



CHYN RONG
MACHINERY

Precise Hydraulic Power System Of The Great Leap Forward

ENERGY SAVING • POWER SAVING • NEW REVOLUTION

Polaris



Servo Power Saving System

01 Machinery High Pressure Inside Gearing Gear Pump.

- High pressure, 300 kgf/cm² maximum.
- Low noise feature perfectly suits working environmental needs.
- Low pulse and smooth operation.
- Axial and radial pressure compensation to achieve high working efficiency.
- Superior suction and wide range of hydraulic oil viscosity.
- Wide flow range, 3.5c.c to 125c.c for single pump.
- Available for multiple link pump connection which is applicable in multiple circuit.
- The German imported Eckerle high pressure internal gear pump as an optional equipment.



02 Machinery High Efficiency Servo Motor



- Precise and strict structure design not only improves the machinery precision but extends motor life.
- All process and unit have been through dynamic balance analysis and correction.
- All bearing is in precision class for extending motor life and high speed motor operation.
- Individual forced cooling system contributes servo motor keeping well cooling effect whether during high or low operation speed.
- High reliable encoder—Covered by defective web to ensure undisturbed signal which also upgrades close-loop reliability.

03 Machinery Current and Vector Variable-Frequency Drive

- Perfect current and vector control, even the smooth running and high torque/precision speed/torque control during extreme low speed.
- Various control function, including slip compensation, speed search function, over/low torque inspection function, and energy saving control function...etc.
- Outstanding torque characteristic to fulfill 150%/0.5Hz high torque feature.
- Above 220V 30KW or 380V 55KW powerful braking function, plus external braking unit.
- Supreme high efficiency energy saving control effect.
- Low noise operation and high carrier frequency SPWM adaptive way enables substantially noise suppression. Definitely the perfect power high frequency suppression countermeasure.

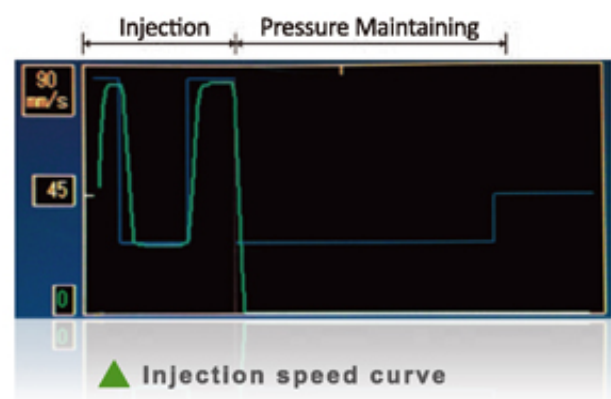
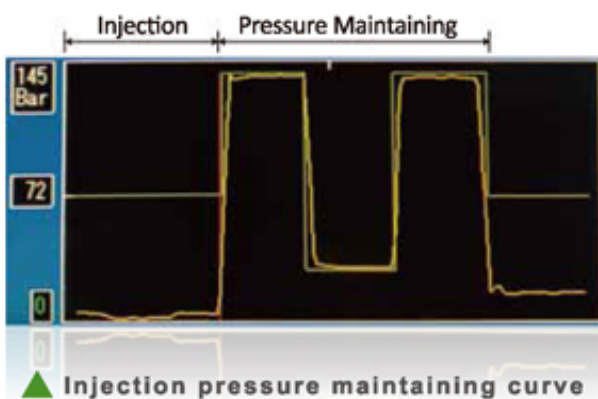


04 Power Consumption Test

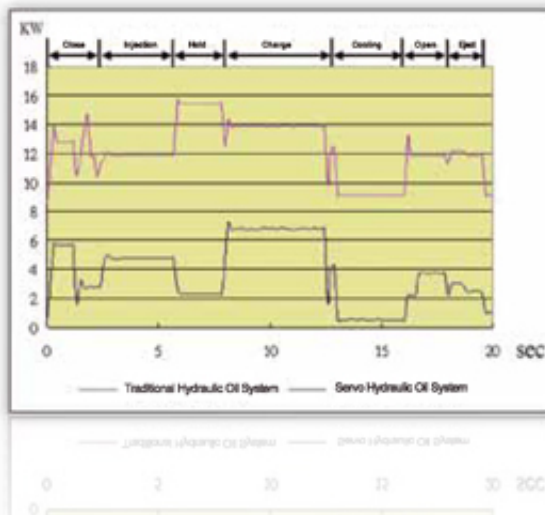
The advantages of energy saving hydraulic oil system

- (1) Power saving for 30%~70% depending on using situation. Fast retrieve invested capital and turn it into profit without affecting machine efficiency and performance.
- (2) Shorten cooling system dimension and oil tank volume as for slow system characteristic and hydraulic oil temperature, which is capable of extending hydraulic oil and hydraulic oil unit life, even reduce the expense of material usage and maintenance.
- (3) Complete dimension selection for convenient application. Larger variable-frequency makes system control characteristic to be more stable and durable.
- (4) The maximum flow up to 400L/min for single system; large flow application needs less energy saving system than other brand, and this huge difference will be the big bonus for the user.
- (5) Convenient lead-in system, almost non-change design.
- (6) Providing stable performance and working environment improving due to low noise volume and quick reaction.

System Motion Curve Test



Power Consumption Comparison



Item	Power Consumption (30min)	Power Consumption Percentage	Power Saving Effect
Traditional Hydraulic Oil System	12.1kw	100%	0%
Energy Saving Hydraulic Oil System	4kw	33%	67%

▲ The comparison between Traditional Hydraulic Oil System and Servo Hydraulic Oil System

POWER SAVING
NEW REVOLUTION



Efficiency Evaluation

Item		30KW Traditional Hydraulic Oil	22KW Servo Hydraulic Oil
Power Consumption	KWH	24.2 KW	8 KW
Power Consumption Calculation	Day (24 hours)	581 (KWH)	192 (KWH)
	Month (22 days)	12778 (KWH)	4224 (KWH)
	Year (12 months)	153336 (KWH)	50688 (KWH)
	Yearly energy saving kwh	102648 (KWH)	Energy saving result defers per using situation
Difference	1 (KWH)=2.46 NT	252514 NT	

05 System Dimension

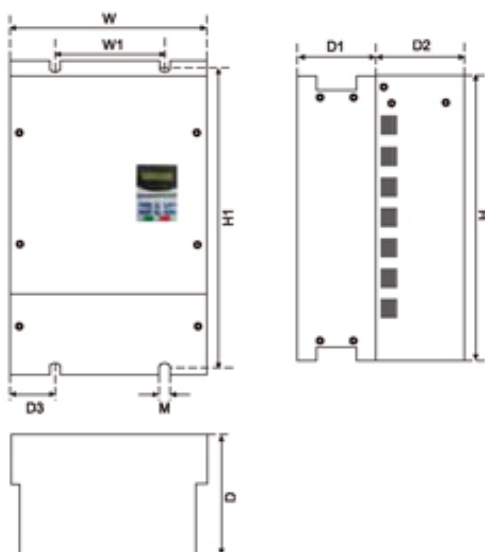
Model	Maximum Flow L/min	Maximum Pressure kg/cm ²
CRS1-15/20-32/XX-220-A1	73	140
CRS1-20/25-40/XX-220-A1	90	
CRS1-25/30-50/XX-220-A1	110	
CRS1-30/40-64/XX-220-A1	130	
CRS1-40/50-80/XX-220-A1	160	
CRS1-40/50-64/32-220-A1	180	
CRS1-50/60-100/XX-220-A1	200	
CRS1-50/60-64/50-220-A1	220	
CRS1-60/75-125/32-220-A1	282	
CRS1-75/100-125/64-220-A1	340	
CRS1-100/125-125/100-220-A1	405	

▲ Selective parameter data

The dimension selection will be different depending on actual using situation. For more detailed information and operation way, please consult the sale department of our company. You are guaranteed for our sincere service.

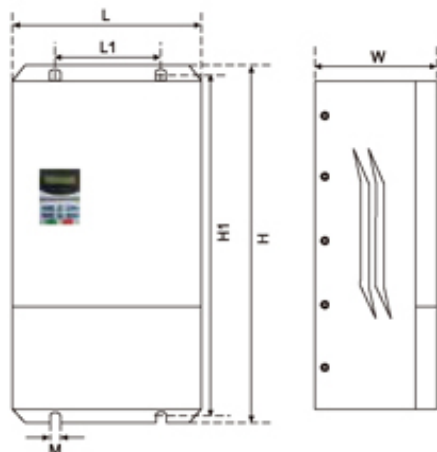
Variable-Frequency Drive Dimension Chart

<Below 40HP (Including Iron Shell TK)>



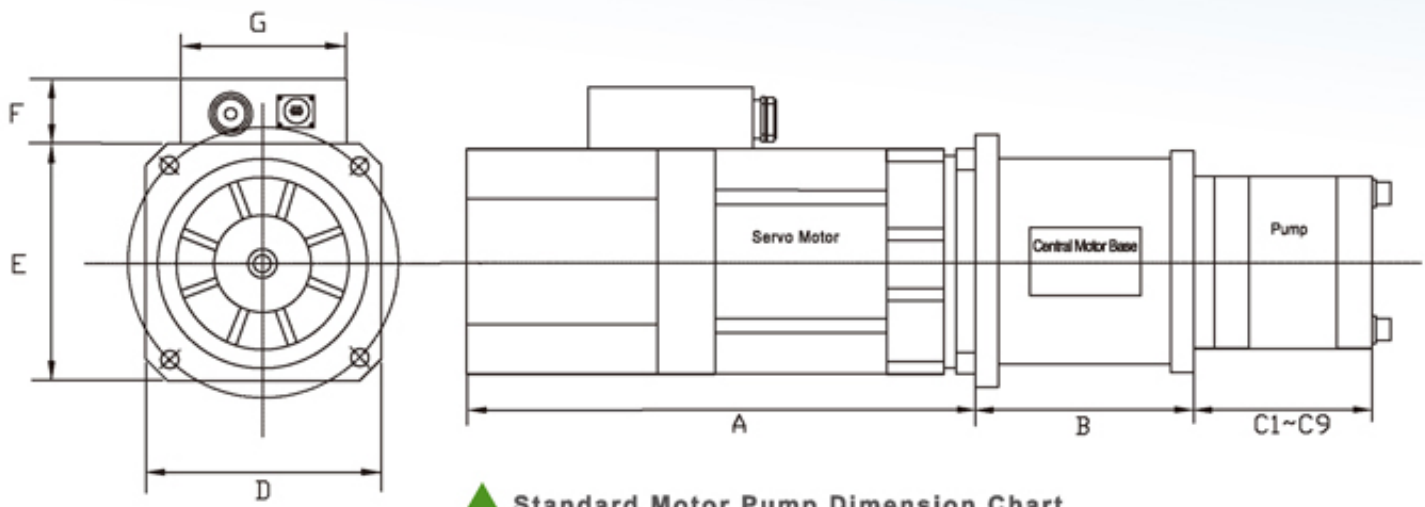
Voltage	Model	HP	H	H1	W	W1	D	D1	D2	D3	M
AC220V	0522	7.5HP	320	304	230	170	195	85	110	30	Ø7
	0722	10HP									
	1122	15HP									
AC440V	0544	7.5HP									
	0744	10HP									
	1144	15HP									
	1544	20HP									
AC220V	1522	20HP	470	454	260	200	246	116	130	30	Ø7
	1822	25HP									
	2222	30HP									
AC440V	1844	25HP									
	2244	30HP									
	3044	40HP									
AC220V	3022	40HP	500	484	330	230	300	100	200	50	Ø7

<Above 50HP (Including Iron Shell TK)>



Voltage	Model	HP	H	H1	W	L	L1	M
AC220V	3722	50HP	705	683	320	407	240	Ø10
	4522	60HP						
	5522	75HP						
AC440V	5544	75HP	605	583	280	352	240	Ø8
	7544	100HP						
AC440V	3744	50HP						
	4544	60HP						
AC220V	7522	100HP	1002	975	325	525	350	Ø10
AC440V	9044	125HP						
	1104	150HP						

Dimension of Motor Pump



▲ Standard Motor Pump Dimension Chart

Motor Standard	10 HP	15 HP	20 HP	25 HP	30 HP	40 HP	50 HP	60 HP	75 HP	100 HP
Motor Length A	513	583	526	566	636	706	744	834	989	1079
Central Base Length B	180	180	230	230	230	230	230	230	240	240
(IG-4) C1	164	164	164	164	164	164	164	164	164	164
(IG-5) C2	208	208	208	208	208	208	208	208	208	208
(IG-6) C3	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5
(IG-4/IG-4) C4	365	364	364	364	364	364	364	364	364	364
(IG-5/IG-4) C5	461	461	461	461	461	461	461	461	461	461
(IG-5/IG-5) C6	461	461	461	461	461	461	461	461	461	461
(IG-6/IG-4) C7	440	440	440	440	440	440	440	440	440	440
(IG-6/IG-5) C8	466	466	466	466	466	466	466	466	466	466
(IG-6/IG-6) C9	514	514	514	514	514	514	514	514	514	514
D	198	262	262	262	262	262	310	310	358	358
E	198	263	263	263	263	263	315	315	359	359
F	61	85	85	85	85	85	110	110	110	110
G	120	167	167	167	167	167	200	200	200	200

Unit : mm



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