



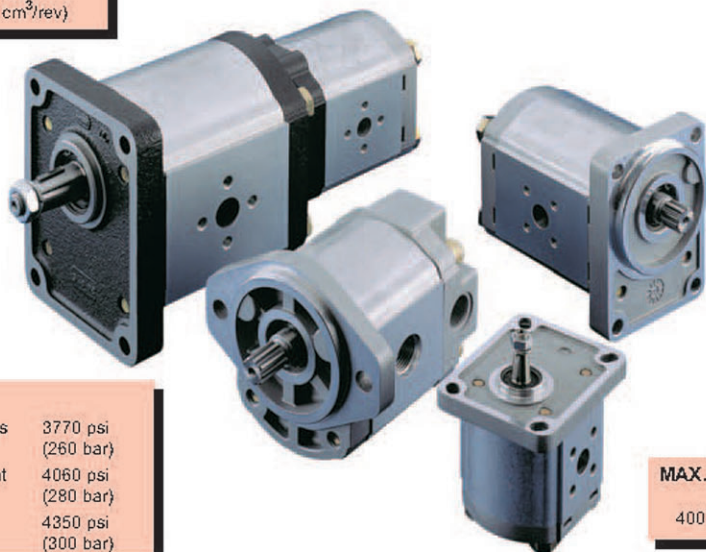
Gaudent Technology

Hydraulic gear pumps and motors

through bore aluminum body

DISPLACEMENTS

From	0.07 in ³ /rev (1.07 cm ³ /rev)
To	5.56 in ³ /rev (91.10 cm ³ /rev)



PRESSURE

Max. Continuous	3770 psi (260 bar)
Max. Intermittent	4060 psi (280 bar)
Max. Peak	4350 psi (300 bar)

MAX. SPEED

4000 min⁻¹

- Group 1, 2 and 3 with displacements from 0.07 in³/rev (1,07 cm³/rev) to 5.56 in³/rev (91.10 cm³/rev).
- Drive shafts, mounting flange and ports according to the international standards.
- Combination of multiple pumps in standard version, common inlet and separated stages.
- Integrated outboard bearings for heavy duty application.
- Many types of built-in valves.

Gaudentech more than fifteen years of pump experience in design and production of hydraulic components, characterized by large investments in research and development in order to propose new and personalized solutions to the market. Our use of CAD 3D in the development of this generation permit us the 3D modelling and the virtual simulation of the behaviour of the components inserted in the hydraulic circuit. This means that the process will take less time and the quality of the products is better. Gaudentech pumps and motors are basically composed of a gear housing in aluminium alloy, two gear wheels supported by sleeve bearings and two end plates, the front and the rear cover, either in aluminium or in cast iron with excellent mechanical characteristics.

Our success is based largely on the quality of our product. This guaranties the consistencies of the efficiencies and low level of noise emission during the life of our products.

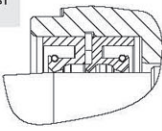
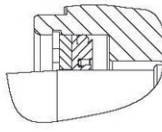
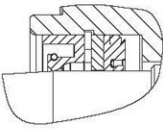
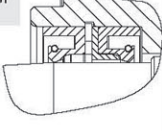
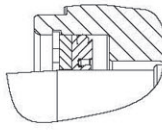
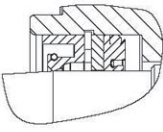
FEATURES

Construction	External gear type pumps and motors
Mounting	EUROPEAN - SAE - GERMAN standard flanges
Line connection	Screw and flange
Direction of rotation (looking on drive shaft)	Anti-clock (S) - clockwise (D) - reversible external drain (L - R) reversible internal drain (B)
Inlet pressure range for pumps	10 ÷ 44 psi [0,7 ÷ 3 bar (abs.)]
Max back pressure for single rotation motors and reversible internal drain motors	p_1 (continuous) max 73 psi (5 bar)
	p_2 (for 20 s) max 116 psi (8 bar)
	p_3 (for 8 s) max 218 psi (15 bar)
Max drain line pressure on the reversible rotation motors	73 psi (5 bar)
Max back pressure on the series motors (reversible motors external drain)	$< p_1$ (max continuous pressure) < 2175 psi (< 150 bar)
Fluid temperature range	See table (1)
Fluid	Mineral oil based hydraulic fluids to ISO/DIN. For other fluids please consult our technical sales department.
Viscosity range	From 60 to 456 SSU [12 to 100 mm ² /s (cSt)] recommended
	Up to 3410 SSU [750 mm ² /s (cSt)] permitted
Filtering requirement	See table (2) page 4

Type	Fluid composition	Max pressure psi - (bar)	Max speed [min ⁻¹]	Temperature °F - (°C)	Seals (●)	Special shaft seals (◆)
ISO/DIN	Mineral oil based hydraulic fluid to ISO/DIN	See page 5	See page 5	-13 ÷ +176 (-25 ÷ +80)	N	D - H - C
				-13 ÷ +230 (-25 ÷ +110)	V	D

(●) N= Buna N (standard) - V= Viton

◆ Shaft seals max pressure and mounting scheme

	D Standard shaft seal with wiper seal	H High pressure special shaft seal	C High pressure special shaft seal with wiper seal
Single rotation pumps	Max 44 psi (3 bar) DCAT_033_037 	Max 363 psi (25 bar) # DCAT_033_039 	Max 363 psi (25 bar) # DCAT_033_036 
Single rotation motors Reversible rotation pumps and motors	Max 44 psi (3 bar) DCAT_033_038 	DCAT_033_039 	DCAT_033_036 

Pressure could change in connection with shaft speed rotation.
For more information please consult our technical sales department.

FEATURES

Filtration

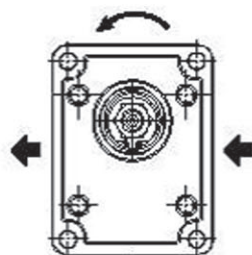
Tab. 2

Working pressure	$\Delta p > 2900 \text{ psi} - (200 \text{ bar})$	$\Delta p < 2900 \text{ psi} - (200 \text{ bar})$
Contamination class NAS 1638	8	10
Contamination class ISO 4406	13/17/14	21/13/16
Achieved with filter $\beta > 75$	10 μm	25 μm

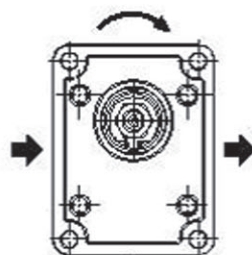
General notes

Available with different inlet and outlet ports.
For more information please consult our technical sales department.

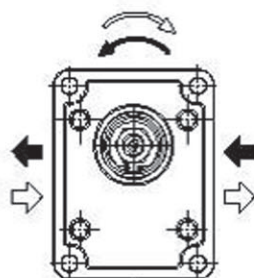
Definition of rotation direction looking on the drive shaft.



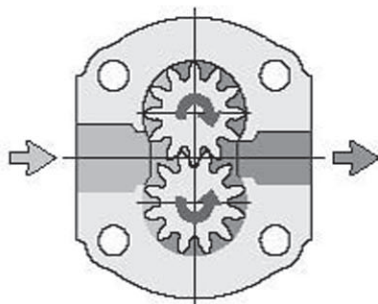
Anti-clock rotation



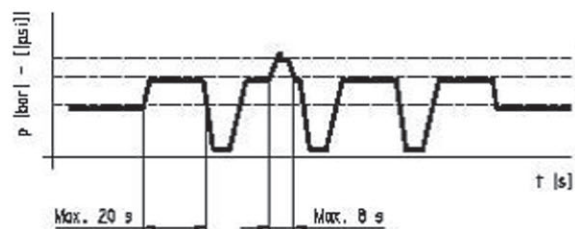
Clockwise rotation



Reversible rotation



Pressure definition



p_1 Max. continuous pressure
 p_2 Max. intermittent pressure
 p_3 Max. peak pressure

GENERAL DATA PUMPS AND MOTORS

Q	US gpm (l/min)	Flow
M	lbf in (Nm)	Torque
P	HP (kW)	Power
V	in ³ /rev (cm ³ /rev)	Displacement
n	min ⁻¹	Speed
Δp	psi (bar)	Pressure

Efficiencies

		Pumps	Motors
$\eta_v = \eta_v(V, \Delta p, n)$	Volumetric efficiency	($\approx 0,97$)	($\approx 0,96$)
$\eta_m = \eta_m(V, \Delta p, n)$	Mechanical efficiency	($\approx 0,88$)	($\approx 0,85$)
$\eta_t = \eta_v \cdot \eta_m$	Overall efficiency	($\approx 0,85$)	($\approx 0,82$)

DESIGN CALCULATIONS FOR PUMP

$$Q = V(\text{cm}^3/\text{rev}) \cdot \eta_v \cdot n \cdot 10^{-3} \quad [\text{l/min}]$$

$$M = \frac{\Delta p (\text{bar}) \cdot V (\text{cm}^3/\text{rev})}{62,83 \cdot \eta_m} \quad [\text{Nm}]$$

$$P = \frac{\Delta p (\text{bar}) \cdot V (\text{cm}^3/\text{rev}) \cdot n}{600 \cdot 1000 \cdot \eta_t} \quad [\text{kW}]$$

DESIGN CALCULATIONS FOR MOTOR

$$Q = \frac{V (\text{cm}^3/\text{rev}) \cdot n \cdot 10^{-3}}{\eta_v} \quad [\text{l/min}]$$

$$M = \frac{\Delta p (\text{bar}) \cdot V (\text{cm}^3/\text{rev}) \cdot \eta_m}{62,83} \quad [\text{Nm}]$$

$$P = \frac{\Delta p (\text{bar}) \cdot V (\text{cm}^3/\text{rev}) \cdot n \cdot \eta_t}{600 \cdot 1000} \quad [\text{kW}]$$

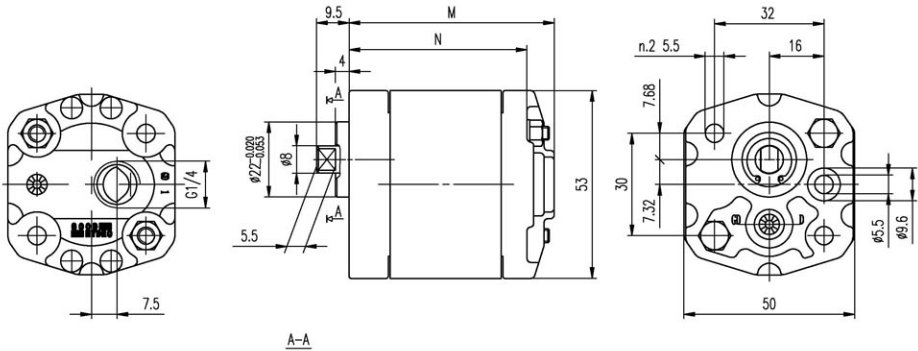
Note: Diagrams providing approximate selection data will be found on subsequent pages.

后盖: G1/4 螺纹深 12.
 安装泵时, n.2 M5 螺钉扭矩设定为
 5.4±0.5 Nm.

End cover: G1/4 thread depth 12.
 To mount the pump, n.2 M5 screws,
 with a torque wrench setting fixed
 at 5.4±0.5 Nm.

进油口
 INLET

出油口
 OUTLET



规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions	
		P1	P2	P3			M	N
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm
OPUA-0.19-D*B0	0.19	200	230	250	7000	1000	60	51
OPUA-0.26-D*B0	0.26	200	230	250	7000	1000	60.5	51.5
OPUA-0.38-D*B0	0.38	200	230	250	7000	1000	61.5	52.5
OPUA-0.50-D*B0	0.50	200	230	250	7000	1000	62.5	53.5
OPUA-0.65-D*B0	0.65	200	230	250	7000	1000	63.5	54.5
OPUA-0.75-D*B0	0.75	200	230	250	7000	1000	64.5	55.5
OPUA-0.88-D*B0	0.88	200	230	250	7000	1000	65.5	56.5
OPUA-1.00-D*B0	1.00	200	230	250	6000	850	66.5	57.5
OPUA-1.25-D*B0	1.25	200	230	250	5000	700	68.5	59.5
OPUA-1.50-D*B0	1.50	200	230	250	4000	600	70.5	61.5
OPUA-1.75-D*B0	1.75	180	210	230	4000	600	72.5	63.5
OPUA-2.00-D*B0	2.00	160	190	210	3000	500	74.5	65.5

G1/4 螺纹深 9.

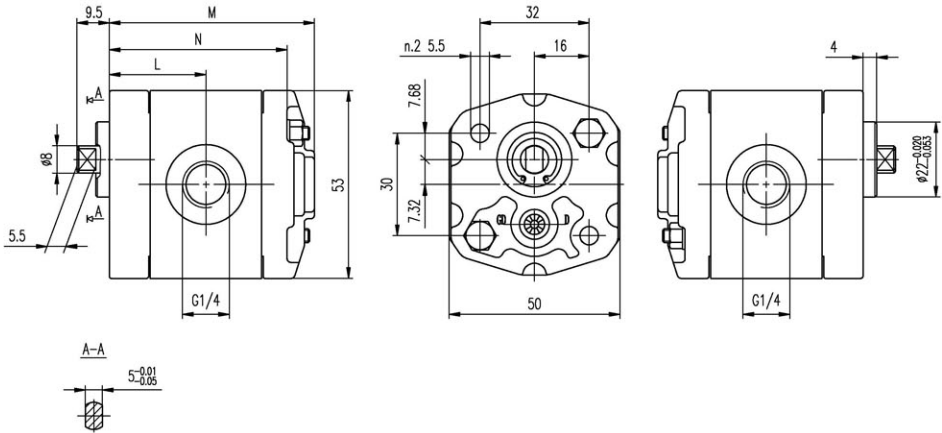
安装泵时, n.2 M5 螺钉扭矩设定为
5.4±0.5 Nm.

G1/4 thread depth 9.

To mount the pump, n.2 M5 screws,
with a torque wrench setting fixed
at 5.4±0.5 Nm.

出油口
OUTLET

进油口
INLET



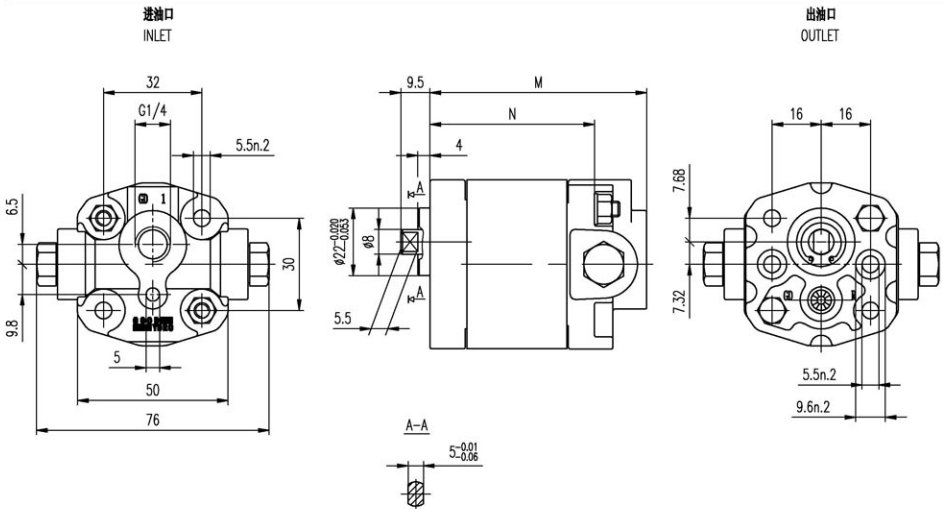
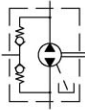
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions		
		P1	P2	P3			M	N	L
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm
OPUA-0.19-D*B1	0.19	200	230	250	7000	1000	60	51	27.2
OPUA-0.26-D*B1	0.26	200	230	250	7000	1000	60.5	51.5	27.5
OPUA-0.38-D*B1	0.38	200	230	250	7000	1000	61.5	52.5	28
OPUA-0.50-D*B1	0.50	200	230	250	7000	1000	62.5	53.5	28.5
OPUA-0.65-D*B1	0.65	200	230	250	7000	1000	63.5	54.5	29
OPUA-0.75-D*B1	0.75	200	230	250	7000	1000	64.5	55.5	29.5
OPUA-0.88-D*B1	0.88	200	230	250	7000	1000	65.5	56.5	30
OPUA-1.00-D*B1	1.00	200	230	250	6000	850	66.5	57.5	30.5
OPUA-1.25-D*B1	1.25	200	230	250	5000	700	68.5	59.5	31.5
OPUA-1.50-D*B1	1.50	200	230	250	4000	600	70.5	61.5	32.5
OPUA-1.75-D*B1	1.75	180	210	230	4000	600	72.5	63.5	33.5
OPUA-2.00-D*B1	2.00	160	190	210	3000	500	74.5	65.5	34.5

后盖: G1/4 螺纹深 12.

安装泵时, n.2 M5 螺钉扭矩设定为
5.4±0.5 Nm.

End cover: G1/4 thread depth 12.

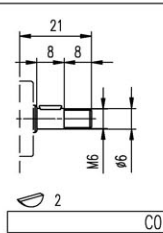
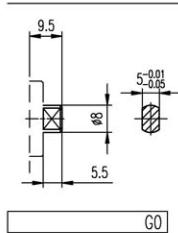
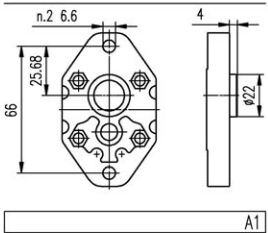
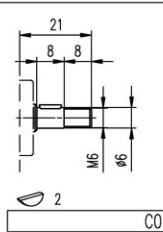
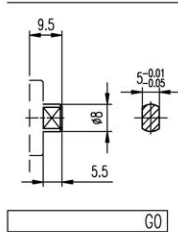
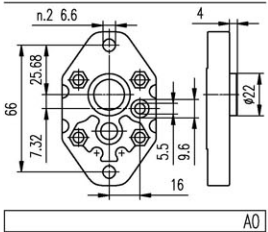
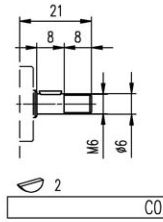
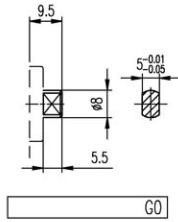
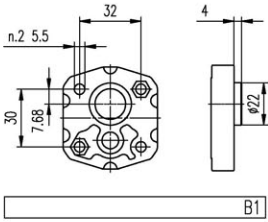
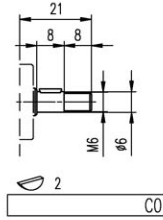
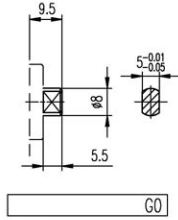
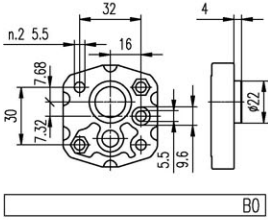
To mount the pump, n.2 M5 screws,
with a torque wrench setting fixed
at 5.4±0.5 Nm.



规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions	
		P1	P2	P3			M	N
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm
OPUA-0.19R*B2-Q1	0.19	150	170	190	7000	1000	68	51
OPUA-0.26R*B2-Q1	0.26	150	170	190	7000	1000	68.5	51.5
OPUA-0.38R*B2-Q1	0.38	150	170	190	7000	1000	69.5	52.5
OPUA-0.50R*B2-Q1	0.50	150	170	190	7000	1000	70.5	53.5
OPUA-0.65R*B2-Q1	0.65	150	170	190	7000	1000	71.5	54.5
OPUA-0.75R*B2-Q1	0.75	150	170	190	7000	1000	72.5	55.5
OPUA-0.88R*B2-Q1	0.88	150	170	190	7000	1000	73.5	56.5
OPUA-1.00R*B2-Q1	1.00	150	170	190	6000	850	74.5	57.5
OPUA-1.25R*B2-Q1	1.25	150	170	190	5000	700	76.5	59.5
OPUA-1.50R*B2-Q1	1.50	150	170	190	4000	600	78.5	61.5
OPUA-1.75R*B2-Q1	1.75	150	170	190	4000	600	80.5	63.5
OPUA-2.00R*B2-Q1	2.00	150	170	190	3000	500	82.5	65.5

前盖/Front Cover

轴伸/SHAFTS



最大扭矩
Max.Torque 10 Nm

最大扭矩
Max.Torque 8 Nm

最大扭矩
Max.Torque 10 Nm

最大扭矩
Max.Torque 8 Nm

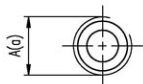
最大扭矩
Max.Torque 10 Nm

最大扭矩
Max.Torque 8 Nm

最大扭矩
Max.Torque 10 Nm

最大扭矩
Max.Torque 8 Nm

油口/PORTS



Z0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
OPUA...0.19 ÷ OPUA...2.00	M10x1	M10x1



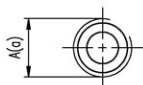
L0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
OPUA...0.19 ÷ OPUA...2.00	G1/4	φ5.5



L1

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
OPUA...0.19 ÷ OPUA...2.00	G3/8	φ5.5



L2

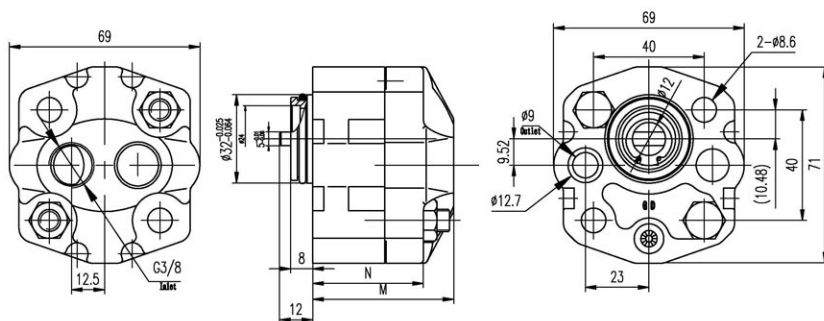
规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
OPUA...0.19 ÷ OPUA...2.00	G1/4	G1/4

后盖: G3/8 螺纹深 12.
 安装泵时, n.2 M8 螺钉扭矩设定为
 27±3 Nm.

End cover: G3/8 thread depth 12.
 To mount the pump, n.2 M8 screws,
 with a torque wrench setting fixed
 at 27±0.5 Nm.

进油口
 INLET

出油口
 OUTLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions	
		P1 bar	P2 bar	P3 bar			M mm	N mm
1PUE-1.1	1.1	210	230	250	6000	1000	47.5	36.5
1PUE-1.3	1.3	210	230	250	6000	1000	48.5	37.5
1PUE-1.6	1.6	210	230	250	6000	1000	49.5	38.5
1PUE-2.1	2.1	210	230	250	6000	1000	51	40
1PUE-2.6	2.6	210	230	250	6000	1000	53	42
1PUE-3.2	3.2	190	210	230	5000	1000	54.5	43.5
1PUE-3.7	3.7	190	210	230	4500	1000	56.5	45.5
1PUE-4.2	4.2	190	210	230	4000	850	58	47
1PUE-4.8	4.8	170	190	210	3500	700	60	49

如何订购/ HOW TO ORDER

1	P	UA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	油口 Ports	油口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump	系列号 Series	0.8 1.1 1.3 1.6 1.8 2.1 2.7 3.2 3.7 4.2 4.8 5.8 7.0 8.0	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		Q0 Q1 Q2 B0				

油口位置

省略-侧进侧出
A-前进前出
B-后进前出
C-后进侧出
D-侧进前出
R-后进后出

Ports position

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

油封

省略-温度范围在-10°C~+80°C, 进油口最高绝对压力为3bar。
V-适用于高温介质, 温度范围在-10°C~+120°C。
H-适用于低温介质, 温度范围在-40°C~+80°C。
T-适用于进油口最大绝对压力3~6bar。
N-适用于进油口最大绝对压力3~10bar。

Seals

Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

范例/ Examples:

1PUA-0.8-D-G0*Q0-L1-B= 顺时针, 排量 0.8 cc/rev, Q0 前盖, G0 扁键轴伸, L1 安装油口, 后进前出, 标准油封
clockwise rotation, 0.8 cc/rev, Q0 front cover, G0 tang shaft, setting ports L1 type, back inlet and front outlet (B), standard seals
1PUA-0.8-D-G0*Q1-L3= 顺时针, 排量 0.8 cc/rev, Q1 前盖, G0 扁键轴伸, L3 安装油口, 标准油封
clockwise rotation, 0.8 cc/rev, Q1 front cover, G0 tang shaft, setting ports L3 type, standard seals
1PUA-0.8-D-T0*B0-F0-N= 顺时针, 排量 0.8 cc/rev, B0 前盖, T0 1:8锥形轴伸, F0 安装油口, 高压油封(N)
clockwise rotation, 0.8 cc/rev, B0 front cover, 1:8 tapered shaft(T0), setting ports F0 type, high pressure seals(N)

后盖: G3/8 螺纹深 12.

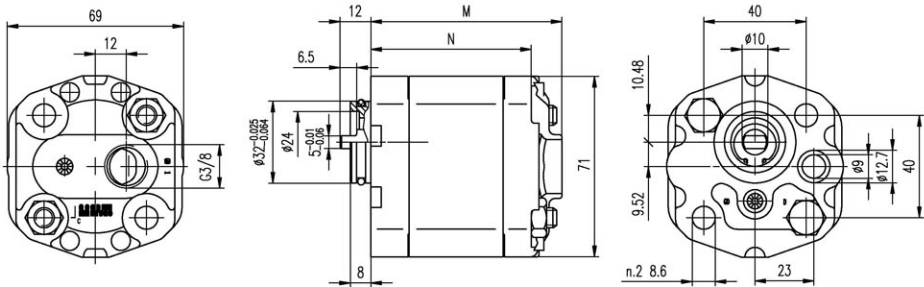
安装泵时, n.2 M8 螺钉扭矩设定为
27±3 Nm.

End cover: G3/8 thread depth 12.

To mount the pump, n.2 M8 screws,
with a torque wrench setting fixed
at 27±3 Nm.

进油口
INLET

出油口
OUTLET



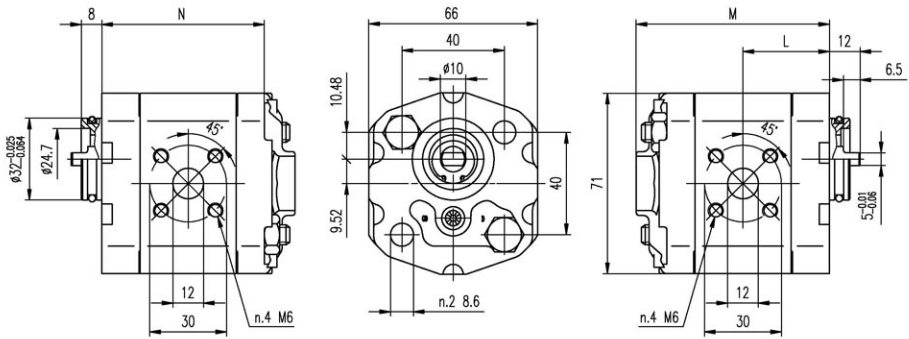
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions	
		P1 bar	P2 bar	P3 bar			M mm	N mm
1PUA-0.8-D*Q0	0.8	230	250	270	6000	1000	73.5	61.5
1PUA-1.1-D*Q0	1.1	230	250	270	6000	1000	74	62
1PUA-1.3-D*Q0	1.3	230	250	270	6000	1000	75	63
1PUA-1.6-D*Q0	1.6	230	250	270	6000	1000	76	64
1PUA-1.8-D*Q0	1.8	230	250	270	6000	1000	77	65
1PUA-2.1-D*Q0	2.1	230	250	270	6000	1000	78	66
1PUA-2.5-D*Q0	2.5	230	250	270	6000	1000	79	67
1PUA-2.7-D*Q0	2.7	230	250	270	6000	800	80	68
1PUA-3.2-D*Q0	3.2	210	230	250	5000	800	82	70
1PUA-3.7-D*Q0	3.7	210	230	250	4500	800	84	72
1PUA-4.2-D*Q0	4.2	210	230	250	4000	800	86	74
1PUA-4.8-D*Q0	4.8	190	210	230	3500	600	88	76
1PUA-5.8-D*Q0	5.8	190	210	230	3000	600	92	80
1PUA-7.0-D*Q0	7.0	160	180	200	2500	600	96	84
1PUA-8.0-D*Q0	8.0	160	180	200	2100	600	100	88

M6 螺纹深 12.
 安装泵时, n.2 M8 螺钉扭矩设定为
 27±3 Nm.

M6 threads depth 12.
 To mount the pump, n.2 M8 screws,
 with a torque wrench setting fixed
 at 27±3 Nm.

出油口
 OUTLET

进油口
 INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	N mm	L mm
1PUA-0.8-D*Q1	0.8	230	250	270	6000	1000	73.5	61.5	32.8
1PUA-1.1-D*Q1	1.1	230	250	270	6000	1000	74	62	33
1PUA-1.3-D*Q1	1.3	230	250	270	6000	1000	75	63	33.5
1PUA-1.6-D*Q1	1.6	230	250	270	6000	1000	76	64	34
1PUA-1.8-D*Q1	1.8	230	250	270	6000	1000	77	65	34.5
1PUA-2.1-D*Q1	2.1	230	250	270	6000	1000	78	66	35
1PUA-2.7-D*Q1	2.7	230	250	270	6000	800	80	68	36
1PUA-3.2-D*Q1	3.2	210	230	250	5000	800	82	70	37
1PUA-3.7-D*Q1	3.7	210	230	250	4500	800	84	72	38
1PUA-4.2-D*Q1	4.2	210	230	250	4000	800	86	74	39
1PUA-4.8-D*Q1	4.8	190	210	230	3500	600	88	76	40
1PUA-5.8-D*Q1	5.8	190	210	230	3000	600	92	80	42
1PUA-7.0-D*Q1	7.0	160	180	200	2500	600	96	84	44
1PUA-8.0-D*Q1	8.0	160	180	200	2100	600	100	88	46

G3/8 螺纹深 12.

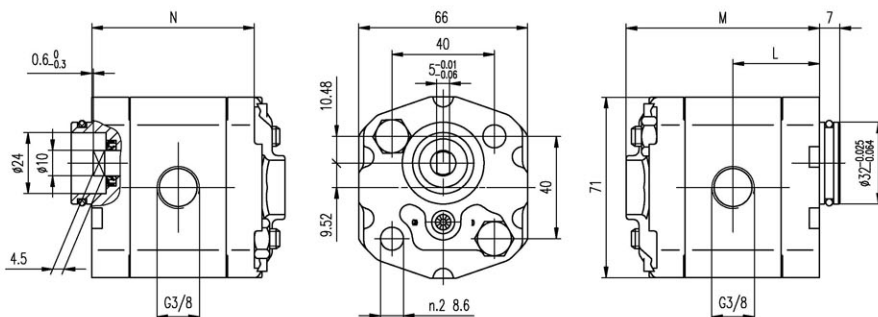
安装泵时, n.2 M8 螺钉扭矩设定为
27±3 Nm.

G3/8 thread depth 12.

To mount the pump, n.2 M8 screws,
with a torque wrench setting fixed
at 27±3 Nm.

出油口
OUTLET

进油口
INLET



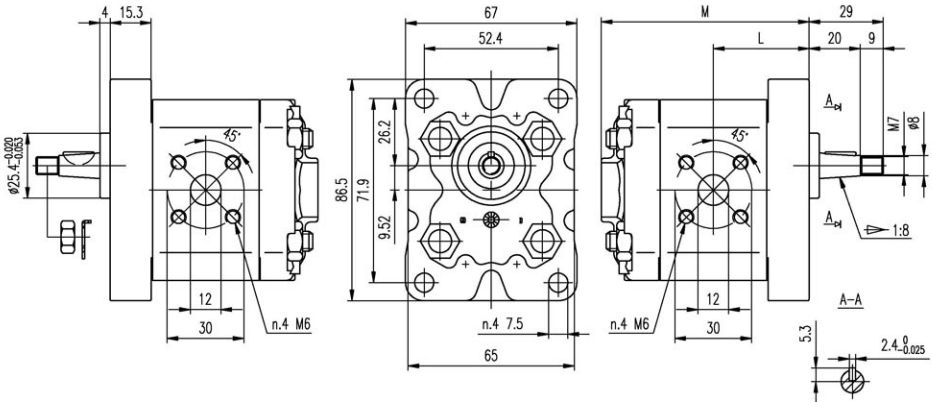
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	N mm	L mm
1PUA-0.8-D*Q2	0.8	230	250	270	6000	1000	73.5	61.5	32.8
1PUA-1.1-D*Q2	1.1	230	250	270	6000	1000	74	62	33
1PUA-1.3-D*Q2	1.3	230	250	270	6000	1000	75	63	33.5
1PUA-1.6-D*Q2	1.6	230	250	270	6000	1000	76	64	34
1PUA-1.8-D*Q2	1.8	230	250	270	6000	1000	77	65	34.5
1PUA-2.1-D*Q2	2.1	230	250	270	6000	1000	78	66	35
1PUA-2.7-D*Q2	2.7	230	250	270	6000	800	80	68	36
1PUA-3.2-D*Q2	3.2	210	230	250	5000	800	82	70	37
1PUA-3.7-D*Q2	3.7	210	230	250	4500	800	84	72	38
1PUA-4.2-D*Q2	4.2	210	230	250	4000	800	86	74	39
1PUA-4.8-D*Q2	4.8	190	210	230	3500	600	88	76	40
1PUA-5.8-D*Q2	5.8	190	210	230	3000	600	92	80	42
1PUA-7.0-D*Q2	7.0	160	180	200	2500	600	96	84	44
1PUA-8.0-D*Q2	8.0	160	180	200	2100	600	100	88	46

M6 螺纹深 12。
 安装泵时, n.4 M8 螺钉扭矩设定为
 27±3 Nm。
 轴伸 M7 螺母扭矩设定为 8 Nm。

M6 thread depth 12.
 To mount the pump, n.4 M8 screws,
 with a torque wrench setting fixed
 at 27±3 Nm.
 Shaft M7 nut, with a torque wrench
 setting fixed at 8 Nm.

出油口
 OUTLET

进油口
 INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions	
		P1 bar	P2 bar	P3 bar			M mm	L mm
1PUA-0.8-D*B0	0.8	230	250	270	6000	1000	73.5	32.8
1PUA-1.1-D*B0	1.1	230	250	270	6000	1000	74	33
1PUA-1.3-D*B0	1.3	230	250	270	6000	1000	75	33.5
1PUA-1.6-D*B0	1.6	230	250	270	6000	1000	76	34
1PUA-1.8-D*B0	1.8	230	250	270	6000	1000	77	34.5
1PUA-2.1-D*B0	2.1	230	250	270	6000	1000	78	35
1PUA-2.7-D*B0	2.7	230	250	270	6000	800	80	36
1PUA-3.2-D*B0	3.2	210	230	250	5000	800	82	37
1PUA-3.7-D*B0	3.7	210	230	250	4500	800	84	38
1PUA-4.2-D*B0	4.2	210	230	250	4000	800	86	39
1PUA-4.8-D*B0	4.8	190	210	230	3500	600	88	40
1PUA-5.8-D*B0	5.8	190	210	230	3000	600	92	42
1PUA-7.0-D*B0	7.0	160	180	200	2500	600	96	44
1PUA-8.0-D*B0	8.0	160	180	200	2100	600	100	46

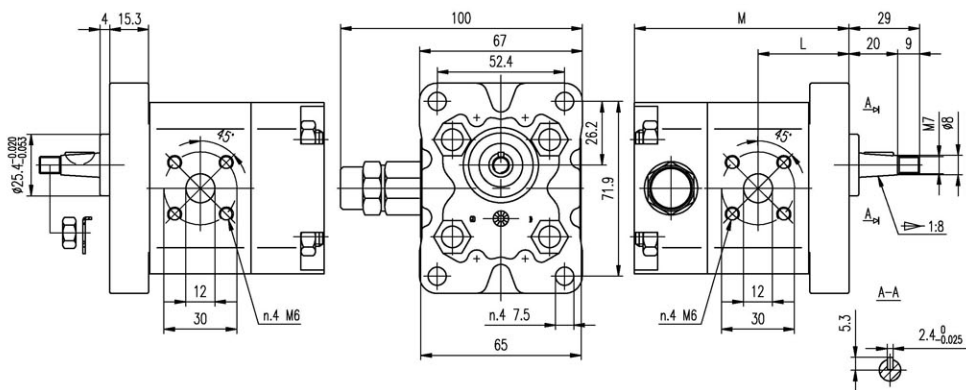
M6 螺纹深 12。
 安装泵时, n.4 M8 螺钉扭矩设定为
 27±3 Nm。
 轴伸 M7 螺母扭矩设定为 8 Nm。

M6 thread depth 12.
 To mount the pump, n.4 M8 screws,
 with a torque wrench setting fixed
 at 27±3 Nm.
 Shaft M7 nut, with a torque wrench
 setting fixed at 8 Nm.



出油口
 OUTLET

进油口
 INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions	
		P1 bar	P2 bar	P3 bar			M mm	L mm
1PUA-0.8-D*B0-Y	0.8	230	250	270	6000	1000	82.5	32.8
1PUA-1.1-D*B0-Y	1.1	230	250	270	6000	1000	83	33
1PUA-1.3-D*B0-Y	1.3	230	250	270	6000	1000	84	33.5
1PUA-1.6-D*B0-Y	1.6	230	250	270	6000	1000	85	34
1PUA-1.8-D*B0-Y	1.8	230	250	270	6000	1000	86	34.5
1PUA-2.1-D*B0-Y	2.1	230	250	270	6000	1000	87	35
1PUA-2.7-D*B0-Y	2.7	230	250	270	6000	800	89	36
1PUA-3.2-D*B0-Y	3.2	210	230	250	5000	800	91	37
1PUA-3.7-D*B0-Y	3.7	210	230	250	4500	800	93	38
1PUA-4.2-D*B0-Y	4.2	210	230	250	4000	800	95	39
1PUA-4.8-D*B0-Y	4.8	190	210	230	3500	600	97	40
1PUA-5.8-D*B0-Y	5.8	190	210	230	3000	600	101	42
1PUA-7.0-D*B0-Y	7.0	160	180	200	2500	600	105	44
1PUA-8.0-D*B0-Y	8.0	160	180	200	2100	600	109	46

高低压多联泵

1PULA高低压液压齿轮泵适合应用于系统液压驱动器在低负载时能快速前进或返回，而当液压驱动器在高负载时能低速运动的液压系统，特别是该结构具有对电机功率要求低的优势。

1PULA高低压齿轮泵是一款带特殊集成阀的双联齿轮泵（见如下图表），它广泛应用于垃圾压缩机、劈木机、卡紧机械、折边机和金属成形机等。

HIGH-LOW MULTIPLE PUMPS

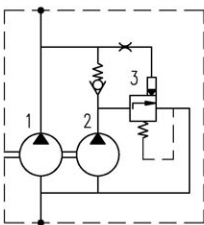
1PULA High-Low hydraulic gear pumps is the very ideal pump for applications which require a quick approach and/or return of the actuator at low loads and slow motion of the actuator at high loads. In particular this model offers the advantage of requiring lower power of the motor.

1PULA High-Low hydraulic gear pumps is a special double stage pump with special integrated valves (as shown in the hydraulic diagram) has been specially designed for applications such as trash compactors, log splitters, clamping mechanisms, crimping machines, metal forming machines etc.

技术特征

Technical features

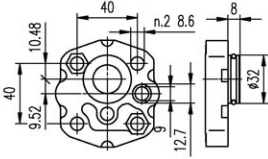
前泵小排量高压力 First stage Low displacement high pressure	排量从1.1cm ³ /rev到3.2cm ³ /rev-P1=230 bar From 1.1cm ³ /rev to 3.2cm ³ /rev-P1=230 bar
后泵大排量低压 Second stage High displacement low pressure	排量从3.7cm ³ /rev到9.8cm ³ /rev-(压力由卸荷阀设定) From 3.7cm ³ /rev to 9.8cm ³ /rev-(Pressure set by unloading valve)
卸荷阀 Unloading valve	标准设定压力 35 bar Standard setting 35 bar
转速范围 RPM pump range	从1000转到3500转 From 1000 rpm to 3500 rpm
前盖和轴伸 Flanges and shafts	见1PUA目录 Ref. 1PUA catalogue
油口 Ports	侧进侧出，油口代号为L5 Common inlet. Common outlet. Side ports code L5



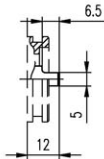
1. First stage high pressure
2. Second stage low pressure
3. Unloading valve

前盖/Front Cover

轴伸/SHAFTS

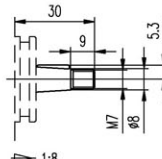


Q0



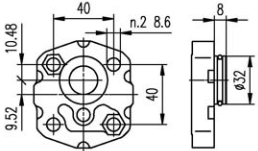
G0

最大扭矩
Max.Torque 20 Nm

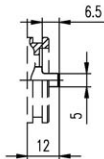


T0

最大扭矩
Max.Torque 25 Nm

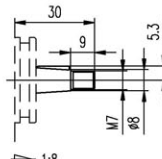


Q1



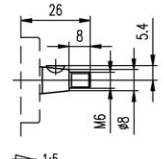
G0

最大扭矩
Max.Torque 20 Nm



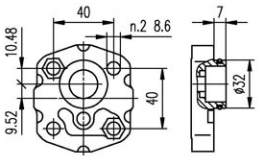
T0

最大扭矩
Max.Torque 25 Nm

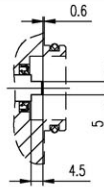


T1

最大扭矩
Max.Torque 23 Nm

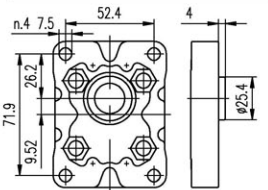


Q2

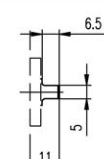


G1

最大扭矩
Max.Torque 20 Nm

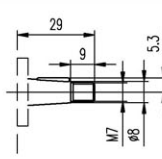


B0



G0

最大扭矩
Max.Torque 20 Nm



T0

最大扭矩
Max.Torque 25 Nm

油口/PORTS



L0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	G1/4	ø9



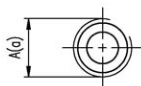
L1

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	G3/8	ø9



N0

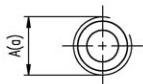
规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	3/8 NPT	ø9



L2

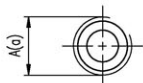
规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	G3/8	G1/4

油口/PORTS



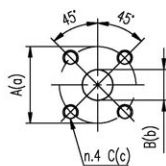
L3

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	G3/8	G3/8



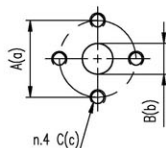
Z0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
1PUA...0.8 ÷ 1PUA...8.0	M18x1.5	M14x1.5



F0

规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
1PUA...0.8 ÷ 1PUA...8.0	30	12	M6	30	12	M6



E0

规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
1PUA...0.8 ÷ 1PUA...8.0	30	12	M6	30	12	M6

如何订购/ HOW TO ORDER

1	P	LA/HA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	油口 Ports	油口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump M-齿轮马达 Motor	系列号 Series LA-前、后盖材料为铝合金 LA-Front and end cover material aluminum HA-前、后盖材料为铸铁,压力比"HA"系列高 30bar. BH-Front and end cover material cast iron, pressure than "BA" series high 30 bar.	1.4 2.1 2.8 3.5 4.1 5.2 6.2 7.6 9.3 11.0 13.8	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		B0 A0 Q0				
								可选项 / Options		
								排油管 / Drain		
								Q0-内部排油 / internal drain Q1-外部排油 / external drain G1/4 Q2-外部排油 / external drain 7/16-20 UNF Q3-外部排油 / external drain 9/16-18 UNF		

油口位置

省略-侧进侧出
A-前进前出
B-后进前出
C-后进侧出
D-侧进前出
R-后进后出

Ports position

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

油封

省略-温度范围在-10°C~+80°C, 进油口最高绝对压力为3bar。
V-适用于高温介质, 温度范围在-10°C~+120°C。
H-适用于低温介质, 温度范围在-40°C~+80°C。
T-适用于进油口最大绝对压力3~6bar。
N-适用于进油口最大绝对压力3~10bar。

Seals

Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

范例/ Examples:

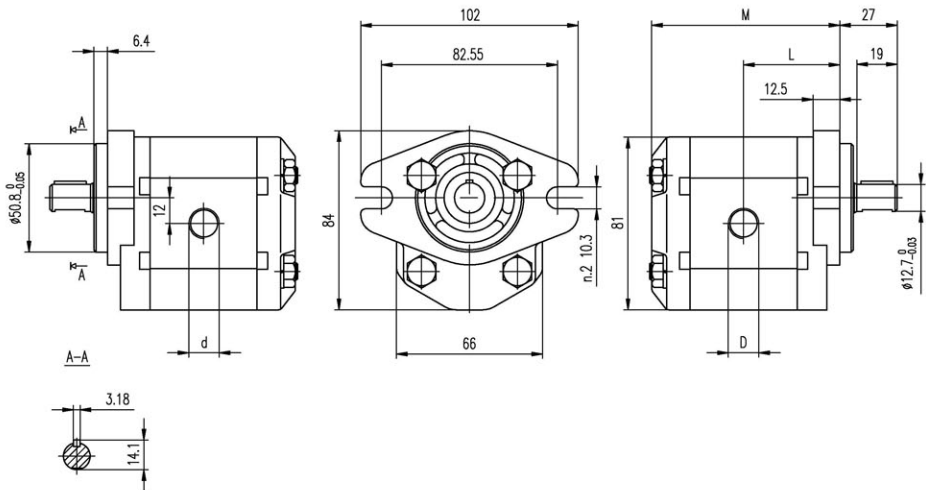
- 1PLA-1.4-D-T0-B0-E0 = 顺时针, 排量 1.4 cc/rev, B0 前盖, T0 1:8锥形轴伸, E0 安装油口, 标准油封
clockwise rotation, 1.4 cc/rev, B0 front cover, 1:8 tapered shaft(T0), setting ports E0 type, standard seals
- 1PLA-1.4-D-A0-C0-R0 = 顺时针, 排量 1.4 cc/rev, A0 前盖, C0 圆柱轴伸, R0 安装油口, 标准油封
clockwise rotation, 1.4 cc/rev, A0 front cover, C0 parallel shaft, setting ports R0 type, standard seals
- 1PLA-1.4-D-C2-Q0-U0-N = 顺时针, 排量 1.4 cc/rev, Q0 前盖, C2 圆柱轴伸, U0 安装油口, 高压油封(N)
clockwise rotation, 1.4 cc/rev, Q0 front cover, C2 parallel shaft, setting ports U0 type, high pressure seals(N)

"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1),
安装泵时, n.4 M8 螺钉扭矩设定为 27±3 Nm.

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M8 screws, with a torque wrench setting fixed at 27±3 Nm.

出油口
OUTLET

进油口
INLET



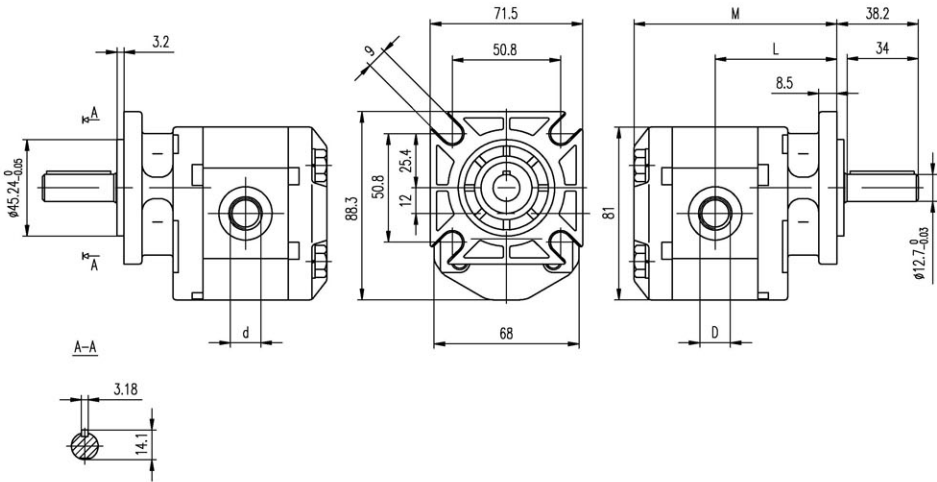
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions			
		P1	P2	P3			M	L	D	d
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm		
1PLA-1.4-D*AO	1.4	250	270	290	6000	800	82.5	42	PT1/2	PT3/8
1PLA-2.1-D*AO	2.1	250	270	290	6000	800	84.5	43	PT1/2	PT3/8
1PLA-2.8-D*AO	2.8	250	270	290	5000	800	86.5	44	PT1/2	PT3/8
1PLA-3.5-D*AO	3.5	250	270	290	5000	800	88.5	45	PT1/2	PT3/8
1PLA-4.1-D*AO	4.1	250	270	290	4000	800	90.5	46	PT1/2	PT3/8
1PLA-5.2-D*AO	5.2	230	245	260	4000	800	93.5	47.5	PT1/2	PT3/8
1PLA-6.2-D*AO	6.2	230	245	260	3500	800	96.5	49	PT1/2	PT3/8
1PLA-7.6-D*AO	7.6	200	215	230	3000	600	100.5	51	PT3/4	PT1/2
1PLA-9.3-D*AO	9.3	180	195	210	2500	600	105.5	53.5	PT3/4	PT1/2
1PLA-11.0-D*AO	11.0	170	185	200	2500	600	110.5	56	PT3/4	PT1/2
1PLA-13.8-D*AO	13.8	150	165	180	2000	600	118.5	60	PT3/4	PT1/2

"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1),
安装泵时, n.4 M8 螺钉扭矩设定为 27±3 Nm.

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M8 screws, with a torque wrench setting fixed at 27±3 Nm.

出油口
OUTLET

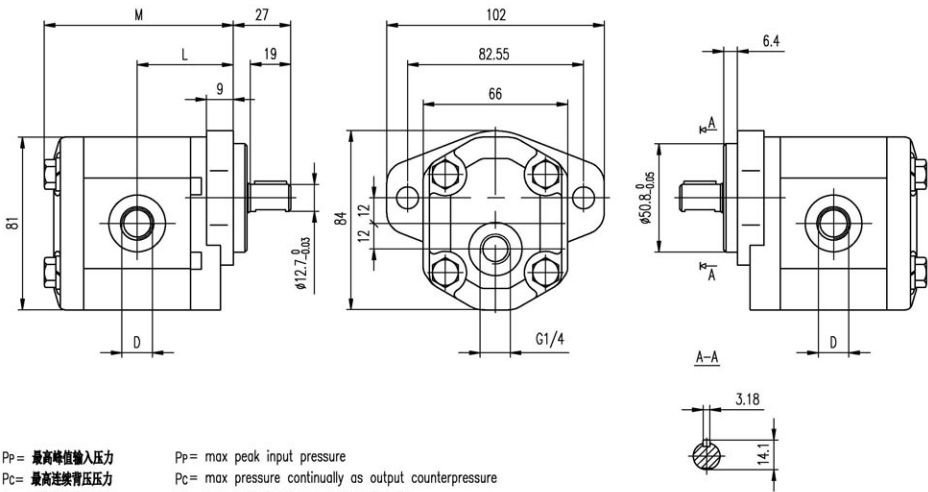
进油口
INLET



规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions			
		P1	P2	P3			M	L	D	d
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm		
1PLA-1.4-D*Q0	1.4	250	270	290	6000	800	98	59	3/4-16UNF	9/16-18UNF
1PLA-2.1-D*Q0	2.1	250	270	290	6000	800	100	60	3/4-16UNF	9/16-18UNF
1PLA-2.8-D*Q0	2.8	250	270	290	5000	800	102	61	3/4-16UNF	9/16-18UNF
1PLA-3.5-D*Q0	3.5	250	270	290	5000	800	104	62	3/4-16UNF	9/16-18UNF
1PLA-4.1-D*Q0	4.1	250	270	290	4000	800	106	63	3/4-16UNF	9/16-18UNF
1PLA-5.2-D*Q0	5.2	230	245	260	4000	800	109	64.5	3/4-16UNF	9/16-18UNF
1PLA-6.2-D*Q0	6.2	230	245	260	3500	800	112	66	3/4-16UNF	9/16-18UNF
1PLA-7.6-D*Q0	7.6	200	215	230	3000	600	116	68	7/8-14UNF	3/4-16UNF
1PLA-9.3-D*Q0	9.3	180	195	210	2500	600	121	70.5	7/8-14UNF	3/4-16UNF
1PLA-11.0-D*Q0	11.0	170	185	200	2500	600	126	73	7/8-14UNF	3/4-16UNF
1PLA-13.8-D*Q0	13.8	150	165	180	2000	600	134	77	7/8-14UNF	3/4-16UNF

"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1),
安装泵时, n.4 M8 螺钉扭矩设定为 30±3 Nm.

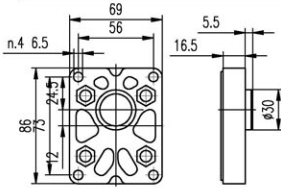
"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M8 screws, with a torque wrench setting fixed at 30±3 Nm.



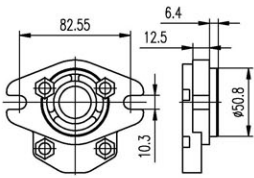
Pp = 最高峰值输入压力 Pp = max peak input pressure
Pc = 最高连续背压压力 Pc = max pressure continually as output counterpressure
P1 = 最高连续输入压力 P1 = max peak input pressure continually

规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions		
		P1	Pc	Pp			M	L	D
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	
1MHA-1.4R*AO-Q1	1.4	270	260	290	5000	800	82.5	42	3/4-16UNF
1MHA-2.1R*AO-Q1	2.1	270	260	290	5000	800	84.5	43	3/4-16UNF
1MHA-2.8R*AO-Q1	2.8	270	260	290	5000	800	86.5	44	3/4-16UNF
1MHA-3.5R*AO-Q1	3.5	270	260	290	5000	800	88.5	45	3/4-16UNF
1MHA-4.1R*AO-Q1	4.1	270	260	290	4000	800	90.5	46	3/4-16UNF
1MHA-5.2R*AO-Q1	5.2	260	250	275	3500	800	93.5	47.5	3/4-16UNF
1MHA-6.2R*AO-Q1	6.2	260	250	275	3000	800	96.5	49	3/4-16UNF
1MHA-7.6R*AO-Q1	7.6	230	220	245	3000	600	100.5	51	7/8-14UNF
1MHA-9.3R*AO-Q1	9.3	210	200	225	3000	600	105.5	53.5	7/8-14UNF
1MHA-11.0R*AO-Q1	11.0	200	190	215	2500	600	110.5	56	7/8-14UNF
1MHA-13.8R*AO-Q1	13.8	180	170	195	2200	600	118.5	60	7/8-14UNF

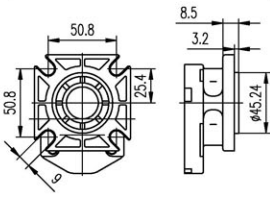
前盖/Front COVER



B0

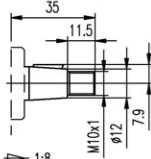


A2



Q0

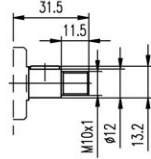
轴伸/SHAFTS



1:8
3

T0

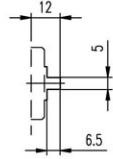
最大扭矩
Max.Torque 100 Nm



3

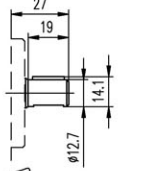
C1

最大扭矩
Max.Torque 55 Nm



G0

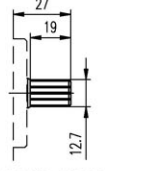
最大扭矩
Max.Torque 45 Nm



3.18

C0

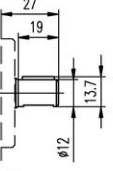
最大扭矩
Max.Torque 60 Nm



DP20/40-30-9T

S0

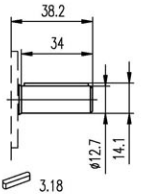
最大扭矩
Max.Torque 100 Nm



4

C5

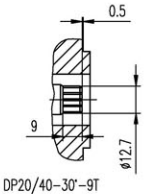
最大扭矩
Max.Torque 70 Nm



3.18

C2

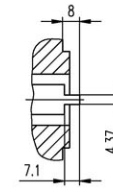
最大扭矩
Max.Torque 100 Nm



DP20/40-30-9T

S1

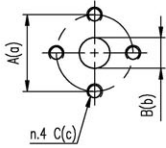
最大扭矩
Max.Torque 95 Nm



G1

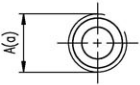
最大扭矩
Max.Torque 45 Nm

油口/PORTS



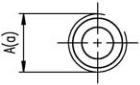
E0

规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
1PLA...1.4 ÷ 1PLA...13.8	30	13	M6	30	13	M6



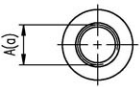
L0/L1/L2/L3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
1PLA...1.4 ÷ 1PLA...3.5	L0	G1/2	G3/8
1PLA...4.1 ÷ 1PLA...13.8	L1	G1/2	G1/2
1PLA...1.4 ÷ 1PLA...3.5	L2	G3/8	G3/8
1PLA...4.1 ÷ 1PLA...13.8	L3	G3/4	G1/2



R0/R1/R2/R3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
1PLA...1.4 ÷ 1PLA...6.2	R0	PT1/2	PT3/8
1PLA...7.6 ÷ 1PLA...13.8	R1	PT3/4	PT1/2
1PLA...1.4 ÷ 1PLA...13.8	R2	PT1/2	PT1/2
1PLA...1.4 ÷ 1PLA...6.2	R3	PT3/8	PT3/8



U0/U1/U2/U3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
1PLA...1.4 ÷ 1PLA...6.2	U0	3/4-16UNF	9/16-18UNF
1PLA...7.6 ÷ 1PLA...13.8	U1	7/8-14UNF	3/4-16UNF
1MHA...1.4 ÷ 1MHA...6.2	U2	3/4-16UNF	3/4-16UNF
1MHA...7.6 ÷ 1MHA...13.8	U3	7/8-14UNF	7/8-14UNF

如何订购/ HOW TO ORDER

1.5	P	LA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	油口 Ports	油口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump	系列号 Series	2 3 4 5 6 8 9 11 12	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		Q0				

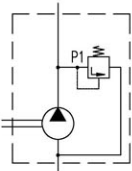
油封

省略-温度范围在 -10°C ~ $+80^{\circ}\text{C}$ ，进油口最大绝对压力为3bar。
 V-适用于高温介质，温度范围在 -10°C ~ $+120^{\circ}\text{C}$ 。
 H-适用于低温介质，温度范围在 -40°C ~ $+80^{\circ}\text{C}$ 。
 T-适用于进油口最大绝对压力3~6bar。
 N-适用于进油口最大绝对压力3~10bar。

Seals

Omit-Range between -10°C and $+80^{\circ}\text{C}$, inlet pressure up to max. 3 bar absolute.
 V-Version suitable for fluid at hi-temperatures, range between -10°C and $+120^{\circ}\text{C}$.
 H-Version suitable for fluid at low-temperatures, range between -40°C and $+80^{\circ}\text{C}$.
 T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
 N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

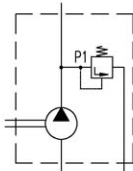
可选项/Options



溢流阀。
 卸压流量回到吸油口。
 控制压力 P1=5...250bar。
 Pressure relief valve.
 Discharge returned to suction.
 P1= 5...250 bar.

订货号/Ordering code

Y 180xx



溢流阀。
 卸压流量外溢。
 控制压力 P1=5...250bar。
 Pressure relief valve.
 Discharge returned to externally.
 P1= 5...250 bar.

P 120xx

范例/ Examples:

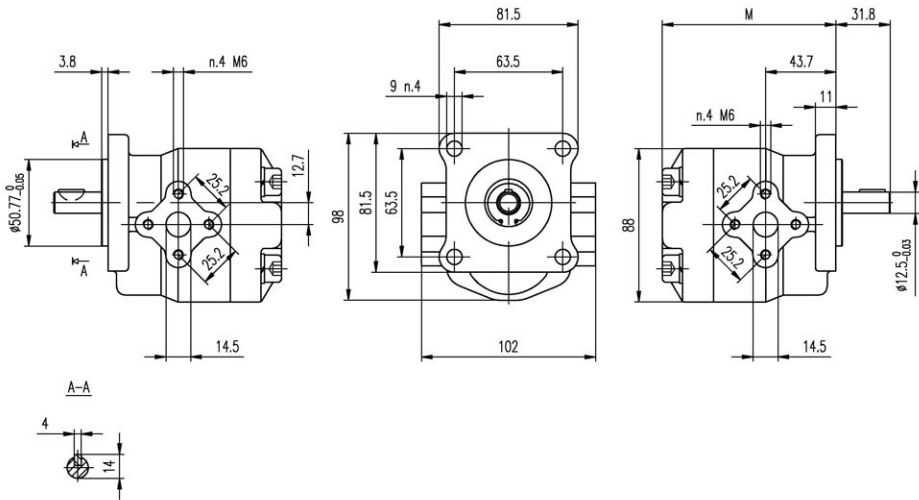
- 1.5PLA-2-D-C0-Q0-E0 = 顺时针转，排量 2 cc/rev, Q0 前盖，C0 圆柱轴伸，E0 安装油口，标准油封
 clockwise rotation, 2 cc/rev, Q0 front cover, C0 parallel shaft, setting ports E0 type, standard seals
- 1.5PLA-2-D-C0-Q0-E0-N= 顺时针转，排量 2 cc/rev, Q0 前盖，C0 圆柱轴伸，E0 安装油口，高压油封(N)
 clockwise rotation, 2 cc/rev, Q0 front cover, C0 parallel shaft, setting ports E0 type, high pressure seals(N)

M6 螺纹深 16。
 安装泵时，n.4 M10 螺钉扭矩设定为
 47±3 Nm。

M6 thread depth 16.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 47±3 Nm.

出油口
 OUTLET

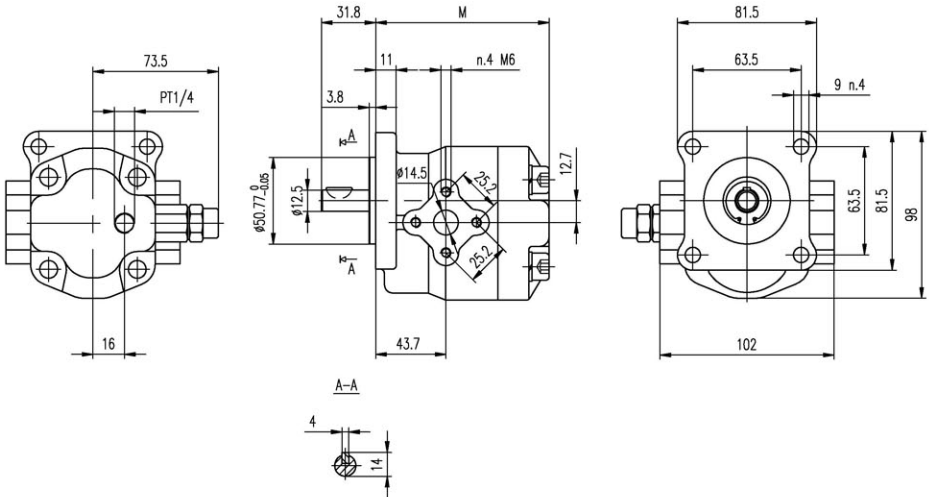
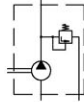
进油口
 INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions M mm
		P1 bar	P2 bar	P3 bar			
1.5PLA-2-D*Q0	2	210	230	250	5000	900	96.7
1.5PLA-3-D*Q0	3	210	230	250	5000	850	96.7
1.5PLA-4-D*Q0	4	210	230	250	4500	800	96.7
1.5PLA-5-D*Q0	5	210	230	250	4000	800	96.7
1.5PLA-6-D*Q0	6	210	230	250	3500	700	99.7
1.5PLA-8-D*Q0	8	210	230	250	3000	600	99.7
1.5PLA-9-D*Q0	9	180	200	220	2500	550	102.7
1.5PLA-11-D*Q0	11	180	200	220	2000	500	105.7
1.5PLA-12-D*Q0	12	180	200	220	2000	500	105.7

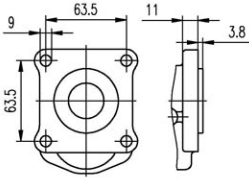
M6 螺纹深 16.
 安装泵时, n.4 M10 螺钉扭矩设定为
 47±3 Nm.

M6 thread depth 16.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 47±3 Nm.



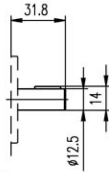
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions M mm
		P1 bar	P2 bar	P3 bar			
1.5PLA-2-D*Q0-Px	2	210	230	250	5000	900	96.7
1.5PLA-3-D*Q0-Px	3	210	230	250	5000	850	96.7
1.5PLA-4-D*Q0-Px	4	210	230	250	4500	800	96.7
1.5PLA-5-D*Q0-Px	5	210	230	250	4000	800	96.7
1.5PLA-6-D*Q0-Px	6	210	230	250	3500	700	99.7
1.5PLA-8-D*Q0-Px	8	210	230	250	3000	600	99.7
1.5PLA-9-D*Q0-Px	9	180	200	220	2500	550	102.7
1.5PLA-11-D*Q0-Px	11	180	200	220	2000	500	105.7
1.5PLA-12-D*Q0-Px	12	180	200	220	2000	500	105.7

前盖/Front COVER



Q0

轴伸/SHAFTS



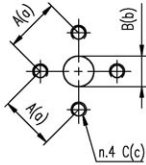
4 C0

最大扭矩

Max.Torque

60 Nm

油口/PORTS



E0

规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
1.5PLA...2 ÷ 1.5PLA...12	25.2	14.5	M6	25.2	14.5	M6

如何订购/ HOW TO ORDER

2	P	LA/HA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	油口 Ports	油口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump M-齿轮马达 Motor	系列号 Series LA-前、后盖材料为铝合金 LA-Front and end cover material aluminum HA-前、后盖材料为铸铁, 压力比"LA"系列高 30bar. HA-Front and end cover material cast iron, pressure than "BA" series high 30 bar.	3 4 6 8 10 12 14 16 18 20 22 25 28 30	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		A0 B0 B1 B2 Q0 Q1 Q2		油口位置 / Ports position 省略-侧进侧出 Omit-Side inlet and side outlet B-后进前出 B-Back inlet and front outlet C-后进侧出 C-Back inlet and side outlet D-侧进前出 D-Side inlet and front outlet R-后进后出 R-Back inlet and back outlet		
								排油管 / Drain Q0-内部排油 / internal drain Q1-外部排油 / external drain G1/4 Q2-外部排油 / external drain 9/16-18 UNF Q3-外部排油 / external drain 7/16-20 UNF Q4-外部排油 / external drain M12x1.5		

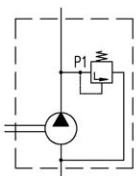
油封

省略-温度范围在-10°C~+80°C, 进油口最高绝对压力为3bar.
V-适用于高温介质, 温度范围在-10°C~+120°C.
H-适用于低温介质, 温度范围在-40°C~+80°C.
T-适用于进油口最大绝对压力3~6bar.
N-适用于进油口最大绝对压力3~10bar.

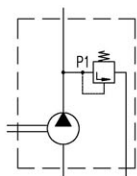
Seals

Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

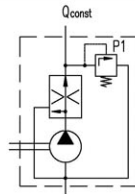
可选项/Options



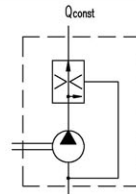
溢流阀。
卸压流量回到吸油口。
控制压力 P1=5...250bar.
Pressure relief valve.
Discharge returned to suction.
P1= 5...250 bar.



溢流阀。
卸压流量外泄。
控制压力 P1=5...250bar.
Pressure relief valve.
Discharge returned to externally.
P1= 5...250 bar.



三通流量阀带安全阀。
剩余流量投回吸油口。
控制压力 P1=100...180bar.
控制流量 Qconst=2...30L/min.
3-way flow control valve with pressure relief valve.
Excess flow returned to suction.
P1= 100...180 bar.
Qconst = 2...30 L/min.



三通流量阀。
剩余流量投回吸油口。
控制流量 Qconst=2...30L/min.
3-way flow control valve.
Excess flow returned to suction.
Qconst = 2...30 L/min.

订货号/Ordering code

Y 180xx

P 120xx

F 15015

Q xxx15

范例/ Examples:

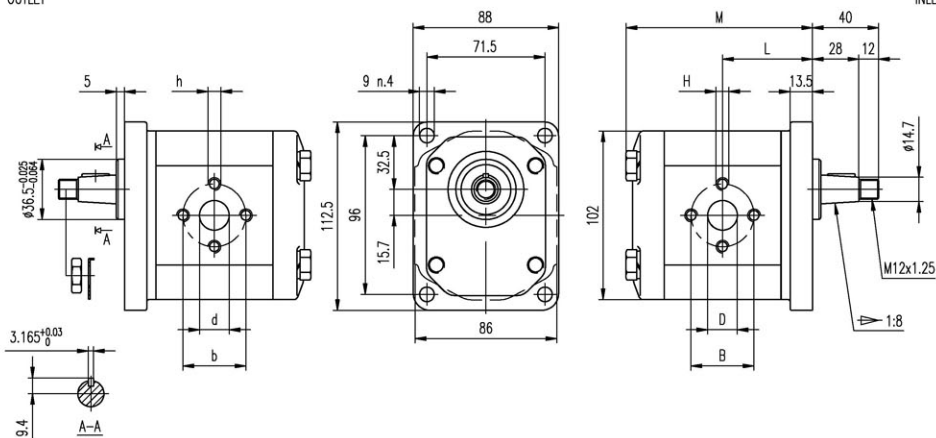
- 2PHA-3-D-T0-B0-E0 = 顺时针转, 排量 3 cc/rev, B0 前盖, T0 1:8锥形轴伸, E0 安装油口, 标准油封
clockwise rotation, 3 cc/rev, B0 front cover, 1:8 tapered shaft(T0), setting ports E0 type, standard seals
- 2PLA-3-D-C0-A0-U0 = 顺时针转, 排量 3 cc/rev, A0 前盖, C0 圆柱轴伸, U0 安装油口, 标准油封
clockwise rotation, 3 cc/rev, A0 front cover, C0 parallel shaft, setting ports U0 type, standard seals
- 2PHA-3-D-T1-Q0-F0-N= 顺时针转, 排量 3 cc/rev, Q0 前盖, T1 1:8锥形轴伸, F0 安装油口, 高压油封(N)
clockwise rotation, 3 cc/rev, Q0 front cover, 1:8 tapered shaft(T1), setting ports F0 type, high pressure seals(N)

M6 螺纹深 13, M8 螺纹深 17.
 安装泵时, n.4 M10 螺钉扭矩设定为
 70...75 Nm.
 轴伸 M12x1.25 螺母扭矩设定为 50 Nm.

M6 thread depth 13, M8 thread depth 17.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 70...75 Nm.
 Shaft M12x1.25 nut, with a torque
 wrench setting fixed at 50 Nm.

出油口
 OUTLET

进油口
 INLET



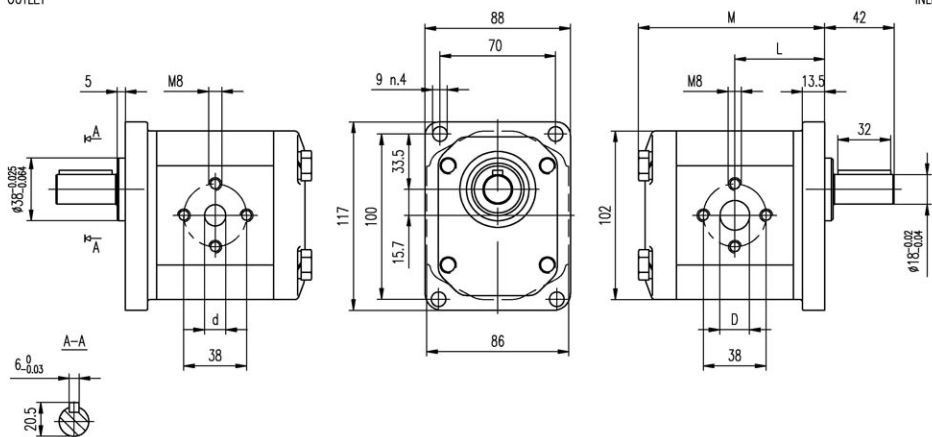
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions							
		P1	P2	P3			M	L	B	D	H	b	d	h
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm	mm	mm	mm	mm	mm
2PHA-3-D*B0	3	270	285	300	4000	800	91.1	43.6	30	13	M6	30	13	M6
2PHA-4-D*B0	4	270	285	300	4000	600	92.7	44.4	30	13	M6	30	13	M6
2PHA-6-D*B0	6	270	285	300	4000	600	96	46	30	13	M6	30	13	M6
2PHA-8-D*B0	8	270	285	300	3500	500	99.3	47.7	30	13	M6	30	13	M6
2PHA-10-D*B0	10	270	285	300	3000	500	102.6	49.3	40	20	M8	30	13	M6
2PHA-12-D*B0	12	270	285	300	3000	500	105.9	51	40	20	M8	30	13	M6
2PHA-14-D*B0	14	250	265	280	4000	500	109.3	52.7	40	20	M8	30	13	M6
2PHA-16-D*B0	16	250	265	280	4000	500	112.7	54.4	40	20	M8	30	13	M6
2PHA-18-D*B0	18	250	265	280	3600	400	116	56	40	20	M8	30	13	M6
2PHA-20-D*B0	20	220	235	250	3200	400	119.3	57.7	40	20	M8	30	13	M6
2PHA-22-D*B0	22	220	235	250	3000	400	122.6	59.3	40	20	M8	30	13	M6
2PHA-25-D*B0	25	200	215	230	3000	400	127.6	61.8	40	22	M8	30	13	M6
2PHA-28-D*B0	28	180	190	200	2500	400	132.6	64.3	40	22	M8	30	13	M6
2PHA-30-D*B0	30	160	170	180	2500	400	135.9	66	40	22	M8	30	13	M6

M8 螺纹深 16。
 安装泵时, n.4 M10 螺钉扭矩设定为
 70...75 Nm.

M8 thread depth 16.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 70...75 Nm.

由油口
 OUTLET

进油口
 INLET



泵型 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm	d mm
2PHA-3-D*B1	3	270	285	300	4000	800	91.1	43.6	14	10
2PHA-4-D*B1	4	270	285	300	4000	600	92.7	44.4	14	10
2PHA-6-D*B1	6	270	285	300	4000	600	96	46	14	10
2PHA-8-D*B1	8	270	285	300	3500	500	99.3	47.7	14	10
2PHA-10-D*B1	10	270	285	300	3000	500	102.6	49.3	18	15
2PHA-12-D*B1	12	270	285	300	3000	500	105.9	51	18	15
2PHA-14-D*B1	14	250	265	280	4000	500	109.3	52.7	18	15
2PHA-16-D*B1	16	250	265	280	4000	500	112.7	54.4	18	15
2PHA-18-D*B1	18	250	265	280	3600	400	116	56	18	15
2PHA-20-D*B1	20	220	235	250	3200	400	119.3	57.7	18	15
2PHA-22-D*B1	22	220	235	250	3000	400	122.6	59.3	18	15
2PHA-25-D*B1	25	200	215	230	3000	400	127.6	61.8	20	15
2PHA-28-D*B1	28	180	190	200	2500	400	132.6	64.3	20	15
2PHA-30-D*B1	30	160	170	180	2500	400	135.9	66	20	15

M6 螺纹深 13.

安装泵时, n.4 M10 螺钉扭矩设定为
70...75 Nm.

轴伸 M12x1.5 螺母扭矩设定为 50 Nm.

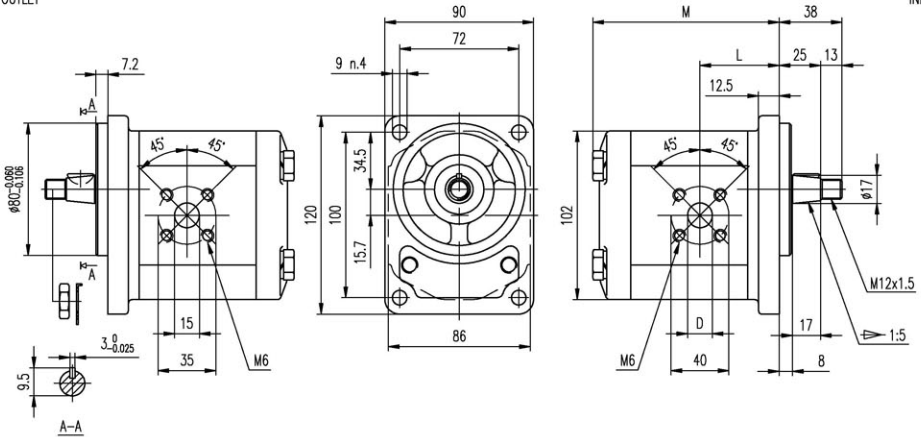
M6 thread depth 13.

To mount the pump, n.4 M10 screws,
with a torque wrench setting fixed
at 70...75 Nm.

Shaft M12x1.5 nut, with a torque
wrench setting fixed at 50 Nm.

出油口
OUTLET

进油口
INLET



规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions		
		P1	P2	P3			M	L	D
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm
2PHA-3-D*B2	3	270	285	300	4000	800	91.1	39.9	15
2PHA-4-D*B2	4	270	285	300	4000	600	92.7	39.9	15
2PHA-6-D*B2	6	270	285	300	4000	600	96	41.1	15
2PHA-8-D*B2	8	270	285	300	3500	500	99.3	43.2	15
2PHA-10-D*B2	10	270	285	300	3000	500	102.6	43.7	20
2PHA-12-D*B2	12	270	285	300	3000	500	105.9	47.5	20
2PHA-14-D*B2	14	250	265	280	4000	500	109.3	47.5	20
2PHA-16-D*B2	16	250	265	280	4000	500	112.7	47.5	20
2PHA-18-D*B2	18	250	265	280	3600	400	116	47.5	20
2PHA-20-D*B2	20	220	235	250	3200	400	119.3	47.5	20
2PHA-22-D*B2	22	220	235	250	3000	400	122.6	55.1	20
2PHA-25-D*B2	25	200	215	230	3000	400	127.6	61.8	20
2PHA-28-D*B2	28	180	190	200	2500	400	132.6	64.3	20
2PHA-30-D*B2	30	160	170	180	2500	400	135.9	66	20

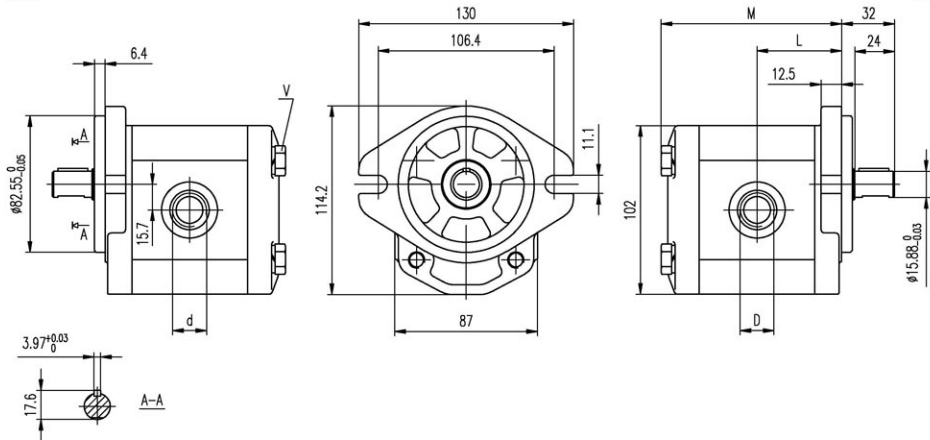
"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1)。

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).

安装法兰材料	V
Mounting flange material	Screws tightening torque Nm
Aluminum	40...45
Cast iron	70...75

出油口
OUTLET

进油口
INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
		P1 bar	P2 bar	P3 bar			M mm	L mm	D	d
2PHA-3-D*AO	3	270	285	300	4000	800	91.1	43.6	1 1/16-12UNF	7/8-14UNF
2PHA-4-D*AO	4	270	285	300	4000	600	92.7	44.4	1 1/16-12UNF	7/8-14UNF
2PHA-6-D*AO	6	270	285	300	4000	600	96	46	1 1/16-12UNF	7/8-14UNF
2PHA-8-D*AO	8	270	285	300	3500	500	99.3	47.7	1 1/16-12UNF	7/8-14UNF
2PHA-10-D*AO	10	270	285	300	3000	500	102.6	49.3	1 1/16-12UNF	7/8-14UNF
2PHA-12-D*AO	12	270	285	300	3000	500	105.9	51	1 1/16-12UNF	7/8-14UNF
2PHA-14-D*AO	14	250	265	280	4000	500	109.3	52.7	1 1/16-12UNF	7/8-14UNF
2PHA-16-D*AO	16	250	265	280	4000	500	112.7	54.4	1 1/16-12UNF	7/8-14UNF
2PHA-18-D*AO	18	250	265	280	3600	400	116	56	1 1/16-12UNF	7/8-14UNF
2PHA-20-D*AO	20	220	235	250	3200	400	119.3	57.7	1 1/16-12UNF	7/8-14UNF
2PHA-22-D*AO	22	220	235	250	3000	400	122.6	59.3	1 1/16-12UNF	7/8-14UNF
2PHA-25-D*AO	25	200	215	230	3000	400	127.6	61.8	1 1/16-12UNF	7/8-14UNF
2PHA-28-D*AO	28	180	190	200	2500	400	132.6	64.3	1 1/16-12UNF	7/8-14UNF
2PHA-30-D*AO	30	160	170	180	2500	400	135.9	66	1 5/16-12UNF	7/8-14UNF

M6 螺纹深 13.

安装泵时, n.2 M10 螺钉扭矩设定为
45...50 Nm.

轴伸 M12x1.5 螺母扭矩设定为 50 Nm.

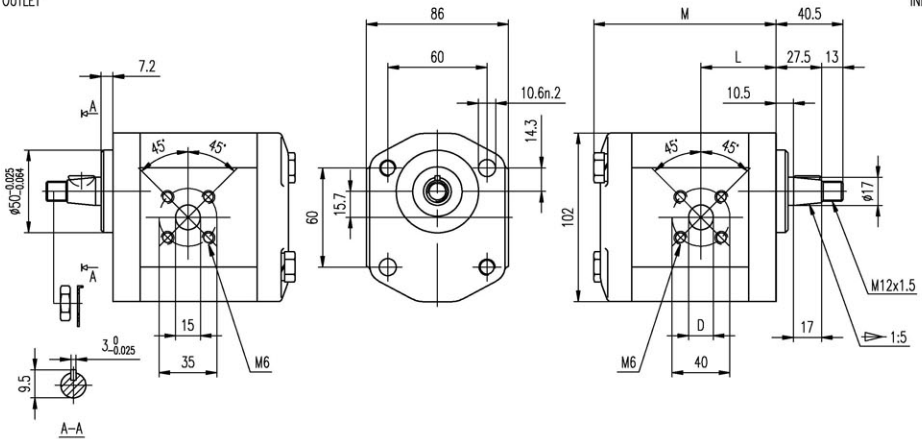
M6 thread depth 13.

To mount the pump, n.2 M10 screws,
with a torque wrench setting fixed
at 45...50 Nm.

Shaft M12x1.5 nut, with a torque
wrench setting fixed at 50 Nm.

由油口
OUTLET

逆油口
INLET



规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm
	(cm ³ /rev)				(r/min)	(r/min)			
2PHA-3-D*Q0	3	270	285	300	4000	800	88.6	37.4	15
2PHA-4-D*Q0	4	270	285	300	4000	600	90.2	37.4	15
2PHA-6-D*Q0	6	270	285	300	4000	600	93.5	38.6	15
2PHA-8-D*Q0	8	270	285	300	3500	500	96.8	40.7	15
2PHA-10-D*Q0	10	270	285	300	3000	500	100.1	41.2	20
2PHA-12-D*Q0	12	270	285	300	3000	500	103.4	45	20
2PHA-14-D*Q0	14	250	265	280	4000	500	106.8	45	20
2PHA-16-D*Q0	16	250	265	280	4000	500	110.2	45	20
2PHA-18-D*Q0	18	250	265	280	3600	400	113.5	45	20
2PHA-20-D*Q0	20	220	235	250	3200	400	116.8	45	20
2PHA-22-D*Q0	22	220	235	250	3000	400	120.1	52.6	20
2PHA-25-D*Q0	25	200	215	230	3000	400	125.1	59.3	20
2PHA-28-D*Q0	28	180	190	200	2500	400	130.1	61.8	20
2PHA-30-D*Q0	30	160	170	180	2500	400	133.4	63.5	20

M6 螺纹深 13.

安装泵时, n.2 M10 螺钉扭矩设定为
45...50 Nm.

联接套最大扭矩为 70 Nm.

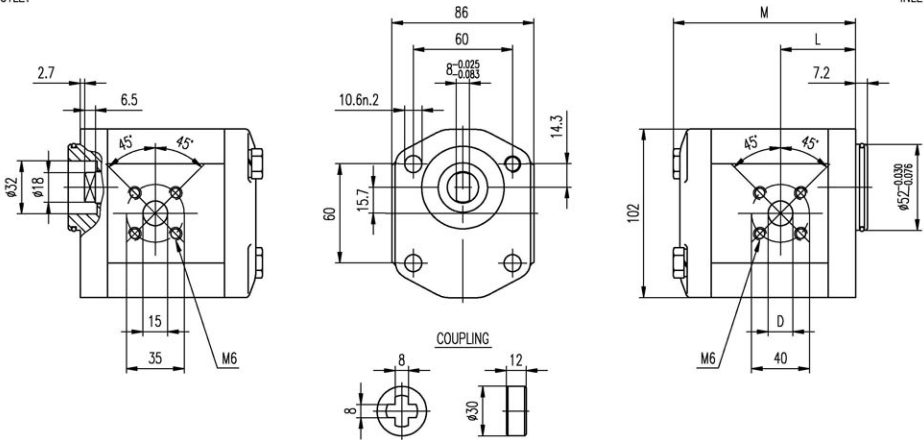
M6 thread depth 13.

To mount the pump, n.2 M10 screws,
with a torque wrench setting fixed
at 45...50 Nm.

Coupling Max. torque 70 Nm.

出油口
OUTLET

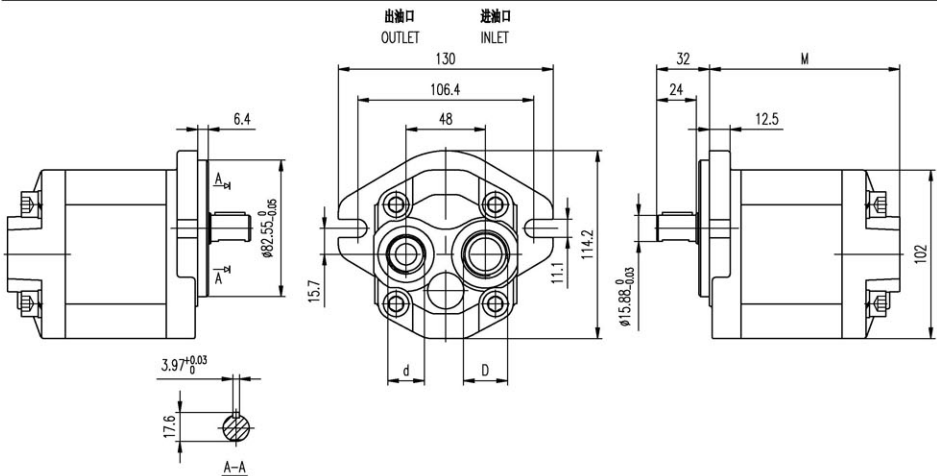
进油口
INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm
2PHA-3-D*Q2	3	270	285	300	4000	800	88.6	37.4	15
2PHA-4-D*Q2	4	270	285	300	4000	600	90.2	37.4	15
2PHA-6-D*Q2	6	270	285	300	4000	600	93.5	38.6	15
2PHA-8-D*Q2	8	270	285	300	3500	500	96.8	40.7	15
2PHA-10-D*Q2	10	270	285	300	3000	500	100.1	41.2	20
2PHA-12-D*Q2	12	270	285	300	3000	500	103.4	45	20
2PHA-14-D*Q2	14	250	265	280	4000	500	106.8	45	20
2PHA-16-D*Q2	16	250	265	280	4000	500	110.2	45	20
2PHA-18-D*Q2	18	250	265	280	3600	400	113.5	45	20
2PHA-20-D*Q2	20	220	235	250	3200	400	116.8	45	20
2PHA-22-D*Q2	22	220	235	250	3000	400	120.1	52.6	20
2PHA-25-D*Q2	25	200	215	230	3000	400	125.1	59.3	20
2PHA-28-D*Q2	28	180	190	200	2500	400	130.1	61.8	20
2PHA-30-D*Q2	30	160	170	180	2500	400	133.4	63.5	20

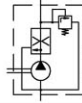
"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1)。
安装泵时, n.4 M10 螺钉扭矩设定为 70...75 Nm.

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M10 screws, with a torque wrench setting fixed at 70...75 Nm.

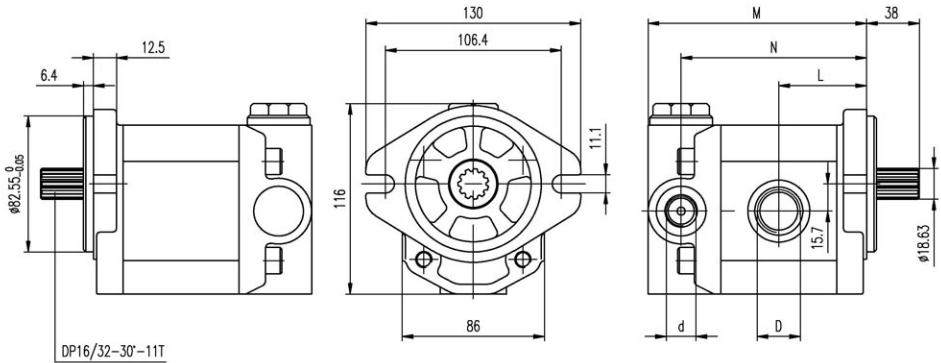


规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	D	d
2PHA-3-D*AO-R	3	270	285	300	4000	800	103.1	1 1/16-12UNF	7/8-14UNF
2PHA-4-D*AO-R	4	270	285	300	4000	600	104.7	1 1/16-12UNF	7/8-14UNF
2PHA-6-D*AO-R	6	270	285	300	4000	600	108	1 1/16-12UNF	7/8-14UNF
2PHA-8-D*AO-R	8	270	285	300	3500	500	111.3	1 1/16-12UNF	7/8-14UNF
2PHA-10-D*AO-R	10	270	285	300	3000	500	114.6	1 1/16-12UNF	7/8-14UNF
2PHA-12-D*AO-R	12	270	285	300	3000	500	117.9	1 1/16-12UNF	7/8-14UNF
2PHA-14-D*AO-R	14	250	265	280	4000	500	121.3	1 1/16-12UNF	7/8-14UNF
2PHA-16-D*AO-R	16	250	265	280	4000	500	124.7	1 1/16-12UNF	7/8-14UNF
2PHA-18-D*AO-R	18	250	265	280	3600	400	128	1 1/16-12UNF	7/8-14UNF
2PHA-20-D*AO-R	20	220	235	250	3200	400	131.3	1 1/16-12UNF	7/8-14UNF
2PHA-22-D*AO-R	22	220	235	250	3000	400	134.6	1 1/16-12UNF	7/8-14UNF
2PHA-25-D*AO-R	25	200	215	230	3000	400	139.6	1 1/16-12UNF	7/8-14UNF
2PHA-28-D*AO-R	28	180	190	200	2500	400	144.6	1 1/16-12UNF	7/8-14UNF
2PHA-30-D*AO-R	30	160	170	180	2500	400	147.9	1 1/16-12UNF	7/8-14UNF

"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1)。
安装泵时, n.4 M10 螺钉扭矩设定为 70...75 Nm.



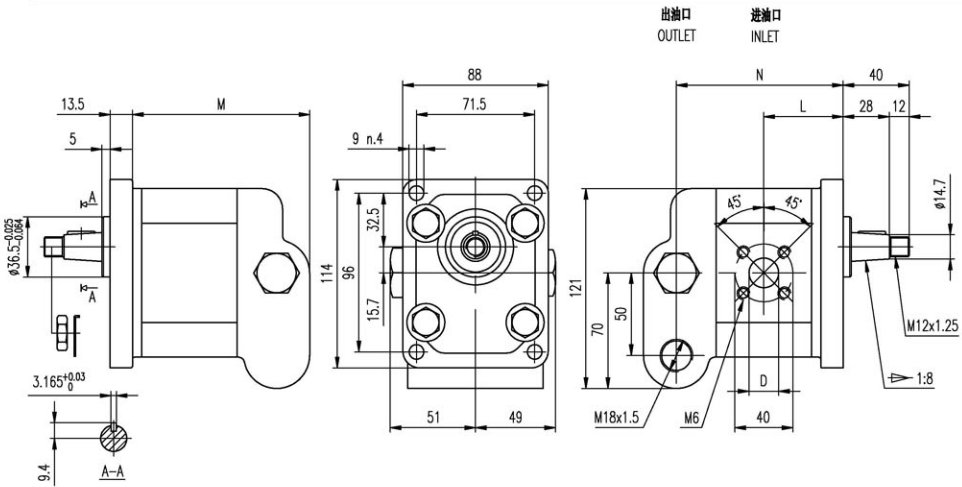
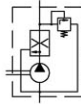
"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M10 screws, with a torque wrench setting fixed at 70...75 Nm.



规格 Type	排量 Displacement	控制压力 Control pressure	控制流量 Control flow	最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions				
						M	L	N	D	
	(cm ³ /rev)	P1 bar	Q _{const} L/min	(r/min)	(r/min)	mm	mm	mm		
2PHA-3-D*AO-Fx	3	100...180	2...30	4000	800	112.1	43.6	92.1	1 1/16-12UNF	7/8-14UNF
2PHA-4-D*AO-Fx	4			4000	600	113.7	44.4	93.7	1 1/16-12UNF	7/8-14UNF
2PHA-6-D*AO-Fx	6			4000	600	117	46	97	1 1/16-12UNF	7/8-14UNF
2PHA-8-D*AO-Fx	8			3500	500	120.3	47.7	100.3	1 1/16-12UNF	7/8-14UNF
2PHA-10-D*AO-Fx	10			3000	500	123.6	49.3	103.6	1 1/16-12UNF	7/8-14UNF
2PHA-12-D*AO-Fx	12			3000	500	126.9	51	106.9	1 1/16-12UNF	7/8-14UNF
2PHA-14-D*AO-Fx	14			4000	500	130.3	52.7	110.3	1 1/16-12UNF	7/8-14UNF
2PHA-16-D*AO-Fx	16			4000	500	133.7	54.4	113.7	1 1/16-12UNF	7/8-14UNF
2PHA-18-D*AO-Fx	18			3600	400	137	56	117	1 1/16-12UNF	7/8-14UNF
2PHA-20-D*AO-Fx	20			3200	400	140.3	57.7	120.3	1 1/16-12UNF	7/8-14UNF
2PHA-22-D*AO-Fx	22			3000	400	143.6	59.3	123.6	1 1/16-12UNF	7/8-14UNF
2PHA-25-D*AO-Fx	25			3000	400	148.6	61.8	128.6	1 1/16-12UNF	7/8-14UNF
2PHA-28-D*AO-Fx	28			2500	400	153.6	64.3	133.6	1 1/16-12UNF	7/8-14UNF
2PHA-30-D*AO-Fx	30			2500	400	156.9	66	136.9	1 1/16-12UNF	7/8-14UNF

M6 螺纹深 13, M18x1.5 螺纹深 14.
 安装泵时, n.4 M10 螺钉扭矩设定为
 70...75 Nm.
 轴伸 M12x1.25 螺母扭矩设定为 50 Nm.

M6 thread depth 13, M18x1.5 thread depth 14.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 70...75 Nm.
 Shaft M12x1.25 nut, with a torque
 wrench setting fixed at 50 Nm.



规格 Type	排量 Displacement (cm ³ /rev)	控制压力 Control pressure P1 bar	控制流量 Control flow Q _{const} L/min	最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
						M mm	L mm	N mm	D mm
2PHA-3-D*B0-FAx	3	100...180	2...30	4000	800	112.1	43.6	96.1	15
2PHA-4-D*B0-FAx	4			4000	600	113.7	44.4	97.7	15
2PHA-6-D*B0-FAx	6			4000	600	117	46	101	15
2PHA-8-D*B0-FAx	8			3500	500	120.3	47.7	104.3	15
2PHA-10-D*B0-FAx	10			3000	500	123.6	49.3	107.6	20
2PHA-12-D*B0-FAx	12			3000	500	126.9	51	110.9	20
2PHA-14-D*B0-FAx	14			4000	500	130.3	52.7	114.3	20
2PHA-16-D*B0-FAx	16			4000	500	133.7	54.4	117.7	20
2PHA-18-D*B0-FAx	18			3600	400	137	56	121	20
2PHA-20-D*B0-FAx	20			3200	400	140.3	57.7	124.3	20
2PHA-22-D*B0-FAx	22			3000	400	143.6	59.3	127.6	20
2PHA-25-D*B0-FAx	25			3000	400	148.6	61.8	132.6	20
2PHA-28-D*B0-FAx	28			2500	400	153.6	64.3	137.6	20
2PHA-30-D*B0-FAx	30			2500	400	156.9	66	140.9	20

带轴承泵，能承受

径向和轴向载荷。

M6 螺纹深 13。

安装泵时，n.4 M10 螺钉扭矩设定为

70...75 Nm。

轴伸 M14x1.5 螺母扭矩设定为 70 Nm。

Pump with bearing, This option allows radial and/or axial loads on the pump shaft.

M6 thread depth 13.

To mount the pump, n.4 M10 screws, with a torque wrench setting fixed

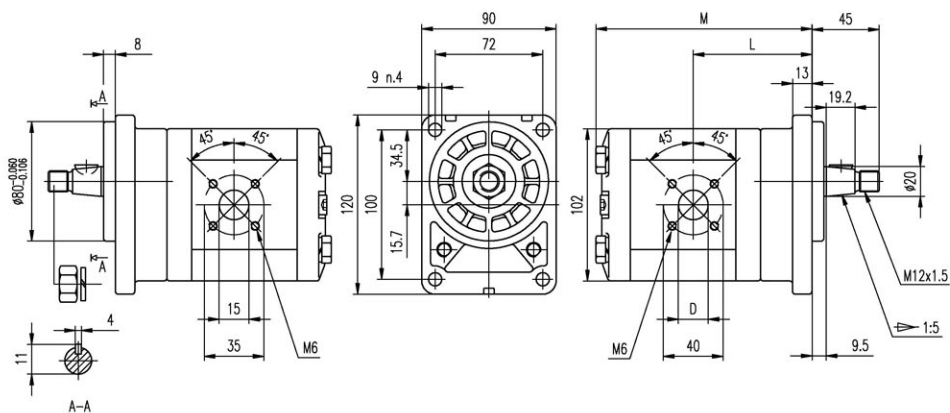
at 70...75 Nm.

Shaft M14x1.5 nut, with a torque wrench setting fixed at 70 Nm.



出油口
OUTLET

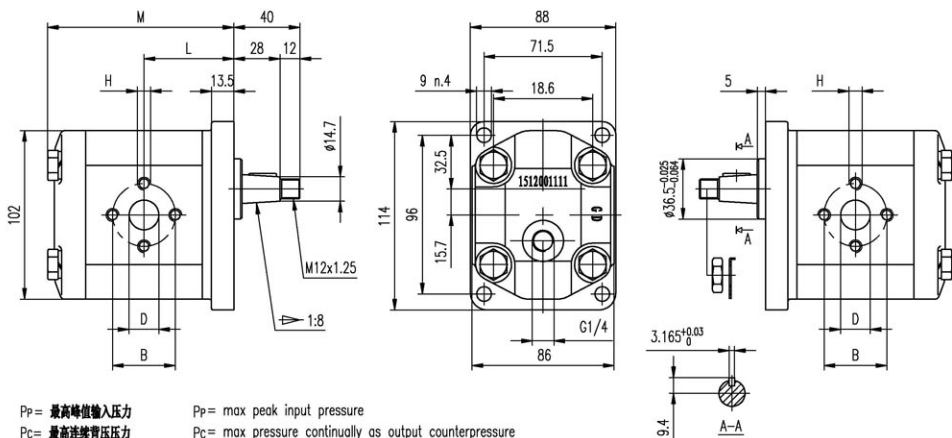
进油口
INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm
2PHA-3-D*B3	3	270	285	300	4000	800	123.1	71.9	15
2PHA-4-D*B3	4	270	285	300	4000	600	124.7	71.9	15
2PHA-6-D*B3	6	270	285	300	4000	600	128.0	73.1	15
2PHA-8-D*B3	8	270	285	300	3500	500	131.3	75.2	15
2PHA-10-D*B3	10	270	285	300	3000	500	134.6	75.7	20
2PHA-12-D*B3	12	270	285	300	3000	500	137.9	79.5	20
2PHA-14-D*B3	14	250	265	280	4000	500	141.3	79.5	20
2PHA-16-D*B3	16	250	265	280	4000	500	144.7	79.5	20
2PHA-18-D*B3	18	250	265	280	3600	400	148.0	79.5	20
2PHA-20-D*B3	20	220	235	250	3200	400	151.3	79.5	20
2PHA-22-D*B3	22	220	235	250	3000	400	154.6	87.1	20
2PHA-25-D*B3	25	200	215	230	3000	400	159.6	93.8	20
2PHA-28-D*B3	28	180	190	200	2500	400	164.6	96.3	20
2PHA-30-D*B3	30	160	170	180	2500	400	167.9	98.0	20

M6 螺纹深 13, M8 螺纹深 17.
 安装泵时, n.4 M10 螺钉扭矩设定为
 70...75 Nm.
 轴伸 M12x1.25 螺母扭矩设定为 50 Nm.

M6 thread depth 13, M8 thread depth 17.
 To mount the pump, n.4 M10 screws,
 with a torque wrench setting fixed
 at 70...75 Nm.
 Shaft M12x1.25 nut, with a torque
 wrench setting fixed at 50 Nm.

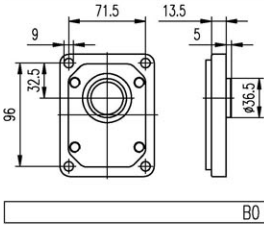


Pp = 最高峰值输入压力
 Pc = 最高连续背压压力
 P1 = 最高连续输入压力

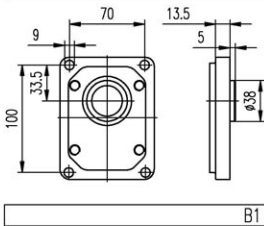
Pp = max peak input pressure
 Pc = max pressure continually as output counterpressure
 P1 = max peak input pressure continually

规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions				
		P1	Pc	Pp			M	L	B	D	H
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm	mm	mm
2MHA-3R*BO-Q1	3	280	270	295	4000	800	91.1	43.6	30	13	M6
2MHA-4R*BO-Q1	4	280	270	295	4000	600	92.7	44.4	30	13	M6
2MHA-6R*BO-Q1	6	280	270	295	4000	600	96.0	46.0	30	13	M6
2MHA-8R*BO-Q1	8	280	270	295	3500	500	99.3	47.7	30	13	M6
2MHA-10R*BO-Q1	10	280	270	295	3000	500	102.6	49.3	40	20	M8
2MHA-12R*BO-Q1	12	280	270	295	3000	500	105.9	51.0	40	20	M8
2MHA-14R*BO-Q1	14	260	250	275	4000	500	109.3	52.7	40	20	M8
2MHA-16R*BO-Q1	16	260	250	275	4000	500	112.7	54.4	40	20	M8
2MHA-18R*BO-Q1	18	260	250	275	3600	400	116.0	56.0	40	20	M8
2MHA-20R*BO-Q1	20	230	220	245	3200	400	119.3	57.7	40	20	M8
2MHA-22R*BO-Q1	22	230	220	245	3000	400	122.6	59.3	40	20	M8
2MHA-25R*BO-Q1	25	210	200	225	3000	400	127.6	61.8	40	22	M8
2MHA-28R*BO-Q1	28	200	190	215	2500	400	132.6	64.3	40	22	M8
2MHA-30R*BO-Q1	30	180	170	195	2500	400	135.9	66.0	40	22	M8

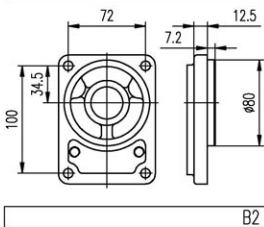
前盖/Front cover



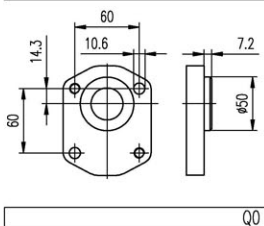
B0



B1

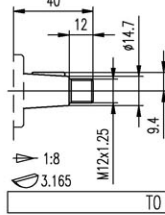


B2



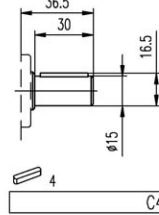
Q0

轴伸/Shafts



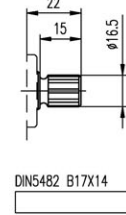
T0

最大扭矩
Max.Torque 200 Nm



C4

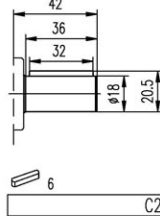
最大扭矩
Max.Torque 135 Nm



DIN5482 B17X14

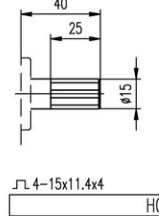
S7

最大扭矩
Max.Torque 150 Nm



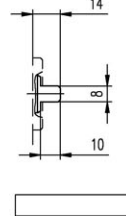
C2

最大扭矩
Max.Torque 150 Nm



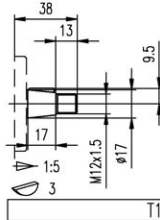
H0

最大扭矩
Max.Torque 185 Nm



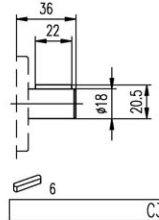
G0

最大扭矩
Max.Torque 100 Nm



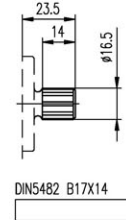
T1

最大扭矩
Max.Torque 180 Nm



C3

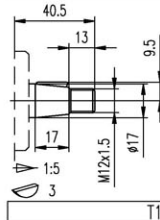
最大扭矩
Max.Torque 150 Nm



DIN5482 B17X14

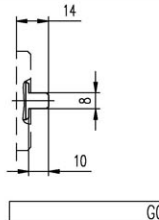
S6

最大扭矩
Max.Torque 150 Nm



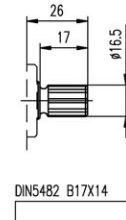
T1

最大扭矩
Max.Torque 180 Nm



G0

最大扭矩
Max.Torque 100 Nm

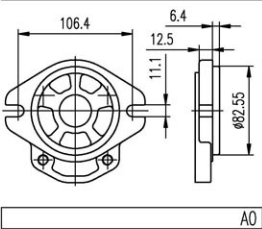
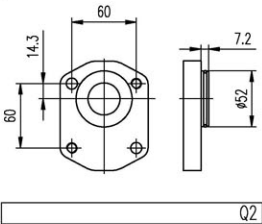
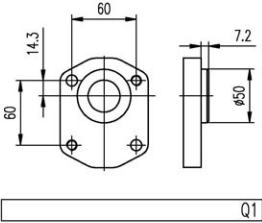


DIN5482 B17X14

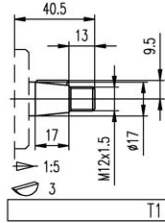
S3

最大扭矩
Max.Torque 150 Nm

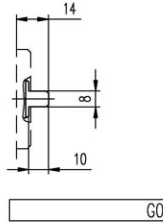
前盖/Front Cover



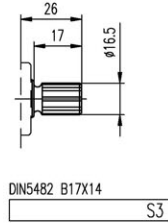
轴伸/Shafts



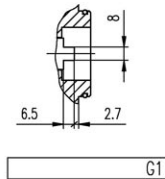
最大扭矩
Max.Torque 180 Nm



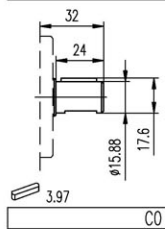
最大扭矩
Max.Torque 100 Nm



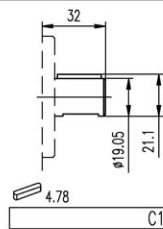
最大扭矩
Max.Torque 150 Nm



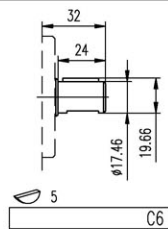
最大扭矩
Max.Torque 100 Nm



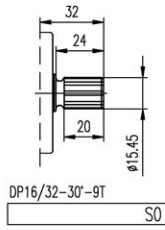
最大扭矩
Max.Torque 140 Nm



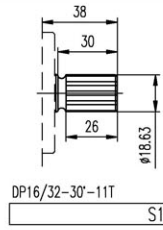
最大扭矩
Max.Torque 160 Nm



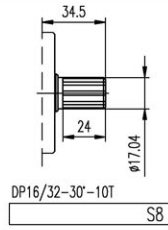
最大扭矩
Max.Torque 180 Nm



最大扭矩
Max.Torque 185 Nm

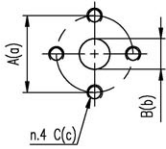


最大扭矩
Max.Torque 200 Nm



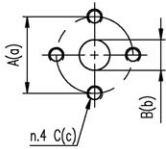
最大扭矩
Max.Torque 190 Nm

油口/PORTS



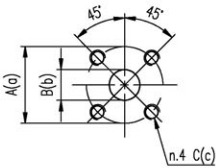
E0/E1/E2/E4

规格 TYPE	油口代号 PORTS CODE	进油口 INLET			出油口 OUTLET		
		A	B	C	a	b	c
2PL(H)A...3 ÷ 2PL(H)A...8	E0	30	13	M6	30	13	M6
2PL(H)A...10 ÷ 2PL(H)A...22	E1	40	20	M8	30	13	M6
2PL(H)A...25 ÷ 2PL(H)A...30	E2	40	22	M8	30	13	M6
2PL(H)A...3 ÷ 2PL(H)A...30	E4	40	19	M8	40	13	M8



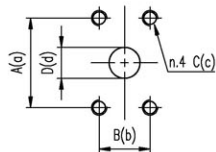
E3

规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
2PL(H)A...3 ÷ 2PL(H)A...8	38	14	M8	38	10	M8
2PL(H)A...10 ÷ 2PL(H)A...22	38	18	M8	38	15	M8
2PL(H)A...25 ÷ 2PL(H)A...30	38	20	M8	38	15	M8



F0/F1

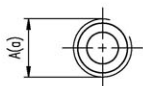
规格 TYPE	油口代号 PORTS CODE	进油口 INLET			出油口 OUTLET		
		A	B	C	a	b	c
2PL(H)A...3 ÷ 2PL(H)A...8	F0	40	15	M6	35	13	M6
2PL(H)A...10 ÷ 2PL(H)A...30	F1	40	20	M8	35	13	M6



F2/F3/F4

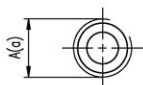
规格 TYPE	油口代号 PORTS CODE	进油口 INLET				出油口 OUTLET			
		A	B	C	D	a	b	c	d
2PL(H)A...3 ÷ 2PL(H)A...16	F2	38.1	17.48	5/16-18UNC	13	38.1	17.48	5/16-18UNC	13
2PL(H)A...18 ÷ 2PL(H)A...20	F3	47.63	22.23	3/8-16UNC	20	38.1	17.48	5/16-18UNC	13
2PL(H)A...22 ÷ 2PL(H)A...30	F4	47.63	22.23	3/8-16UNC	20	47.63	22.23	3/8-16UNC	20

油口/PORTS



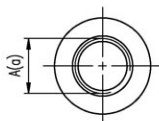
L0/L1/L3/L4

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2PL(H)A...3 ÷ 2PL(H)A...6	L0	G1/2	G1/2
2PL(H)A...8 ÷ 2PL(H)A...30	L1	G3/4	G1/2
2PL(H)A...16 ÷ 2PL(H)A...30	L3	G 1	G3/4
2PL(H)A...8 ÷ 2PL(H)A...30	L4	G3/4	G3/4



R0/R1/R2

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2PL(H)A...3 ÷ 2PL(H)A...12	R0	PT1/2	PT1/2
2PL(H)A...14 ÷ 2PL(H)A...25	R1	PT3/4	PT1/2
2PL(H)A...28 ÷ 2PL(H)A...30	R2	PT 1	PT3/4



U0/U1/U2/U3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2PL(H)A...3 ÷ 2PL(H)A...28	U0	1 1/16-12 UNF	7/8-14 UNF
2PL(H)A...30	U1	1 5/16-12 UNF	7/8-14 UNF
2PL(H)A...3 ÷ 2PL(H)A...28	U2	7/8-14 UNF	3/4-16 UNF
2PL(H)A...8 ÷ 2PL(H)A...30	U3	1 5/16-12 UNF	1 1/16-12 UNF

如何订购/ HOW TO ORDER

2.5	P	LA/HA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	出口 Ports	出口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump	系列号 Series	6 8 10 12 14 16 19 22 25 28 30 32 36 38 40 44	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		B0 A1 A2				
		LA-前、后盖 材料为铝合金 LA-Front and end cover material aluminum HA-前、后盖材料 为铸铁,压力比“LA” 系列高 30bar。 HA-Front and end cover material cast iron, pressure than “BA”series high 30 bar.								

出口位置

省略-侧进侧出
A-前送前出
B-后送前出
C-后送侧出
D-侧送前出
R-后送后出

Ports position

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

油封

省略-温度范围在-10°C~+80°C, 进出口最高绝对压力为3bar。
V-适用于高温介质, 温度范围在-10°C~+120°C。
H-适用于低温介质, 温度范围在-40°C~+80°C。
T-适用于进出口最大绝对压力3~6bar。
N-适用于进出口最大绝对压力3~10bar。

Seals

Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

范例/ Examples:

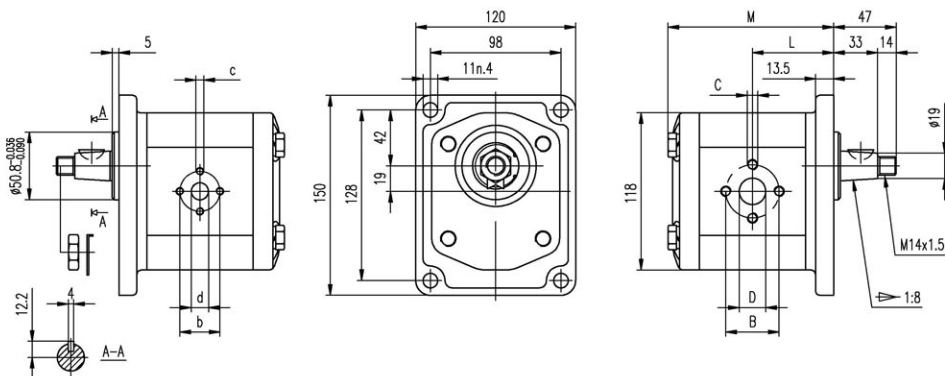
- 2.5PHA-10-D-T0-B0-E1 = 顺时针转, 排量 10 cc/rev, B0 前盖, T0 1:8锥度轴伸, E1 安装出口, 标准油封
clockwise rotation, 10 cc/rev, B0 front cover, 1:8 tapered shaft(E1), setting ports E1 type, standard seals
- 2.5PHA-10-D-C1-A1-F0 = 顺时针转, 排量 10 cc/rev, A1 前盖, C1 圆柱轴伸, F0 安装出口, 标准油封
clockwise rotation, 10 cc/rev, A1 front cover, C1 parallel shaft, setting ports F0 type, standard seals
- 2.5PHA-10-D-S3-A2-U0-N= 顺时针转, 排量 10 cc/rev, A2 前盖, S3 SAE B 13齿轴伸, U0 安装出口, 高压油封(N)
clockwise rotation, 10 cc/rev, A2 front cover, SAE B splined 13T shaft(S3), setting ports U0 type, high pressure seals(N)

安装泵时, n.4 M12 螺钉扭矩设定为
130...135 Nm.
轴伸 M14x1.5 螺母扭矩设定为 75 Nm.

To mount the pump, n.4 M10 screws,
with a torque wrench setting fixed
at 130...135 Nm.
Shaft M14x1.5 nut, with a torque
wrench setting fixed at 75 Nm.

出油口
OUTLET

进油口
INLET



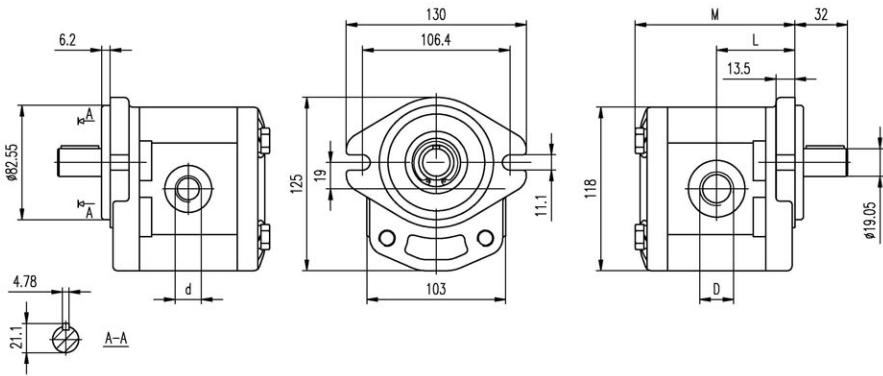
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions							
		P1 bar	P2 bar	P3 bar			M mm	L mm	B mm	D mm	C	b mm	d mm	c
2.5PHA-6-D*B0	6	250	280	300	4000	800	103	49.3	30	13	M6	30	13	M6
2.5PHA-8-D*B0	8	250	280	300	4000	800	105	50.3	30	13	M6	30	13	M6
2.5PHA-10-D*B0	10	250	280	300	4000	700	107	51.3	40	20	M8	30	13	M6
2.5PHA-12-D*B0	12	250	280	300	3500	700	110	52.5	40	20	M8	30	13	M6
2.5PHA-14-D*B0	14	250	280	300	3500	600	111	53.3	40	20	M8	30	13	M6
2.5PHA-16-D*B0	16	250	280	300	3500	600	114	54.5	40	20	M8	30	13	M6
2.5PHA-19-D*B0	19	250	280	300	3000	500	117	56.3	40	20	M8	30	13	M6
2.5PHA-22-D*B0	22	250	280	300	3000	500	121	58.0	51	25	M10	40	18	M8
2.5PHA-25-D*B0	25	250	280	300	3000	500	123	59.3	51	25	M10	40	18	M8
2.5PHA-28-D*B0	28	250	280	300	3000	500	126	60.8	51	25	M10	40	18	M8
2.5PHA-30-D*B0	30	230	250	260	3000	500	129	62.0	51	25	M10	40	18	M8
2.5PHA-32-D*B0	32	230	250	260	3000	400	131	63.3	51	25	M10	40	18	M8
2.5PHA-36-D*B0	36	200	230	250	2750	400	135	65.3	51	25	M10	40	18	M8
2.5PHA-38-D*B0	38	200	230	250	2750	400	137	66.3	51	25	M10	40	18	M8
2.5PHA-40-D*B0	40	170	190	210	2500	400	139	67.3	51	25	M10	40	18	M8
2.5PHA-44-D*B0	44	170	190	210	2500	400	144	69.5	51	25	M10	40	18	M8

G 1 螺纹深 19,
 G 3/4 螺纹深 16,
 G 1/2 螺纹深 15,
 安装泵时, n.4 M12 螺钉扭矩设定为
 130...135 Nm.

G 1 thread depth 19,
 G 3/4 thread depth 16,
 G 1/2 thread depth 15,
 To mount the pump, n.4 M12 screws,
 with a torque wrench setting fixed
 at 130...135 Nm.

出油口
 OUTLET

进油口
 INLET



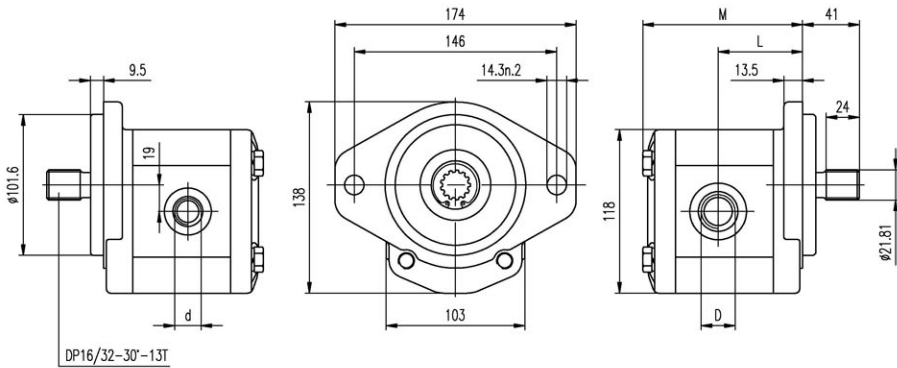
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
		P1 bar	P2 bar	P3 bar			M mm	L mm	D	d
2.5PHA-6-D*A1	6	250	280	300	4000	800	103	49.3	G 3/4	G 1/2
2.5PHA-8-D*A1	8	250	280	300	4000	800	105	50.3	G 3/4	G 1/2
2.5PHA-10-D*A1	10	250	280	300	4000	700	107	51.3	G 3/4	G 1/2
2.5PHA-12-D*A1	12	250	280	300	3500	700	110	52.5	G 3/4	G 1/2
2.5PHA-14-D*A1	14	250	280	300	3500	600	111	53.3	G 3/4	G 1/2
2.5PHA-16-D*A1	16	250	280	300	3500	600	114	54.5	G 3/4	G 1/2
2.5PHA-19-D*A1	19	250	280	300	3000	500	117	56.3	G 3/4	G 1/2
2.5PHA-22-D*A1	22	250	280	300	3000	500	121	58.0	G 3/4	G 1/2
2.5PHA-25-D*A1	25	250	280	300	3000	500	123	59.3	G 1	G 3/4
2.5PHA-28-D*A1	28	250	280	300	3000	500	126	60.8	G 1	G 3/4
2.5PHA-30-D*A1	30	230	250	260	3000	500	129	62.0	G 1	G 3/4
2.5PHA-32-D*A1	32	230	250	260	3000	400	131	63.3	G 1	G 3/4
2.5PHA-36-D*A1	36	200	230	250	2750	400	135	65.3	G 1	G 3/4
2.5PHA-38-D*A1	38	200	230	250	2750	400	137	66.3	G 1	G 3/4
2.5PHA-40-D*A1	40	170	190	210	2500	400	139	67.3	G 1	G 3/4
2.5PHA-44-D*A1	44	170	190	210	2500	400	144	69.5	G 1	G 3/4

"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1)。
安装泵时, n.4 M12 螺钉扭矩设定为 130...135 Nm.

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M12 screws, with a torque wrench setting fixed at 130...135 Nm.

出油口
OUTLET

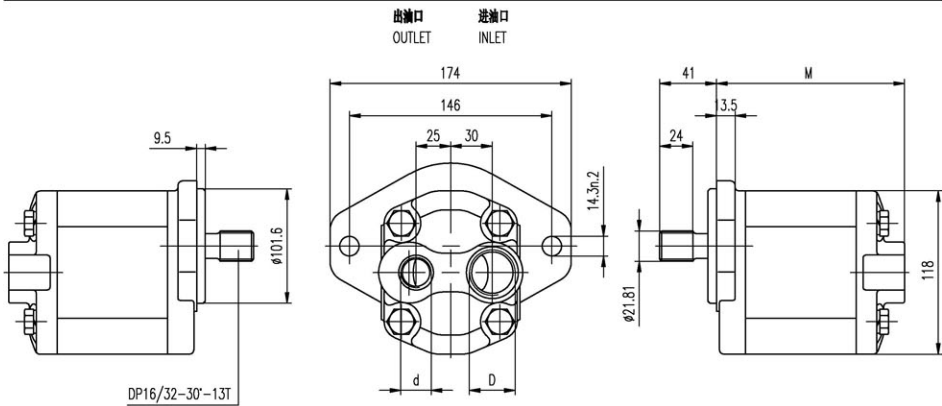
进油口
INLET



规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm	d mm
2.5PHA-6-D*A2	6	250	280	300	4000	800	103	49.3	1 1/16-12UNF	7/8-14UNF
2.5PHA-8-D*A2	8	250	280	300	4000	800	105	50.3	1 1/16-12UNF	7/8-14UNF
2.5PHA-10-D*A2	10	250	280	300	4000	700	107	51.3	1 1/16-12UNF	7/8-14UNF
2.5PHA-12-D*A2	12	250	280	300	3500	700	110	52.5	1 1/16-12UNF	7/8-14UNF
2.5PHA-14-D*A2	14	250	280	300	3500	600	111	53.3	1 1/16-12UNF	7/8-14UNF
2.5PHA-16-D*A2	16	250	280	300	3500	600	114	54.5	1 1/16-12UNF	7/8-14UNF
2.5PHA-19-D*A2	19	250	280	300	3000	500	117	56.3	1 1/16-12UNF	7/8-14UNF
2.5PHA-22-D*A2	22	250	280	300	3000	500	121	58.0	1 1/16-12UNF	7/8-14UNF
2.5PHA-25-D*A2	25	250	280	300	3000	500	123	59.3	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-28-D*A2	28	250	280	300	3000	500	126	60.8	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-30-D*A2	30	230	250	260	3000	500	129	62.0	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-32-D*A2	32	230	250	260	3000	400	131	63.3	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-36-D*A2	36	200	230	250	2750	400	135	65.3	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-38-D*A2	38	200	230	250	2750	400	137	66.3	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-40-D*A2	40	170	190	210	2500	400	139	67.3	1 5/16-12UNF	1 1/16-12UNF
2.5PHA-44-D*A2	44	170	190	210	2500	400	144	69.5	1 5/16-12UNF	1 1/16-12UNF

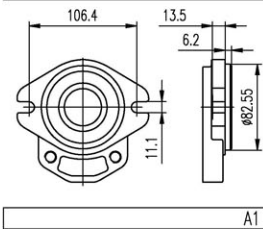
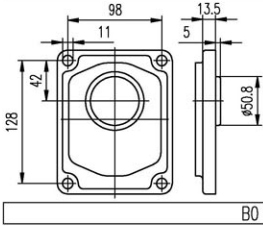
"D"和"d"油口有螺纹加工,用O形圈密封,旁侧削平的SAE J1926/1 (ISO J1926-1)。
安装泵时, n.4 M12 螺钉扭矩设定为 130...135 Nm.

"D" and "d" ports are machined in compliance with threaded port with O-ring seal in truncated housing SAE J1926/1(ISO J1926-1).
To mount the pump, n.4 M12 screws, with a torque wrench setting fixed at 130...135 Nm.

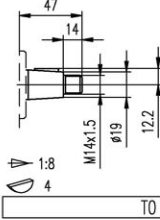


规格 Type	排量 Displacement (cm^3/rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	D	d
2.5PHA-6-D*A2-R	6	250	280	300	4000	800	118	1 1/16-12UNF	7/8-14UNF
2.5PHA-8-D*A2-R	8	250	280	300	4000	800	120	1 1/16-12UNF	7/8-14UNF
2.5PHA-10-D*A2-R	10	250	280	300	4000	700	122	1 1/16-12UNF	7/8-14UNF
2.5PHA-12-D*A2-R	12	250	280	300	3500	700	125	1 1/16-12UNF	7/8-14UNF
2.5PHA-14-D*A2-R	14	250	280	300	3500	600	126	1 1/16-12UNF	7/8-14UNF
2.5PHA-16-D*A2-R	16	250	280	300	3500	600	129	1 1/16-12UNF	7/8-14UNF
2.5PHA-19-D*A2-R	19	250	280	300	3000	500	132	1 1/16-12UNF	7/8-14UNF
2.5PHA-22-D*A2-R	22	250	280	300	3000	500	136	1 1/16-12UNF	7/8-14UNF
2.5PHA-25-D*A2-R	25	250	280	300	3000	500	138	1 1/16-12UNF	7/8-14UNF
2.5PHA-28-D*A2-R	28	250	280	300	3000	500	141	1 1/16-12UNF	7/8-14UNF
2.5PHA-30-D*A2-R	30	230	250	260	3000	500	144	1 1/16-12UNF	7/8-14UNF
2.5PHA-32-D*A2-R	32	230	250	260	3000	400	146	1 1/16-12UNF	7/8-14UNF
2.5PHA-36-D*A2-R	36	200	230	250	2750	400	150	1 1/16-12UNF	7/8-14UNF
2.5PHA-38-D*A2-R	38	200	230	250	2750	400	152	1 1/16-12UNF	7/8-14UNF
2.5PHA-40-D*A2-R	40	170	190	210	2500	400	154	1 1/16-12UNF	7/8-14UNF
2.5PHA-44-D*A2-R	44	170	190	210	2500	400	159	1 1/16-12UNF	7/8-14UNF

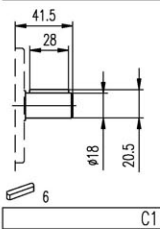
前盖/Front Cover



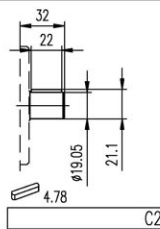
轴伸/SHAFTS



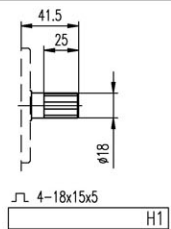
最大扭矩
Max.Torque 300 Nm



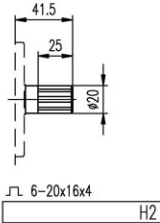
最大扭矩
Max.Torque 180 Nm



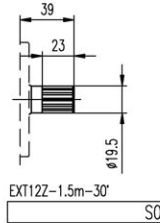
最大扭矩
Max.Torque 190 Nm



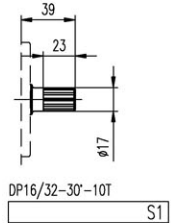
最大扭矩
Max.Torque 200 Nm



最大扭矩
Max.Torque 240 Nm



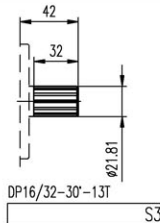
最大扭矩
Max.Torque 220 Nm



最大扭矩
Max.Torque 200 Nm

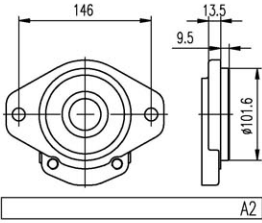


最大扭矩
Max.Torque 210 Nm

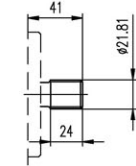


最大扭矩
Max.Torque 300 Nm

前盖/Front COVER



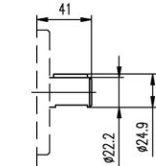
轴伸/SHAFTS



DP16/32-30'-13T

S3

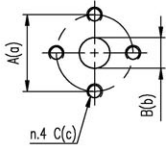
最大扭矩 400 Nm
Max.Torque



6.35 C6

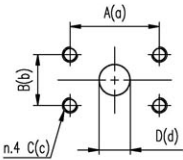
最大扭矩 350 Nm
Max.Torque

油口/PORTS



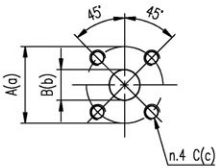
E0/E1/E2

规格 TYPE	油口代号 PORTS CODE	进油口 INLET			出油口 OUTLET		
		A	B	C	a	b	c
2.5PHA...6 ÷ 2.5PHA...8	E0	30	13	M6	30	13	M6
2.5PHA...10 ÷ 2.5PHA...19	E1	40	20	M8	30	13	M6
2.5PHA...22 ÷ 2.5PHA...44	E2	51	25	M10	40	18	M8



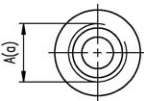
F0/F1

规格 TYPE	油口代号 PORTS CODE	进油口 INLET				出油口 OUTLET			
		A	B	C	D	a	b	c	d
BHP2.5...6 ÷ 2.5PHA...16	F0	47.6	22.2	M10x1.5	20	47.6	22.2	M10x1.5	13
2.5PHA...19 ÷ 2.5PHA...44	F1	52.4	26.2	M10x1.5	25	47.6	22.2	M10x1.5	20



F2

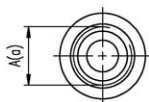
规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
2.5PHA...6 ÷ 2.5PHA...16	55	20	M8	55	13	M8
2.5PHA...19 ÷ 2.5PHA...44	55	25	M8	55	20	M8



Z0/Z1/Z2

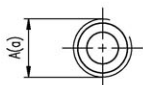
规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2.5PHA...6 ÷ 2.5PHA...14	Z0	M22x1.5	M18x1.5
2.5PHA...16 ÷ 2.5PHA...19	Z1	M27x2	M22x1.5
2.5PHA...22 ÷ 2.5PHA...44	Z2	M33x2	M27x2

油口/PORTS



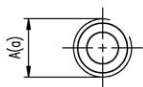
U0/U1

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2.5PHA...6 ÷ 2.5PHA...22	U0	1 1/16-12 UNF	7/8-14 UNF
2.5PHA...25 ÷ 2.5PHA...44	U1	1 5/16-12 UNF	1 1/16-12 UNF



L0/L1

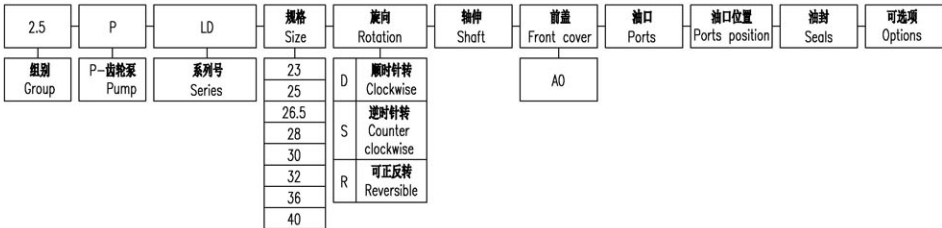
规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2.5PHA...6 ÷ 2.5PHA...22	L0	G3/4	G1/2
2.5PHA...25 ÷ 2.5PHA...44	L1	G 1	G3/4



R0/R1

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
2.5PHA...10 ÷ 2.5PHA...22	R0	PT3/4	PT1/2
2.5PHA...25 ÷ 2.5PHA...44	R1	PT 1	PT3/4

如何订购/ HOW TO ORDER



出口位置

省略-侧进侧出
A-前边前出
B-后边前出
C-后边侧出
D-侧边前出
R-后边后出

Ports position

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

油封

省略-温度范围在-10°C~+80°C, 进油口最高绝对压力为3bar。
V-适用于高温介质, 温度范围在-10°C~+120°C。
H-适用于低温介质, 温度范围在-40°C~+80°C。
T-适用于进油口最大绝对压力3~6bar。
N-适用于进油口最大绝对压力3~10bar。

Seals

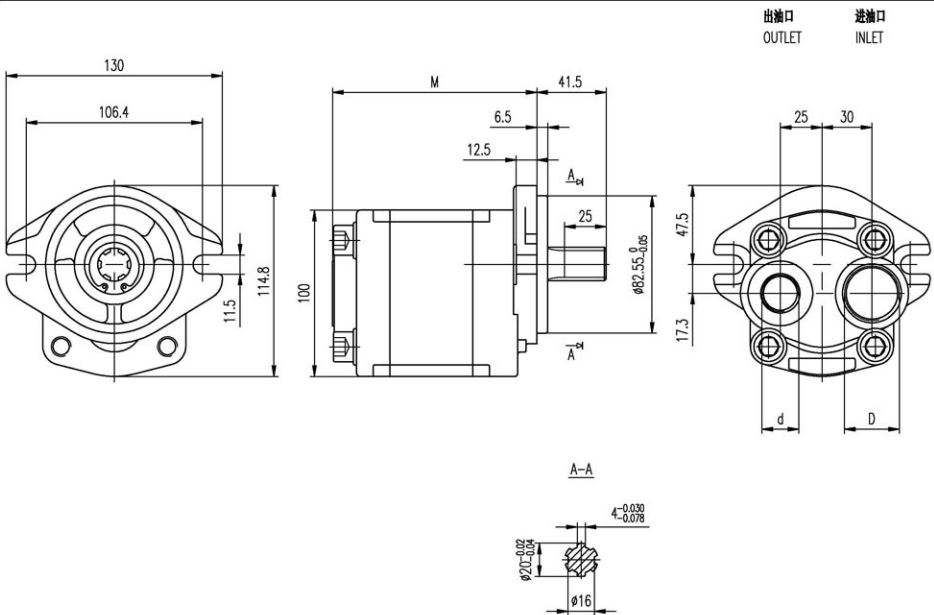
Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

案例/ Examples:

- 2.5PLD-23-D-C0-A0-Z0-R = 顺时针, 排量 23 cc/rev, A0 前盖, C0 圆柱轴伸, Z0 安装油口, 出口位置 R, 标准油封
clockwise rotation, 23 cc/rev, A0 front cover, C0 parallel shaft, setting ports Z0 type, Ports position (R), standard seals
- 2.5PLD-23-D-H1-A0-L0-R = 顺时针, 排量 23 cc/rev, A0 前盖, H1 矩形花键轴伸, L0 安装油口, 出口位置 R, 标准油封
clockwise rotation, 23 cc/rev, A0 front cover, H1 rectangle splined shaft, setting ports L0 type, Ports position (R), standard seals
- 2.5PLD-23-D-S3-A0-F0-N = 顺时针, 排量 23 cc/rev, A0 前盖, S3 SAE B 13齿轴伸, F0 安装油口, 高压油封(N)
clockwise rotation, 23 cc/rev, A0 front cover, SAE B splined 13T shaft(S3), setting ports F0 type, high pressure seals(N)

G 1 螺纹深 21,
 G 1/2 螺纹深 16,
 安装泵时, n.4 M12 螺钉扭矩设定为
 75...80 Nm.

G 1 thread depth 21,
 G 1/2 thread depth 16,
 To mount the pump, n.4 M12 screws,
 with a torque wrench setting fixed
 at 75...80 Nm.



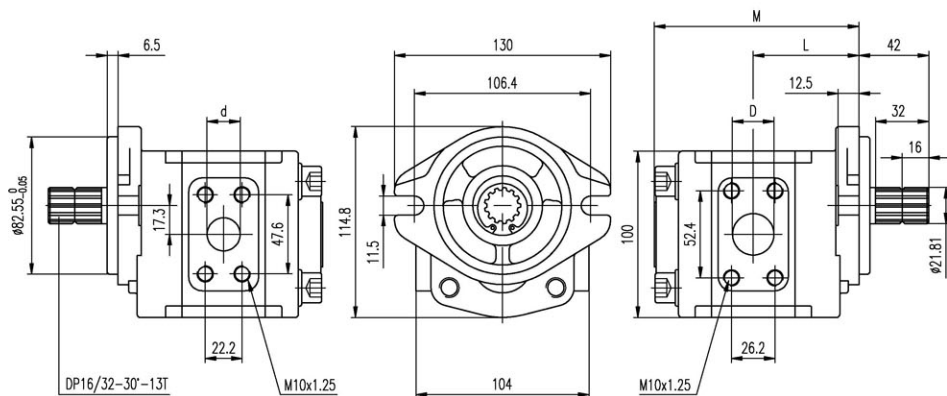
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions		
		P1 bar	P2 bar	P3 bar			M mm	D	d
2.5PLD-23-D*AO-R	23	230	250	260	3500	600	118	G 1	G 1/2
2.5PLD-25-D*AO-R	25	230	250	260	3500	600	120	G 1	G 1/2
2.5PLD-26.5-D*AO-R	26.5	230	250	260	3500	600	122	G 1	G 1/2
2.5PLD-28-D*AO-R	28	230	250	260	3500	600	124	G 1	G 1/2
2.5PLD-30-D*AO-R	30	230	250	260	3000	600	126	G 1	G 1/2
2.5PLD-32-D*AO-R	32	200	230	250	3000	600	129	G 1	G 1/2
2.5PLD-36-D*AO-R	36	200	230	250	2750	500	133	G 1	G 1/2
2.5PLD-40-D*AO-R	40	160	180	200	2500	500	138	G 1	G 1/2

M10x1.25 螺纹深 15,
 安装泵时, n.4 M12 螺钉扭矩设定为
 75...80 Nm.

M10x1.25 thread depth 15,
 To mount the pump, n.4 M12 screws,
 with a torque wrench setting fixed
 at 75...80 Nm.

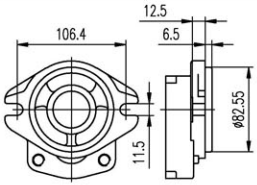
出油口
 OUTLET

进油口
 INLET



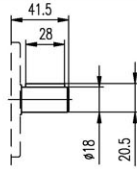
规格 Type	排量 Displacement (cm ³ /rev)	最大压力 Max pressure			最高转速 Max. speed (r/min)	最低转速 Min. speed (r/min)	尺寸 Dimensions			
		P1 bar	P2 bar	P3 bar			M mm	L mm	D mm	d mm
2.5PLD-23-D*AO	23	230	250	260	3500	600	118	60.5	25	20
2.5PLD-25-D*AO	25	230	250	260	3500	600	120	61.8	25	20
2.5PLD-26.5-D*AO	26.5	230	250	260	3500	600	122	62.8	25	20
2.5PLD-28-D*AO	28	230	250	260	3500	600	124	63.8	25	20
2.5PLD-30-D*AO	30	230	250	260	3000	600	126	64.8	25	20
2.5PLD-32-D*AO	32	200	230	250	3000	600	129	66.3	25	20
2.5PLD-36-D*AO	36	200	230	250	2750	500	133	68.3	25	20
2.5PLD-40-D*AO	40	160	180	200	2500	500	138	70.8	28	20

前盖/Front COVER



A0

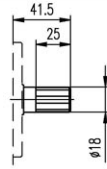
轴伸/SHAFTS



6

C0

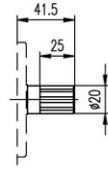
最大扭矩
Max.Torque 180 Nm



4-18x15x5

H0

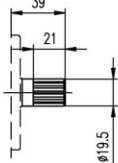
最大扭矩
Max.Torque 200 Nm



6-20x16x4

H1

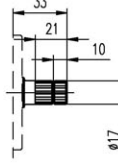
最大扭矩
Max.Torque 240 Nm



EXT12Z-1.5m-30'

S0

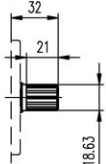
最大扭矩
Max.Torque 220 Nm



DP16/32-30'-10T

S1

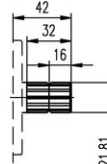
最大扭矩
Max.Torque 200 Nm



DP16/32-30'-11T

S2

最大扭矩
Max.Torque 210 Nm

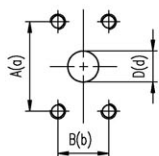


DP16/32-30'-13T

S3

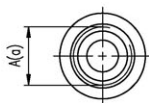
最大扭矩
Max.Torque 300 Nm

油口/PORTS



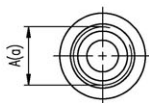
F0

规格 TYPE	进油口 INLET				出油口 OUTLET			
	A	B	C	D	a	b	c	d
2.5PLD...23 ÷ 2.5PLD...36	52.4	26.2	M10x1.25	25	47.6	22.2	M10x1.25	20
2.5PLD...40	52.4	26.2	M10x1.25	28	47.6	22.2	M10x1.25	20



L0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
2.5PLD...23 ÷ 2.5PLD...40	G 1	G 1/2



Z0

规格 TYPE	进油口 INLET	出油口 OUTLET
	A	a
2.5PLD...23 ÷ 2.5PLD...40	M33x2	M22x1.5

如何订购/ HOW TO ORDER

3	P	HA	规格 Size	旋向 Rotation	轴伸 Shaft	前盖 Front cover	油口 Ports	油口位置 Ports position	油封 Seals	可选项 Options
组别 Group	P-齿轮泵 Pump M-齿轮马达 Motor	系列号 Series	20 22 26 33 39 46 50 52 55 63 71	D 顺时针 Clockwise S 逆时针 Counter clockwise R 可正反转 Reversible		B0 B1 A0 A1				
可选项 / Options										
排油管 / Drain										
Q0-内部排油 / internal drain										
Q1-外部排油 / external drain G3/8										
Q2-外部排油 / external drain 3/4-16 UNF										
Q3-外部排油 / external drain G1/4										
Q4-外部排油 / external drain 9/16-18 UNF										

油口位置

省略-侧进侧出
A-前进前出
B-后进前出
C-后进侧出
D-侧进前出
R-后进后出

Ports position

Omit-Side inlet and side outlet
A-Front inlet and front outlet
B-Back inlet and front outlet
C-Back inlet and side outlet
D-Side inlet and front outlet
R-Back inlet and back outlet

油封

省略-温度范围在-10°C~+80°C, 进油口最高绝对压力为3bar。
V-适用于高温介质, 温度范围在-10°C~+120°C。
H-适用于低温介质, 温度范围在-40°C~+80°C。
T-适用于进油口最大绝对压力3~6bar。
N-适用于进油口最大绝对压力3~10bar。

Seals

Omit-Range between -10°C and +80°C, inlet pressure up to max. 3 bar absolute.
V-Version suitable for fluid at hi-temperatures, range between -10°C and +120°C.
H-Version suitable for fluid at low-temperatures, range between -40°C and +80°C.
T-Version suitable for inlet pressure up to max. 3 and 6 bar absolute.
N-Version suitable for inlet pressure up to max. 3 and 10 bar absolute.

范例/ Examples:

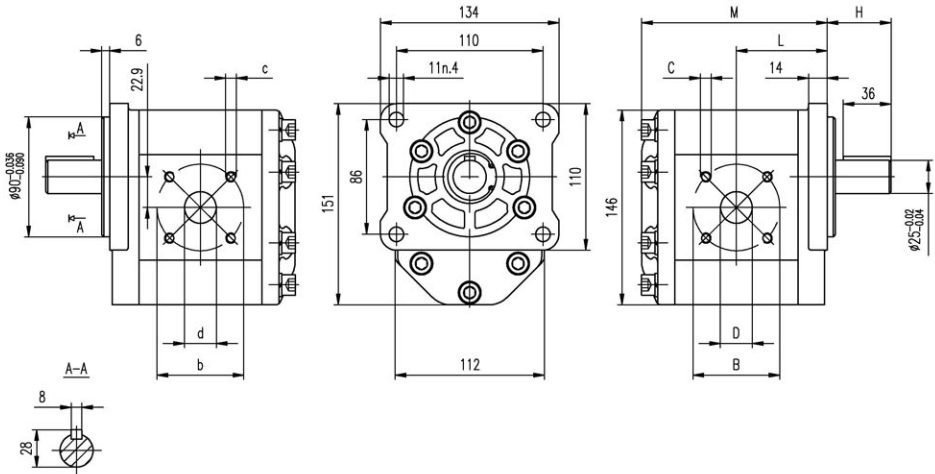
3PHA-20-D-C0-B0-F0 = 顺时针转, 排量 20 cc/rev, B0 前盖, C0 圆柱轴伸, F0 安装油口, 标准油封
clockwise rotation, 20 cc/rev, B0 front cover, C0 parallel shaft, setting ports F0 type, standard seals
3PHA-20-D-T0-B1-E0 = 顺时针转, 排量 20 cc/rev, B1 前盖, T0 1:8锥形轴伸, E0 安装油口, 标准油封
clockwise rotation, 20 cc/rev, B1 front cover, 1:8 tapered shaft(T0), setting ports E0 type, standard seals
3PHA-20-D-C2-A0-F4-N = 顺时针转, 排量 20 cc/rev, A0 前盖, C2 圆柱轴伸, F4 安装油口, 高压油封(N)
clockwise rotation, 20 cc/rev, A0 front cover, C2 parallel shaft, setting ports F4 type, high pressure seals(N)

M10 螺纹深 18.
M8 螺纹深 16.
安装泵时, n.8 M10 螺钉扭矩
设定为 47 ± 3 Nm.

M10 thread depth 18.
M8 thread depth 16.
To mount the pump, n.8 M10 screws,
with a torque wrench setting fixed
at 47 ± 3 Nm.

出油口
OUTLET

进油口
INLET



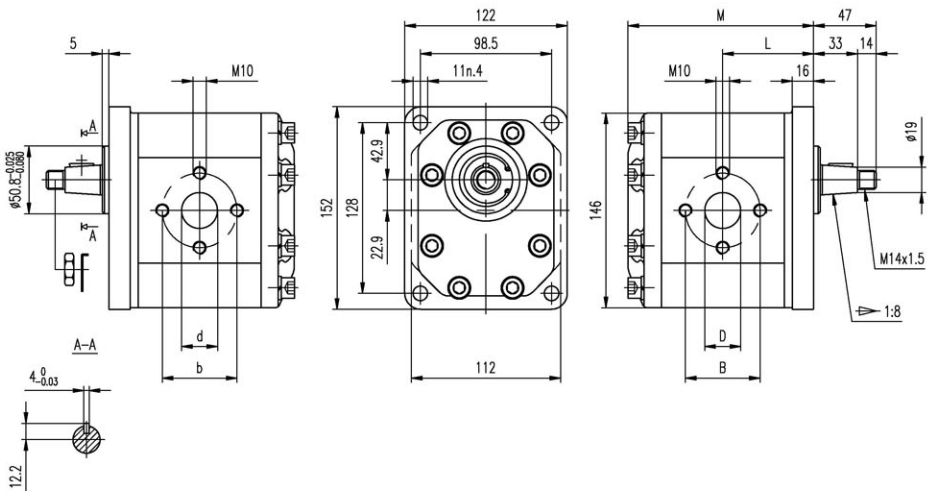
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions									
		P1	P2	P3			M	L	H	B	D	C	b	d	c	
	(cm^3/rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
3PHA-20-D*BO	20	250	265	280	3500	600	128	63	48	50	20	M8	50	16.5	M8	
3PHA-22-D*BO	22	250	265	280	3500	600	130	64	48	50	20	M8	50	16.5	M8	
3PHA-26-D*BO	26	250	265	280	3000	600	133	65	48	50	20	M8	50	20	M8	
3PHA-33-D*BO	33	230	250	270	3000	500	139	68	48	65	25	M8	65	20	M8	
3PHA-39-D*BO	39	230	250	270	3000	500	146	72	48	65	25	M8	65	20	M8	
3PHA-46-D*BO	46	230	250	270	3000	500	152	75	48	65	25	M8	65	20	M8	
3PHA-50-D*BO	50	220	240	260	3000	500	156	77	51	76	33	M10	76	25	M10	
3PHA-52-D*BO	52	220	240	260	3000	500	158	78	51	76	33	M10	76	25	M10	
3PHA-55-D*BO	55	200	230	250	2800	400	160	79	51	76	33	M10	76	25	M10	
3PHA-63-D*BO	63	200	230	250	2800	400	168	83	51	76	33	M10	76	25	M10	
3PHA-71-D*BO	71	180	200	220	2500	400	175	86	51	76	33	M10	76	25	M10	

M10 螺纹深 18,
 安装泵时, n.8 M10 螺钉扭矩设定为
 47±3 Nm.
 轴伸 M14x1.5 螺母扭矩设定为 80 Nm.

M10 thread depth 18,
 To mount the pump, n.8 M10 screws,
 with a torque wrench setting fixed
 at 47±3 Nm.
 Shaft M14x1.5 nut, with a torque
 wrench setting fixed at 80 Nm.

由油口
 OUTLET

进油口
 INLET



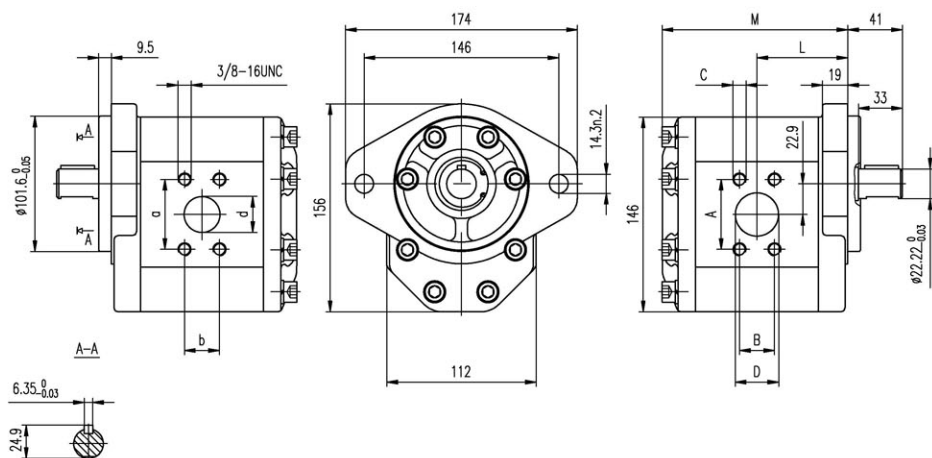
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions					
		P1	P2	P3	(r/min)	(r/min)	M	L	B	D	b	d
	(cm ³ /rev)	bar	bar	bar			mm	mm	mm	mm	mm	mm
3PHA-20-D*B1	20	250	265	280	3500	600	128	63	56	27	56	19
3PHA-22-D*B1	22	250	265	280	3500	600	130	64	56	27	56	19
3PHA-26-D*B1	26	250	265	280	3000	600	133	65	56	27	56	19
3PHA-33-D*B1	33	230	250	270	3000	500	139	68	56	27	56	19
3PHA-39-D*B1	39	230	250	270	3000	500	146	72	56	27	56	19
3PHA-46-D*B1	46	230	250	270	3000	500	152	75	51	27	51	27
3PHA-50-D*B1	50	220	240	260	3000	500	156	77	56	27	56	27
3PHA-52-D*B1	52	220	240	260	3000	500	158	78	56	27	56	27
3PHA-55-D*B1	55	200	230	250	2800	400	160	79	62	33	51	27
3PHA-63-D*B1	63	200	230	250	2800	400	168	83	62	33	51	27
3PHA-71-D*B1	71	180	200	220	2500	400	175	86	62	33	51	27

3/8-16 UNC 螺纹深 19.
 7/16-14UNC 螺纹深 19.
 安装泵时, n.8 M10 螺钉扭矩
 设定为47±3 Nm.

3/8-16 UNC thread depth 19.
 7/16-14 UNC thread depth 19.
 To mount the pump, n.8 M10 screws,
 with a torque wrench setting fixed
 at 47±3 Nm.

由油口
 OUTLET

进油口
 INLET



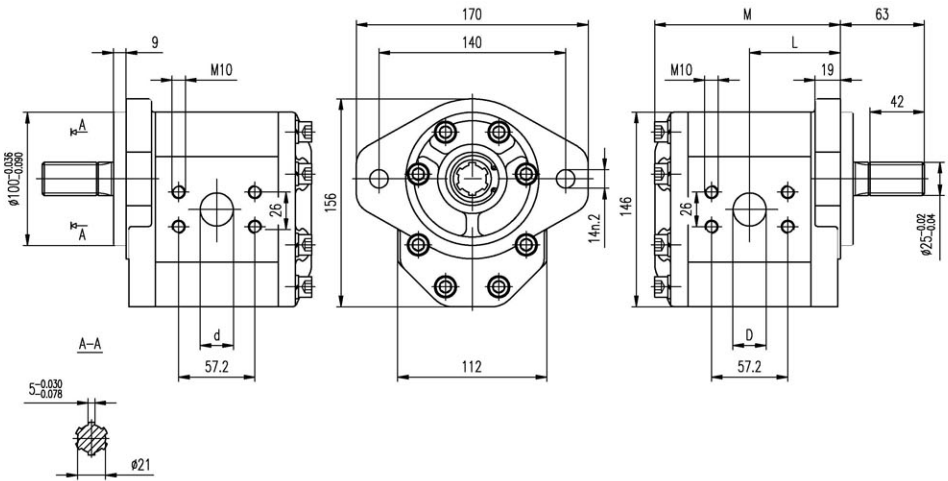
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions								
		P1	P2	P3			M	L	A	B	C	D	a	b	d
	(cm ³ /rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm	mm	UNC	mm	mm	mm	mm
3PHA-20-D*AO	20	250	265	280	3500	600	128	63	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-22-D*AO	22	250	265	280	3500	600	130	64	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-26-D*AO	26	250	265	280	3000	600	133	65	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-33-D*AO	33	230	250	270	3000	500	139	68	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-39-D*AO	39	230	250	270	3000	500	146	72	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-46-D*AO	46	230	250	270	3000	500	152	75	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-50-D*AO	50	220	240	260	3000	500	156	77	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-52-D*AO	52	220	240	260	3000	500	158	78	52.4	26.2	3/8	27	47.6	22.2	19
3PHA-55-D*AO	55	200	230	250	2800	400	160	79	58.7	30.2	7/16	33	52.4	26.2	27
3PHA-63-D*AO	63	200	230	250	2800	400	168	83	58.7	30.2	7/16	33	52.4	26.2	27
3PHA-71-D*AO	71	180	200	220	2500	400	175	86	58.7	30.2	7/16	33	52.4	26.2	27

M10 螺纹深 16。
 安装泵时，n.8 M10 螺钉扭矩
 设定为 47 ± 3 Nm。

M10 thread depth 16.
 To mount the pump, n.8 M10 screws,
 with a torque wrench setting fixed
 at 47 ± 3 Nm.

出油口
 OUTLET

进油口
 INLET



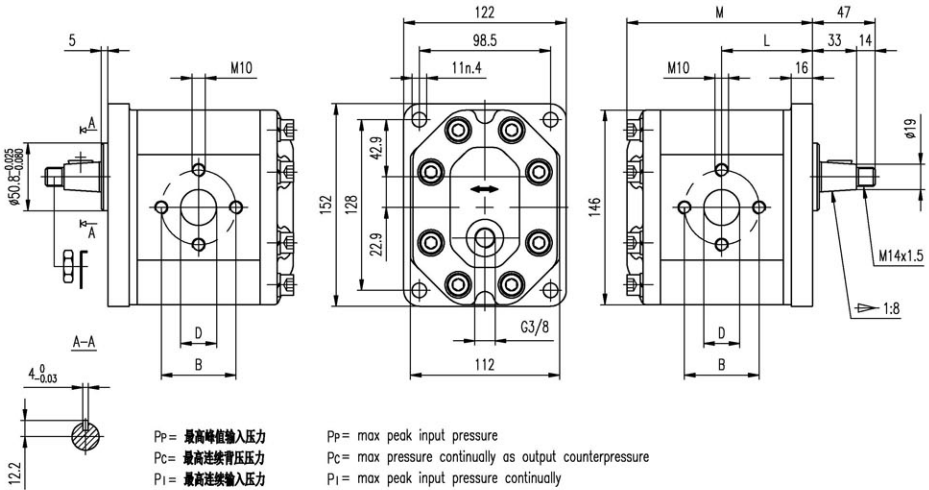
规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions			
		P1	P2	P3			M	L	D	d
	(cm^3/rev)	bar	bar	bar	(r/min)	(r/min)	mm	mm	mm	mm
3PHA-20-D*A1	20	250	265	280	3500	600	128	63	25	20
3PHA-25-D*A1	25	250	265	280	3000	600	133	65	25	20
3PHA-32-D*A1	32	230	250	270	3000	500	139	68	30	20
3PHA-40-D*A1	40	230	250	270	3000	500	146	72	35	20
3PHA-50-D*A1	50	220	240	260	3000	500	156	77	35	25
3PHA-63-D*A1	63	200	230	250	2800	400	168	83	35	25

M10 螺纹深 18,
 安装泵时, n.8 M10 螺钉扭矩设定为
 47±3 Nm.
 轴伸 M14x1.5 螺母扭矩设定为 80 Nm.

M10 thread depth 18,
 To mount the pump, n.8 M10 screws,
 with a torque wrench setting fixed
 at 47±3 Nm.
 Shaft M14x1.5 nut, with a torque
 wrench setting fixed at 80 Nm.

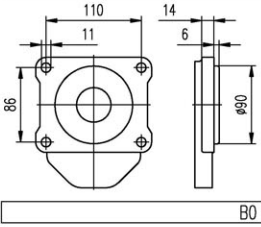
出油口
 OUTLET

进油口
 INLET

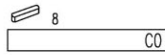
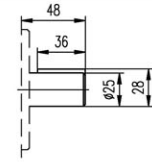


规格 Type	排量 Displacement	最大压力 Max pressure			最高转速 Max. speed	最低转速 Min. speed	尺寸 Dimensions			
		P_1	P_c	P_p	(r/min)	(r/min)	M	L	B	D
	(cm ³ /rev)	bar	bar	bar			mm	mm	mm	mm
3MHA-20-R*B1	20	280	265	290	3500	600	128	63	56	27
3MHA-22-R*B1	22	280	265	290	3500	600	130	64	56	27
3MHA-26-R*B1	26	280	265	290	3000	600	133	65	56	27
3MHA-33-R*B1	33	270	250	280	3000	500	139	68	56	27
3MHA-39-R*B1	39	270	250	280	3000	500	146	72	56	27
3MHA-46-R*B1	46	270	250	280	3000	500	152	75	51	27
3MHA-50-R*B1	50	260	240	270	3000	500	156	77	56	27
3MHA-52-R*B1	52	260	240	270	3000	500	158	78	56	27
3MHA-55-R*B1	55	250	230	260	2800	400	160	79	62	33
3MHA-63-R*B1	63	250	230	260	2800	400	168	83	62	33
3MHA-71-R*B1	71	220	200	230	2500	400	175	86	62	33

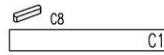
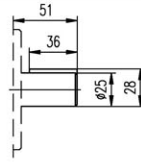
前盖/Front Cover



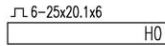
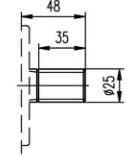
轴伸/SHAFTS



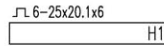
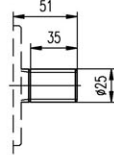
最大扭矩
Max.Torque 450 Nm



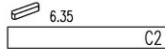
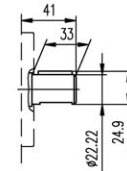
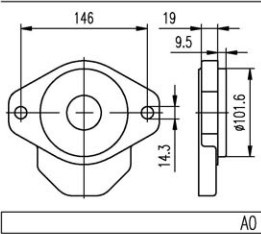
最大扭矩
Max.Torque 450 Nm



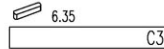
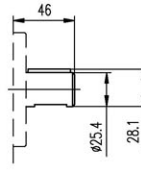
最大扭矩
Max.Torque 500 Nm



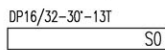
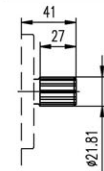
最大扭矩
Max.Torque 500 Nm



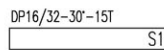
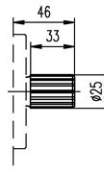
最大扭矩
Max.Torque 400 Nm



最大扭矩
Max.Torque 450 Nm

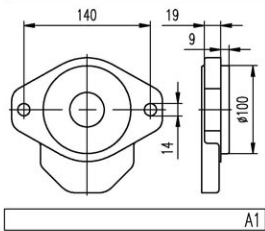
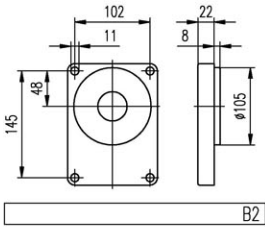
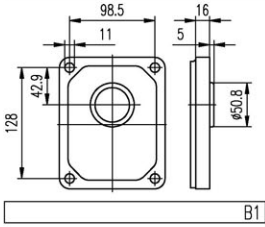


最大扭矩
Max.Torque 500 Nm

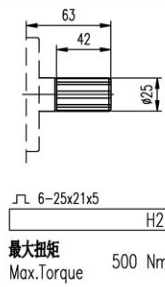
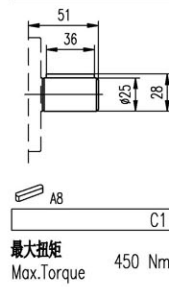
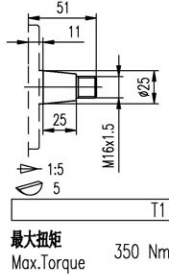
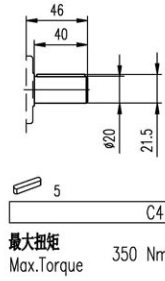
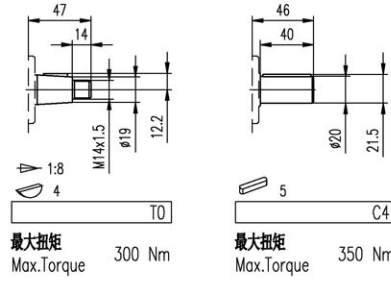


最大扭矩
Max.Torque 600 Nm

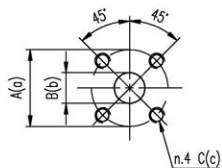
前盖/Front cover



轴伸/SHAFTS

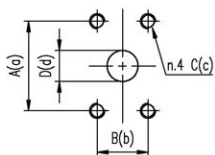


油口/PORTS



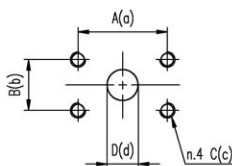
F0/F1/F2/F3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET			出油口 OUTLET		
		A	B	C	a	b	c
3PHA...20 ÷ 3PHA...26	F0	50	20	M8	50	20	M8
3PHA...33 ÷ 3PHA...46	F1	65	25	M8	65	20	M8
3PHA...50 ÷ 3PHA...71	F2	76	33	M10	76	25	M10
3PHA...50 ÷ 3PHA...63	F3	76	33	M8	76	25	M8



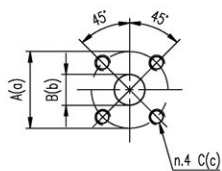
F4/F5

规格 TYPE	油口代号 PORTS CODE	进油口 INLET				出油口 OUTLET			
		A	B	C	D	a	b	c	d
3PHA...20 ÷ 3PHA...52	F4	52.4	26.2	3/8-16UNC	27	47.6	22.2	3/8-16UNC	19
3PHA...55 ÷ 3PHA...71	F5	58.7	30.2	7/16-14UNC	33	52.4	26.2	3/8-16UNC	27



F6

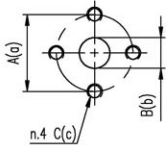
规格 TYPE	进油口 INLET				出油口 OUTLET			
	A	B	C	D	a	b	c	d
3PHA...20 ÷ 3PHA...25	57.2	26	M10	25	57.2	26	M10	20
3PHA...32	57.2	26	M10	30	57.2	26	M10	20
3PHA...40	57.2	26	M10	35	57.2	26	M10	20
3PHA...50 ÷ 3PHA...63	57.2	26	M10	35	57.2	26	M10	25



F7

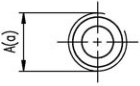
规格 TYPE	进油口 INLET			出油口 OUTLET		
	A	B	C	a	b	c
3PHA...20 ÷ 3PHA...71	55	27	M8	55	19	M8

油口/PORTS



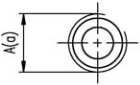
E0/E1/E2/E3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET			出油口 OUTLET		
		A	B	C	a	b	c
3PHA...20 ÷ 3PHA...39	E0	56	27	M10	56	19	M10
3PHA...46	E1	51	27	M10	51	27	M10
3PHA...50 ÷ 3PHA...52	E2	56	27	M10	56	27	M10
3PHA...55 ÷ 3PHA...71	E3	62	33	M10	51	27	M10



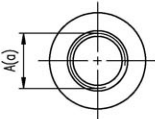
L0/L1/L2/L3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
3PHA...20 ÷ 3PHA...22	L0	G3/4	G3/4
3PHA...26 ÷ 3PHA...39	L1	G 1	G3/4
3PHA...46 ÷ 3PHA...63	L2	G1 1/4	G 1
3PHA...71	L3	G1 1/2	G1 1/4



R0/R1/R2/R3

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
3PHA...20 ÷ 3PHA...22	R0	PT3/4	PT3/4
3PHA...26 ÷ 3PHA...39	R1	PT 1	PT3/4
3PHA...46 ÷ 3PHA...63	R2	PT1 1/4	PT 1
3PHA...71	R3	PT1 1/2	PT1 1/4



U0/U1/U2

规格 TYPE	油口代号 PORTS CODE	进油口 INLET	出油口 OUTLET
		A	a
3PHA...20 ÷ 3PHA...33	U0	1 5/16-12UNF	1 1/16-12UNF
3PHA...39 ÷ 3PHA...52	U1	1 5/8-12UNF	1 1/16-12UNF
3PHA...55 ÷ 3PHA...71	U2	1 7/8-12UNF	1 5/16-12UNF

如何订购/ HOW TO ORDER



多泵泵概述 / MULTIPLE PUMPS COMBINATION

Reduced inlets provide overall systems savings by reducing the cost of redundant inlet hose and fittings.

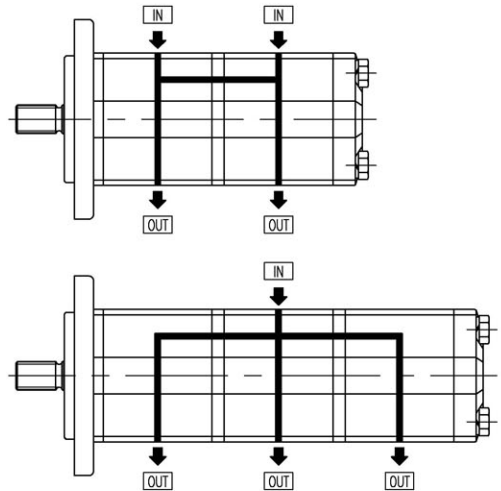
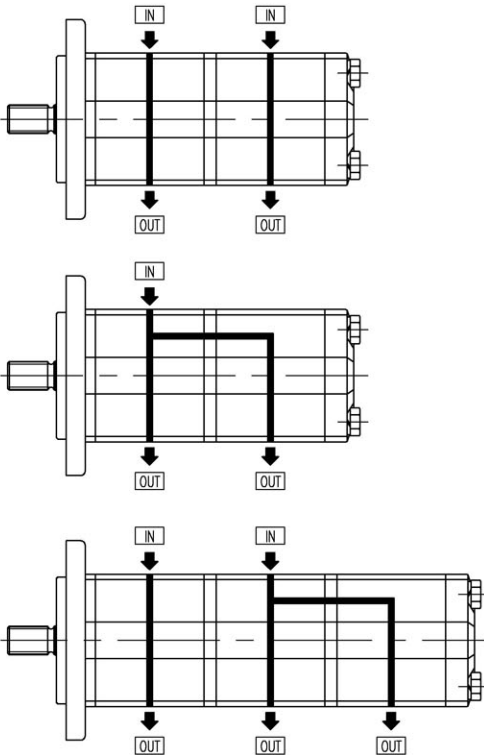
For other combinations please consult our sales department

油口位置 / Ports position

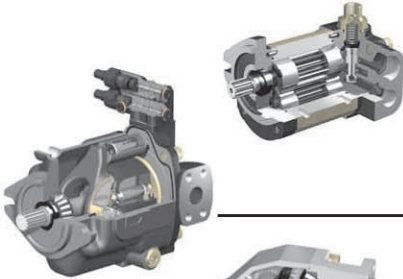
- 省略-侧进侧出 Omit-Side inlet and side outlet
- B-后进前出 B-Back inlet and front outlet
- C-后进侧出 C-Back inlet and side outlet
- D-侧进前出 D-Side inlet and front outlet
- R-后进后出 R-Back inlet and back outlet

油口形式 / Standard version

- E-二进二出(不通轴型) E-two inlet and two outlet(separated type)
- F-二进二出(通轴型) F-two inlet and two outlet(common type)
- G-一进二出 G-one inlet and two outlet
- J-一进三出 J-one inlet and three outlet
- K-二进三出 K-two inlet and three outlet



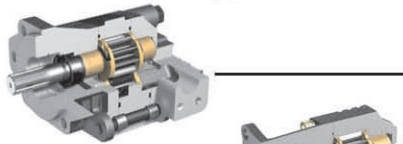
Fluid Power Design at 360°



Gear pumps and motors.
High performance, low noise.



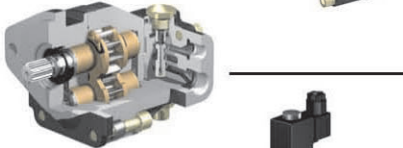
Variable displacement axial piston pumps,
for open circuit.



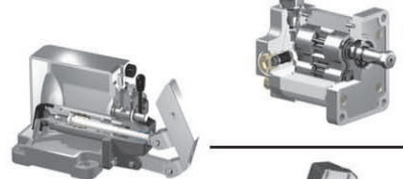
Fixed displacement bent axis piston pumps,
for truck applications.



Cast iron gear pumps and
motors of three part construction.



Cast iron gear pumps,
for truck applications.



Gear pumps and
motors in aluminium.



Double acting hydraulic hand pumps
with or without reservoir.



Filters : suction filters, return filters, in line filters spin-on
type, for medium and high pressure filters.
