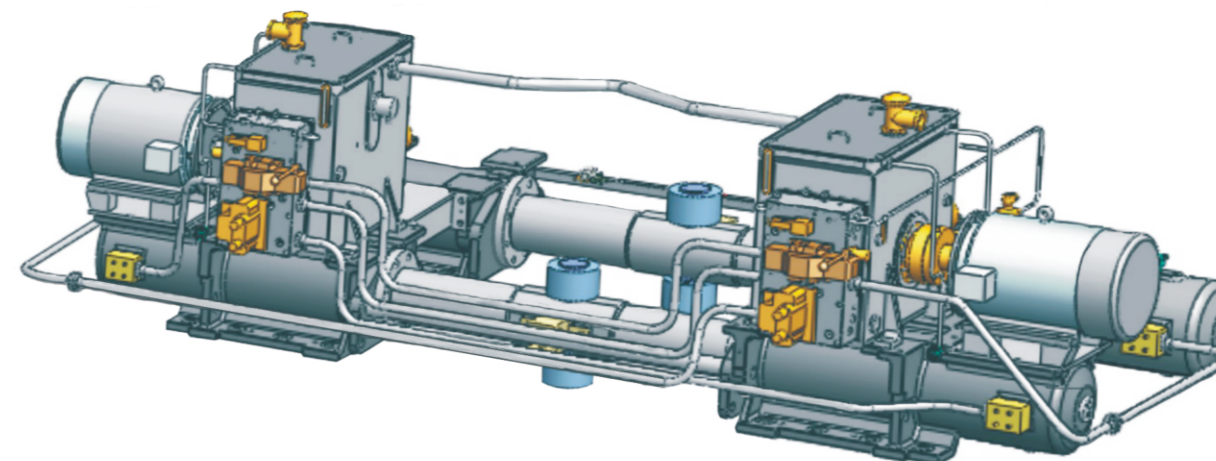
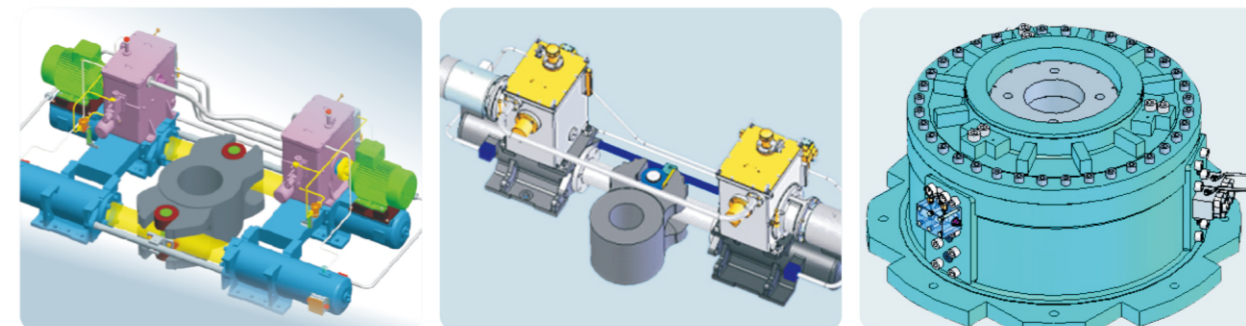


始终做中国船舶配套企业的旗舰

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Electro-hydraulic Steering Gear

电动液压舵机

WUHAN MARINE MACHINERY PLANT CO., LTD.

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CSSC

武汉船用机械有限责任公司

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售后服务热线：

After-sales Service

**400-1111-461**

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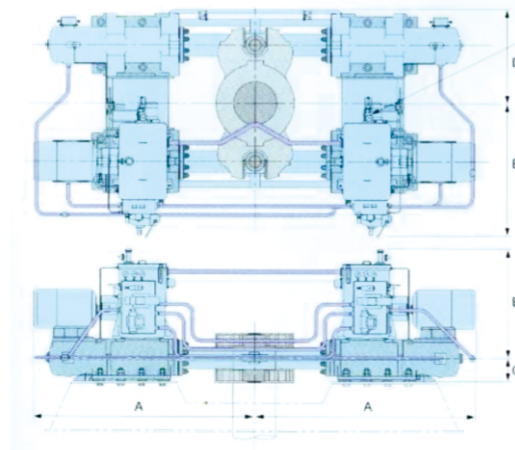
询价 ( Inquiry ) :afterservice-xj@wmmp.com.cn

# FE21型电动液压舵机

## Electro-hydraulic Steering Gear of type FE21

舵机  
Steering Gear

01



- 配套产品 Matched Product
  - ◀ 液压螺母 Hydraulic nut
  - ◀ 储油箱 Storage tank
  - ◀ 上舵承 Rudder carrier
  - ◀ 电动干油站 Electric grease pump
  - ◀ 滑油箱 Lubricating oil tank
  - ◀ 舵角发讯器和指示器 Rudder angle transmitter and indicators
  - ◀ 自动舵 Pilot system
  - ◀ 舵杆与舵叶 Rudder stock and rudder blade

### 技术参数和外形尺寸

### Technical Specification & Dimensions

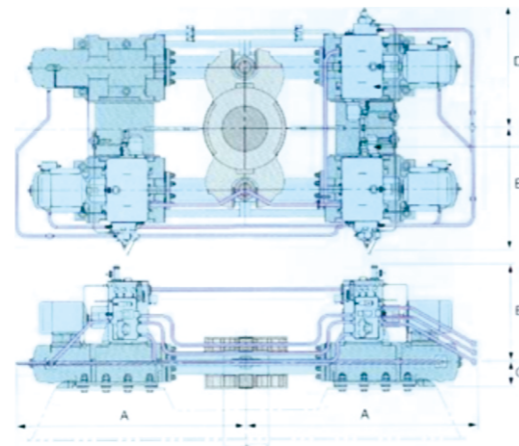
型号 Type		FE21-053 (-T050)	FE21-064 (-T050)	FE21-072 (-T050)	FE21-090 (-T050)	FE21-102 (-T050)	FE21-126 (-T050)	FE21-140 (-T050)	FE21-172 (-T050)	FE21-207 (-T050)	FE21-243 (-T050)	FE21-288 (-T050)	FE21-350 (-T050)	FE21-400 (-T050)	FE21-485 (-T050)	FE21-560 (-T050)	
最大工作压力时的扭矩 Torque at max. working pressure	kN.m	520	628	706	833	1000	1240	1370	1690	2030	2380	2820	3430	3920	4760	5490	
	t.m	53	64	72	92	102	126	140	172	207	243	288	350	400	485	560	
舵杆直径 Rudder dia. in way of rudder head	mm	385		425		480		530		570	595	640	680	710	760	800	
转舵角度 Rudder turning angle	deg	± 35°															
转舵速度 Rudder turning speed	deg/sec	65°/28s															
舵柄公称半径 Normal radius of tiller arm	mm	465		510		580		640		685	715	760	815	850	905	925	
柱塞直径 Ram diameter	mm	170		190		212		236		250	265	280	300	315	335	355	
最大工作压力 Max. working pressure	Mpa	19.2	23.5	19.2	23.5	19.2	23.5	19.2	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	
	Kgf/cm <sup>2</sup>	196	240	196	240	196	240	196	240	240	240	240	240	240	240	240	
安全阀设定压力 Safety valve set pressure	Mpa	24.0	29.4	24.0	29.4	24.0	29.4	24.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	
	Kgf/cm <sup>2</sup>	245	300	245	300	245	300	245	300	300	300	300	300	300	300	300	
主泵 Main Pump	油泵型号×台数 Pump type × number	LV-060x2				LV-090x2		LV-120x2			LV-180x2		LV-260x2		LV-500x2		
	油泵转速 Pump speed	min <sup>-1</sup> 1750															
	电机输出功率×台数 Motor output × number	kW	15x2	18.5x2	22x2	25x2	30x2	37x2	45x2	50x2	55x2	75x2	80x2	100x2	125x2	150 × 2	160x2
	电机转速 Motor speed	min <sup>-1</sup>	1750												1150		
	电机工作制 Motor rating	25%cont, 100%1h, 200%30s.															
伺服泵 Servo Pump	油泵型号×台数 Pump type × number	Top 203x2						GN 206x2				GN 212x2					
	油泵转速 Pump	min <sup>-1</sup> 1750															
	电机输出功率×台数 Motor output × number	0.4x2						0.75x2				1.5x2					
	电机转速 Motor	min <sup>-1</sup> 1750															
电机工作制 Motor rating	100% cont.																
需要油量 Required oil quantity	lit	400	410	510	640	660	940	970	2280	2320	2390	2480					
近似尺寸 Approx dimensions	A	mm	1970	1970	2065	2065	2285	2285	2445	2445	2615	2715	2865				
	B	mm	1095	1160	1250	1260	1395	1410	1765	1775	1790	1805	1015				
	C	mm	190	200	212	236	250	265	280	300	315	335	335				
	D	mm	785	840	920	1030	1085	1120	1200	1310	1345	1400	1435				
	E	mm	1140	1185	1360	1455	1500	1720	1765	2020	2055	2110	2130				

# FE32型电动液压舵机

Electro-hydraulic Steering Gear of type FE32

舵机  
Steering Gear

02



- 配套产品 Matched Product
- ◀ 液压螺母 Hydraulic nut
- ◀ 储油箱 Storage tank
- ◀ 上舵承 Rudder carrier
- ◀ 电动干油站 Electric grease pump
- ◀ 滑油箱 Lubricating oil tank
- ◀ 舵角发讯器和指示器 Rudder angle transmitter and indicators
- ◀ 自动舵 Pilot system
- ◀ 舵杆与舵叶 Rudder stock and rudder blade

## 技术参数和外形尺寸

## Technical Specification & Dimensions

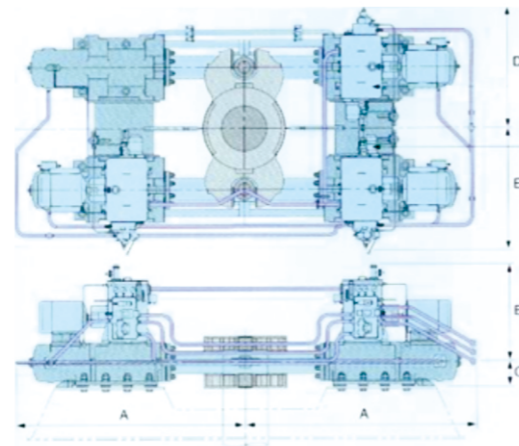
型号 Type		FE32-102 -(T050)	FE32-126 -(T050)	FE32-140 -(T050)	FE32-172 -(T050)	FE32-207 -(T050)	FE32-243 -(T050)	FE32-288 -(T050)	FE32-350 -(T050)	FE32-400 -(T050)	FE32-485 -(T050)	FE32-560 -(T050)	
最大工作压力时的扭矩 Torque at max. working pressure	kN.m	1000	1240	1370	1690	2030	2380	2820	3430	3920	4760	5490	
	t.m	102	126	140	172	207	243	288	350	400	485	560	
舵杆直径 Rudder dia. in way of rudder head	mm	480		530		570	595	640	680	710	760	800	
转舵角度 Rudder turning angle	deg	±35°											
转舵速度 Rudder turning speed	deg/sec	65°/28s											
舵柄公称半径 Normal radius of tiller arm	mm	580		640		685	715	760	815	850	905	925	
柱塞直径 Ram diameter	mm	212		236		250	265	280	300	315	335	355	
最大工作压力 Max. working pressure	Mpa	19.2	23.5	19.2	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	
	Kgf/cm <sup>2</sup>	196	240	196	240	240	240	240	240	240	240	240	
安全阀设定压力 Safety valve set pressure	Mpa	24.0	29.4	24.0	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	
	Kgf/cm <sup>2</sup>	245	300	245	300	300	300	300	300	300	300	300	
主泵 Main Pump	油泵型号×台数 Pump type × number	LV-060x3					LV-090x3		LV-120x3		LV-180x3		
	油泵转速 Pump speed	min <sup>-1</sup> 1750											
	电机输出功率×台数 Motor output × number	30x2	37x2	45x2	50x2	55x2	75x2	80x2	100x2	125x2	150x2	160x2	
	电机转速 Motor speed	min <sup>-1</sup> 1750											
	电机工作制 Motor rating	25%cont., 100%1h., 200%30s.											
伺服泵 Servo Pump	油泵型号×台数 Pump type × number	TOP203x3						GN206x3					
	油泵转速 Pump	min <sup>-1</sup> 1750											
	电机输出功率×台数 Motor output × number	0.4x3						0.75x3					
	电机转速 Motor	min <sup>-1</sup> 1750											
	电机工作制 Motor rating	100%cont.											
需要油量 Required oil quantity	lit	600		630		660	800	830	1060	1090	1530	1570	
近似尺寸 Approx dimensions	A	mm	2300		2470		2655	2755	2910	3120	3235	3480	3530
	B	mm	1151		1130		1140	1205	1220	1305	1315	1440	1453
	C	mm	212		236		250	265	280	300	315	335	355
	D	mm	1300		1350		1450	1500	1550	1650	1700	1700	1900
	E	mm	1400		1450		1550	1600	1650	1750	1800	1800	1900

# FE32型电动液压舵机

Electro-hydraulic Steering Gear of type FE32

舵机  
Steering Gear

03



配套产品	Matched Product
← 液压螺母	Hydraulic nut
← 储油箱	Storage tank
← 上舵承	Rudder carrier
← 电动干油站	Electric grease pump
← 滑油箱	Lubricating oil tank
← 舵角发讯器和指示器	Rudder angle transmitter and indicators
← 自动舵	Pilot system
← 舵杆与舵叶	Rudder stock and rudder blade

## 技术参数和外形尺寸

Technical Specification & Dimensions

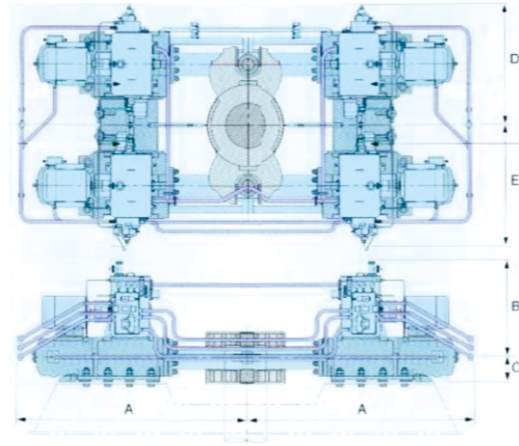
型号 Type		FE32-685 (T050)	FE32-775 (T050)	FE32-825 (T050)	FE32-1000 (T050)	
参数 Particulars	最大工作压力时的扭矩 Torque at max. working pressure	kN.m	6720	7600	8090	9810
		t.m	685	775	825	1000
	舵杆直径 Rule dia. in way of rudder head	mm	850	870	900	960
	转舵角度 Rudder turning angle	deg	± 35°			
	转舵速度 Rudder turning speed	deg/sec	65° / 28s			
	舵柄公称半径 Normal radius of tiller arm	mm	1015	1015	1080	1150
	柱塞直径 Ram diameter	mm	375	400	400	425
最大工作压力 Max. working pressure		Mpa	23.5	23.5	23.5	23.5
		Kgf/cm <sup>2</sup>	240	240	240	240
安全阀设定压力 Safety valve set pressure		Mpa	29.4	29.4	29.4	29.4
		Kgf/cm <sup>2</sup>	300	300	300	300
主泵 Main Pump	油泵型号×台数 Pump type×number		LV-260x3		LV-500x3	
	油泵转速 Pump speed	min <sup>-1</sup>	1750		1150	
	电机输出功率×台数 Motor output×number	kW	100x3	110x3	125x3	150x3
	电机转速 Motor speed	min <sup>-1</sup>	1750		1150	
	电机工作制 Motor rating		25%cont.,	100%1h.,	200%30s.	
伺服泵 Servo Pump	油泵型号×台数 Pump type×number		GN206x3		GN212x3	
	油泵转速 Pump	min <sup>-1</sup>	1750			
	电机输出功率×台数 Motor output×number	kW	0.75x3		1.5x3	
	电机转速 Motor	min <sup>-1</sup>	1750			
	电机工作制 Motor rating		100%cont.			
需要油量 Required oil quantity		lit	2150	2200	3740	3860
近似尺寸 Approx dimensions	A	mm	3920	3920	4210	4410
	B	mm	1580	1600	1840	1860
	C	mm	375	400	400	425
	D	mm	2100	2100	2315	2385
	E	mm	2100	2100	2315	2385

# FE42型电动液压舵机

Electro-hydraulic Steering Gear of type FE42

舵机  
Steering Gear

04



- | 配套产品        | Matched Product                         |
|-------------|---|
| ← 液压螺母      | Hydraulic nut                           |
| ← 储油箱       | Storage tank                            |
| ← 上舵承       | Rudder carrier                          |
| ← 电动干油站     | Electric grease pump                    |
| ← 滑油箱       | Lubricating oil tank                    |
| ← 舵角发讯器和指示器 | Rudder angle transmitter and indicators |
| ← 自动舵       | Pilot system                            |
| ← 舵杆与舵叶     | Rudder stock and rudder blade           |

## 技术参数和外形尺寸

Technical Specification & Dimensions

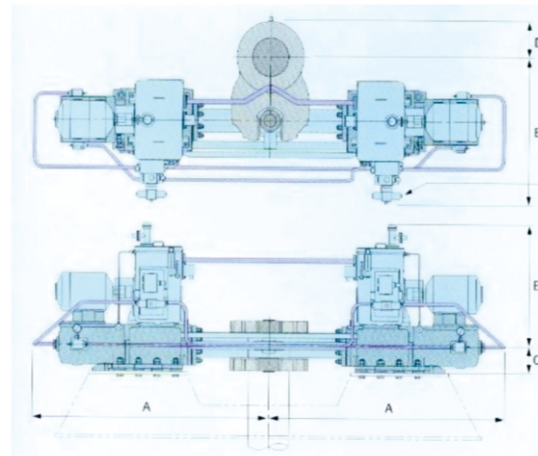
型号 Type		FE42-560 (T050)	FE42-685 (T050)	FE42-775 (T050)	FE42-825 (T050)	FE42-1000 (T050)	
参数 Particulars	kN.m	5490	6720	7600	8090	9810	
	t.m	560	685	775	825	1000	
舵杆直径 Rule dia. in way of rudder head	mm	800	850	870	900	960	
转舵角度 Rudder turning angle	deg	± 35°					
转舵速度 Rudder turning speed	deg/sec	65°/28s					
舵柄公称半径 Normal radius of tiller arm	mm	925	1015	1015	1080	1150	
柱塞直径 Ram diameter	mm	355	375	400	400	425	
最大工作压力 Max. working pressure	Mpa	23.5	23.5	23.5	23.5	23.5	
	Kgf/cm <sup>2</sup>	240	240	240	240	240	
安全阀设定压力 Safety valve set pressure	Mpa	29.4	29.4	29.4	29.4	29.4	
	Kgf/cm <sup>2</sup>	300	300	300	300	300	
主泵 Main Pump	油泵型号×台数 Pump type × number	LV-180x4	LV-260x4		LV-500x4		
	油泵转速 Pump speed	min <sup>-1</sup>	1750		1150		
	电机输出功率 × 台数 Motor output × number	kW	75x4	100x4	110x4	125x4	150x4
	电机转速 Motor speed	min <sup>-1</sup>	1750		1150		
	电机工作制 Motor rating		25%cont.,		100%1h.,	200%30s.	
伺服泵 Servo Pump	油泵型号×台数 Pump type × number	GN206x4			GN212x4		
	油泵转速 Pump	min <sup>-1</sup>	1750				
	电机输出功率 × 台数 Motor output × number	kW	0.75x3			1.5x3	
	电机转速 Motor	min <sup>-1</sup>	1750				
	电机工作制 Motor rating		100%cont.				
需要油量 Required oil quantity	lit	2480	2870	2800	4820	4890	
近似尺寸 Approx dimensions	A	mm	3280	3920	3920	4210	4410
	B	mm	1453	1580	1600	1840	1860
	C	mm	355	375	400	400	425
	D	mm	1950	2100	2100	2315	2385
	E	mm	1950	2100	2100	2315	2385

# RV21电动液压舵机

Electro-hydraulic Steering Gear of type RV21

舵机  
Steering Gear

05



配套产品	Matched Product
← 液压螺母	Hydraulic nut
← 储油箱	Storage tank
← 上舵承	Rudder carrier
← 电动干油站	Electric grease pump
← 滑油箱	Lubricating oil tank
← 舵角发讯器及指示器	Rudder angle transmitter and indicators
← 自动舵	Pilot system
← 舵杆与舵叶	Rudder stock and rudder blade

## 技术参数和外形尺寸

Technical Specification & Dimensions

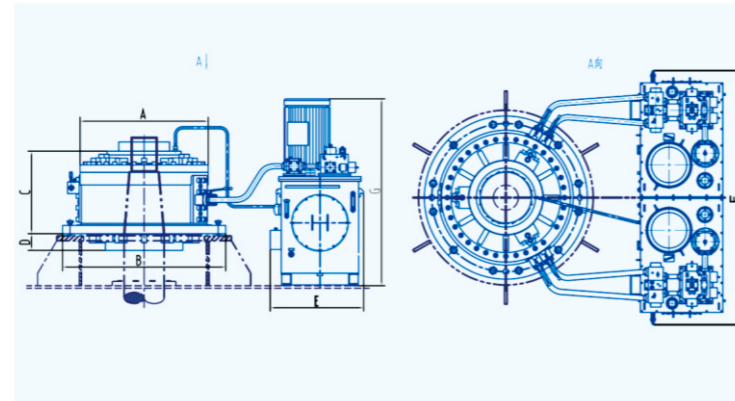
型号 Type		RV21-032 (T050)	RV21-036 (T050)	RV21-045 (T050)	RV21-051 (T050)	RV21-063 (T050)	RV21-070 (T050)	RV21-086 (T050)
最大工作压力时的扭矩 Torque at max. working pressure	kN.m	314	353	441	500	618	687	844
	t.m	32	36	45	51	63	70	86
舵杆直径 Rudder dia. in way of rudder head	mm	310	340	385	425			
转舵角度 Rudder turning angle	deg	±35°						
转舵速度 Rudder turning speed	deg/sec	65°/28s						
舵柄公称半径 Normal radius of tiller arm	mm	465	510	580	640			
柱塞直径 Ram diameter	mm	170	190	212	236			
最大工作压力 Max. working pressure	Mpa	23.5	19.2	23.5	19.2	23.5	19.2	23.5
	Kgf/cm <sup>2</sup>	240	196	240	196	240	196	240
安全阀设定压力 Safety valve set pressure	Mpa	29.4	24.0	29.4	24.0	29.4	24.0	29.4
	Kgf/cm <sup>2</sup>	300	245	300	245	300	245	300
油泵型号×台数 Pump type × number		LV-030x2			LV-060x2			
油泵转速 Pump speed	min <sup>-1</sup>	1750						
电机输出功率×台数 Motor output × number	kW	11x2	11x2	15x2	15x2	18.5x2	22x2	25x2
电机转速 Motor speed	min <sup>-1</sup>	1750						
电机工作制 Motor rating		25%cont., 100%1h., 200%30s.						
需要油量 Required oil quantity	lit	260	270	380	390			
近似尺寸 Approx dimensions	A	mm	2000	2100	2300	2450		
	B	mm	1066	1076	1151	1177		
	C	mm	190	200	212	236		
	D	mm	305	290	325	360		
	E	mm	1210	1255	1335	1385		

# 转叶式舵机

## Rotary vane Steering Gear

舵机  
Steering Gear

06



- | 配套产品        | Matched Product                         |
|-------------|---|
| ← 液压螺母      | Hydraulic nut                           |
| ← 储油箱       | Storage tank                            |
| ← 水密填料函     | Watertight stuffing box                 |
| ← 舵角发讯器和指示器 | Rudder angle transmitter and indicators |
| ← 自动舵       | Pilot system                            |
| ← 舵杆与舵叶     | rudder stock and rudder blade           |

### 技术参数和外形尺寸

### Technical Specification & Dimensions

型号 Type		ZY63-3/35	ZY160-3/35	ZY320-3/35	ZY450-3/35	ZY630-3/35	ZY750-3/35	ZY900-3/35	ZY1100-3/35	ZY1300-3/35	ZY1600-3/35	ZY2000-3/35	
参数 Particulars		ZY63-2/45	ZY160-2/45	ZY320-2/45	ZY450-2/45	ZY630-2/45	ZY750-2/45	ZY900-2/45	ZY1100-2/45	ZY1300-2/45	ZY1600-2/45	ZY2000-2/45	
		ZY63-2/65	ZY160-2/65	ZY320-2/65	ZY450-2/65	ZY630-2/65	ZY750-2/65	ZY900-2/65	ZY1100-2/65	ZY1300-2/65	ZY1600-2/65	ZY2000-2/65	
最大工作压力时的扭矩 Torque at max. working pressure	kN.m	63	160	320	450	630	750	900	1100	1300	1600	2000	
	t.m	6	16	32	45	64	76	91	112	132	163	204	
舵杆直径 Rudder dia. in way of rudder head	mm	170	240	320	360	400	440	440	475	510	530	560	
转舵角度 Rudder turning angle	deg	± 35°、± 45°、± 65°											
转舵速度 Rudder turning speed	deg/sec	65°/28s											
最大工作压力 Max. working pressure	Mpa	8	8	8	8	8	6.7	8	8	8	8	8	
安全阀设定压力 Safety valve set pressure	Mpa	10	10	10	10	10	8.3	10	10	10	10	10	
电机工作制 Motor rating		AC380V-50Hz-3Φ						AC440V-60Hz-3Φ					
近似尺寸 Approx dimensions	A	mm	600	870	940	1110	1260	1340	1340	1420	1540	1570	1600
	B	mm	740	1100	1220	1430	1580	1660	1660	1850	1960	1990	2100
	C	mm	422	665	661	670	700	750	750	960	991	1190	1100
	D	mm	85	130	145	150	150	160	160	180	200	200	210
	E	mm	1078	870	892	942	1057	1249	1249	1137	1142	1212	1310
	F	mm	1045	1700	1950	2049	2341	2497	2497	2571	3053	3231	2695
	G	mm	1050	1360	1625	1695	1783	1789	1789	2008	2140	2295	2350



# 电动液压舵机选型卡

Electro-hydraulic Steering Gear selection card

舵机  
Steering Gear

07

船厂 ( Shipyard )	船型 ( Ship Type )		
船东 ( Ship Owner )	船号 ( Hull No )		
船级社 (Classification Society)			
其他规范 (Other rule and regulation)			
主电源 ( Main Power Source )			
<input type="checkbox"/> AC440V-60HZ-3Φ		<input type="checkbox"/> AC380V-50HZ-3Φ	
舵机最大工作扭矩 ( The max. torque of S/G ) : _____ KN.m			
型式 ( TYPE ) :	<input type="checkbox"/> RV type	<input type="checkbox"/> FE type	<input type="checkbox"/> ROTARY VANE type
转舵速度 ( Rudder turning speed )	<input type="checkbox"/> 65°/28s	<input type="checkbox"/> 65°/20s	<input type="checkbox"/> 其他 (other) _____
转舵角度 ( Rudder turning angle )	<input type="checkbox"/> ±35°	<input type="checkbox"/> ±45°	<input type="checkbox"/> ±65° <input type="checkbox"/> 其他 (other) _____
舵柄连接方 (Connection method between rudder and tiller)	<input type="checkbox"/> 有键 (key)	<input type="checkbox"/> 无键 (keyless)	<input type="checkbox"/> 其他 (other) _____
舵柄压装方式 (Fitting method for tiller)	<input type="checkbox"/> 干压 (dry fitting)	<input type="checkbox"/> 油压 (oil injection fitting)	<input type="checkbox"/> 其他 (other) _____
配套范围 (Scope of supply)	<input type="checkbox"/> 起动器 (Starter)	<input type="checkbox"/> 报警板 (Alarm panel)	<input type="checkbox"/> 舵承 (rudder carrier)
	<input type="checkbox"/> 液压螺母 (hydraulic nut)		<input type="checkbox"/> 储油箱 (storage tank)
	<input type="checkbox"/> 舵承干油站 (grease pump for rudder carrier)		
	<input type="checkbox"/> 舵角发讯器与指示器 (rudder angle transmitter and indicator)		
	<input type="checkbox"/> 其他 (other) _____		