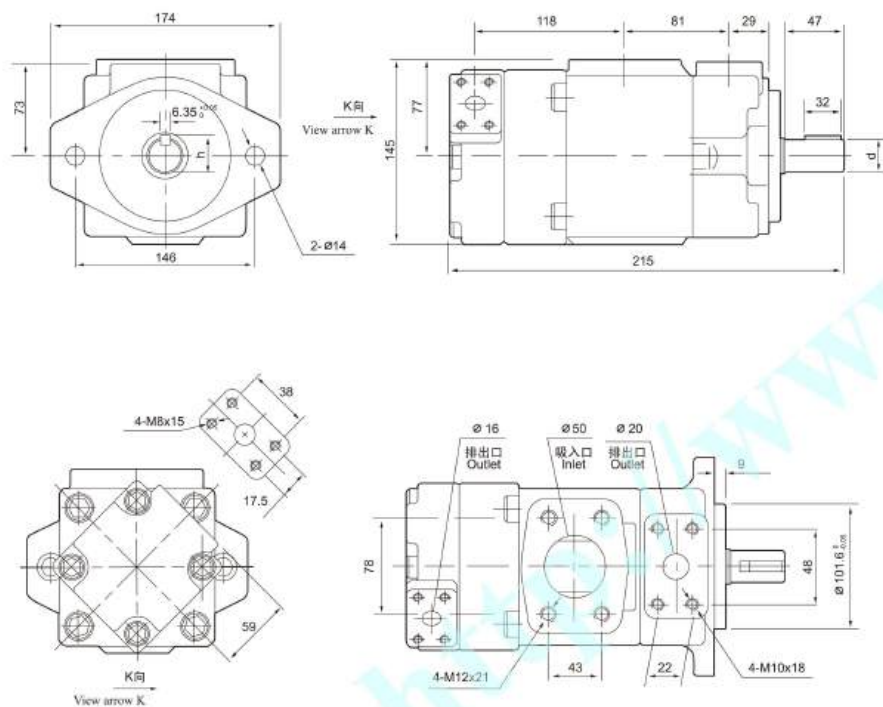
注：
1. 使用水基、合成液压力时，最高转速限制在1200r/min。
2. 对于严格要求低噪声的场所，建议工作转速在1000r/min，最高工作压力在12-14MPa。

Notes:
1. The highest rotation speed shall be limited within 1200r/min, while adopting water-based synthetic hydraulic fluids.
2. It is recommended to work with rotation speed of 1000r/min and maximum pressure of 12-14Mpa on the occasion where lower noise is strictly required.

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

外型及安装连接尺寸
Shape and installation dimensions

法兰安装型: PV2R12-*/*-F-I-REAA
Flange mounting: PV2R12-*/*-F-I-REAA

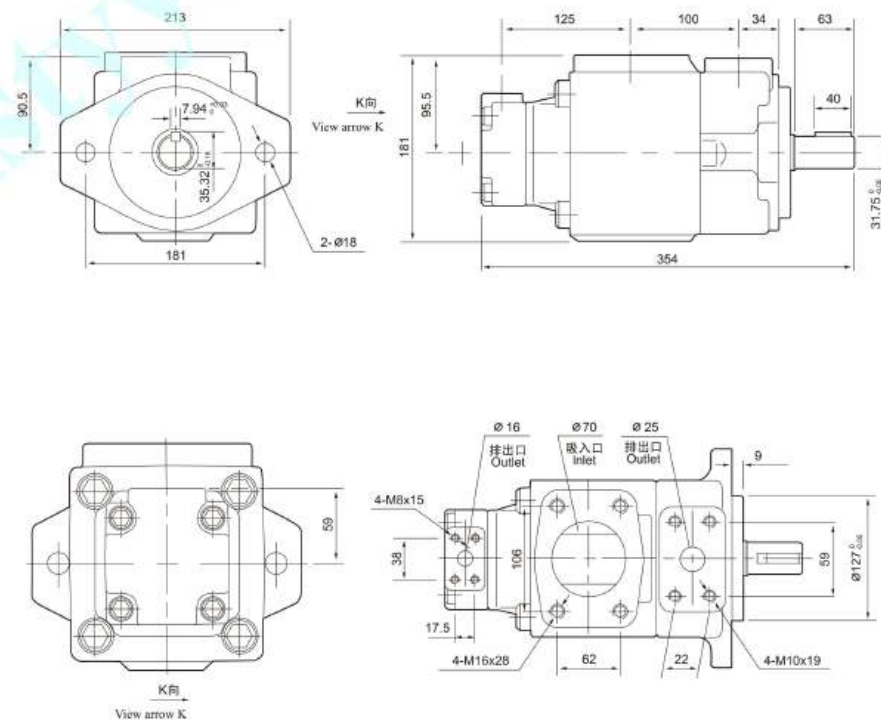


轴伸形式 Shaft extension	d	h	备注 Remarks
1	Ø25.4 ⁰ _{-0.05}	28.18 ⁰ _{-0.10}	大轴 Major shaft
2	Ø22.23 ⁰ _{-0.03}	25.01 ⁰ _{-0.10}	小轴 Minor shaft

PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

外型及安装连接尺寸
Shape and installation dimensions

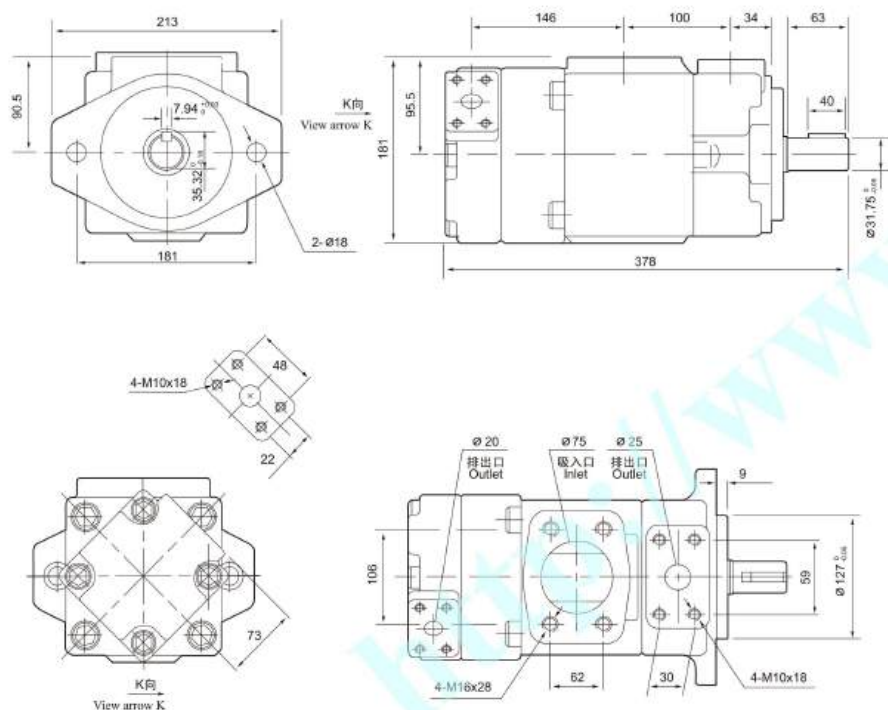
法兰安装型: PV2R13-*/*-F-I-RAAA
Flange mounting: PV2R13-*/*-F-I-RAAA



PV2R系列高压低噪音叶片泵 PV2R Series high pressure vane pumps with lower noise

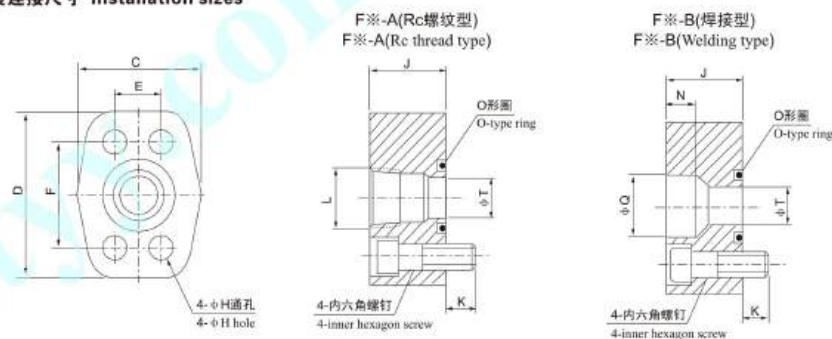
外型及安装连接尺寸
Shape and installation dimensions

法兰安装型: PV2R23-*/-F-I-REAA
Flange mounting: PV2R23-*/-F-I-REAA



法兰连接组件 Flange components

安装连接尺寸 Installation sizes



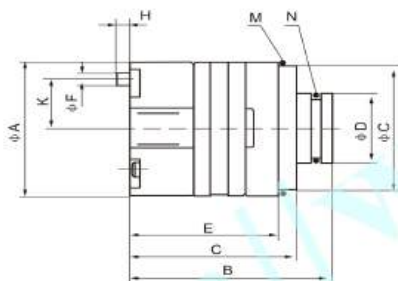
法兰型号 Flange models	对应管子规格 Corresponding pipe specifications	尺寸 mm Sizes mm											O形圈 O-type ring GB34521-82	内六角螺钉 inner hexagon screw	螺钉拧紧力矩 tightening torque of screw N·m	对应油泵接口 Corresponding pumps connector	
		C	D	E	F	H	J	K	L	N	Q	T					
F04-A	1/2"	43	59.0	17.5	38.1	9.0	28.0	11	1/2"	—	—	13	21.2x2.65	M8x30	35	PV 2R1出口 PV 2R12、PV 2R13 盖端泵出口 PV2R1 port PV 2R12、PV2R13 cover end pump port	
F04-B	—	—	—	—	—	—	—	—	—	11	22.5	—	—	—	—	—	—
F06-A	3/4"	53.2	71.6	22.2	47.6	11.2	30.0	11	3/4"	—	—	19	30x3.55	M10x30	68.5	PV 2R2、PV 2R12 轴端泵出口 PV 2R23盖端泵出口 PV2R2、PV2R12 shaft end pump port PV2R23 cover end pump port	
F06-B	—	—	—	—	—	—	—	—	—	12	28.5	—	—	—	—	—	—
F08-A	1"	58.0	76.4	26.2	52.4	11.2	30.0	16	1"	—	—	26	34.5x3.55	M10x35	68.5	PV 2R1吸入口 PV2R1 inlet	
F08-B	—	—	—	—	—	—	—	—	—	14	34.5	—	—	—	—	—	—
F10-A	1-1/4"	57.7	84.7	30.2	58.7	12.0	40.0	16	1-1/4"	—	—	32	40x3.55	M10x45	68.5	PV 2R2吸入口 PV 2R3出口、PV 2R13 PV 2R23轴端泵出口 PV2R3 inlet PV2R3 port、PV2R13、 PV2R23 shaft end pump port	
F10-B	—	—	—	—	—	—	—	—	—	16	43.0	—	—	—	—	—	—
F12-A	1-1/2"	70.0	96.0	35.7	69.9	13.8	40.0	18	1-1/2"	—	—	38	50x3.55	—	118	—	
F12-B	—	—	—	—	—	—	—	—	—	18	49.1	—	—	—	—	—	—
F16-A	2"	87.0	105.0	42.9	77.8	13.8	40.0	18	2"	—	—	51	65x3.55	M12x45	118	PV 2R3、PV 2R12 吸入口 PV2R3、PV2R12 inlet	
F16-B	—	—	—	—	—	—	—	—	—	20	61.0	—	—	—	—	—	—
F20-A	2-1/2"	96.0	116.0	50.8	88.9	13.8	45.0	18	2-1/2"	—	—	63	75x3.55	—	118	—	
F20-B	—	—	—	—	—	—	—	—	—	22	77.1	—	—	—	—	—	—
F24-A	3"	121.0	141.4	61.9	106.4	17.0	45.0	17	3"	—	—	76	85x3.55	M16x45	287	PV 2R13、PV 2R23 吸入口 PV2R13、PV2R23 inlet	
F24-B	—	—	—	—	—	—	—	—	—	25	90.0	—	—	—	—	—	—
F28-A	3-1/2"	136.0	155.0	69.9	120.7	17.0	50.0	17	3-1/2"	—	—	89	100x3.5	M16x40	287	—	
F28-B	—	—	—	—	—	—	—	—	—	28	102.8	—	—	M16x50	—	—	—
F32-A	4"	145.0	162.0	77.8	130.2	17.0	50.0	17	4"	—	—	102	115x3.5	M16x40	287	—	
F32-B	—	—	—	—	—	—	—	—	—	28	115.5	—	—	M16x50	—	—	—

PVH系列泵芯组件 PVH Series Cartridge Kite

型号说明 Model Descriptions

PC-	PVH	-23	-R
泵芯标记 Cartridge kit mark	系列号 Models	公称排量 ml/r Nominal displacement	油泵旋向 Rotation
PC: 单泵泵芯 双联泵轴端泵芯 PCT: 双联泵盖端泵芯 PC-Single pump cartridge kits Double pump shaft end pump cartridge kits PCT-Double pump cover end pump cartridge kits	PVH1	6, 8, 10, 12, 14, 17, 19, 23, 25, 28, 31	(从轴端看) R-顺时针向 L-逆时针向 (Viewed from shaft end) R-Right hand for clockwise L-Left hand for counter clockwise
	PVH2	26, 33, 41, 47, 53, 59, 65, 75	
	PVH3	52, 60, 66, 76, 85, 94, 116, 125, 136, 153	

安装连接尺寸 Installation sizes



系列号 Models	A	B	C	D	E	F	G	H	K	M	N
PVH1	68	84	70	35	62	6	62.7	5	R25	49.4×3.1	29.4×3.1
PVH2	90	109	93	52	82	6	84.7	5	R36	84.4×3.1	45.7×3.5
PVH3	120.5	127.5	106	72	94	8	115	8	R48	114.4×3.1	65.0×3.5

系列号 Models	转子内花键齿廓参数 Spline teeth No. in rotor					
	模数 Modulus	齿数 No. of teeth	标准压力角 Standard angle	大径 Major diameter	小径 Minor diameter	(节径圆)弧齿槽宽 Space width
PVH1	0.75	24	45°	19.050	17.550	1.328
PVH2	1.0	24	45°	25.400	23.400	1.771
PVH3	1.0	28	45°	29.400	27.400	1.771



KEISTER
凯斯特液压

精细品质 永恒追求
Fine Quality Eternal Pursuit