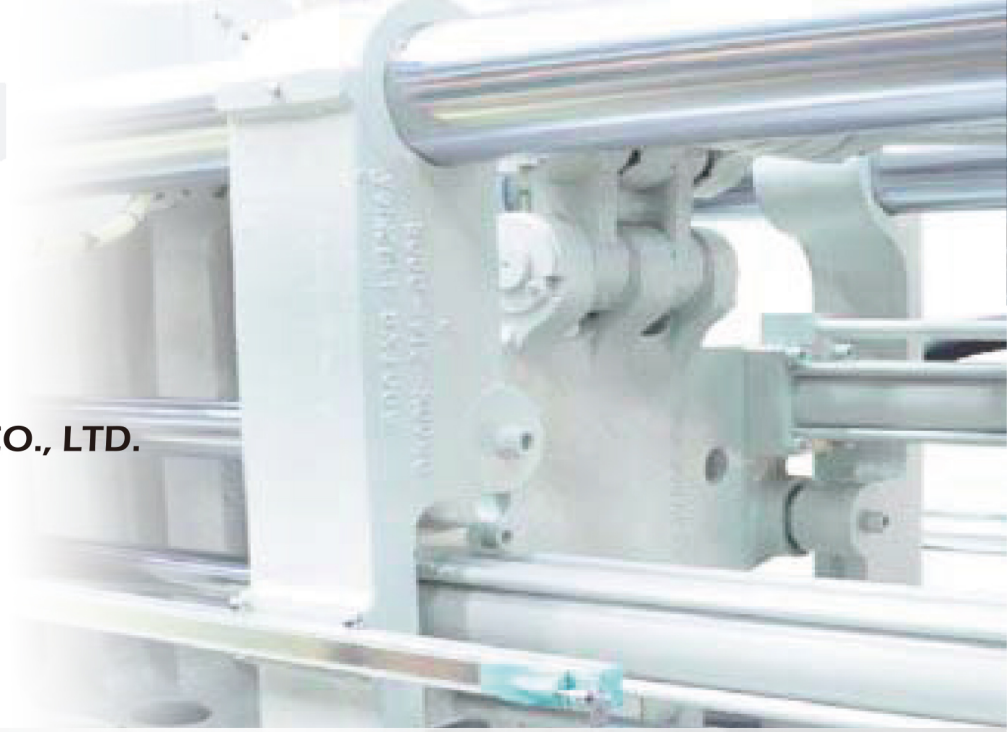
YEOSHE®

YEOSHE HYDRAULICS CO., LTD.

Innovative Technology
Efficient Performance
Reliable Quality and Service



Servo-Pump Energy Saving System

SP series

improves your industrial machines
and saves energy consumption
50-90 %



Flow rate：32~480L/min
Power：5~75kW

YEOSHE HYDRAULICS CO., LTD.
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Innovative Technology
Efficient Performance
Reliable Quality and Service

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ABOUT YEOSHE

Founded in 1989, YEOSHE is a professional hydraulic manufacturer and designer of good-quality hydraulic pumps and machine in Taiwan. Endeavoring over 21 years, YEOSHE has established a reliable reputation in providing piston pump, gear & vane pump, hydraulic machine, power unit, hydraulic valve and others related components for both domestic and international markets.



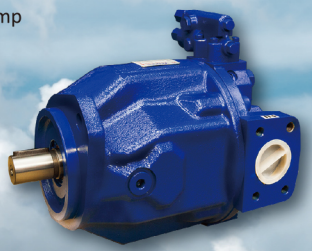
YEOSHE HYDRAULICS CO., LTD.

YEOSHE hydraulics supplier will keep on servicing global partners with Innovative Technology, Efficient Performance, Reliable Quality products and Trustworthy Service! Sincerely, YEOSHE invites you to be our loyal partners and enjoy our services immediately; we will offer more than what you expect.

Additionally, YEOSHE hydraulics manufacturer not only insists on the strict and precise quality control to achieve customer's satisfaction, but also adopts advanced machine to strengthen the competitiveness. All of processing and operating procedures have been certified with the ISO 9001-2008 (ISO Quality Assurance Certification which covering the quality, management, and market demands) to have a good knowledge of the market trends and meet the customer's needs.



A10V Series Axial Piston Pump



A10VSO Series Axial Piston Pump



Cold Forging Press



Broaching Machine - 2 Rails



YEOSHE BEST CHOICE

Innovative Technology
Efficient Performance
Reliable Quality and Service

www.yeoshehydraulic.com

- Simplify hydraulic circuit configurations and save costs. You don't need proportional pressure control valves and proportional flow control valves any more.
- Compact system design and Full Closed-Loop Controller with easy tuning functions, time-consuming parameters tuning time can be shortened.
- High pressure, high efficiency and two-level stage displacement piston pump PV / PA10VSO series.

Series Instruction (※standard type)

SP 090 A 4 N - A01 - C 1 A 1 - 000

Series

Design No.
(Do not need in model number)

Flow rate	
Code	Spec
030	30 L/min
050	50 L/min
090	90 L/min
110	110 L/min
140	140 L/min
170	170 L/min
200	200 L/min
250	250 L/min
320	320 L/min
480	480 L/min

Max. pressure	
Code	Spec
A	70 bar
B	140 bar
C	180 bar
D	220 bar
E	280 bar
F	320 bar

	Main circuit power supply	
	Code	Spec
*	2	3ϕ 200/220V, 50/60 Hz
	4	3ϕ 400/440V, 50/60 Hz

	Control loop	
	Code	Spec
*	N	open circuit
◎	C	closed circuit

◎ : Uunder development

Servo-motor	
Code	Spec
A01	5.6 kW
A02	7.5 kW
A03	11 kW
A04	15 kW
A05	22 kW
A06	30 kW
A07	37 kW
A08	45 kW
A09	60 kW
A10	75 kW

	Pump displacement compensator	
	Code	Spec
	C	Auto-switch two level
	S	Solenoid-switch two level
*	N	Single level

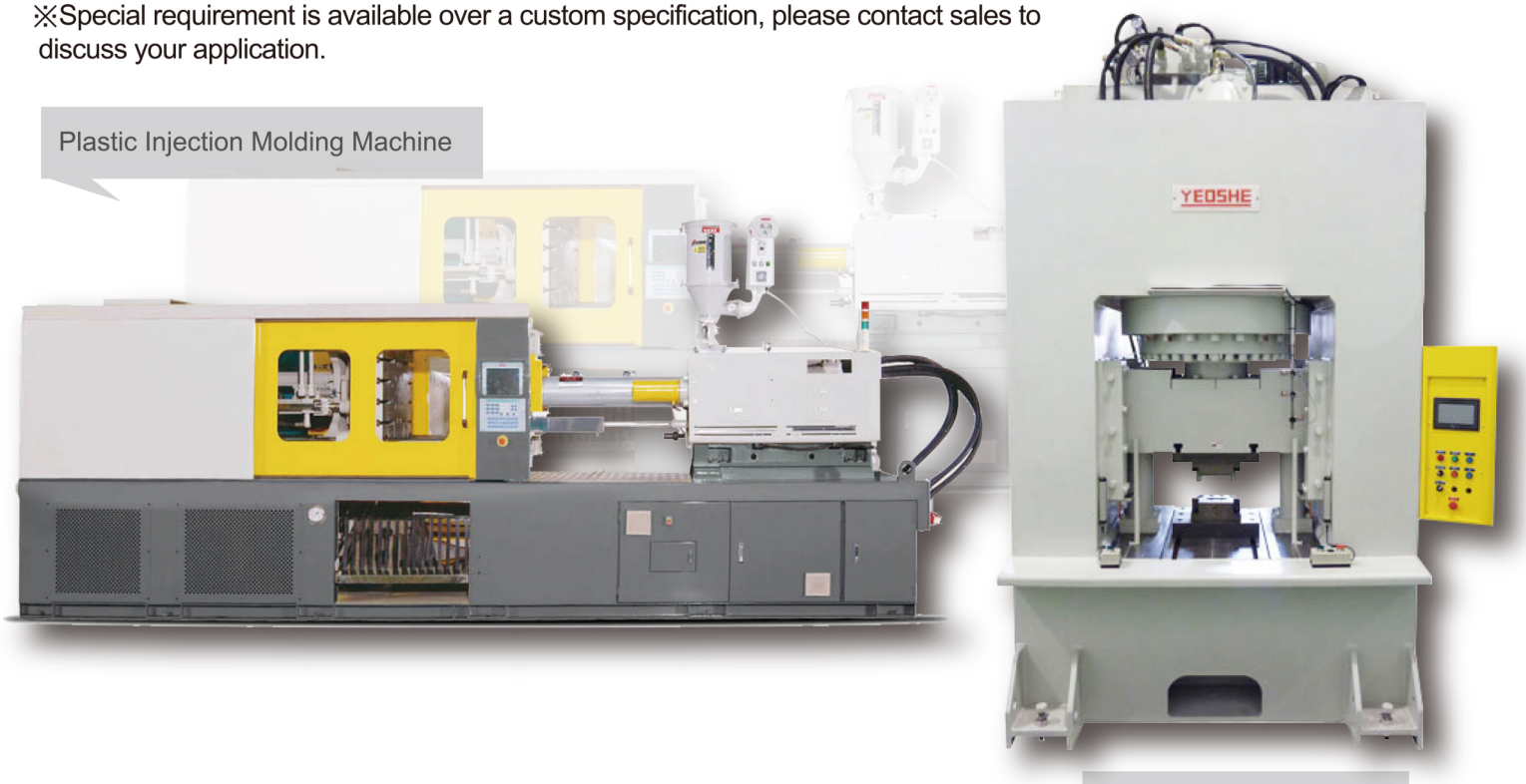
	Input command	
	Code	Spec
*	1	0~10V
	2	4~20mA

	Solenoid valve power supply	
	Code	spec.
*	1	DC24V
	2	DC12V
	3	AC110V
	4	AC220V

	control requirement	
	Code	Spec
*	A	Pressure-flow control
	B	Pressure-position control
	C	Pressure-flow-position control

Series no.	SP30	SP50	SP90	SP110	SP140	SP170	SP200	SP250	SP320	SP370	SP480
Pistion Pump	PV016	A10VSO28	PA10VSO45	PV056	PA10VSO71	PV092	PV110	PA10VSO140	PV180	PV210	PV270
2 level disp. cm³/rev.	16/5	28/8	45/11	56/15	71/18	92/22	110/28	140/40	180/50	210/66	270/83
Max. pressure bar	320										
Max.speed rpm	2000					1900		1800			
Max. flow rate L/min	32	56	90	112	142	175	209	252	324	378	486
Servo motor											
Rated torque N.m	27	36	72	95	95	139	139	191	284	382	480
Max. torque N.m	43	108	216	285	285	417	417	573	852	1146	1440
Rated power kW	5.6	7.5	11	15	15	22	22	30	45	60	75
Servo driver											
Rated power	5.5	7.5	11	15	15	22	22	30	45	75	75
Rated voltage	AC 3ϕ/200 ～ 240V ; 380 ～ 480V , 50/60Hz										
Allowable voltage range	AC 3ϕ/180 ～ 260V; 323 ～ 528V , 50/60Hz , voltage imbalance ≤3%, frequency fluctuation: ±5%										
Analog input 1	0～ ±10V										
Analog input 2	0～ ±10V ; 0 ～ 20mA										
Analog input 3	0～ ±10V ; 0 ～ 20mA										
Analog output 1	0～ ±10V										
Analog output 2	0～ ±10V										
Control requirement	Pressure-flow control / pressure-position control										

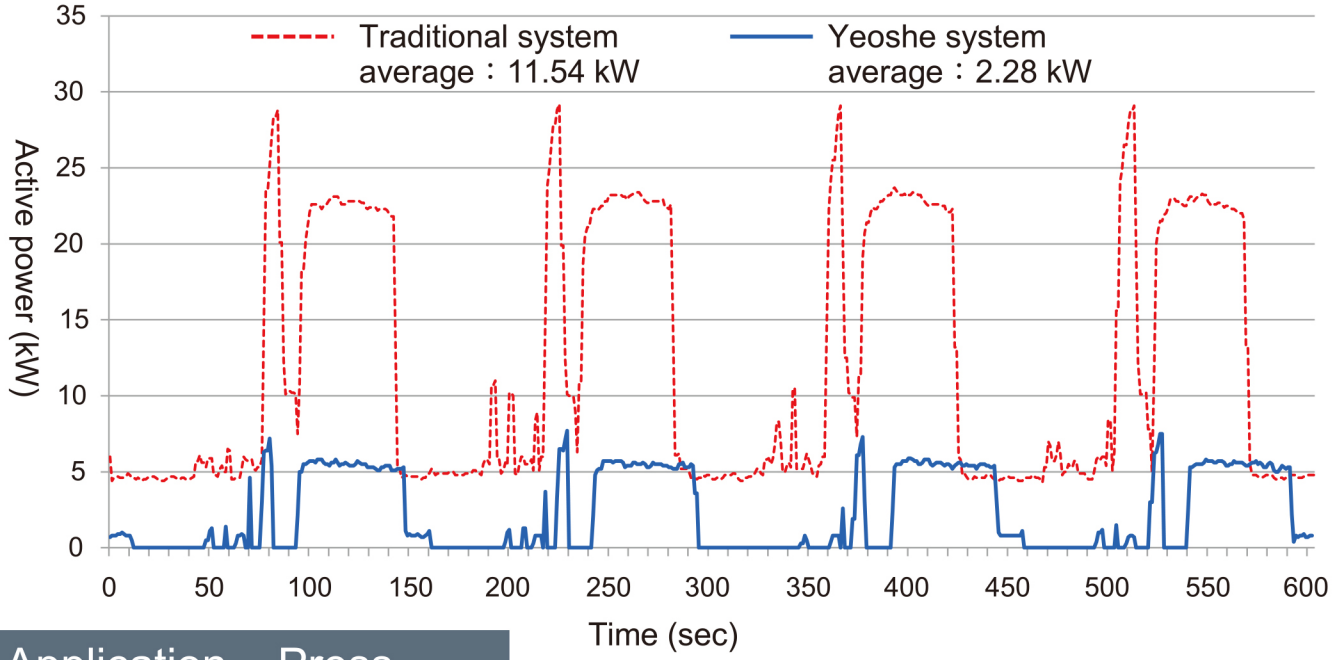
※Max. pressure values means the system works continuously when hydraulic pressure is high and pump's displacement level switches to low level.
※The max. torque values are short-time rating values. Be sure to select the appropriate specification by the rated torque values for consecutive applications.
※Special requirement is available over a custom specification, please contact sales to discuss your application.



Plastic Injection Molding Machine

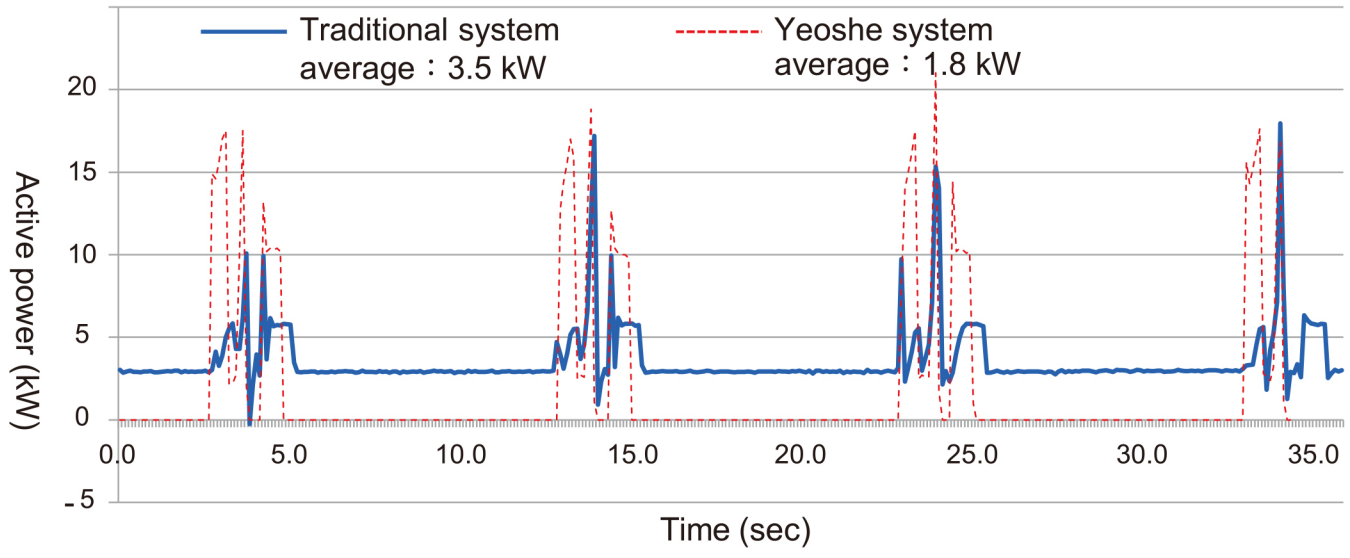
Cold Forging Press-PLC

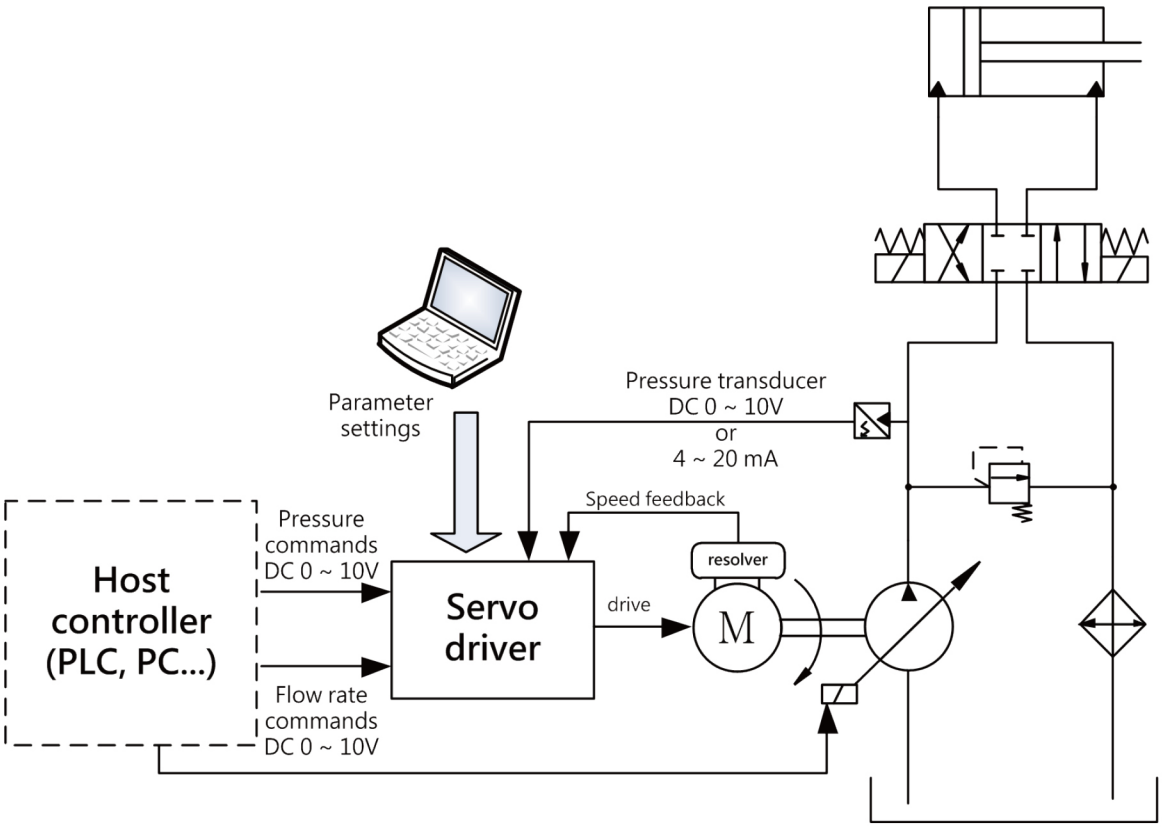
Machine type	260 tons horizontal type		
Working conditions	Clamping force 110kg / Injection time 40 sec		
Traditional system energy consumption(kW h)	33.42	Yeoshe system energy consumption(kW h)	6.93



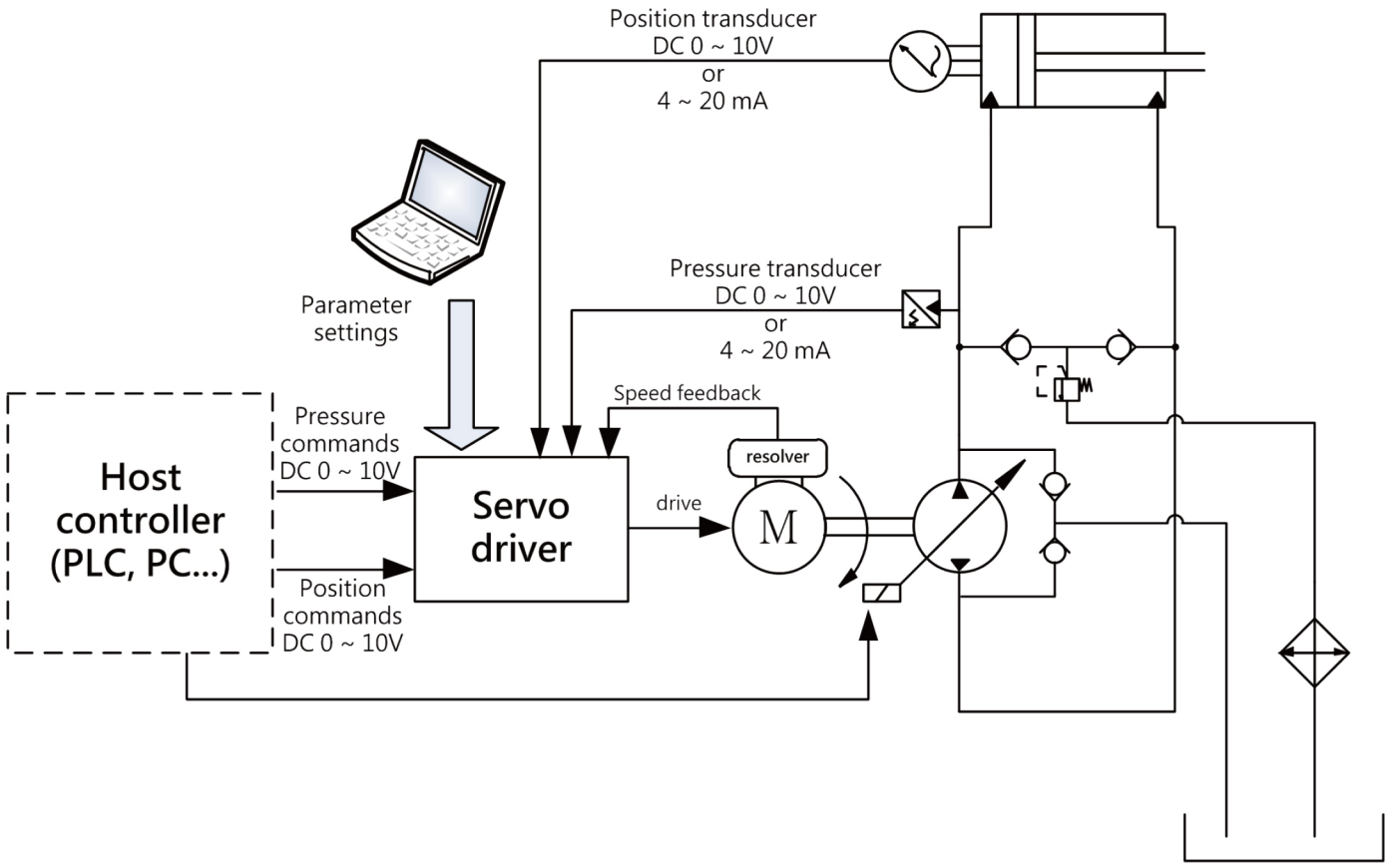
Application – Press

Traditional system spec.		Piston pump V38GJ3, Induction motor 4P/18.5KW, Proportional pressure/flow control		
Yeoshe system spec.		Piston pump PV46, Servo motor 7.5kW, Servo driver GF100 15kW, Full pressure closed-loop control		
Measurement apparatus:		YOKOGAWA Power analyzer CW240		
Test conditions		Press forming ON 5 Sec/OFF 5 Sec (6 times per minute), hydraulic pressure: 150kg/cm²		
results	unit	Traditional system	Yeoshe system	
Act. Power	KW	3.5	1.8	-49%
RVA	KVAR	5.58	0.73	-87%
Appar. Power	KVA	6.9	2.24	-68%
Cur. Ave	A	10.5	3.38	-68%
Standby Speed	r.p.m.	1,800	50	-97%





Example of closed circuit system

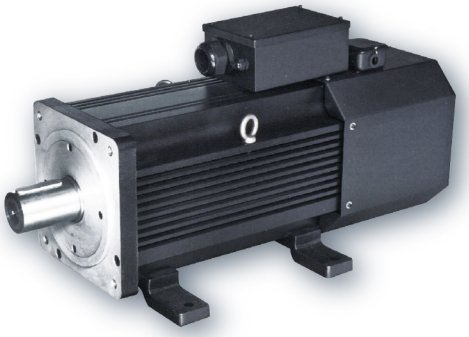


Variable Displacement piston pump / Fixed Displacement gear pump



- Piston pump PV / PA10VSO series – High Pressure / High Capacity / High Efficient
  Maximum pressure: 320 bar
  Maximum discharge: 480 L/min
  (pump displacement: 270 cm^3)
- Pump displacement two-stage control
  The auto-adjustment function of two-stage pump displacement is applied to reduce the necessary motor capacity and drive torque for high hydraulic system pressure situation. An electrical solenoid-adjustment function is also available.
- Applicable for high-pressure or long holding time situations.

Permanent-Magnet Synchronous Motor

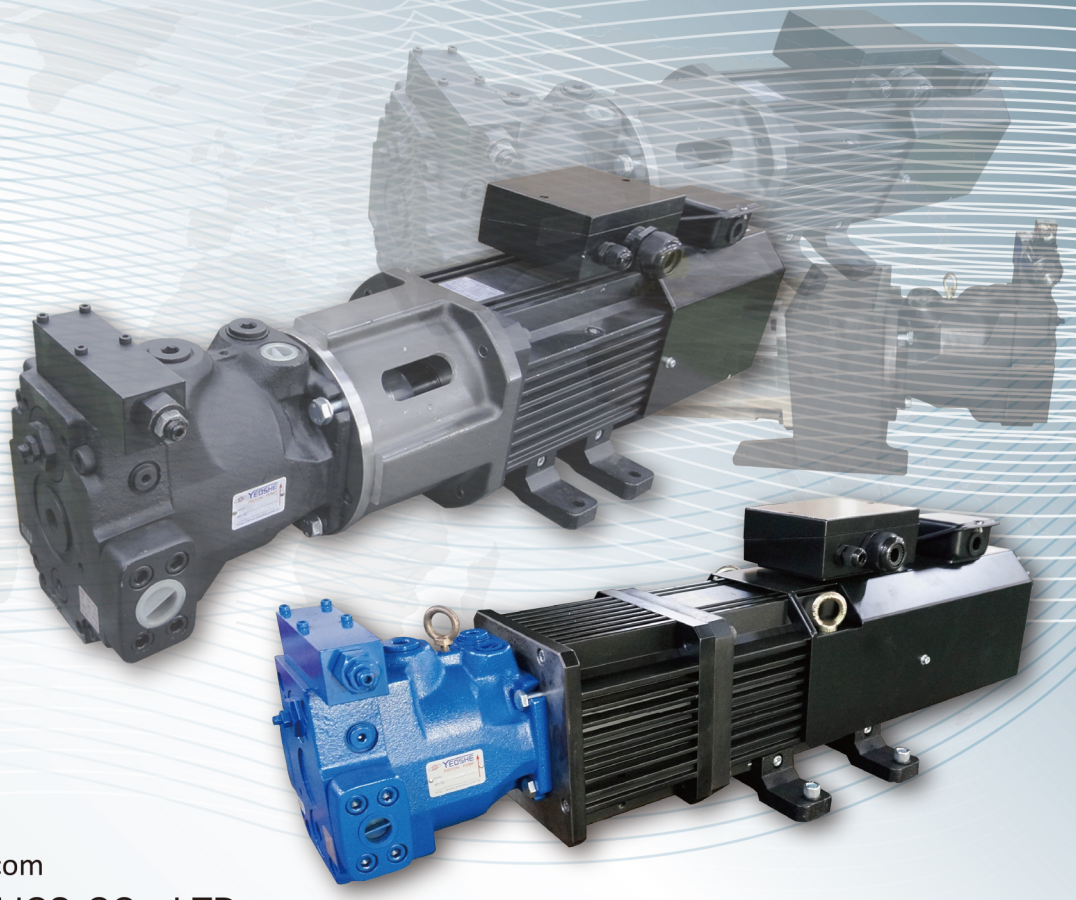


- Low-inertia, high power density and high dynamic response.
- The noise level can be abated to 55-60 dB while mechanisms are idling or/and holding pressure.
- The servo-motor runs only when hydraulic power is necessary. Temperature rises of hydraulic system can be controlled below 20 °C.

Servo Controller



- 150MHz, 32 bit DSP controller with P、Q PID control algorithm: The modules can satisfy the requirements for hydraulic system high-speed response.
- Built-In various protection functions.
- Support CAN BUS communications protocol



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