

ENERGY SAVING & ENVIRONMENTALLY FRIENDLY



EPS Energy-Saving & Low-Noise Hydraulic System Overview

The EPS energy-saving, low-noise hydraulic tank adopts a fully enclosed, one-piece aluminum alloy casing with a complete sealing design, effectively isolating oil mist and noise. Operating noise is only 52 dB—over 20 dB quieter than conventional hydraulic units.

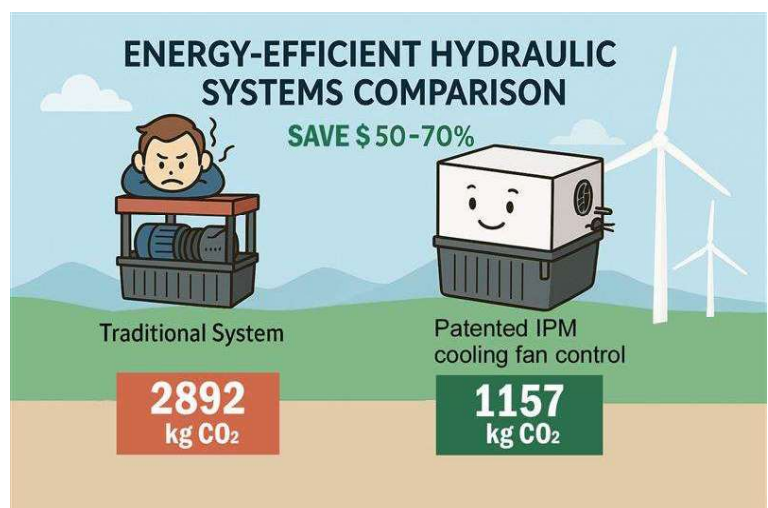
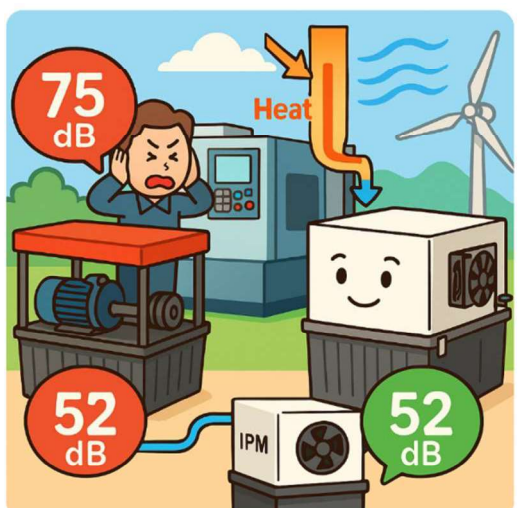
The system is equipped with a high-efficiency IPM motor (up to 97% efficiency), intelligent variable frequency control, and an innovative heat-pipe cooling design. Combined with a dual-fan strategy and smart temperature control, it effectively maintains oil temperature at the optimal working range, avoiding energy waste.

Its operation mode features low-flow, high-pressure idle running and instant switching to high-pressure, high-flow mode—ideal for long-term pressure-holding applications without actuation. The modular design allows plug-and-play use. Compared with traditional hydraulic units (base on 2HP), power consumption is reduced from 0.8 kWh/h to below 0.31 kWh/h, achieving 50% – 70% energy savings, reducing over 1.7 tons of CO₂ emissions per year, cutting electricity costs by more than 50%, and lowering reactive power burden.

With a built-in controller and intelligent temperature control, it can directly replace existing hydraulic systems. Installation and maintenance are simple. Suitable for CNC lathes, machining centers, and automation industries, it is the optimal solution for energy saving, noise reduction, and ESG sustainable manufacturing.

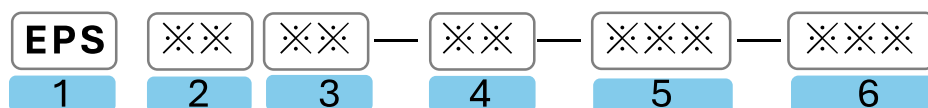
EPS Energy-Saving & Low-Noise Hydraulic System Features

1. **Fully Enclosed Oil Tank Design** – Effectively blocks oil mist and noise, improving workplace environment quality.
2. **Intelligent Oil Temperature Control System** – Precisely controls temperature to ensure optimal viscosity and performance.
3. **Noise Reduction Design** – Noise as low as 52 dB, over 20 dB quieter than conventional systems.
4. **Sleep Mode Function** – Automatically enters sleep mode during long standby periods, re-pressurizing only when needed.
5. **Modular Design** – Plug-and-play, with easy installation, maintenance, and setup.



Note: The carbon emission calculation is based on 24 hours of operation per day for 300 days a year.

Model Selection Guide



1. Base type: EPS

2. Discharge Volume

- 14 : 14L/min
- 18 : 18L/min
- 25 : 25L/min
- 30 : 30L/min

3. Maximum Operating Pressure:

- 04 : 4Mpa
- 07 : 7Mpa

◎Remark :

4Mpa 1.5kw can only be paired with 14 L/min, 18 L/min, 25 L/min

7Mpa 1.5kw can only be paired with 14 L/min

7Mpa 2.2kw are compatible with all discharge volumes

4. Motor Power:

- 1P5 (1.5kw)
- 2P2 (2.2kw)

5. Voltage:

- AC220V
- AC380V
- S (Special voltage)

6. Control Method:

- A : Automatic pressure control
- B : DC 4-20mA input
- C : Sleep pressure control

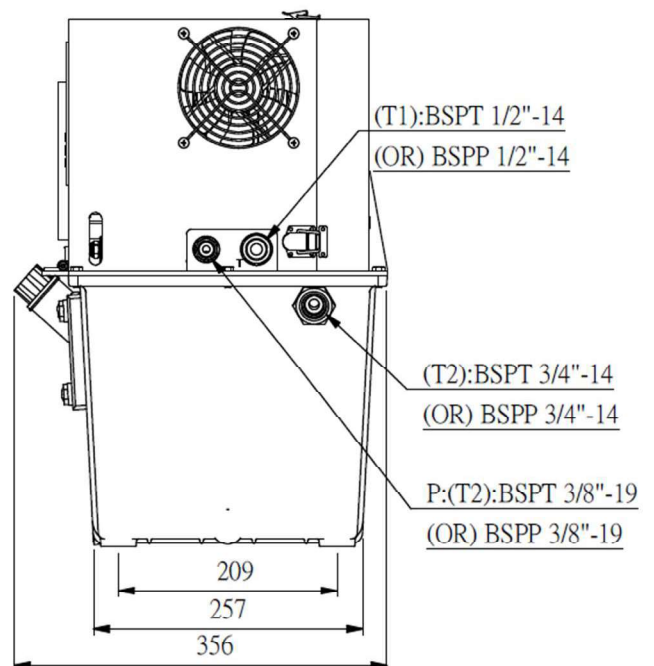
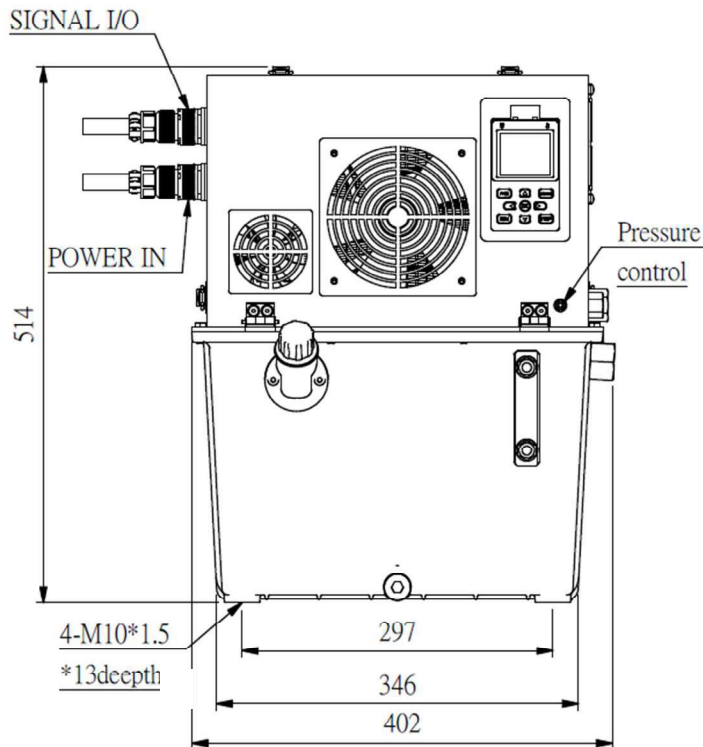
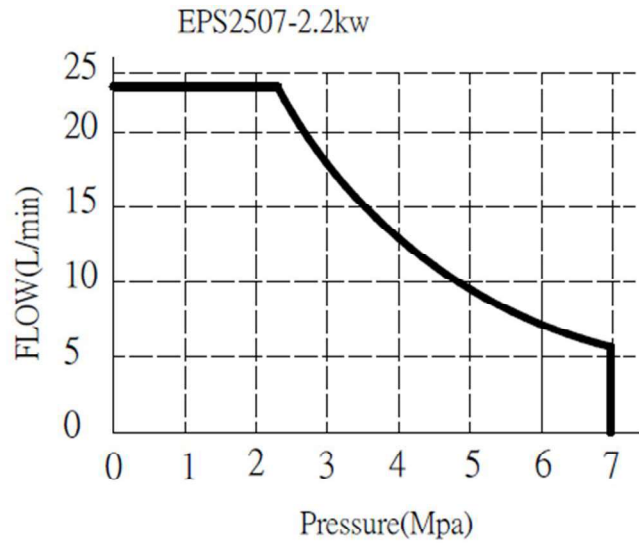
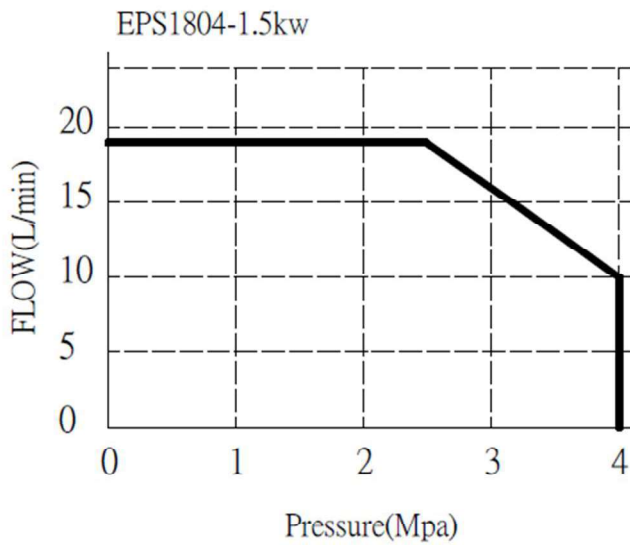
TYPE

Model		EPS2504-1.5KW	EPS1407-1.5KW	EPS2507-2.2KW
Max pressure (Mpa)		4.0	7.0	
Pressure adjustment Range (Mpa)		1.5~4.0	1.5~7.0	
Max flow※ ¹ (L/min)		25	14	30
Flow rate adjustment range (L/min)		3.5~25	3.4~14	3.5~30
Motor capacity (kw)		1.5	1.5	2.2
Oil tank capacity (L)		18L		
Power supply voltage		3-phase AC220V 50/ 60Hz	380V 50/60Hz (power range±10%)	
External Start Signal Input		Dry contact and DC 4–20 mA		
Internal output	Digital out	1-point digital output, opto-isolated, open-collector, DC 0–24 V, 0–50 mA		
	Voltage out	DC 4-20mA		
Rated output current	200V (A)	7.0	7.0	9.0
	380V (A)	3.8	3.8	5.1
Breaker capacity (A)		15		
Weight(without oil) (kg)		36	40	
Standard paint color		Graphite Grey		
Hydraulic oil※ ²		Petroleum-based general hydraulic oil (R&O) / anti-wear hydraulic oil ◎Viscosity Grade : ISO VG32~68 ◎Viscosity range : 15~400mm ² /S ◎Cleanliness level : NAS10 class or cleaner		
Oil temperature range		0~60℃ (Recommended: 15–50 °℃)		
Ambient tempterature range		0~40℃		
Storage tempterature range		-20~70℃		
Humidity		95% RH 以下 (no condensation)		
Installation Location		Indoor (must be securely fixed with bolts)		
Altitude		≤1,000m		

※¹ Flow rate is theoretical, not guaranteed.

※² Do not use non-petroleum-based hydraulic oil (including water-based or synthetic types, e.g., water-glycol).

- * The flow rate values shown in the figure are for reference only.
- * For continuous operation at maximum pressure, it is recommended to keep the flow rate below 5 L/min.
- * If the flow rate exceeds this value, please consult technical personnel.



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