

液压动力泵站(HPU) Hydraulic Power Unit



概述 General

液压动力泵站 (HPU) 为液压阀门遥控系统提供足够的液压动力，液压泵站输出的压力油，经高压油管到达液压电磁阀箱，液压电磁阀箱根据需要控制不同的电磁阀来控制压力油通过不同的油管 (P、T) ，压力油从电磁阀箱流出后，到达液压执行机构，来控制执行机构的动作，进而控制阀门的开启和关闭。

Hydraulic power unit (HPU) provides enough hydraulic power for remote control system of hydraulic valve, The pressure oil output from hydraulic pump station reaches the hydraulic solenoid valve cabinet through high-pressure oil pipe. Hydraulic solenoid valve cabinet controls different solenoid valves to control the pressure oil through different oil pipes (P、T), and the pressure oil flow out of the solenoid valve cabinet and reaches the hydraulic execution . To controls the movement of the actuator and controls the opening and closing of the valve.

液压动力泵站,被设计成一个独立的设备,包括控制箱,以及所有必要的控制、监控和操作设备及其电缆和管道的连接。整个系统可以在无人值守的情况下自动运行。同时,泵站也可以在工作站上远程显示和操作。蓄能器可延长泵的停机时间,防止泵频繁启动。

The hydraulic power unit, designed as a standalone device, including control box and all necessary control, monitor and operation devices and cable and pipeline connections. The whole system operates full automatic without supervision. And the working status can be indicated and operated remotely on the workstation. Accumulator can extend pump downtime and prevent pump from starting frequently.

1. 液压泵站性能参数/HPU Parameters:

安装位置 Mounting position	安全干区 safety & dry area
油箱容积 Tank capacity	150L / 250L / 350L
工作压力 Operating pressure	180 bar 出口减压到: 135bar Output reduce to : 135bar
液压泵 Hydraulic Pump	类型 Type: 齿轮泵 Gear Pump 最高压力 Max. Pressure: 210Bar 流量 Flow Rate: 5.5L/min,9.7L/min,13.2L/min
液压油 Hydraulic medium	矿物油, 符合 DIN 51524 (如使用其他规格的液压油, 请向我们咨询) Mineral oil according to DIN 51524 (other media on request)
油液温度 media temperature	-10°C ~ +70°C
工作温度 Operating temperature	-20°C to +70°C
涂层颜色 Coating color	BG01 (可选 /Optional)
蓄能器 Accumulator	32L / 50L / 100L(2x50L)
压力开关 Pressure switch	设置范围 Set range: 30–320bar
压力传感器 Pressure sensor	压力范围 Press. Range: 0–250bar 输出信号 Output signal: 4–20mA
温度开关 Temperature switch	设置范围 Set range: 50°C –100°C 预设 Pre-set: 70°C
液位开关 Level switch	测量点 Measure Point: 25%, 50% 油箱高 tank height
溢流阀 Pressure relief valve	设置范围 set range:: 35bar–210bar 预设 Pre-set: 180Bar
减压阀 Pressure reducing valve	设置范围 set range:: 35bar–210bar 预设 Pre-set: 135Bar
压力表 Pressure Gauge	量程 Measure range: 0–250 bar
进出口油管 Inlet/Outlet oil pipe	Φ18×2/Φ28×3
回油滤器精度 Return oil precision	10 μm

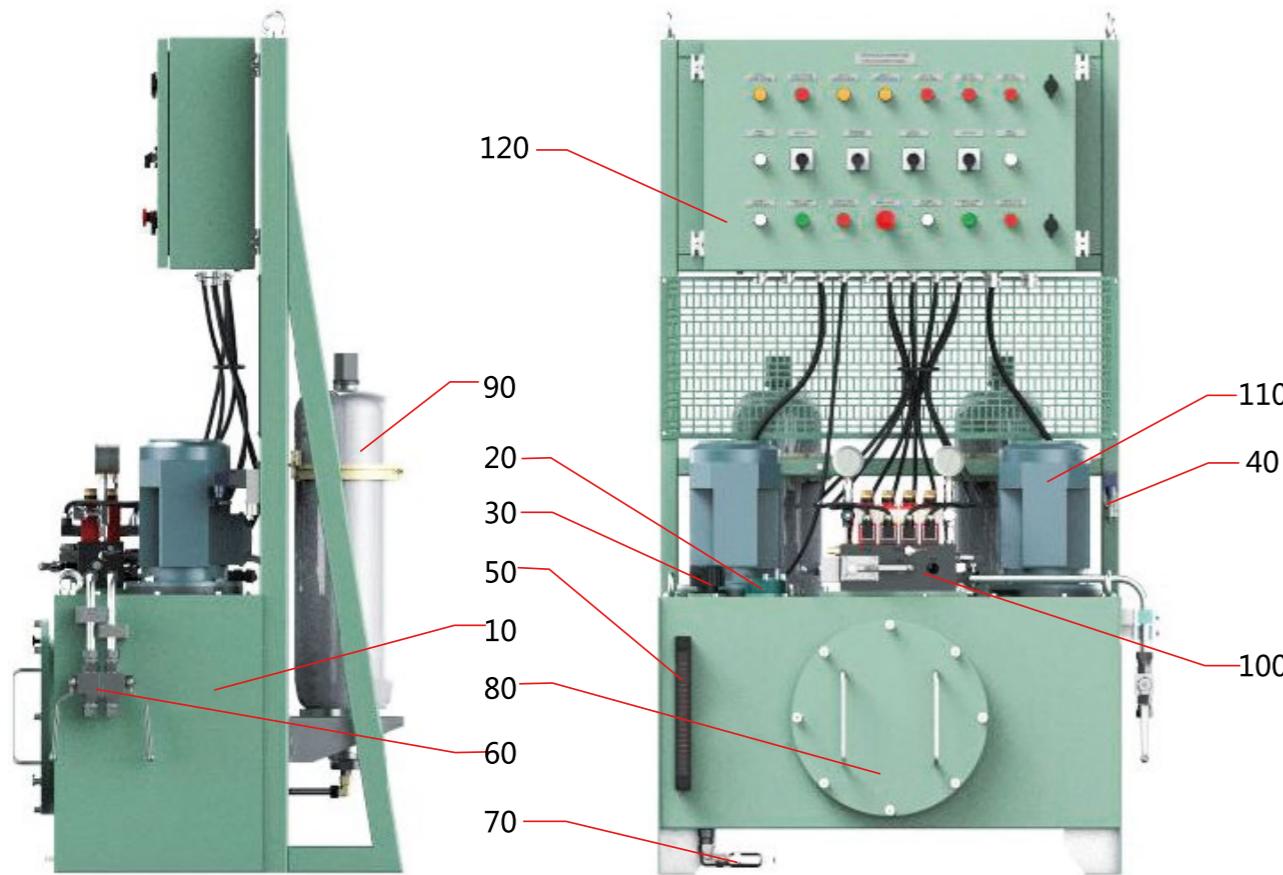
注: 以上参数为标准液压动力泵站数据, 可根据用户要求更改。

Note: the above parameters are standard hydraulic power unit data, which can changed according to user requirements.

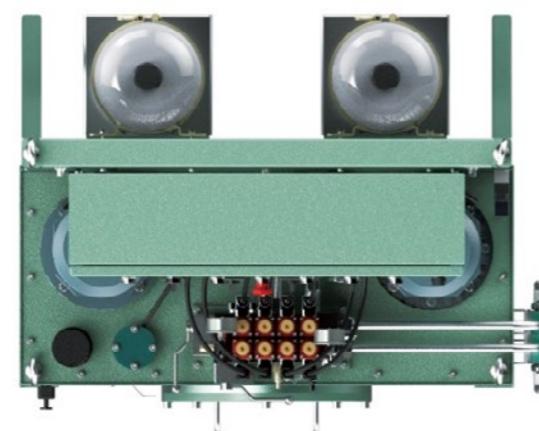
2. 电气参数 / Electrical data

电机工作电压 Motor Operating voltage	380VAC / 440VAC / 690VAC
电机额定功率 Motor power rating	2.2kW/4kW/5.5kW
频率 Frequency	50Hz/60Hz

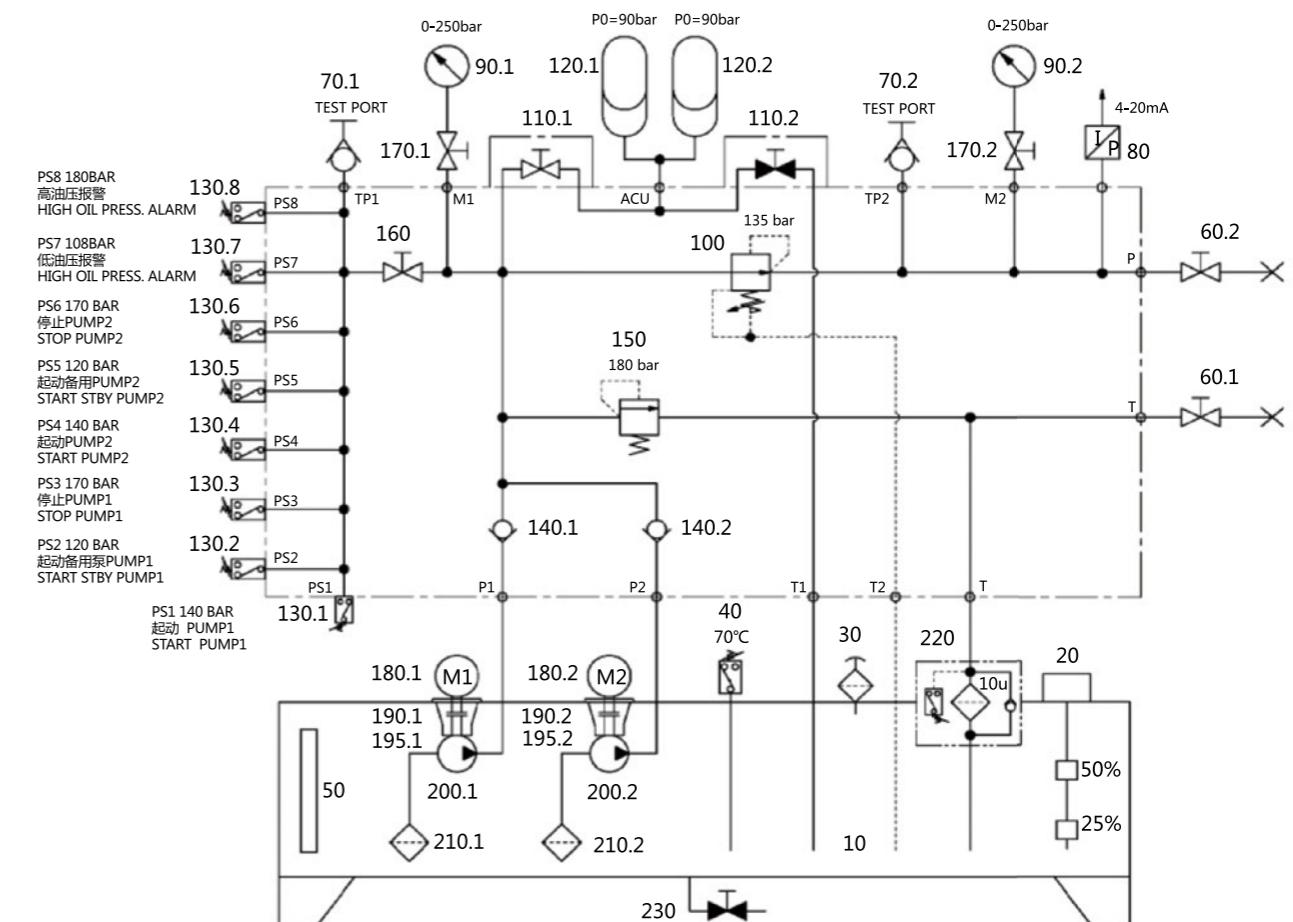
3. 泵站组成 / HPU components



- 10 油箱 Tank
- 20 液位开关 Level switch
- 30 空气滤清器 Air filter
- 40 温度开关 Temperature switch
- 50 液位计 Level gauge
- 60 高压球阀 High pressure ball valve
- 70 低压球阀 Low pressure ball valve
- 80 清洗窗盖板 cleaning window cover plate
- 90 蓄能器 Accumulator
- 100 泵站阀组 Pump station valve group
- 110 电机泵组 Motor pump unit
- 120 电控箱 Electric control panel

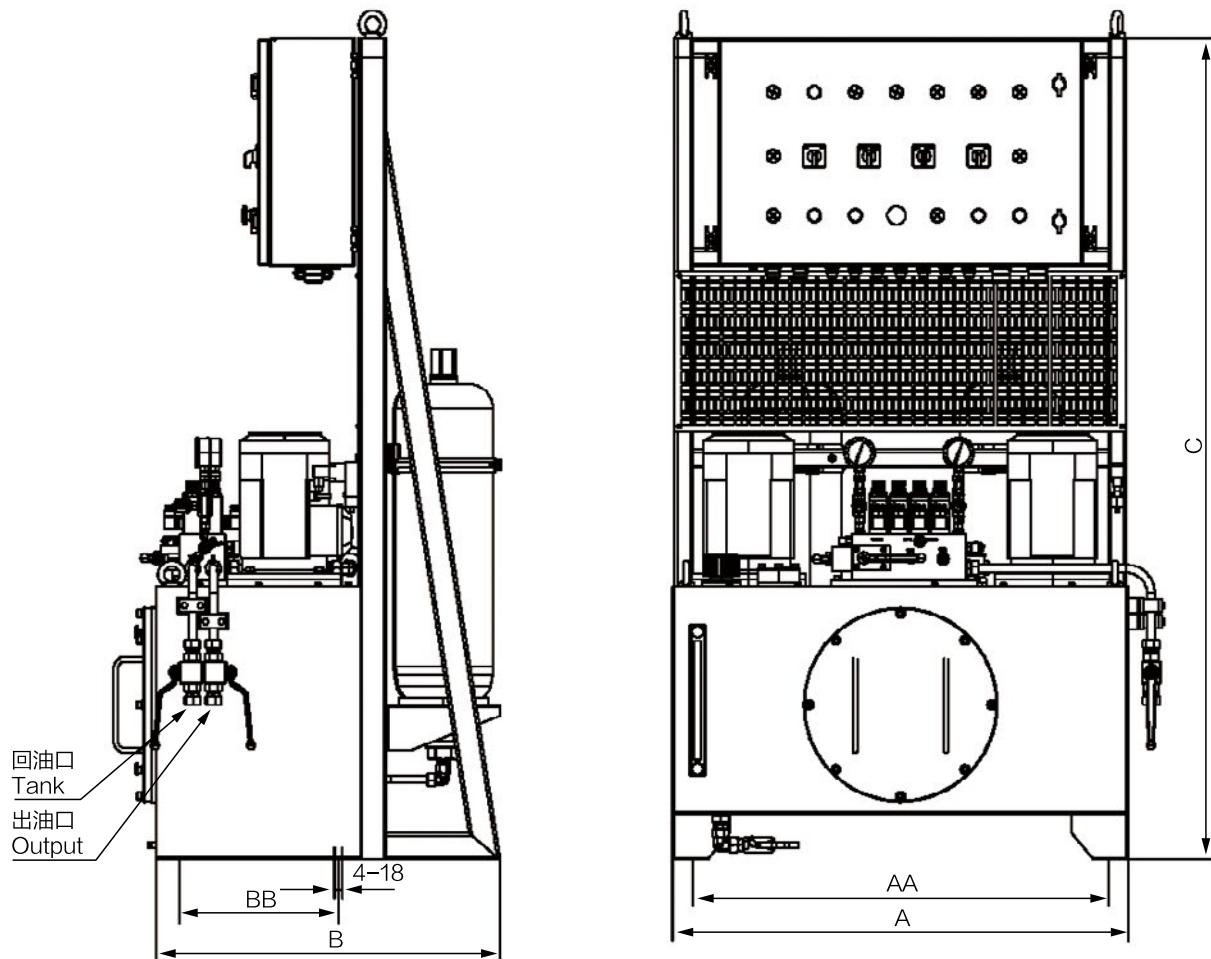


4. 液压原理图 / Hydraulic diagram



序号 NO.	名称 NAME	序号 NO.	名称 NAME
10	油箱 Tank	130	压力开关 Pressure switch
20	液位开关 Level switch	140	单向阀 Check valve
30	空气滤清器 Air filter	150	溢流阀 Pressure relief valve
40	温度开关 Temperature switch	160	针阀 Needle valve
50	液位计 Level gauge	170	节流阀 Throttle valve
60	高压球阀 High pressure ball valve	180	电机 El-motor
70	测压接头 Test point	190	钟形罩 Bell house
80	压力传感器 Pressure transmitter	195	联轴器 Coupling
90	压力表 Pressure gauge	200	齿轮泵 Gear pump
100	减压阀 Pressure reducing valve	210	吸油过滤器 Suction filter
110	板式球阀 Plate ball valve	220	回油滤器 Return filter
120	蓄能器 Accumulator	230	低压球阀 Low pressure ball valve

5. 外形图 / Outline dimension



型号 Model	Output 出油口	回油口 Tank	外形尺寸 Overall Dimensions (mm)					重量 Weight (Kg)
			A	AA	B	BB	C	
HPU 150L	Φ18×2	Φ18×2	1000	910	755	350	1800	500
HPU 250L	Φ18×2	Φ18×2	1000	910	1020	520	1800	600
HPU 350L	Φ28×3	Φ28×3	1000	910	1220	750	1800	780

注：以上重量为没有加油前的重量。

Note: the above weight is without hydraulic oil.