

PLE series Technical Parameters



Key Features

- 1.Smooth Transmission, low noise, high rigidity, small space
- 2.Gear ratio 3-100
- 3.Precision 5-10 arcmin
- 4.Economic,Reliable

PLF Series Precision Planetary Gearbox

Model No.	Series	Reduction Ratio
PLE60/PLF60	L1	3.4.5.7.10
	L2	15.20.25.30.40.50.100
PLE90/PLF90	L1	3.4.5.7.10
	L2	15.20.25.30.40.50.100
PL120/PF115	L1	3.4.5.7.10
	L2	15.20.25.30.40.50.100
PL160/PF142	L1	3.4.5.7.10
	L2	15.20.25.30.40.50.100



Parameters Specs		PLE60	PLE80	PLE90	PLE120	PLE140
Maximum Torque	Nm	1.5 times the rated torque				
Maximum Torque	Nm	2 times the rated torque				
The maximum permissible radial force	N	240	400	450	1240	2250
The maximum allowable axial force	N	220	420	430	1000	1500
Torsional rigidity	Nm/arcmin	1.8	4.7	4.85	11	22
Maximum input speed	rpm	8000	6000	6000	6000	4500
Rated input speed	rpm	4000	3500	3500	3500	3000
The noise	dB	<58	<60	<60	<65	<68
The average life span	h	20000				
Full of efficiency	%	L1 ≥96% L2≥94%				

- Digital Stepper Driver and Hybrid Stepper Motor
- Hybrid Stepper Servo Drive and Hybrid Step Servo Motor
- Integrated Stepper Servo motor and AC Servo Motor
- JASD series High Voltage AC Servo Motor and Drive
- Precision Planetary Gear Box





COMPANY PROFILE

Shenzhen Just Motion Control Electromechanics Co.,Ltd was founded in 2007, with 10 years experience in the automation industry .

We focus on designing, manufacturing, maketing a full complement products including the digital stepper drive and motor, hybrid stepper servo motor and driver, intergrated stepper servo motor, Integrated AC servo motor, high voltage AC servo motor and driver, precision planetary gear box.

Because of our stable quality, good price, fast delivery ,OEM and ODM ability, today, JMC becomes one of the fastest-growing manufactures which provides automation products to the customers from all over the world, such as America, Germany, Italy, India, South Africa, Brazil Saudi Arabia, Iran and so on.

Hope JMC will be your trust supplier !



LOW VOLTAGE AC SERVO MOTOR SERIES

Introduction

MCAC series is designed and manufactured using DSP vector control , closed loop servo drives with low-cost and all-digital AC. It includes three adjustable feedback loop control which are position loop, speed loop and current loop, it has stable performance which suitable for driving voltages between 36-80v and power below 600w AC servo motor.

Product Feature

- Drive 25-400W AC servo motor
- Position control: Optical Isolated Input Pulse and Direction (PULSE/DIR) or CW/CCW Signal
- velocity control: 0V~+3.3V Analog Input Voltage Signal
- Torque control: 0V~+3.3V Analog Input Voltage Signal
- Overcurrent, overvoltage, Undervoltage, OverHeat, overspeed , shortcircuit protection
- Green light indicates operation, red light means protection or offline



MCAC series AC servo drive parameter

Model	Opetation Voltage(V)	Min current	Max current	Rated Output Power
MCAC706	DC(24-70V)	6A	18	400
MCAC806	DC(24-80V)	8A	20	860

Ac Servo Motor Series

Item No.	42JSF330AS	42JSF630AS	57JSF1430P	57JSF1830P	60ASM200	60ASM400
Supply voltage(V)	24	24	36	36	36	60
Rated power(W)	32	64	140	180	200	400
Rated holding torque(N.M)	0.1	0.2	0.32	0.6	0.637	1.27
Peak holding torque(N.M)	0.3	0.6	0.98	1.71	1.91	3.82
Rated speed(RPM)	3000	3000	3400	3400	3000	3000
Rated Current(A)	1.56	3.13	6	8.8	7.6	8.4
Torque coefficient(N.M/A)	0.057	0.057	0.053	0.057	0.0918	0.16
Resistance(V/RPM)	4.29X10 ⁻³	4.13x10 ⁻³	4.8X10 ⁻³	8.9x10 ⁻³	5.36X10 ⁻³	9.82X10 ⁻³
Frame size(mm)	42	42	57	57	60	60
Flange diameter(mm)	22	22	25	25	50	50
Axis diameter(mm)	5	5	8	8	14	14
Connection Way	Optical axis	Optical axis	Platform	Platform	With slot	With slot
Shaft Lenght(mm)	24	24	27.5	30	27.5	27.5
Length(mm)	70	88	125	163.5	129	157
Pole	8	8	4	4	8	8
Encoder(line)	1000	1000	1000	1000	2500(Choosable)	2500(Choosable)
Weight(Kg)	0.25	0.4	1.12	1.25	0.945	1.475
Temperature(°C)	0-40	0-40	0-40	0-40	0-40	0-40



DIGITAL STEPPER DRIVE AND MOTOR

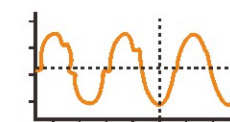
Main Features

- Advanced current control technique
- Anti-vibration at low speed
- Smoothness & precision
- Microstep interpolation
- Auto locked shaft&step loss compensation



01 Anti- Resonance

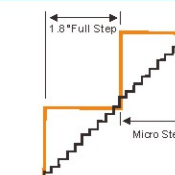
One of the setback in stepper Motor drive system is the Resonance.DM Series automatically overcome the Resoance with it's Control Algorithm.This technique provides better Mid-Frequency stability and higher Torque Output at Higher Speed.



Superior adjustment performance

02 Microstep Interpolation

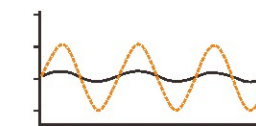
Microstep is automatically inserted within a Full Step to provide a better step, resulting in a smoother motion.



Smoother Stepping Motion

03 Low Speed Torque Smoothing

Better Current Loop control at low speed reduces Harmonic components and improves low speed performance.



Better Low Speed Performance

04 Input Signal Smoothing

Dynamic Acceleration and Deceleration filtering provides a smooth S-Curve Start/Stop Motion, reducing mechanical wear and tear.



Reduce Start/Stop Jerking effect

Specifications

Phase	Model	Current(A)	Voltage(A)	Micro step	Matched motor(A)	Weight(KG)	Dimension(mm)
2 Phase	2DM420	1.0-4.2A	DC(24-36V)	2-128,5-125	42	0.26	118×75.5×34
	2DM442	1.0-4.2A	DC(24-48V)	2-128,5-125	42	0.26	118×75.5×34
	2DM542	1.0-4.2A	DC(24-48V)	2-128,5-125	57,86	0.27	118×75.5×34
	2DM556	1.4-5.6A	DC(24-60V)	2-128,5-125	57,86	0.27	118×75.5×34
	2DM860H	2.1-8.4A	AC(18-80V) DC(24-110V)	2-526,5-200	57,86,110	0.6	150×97.5×53
	2DM2280	2.2-8.2A	AC(80-220V)	2-128,5-125	86,110,130	1.2	192×157×85
3 Phase	3DM783	1.8-8.3A	DC(24-60V)	2-128,2.5-50	57,86	0.27	118×75.5×34
	3DM860	2.0-8.3A	AC(18-60V) DC(24-80V)	1-64,2.5-50	57,86	0.6	150×97.5×53
	3DM2080	2.0-8.0A	AC(80-220V)	2-128,2.5-50	86,110,130	1.5	192×157×85
	3DM3722	1.2-10.0A	AC(80-220V)	2-300	110,130	1.5	200×145.5×80

Main Features

- Low noise
- Smooth operation
- High torque
- Higher acceleration ability
- Low heating



2 Phase Hybrid Stepper Motor Specifications

Model	Nema	Step angle (deg)	Holding Torque (N.m)	Current phase (A)	Resistance phase (ohms)	Inductance phase (mH)	Detent Torque (gcm)	Rotor Inertia (g-cm ²)	Insulation Class	Lead wire	shaft
42J1825-404	17	1.8	0.17	0.4	24	36	200	20	B	4	5
42J1840-408	17	1.8	0.4	0.8	7.5	10	150	57	B	4	5
42J1848-810	17	1.8	0.34	1	4.6	4	200	82	B	8	5
42J1848-425	17	1.8	0.5	2.5	1.3	2.7	200	82	B	4	5
42J1860-417	17	1.8	0.85	1.7	2.5	6.5	300	117	B	4	5
57J1841-420	23	1.8	0.75	2	1.4	3.8	220	157	B	4	6.4
57J1854-828	23	1.8	0.85	2.8	0.8	1.2	400	280	B	8	6.4
57J1876-447	23	1.8	2	4.7	0.37	1.75	700	480	B	4	8
57J1880-450	23	1.8	2.2	5	0.4	1.8	700	520	B	4	8
57J1880-830	23	1.8	2	3	0.45	1.8	700	480	B	8	8
57J1865-828	23	1.8	3.5	6.3	0.24	1.7	800	950	B	8	9.5
86J1880-842	34	1.8	4.5	4.2	0.58	4	1300	1400	B	8	12.7
86J1880-460	34	1.8	4.5	6	0.34	2.5	1300	1800	B	4	12.7
86J18101-450	34	1.8	6.3	6	0.56	6.6	1600	2300	B	4	12.7
86J18118-460	34	1.8	8.2	6	0.52	4.8	1600	3600	B	4	12.7
86J18118-842	34	1.8	8.5	6	0.56	3	2500	2700	B	8	12.7
86J18156-845	34	1.8	12	6	0.72	5.5	4000	4000	B	8	15.9
110J18115-460	42	1.8	11	6	0.8	10	3000	6000	B	4	19
110J18150-460	42	1.8	21	6	0.9	17	6000	11000	B	4	19
110J18165-460	42	1.8	24	6	0.8	14	7500	125000	B	4	19

3 Phase Hybrid Stepper Motor Specifications

Model	Nema	Step angle (deg)	Holding Torque (N.m)	Current phase (A)	Resistance phase (ohms)	Inductance phase (mH)	Detent Torque (gcm)	Rotor Inertia (g-cm ²)	Insulation Class	Lead wire	shaft
57J1250-635	23	1.2	0.9	3.5	0.77	1.8	400	300	B	6	6.4
57J1276-658	23	1.2	1.5	5.2	0.86	2	680	480	B	6	8
57J1285-658	23	1.2	1.8	5.2	1.2	2	800	550	B	6	8
86J1270-650	34	1.2	2.8	5	0.75	5	1000	1100	B	6	12
86J12103-650	34	1.2	4.5	4.5	1.4	3.9	2000	2340	B	6	12
86J12126-623	34	1.2	6.8	6.8	5.8	22	3000	3500	B	6	14
86J12126-650	34	1.2	6.8	6.8	1.62	6	3000	3500	B	6	14
110J12161-360	42	1.2	12	12	0.76	11.5	4000	11900	B	3	19
110J12185-360	42	1.2	16	16	1.28	19	5500	14800	B	3	19
110J12220-360	42	1.2	20	20	1.24	22	6800	19600	B	3	19
130J12188-368	51	1.2	24	24	0.96	16.2	10000	26870	B	3	19
130J12220-368	51	1.2	28	28	1.17	19	16000	33970	B	3	19
130J12252-368	51	1.2	35	35	1.39	24	24000	41400	B	3	19
130J12280-368	51	1.2	50	50	1.02	18.3	28000	47300	B	3	19

Note: Motor are available with different winding and mechanical modification to meet specific applications.

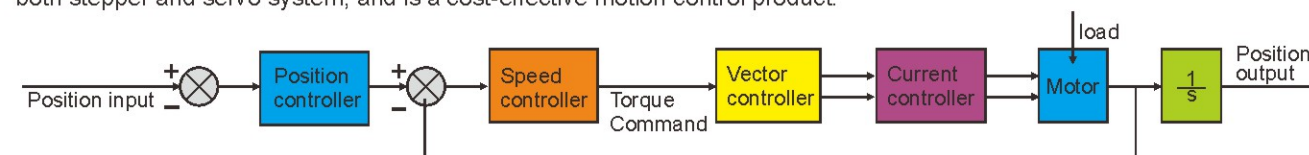
Main Features

- Full closed-loop
- Low heating
- High efficiency
- Low noise
- Smooth and accurate
- Fast response
- High torque
- High speed



Brief Introduction

HSS Hybrid stepper servo drive system integrates servo control technology into the digital stepper drive. It adopts typical tri-cyclic control method which includes current loop, speed loop and position loop. This product has the advantage of both stepper and servo system, and is a cost-effective motion control product.



Hybrid Stepper Servo Drive Specification

Model	Current(A)	Voltage(V)	Motor	Weight(KG)	Dimension(mm)	Control signal
2HSS57	0-6A	DC(24-48V)	57、86	0.3	118 × 75.5 × 34	differential
2HSS86H	0-7A	AC(24-70V) DC(30-100V)	57、86	0.6	150 × 97.5 × 53	differential
2HSS858H	0-6A	AC(50-90V)	57、86	0.95	140 × 70 × 56	differential
2HSS1106	0-6A	AC(50-130V)	86	1.3	140 × 70 × 56	differential
3HSS2208H-86	0-8A	AC(180-250V)	86	1.2	140 × 70 × 56	differential
3HSS2208H-110	0-8A	AC(180-220V)	110	1.5	140 × 70 × 56	differential

Note: The default setting for the driver's control is Step/Direction Mode. Please inform the manufacturer, if you need CW/CCW mode.

2 Phase Hybrid Stepper Motor Specifications

Model	Nema	Step angle (deg)	Holding Torque (N.m)	Current phase (A)	Resistance phase (ohms)	Inductance phase (mH)	Detent Torque (gcm)	Rotor Inertia (g-cm ²)	Insulation Class	Lead wire	Length (mm)
42J1848EC-1000	17	1.8	0.48	1.2	3.1	7.9	200	77	B	4	68
57J1854EC-1000	23	1.8	1.2	4	0.44	1.4	400	280	B	4	81
57J1880EC-1000	23	1.8	2	5	0.36	1.8	700	480	B	4	101
60J1887EC-1000	24	1.8	3	5	0.45	2.1	690	690	B	4	110
86J1880EC-1000	34	1.8	4.5	6	0.34	2.5	1300	1800	B	4	109
86J18118EC-1000	34	1.8	8.2	6	0.53	4.7	2500	3600	B	4	146
86J18156EC-1000	34	1.8	12	6	0.75	12	4000	4000	B	4	183

3 Phase Hybrid Stepper Motor Specification

Model	Nema	Step angle (deg)	Holding Torque (N.m)	Current phase (A)	Resistance phase (ohms)	Inductance phase (mH)	Detent Torque (gcm)	Rotor Inertia (g-cm ²)	Insulation Class	Lead wire	Length (mm)
86J12126EC-1000	34	1.2	6	2.9	4	17	700	3000	B	3	161
86J12156EC-1000	34	1.2	7.8	2.9	4.7	24	1300	4000	B	3	183
110J12160EC-1000	42	1.2	16	6	1.28	19	2000	5500	B	3	189
110J12190EC-1000	42	1.2	20	6.8	1.24	22	2500	6800	B	3	223
130J12206EC-2500	52	1.2	28	6.8	0.8	11.3	4000	16000	B	3	257
130J12225EC-2500	52	1.2	35	6.8	0.92	13.8	3000	24000	B	3	277

Note: Motors are available in various winding and mechanical design to suit applications requirements.

Model Designation

iHSS 57 - 36 - 10 - XX

1 2 3 4 5

- 1.Integrated closed loop stepper motor
2. Frame size 57mm, nema 23
3. Power supply 36vdc
4. Holding torque:10 is 1 N.m , 20 is 2N.m
5. Input control mode: blank is pulse and signal ,485 is rs485, can is can-open

Main Features

- Full closed loop and No losing-step
- Low heating /high Efficiency
- High Speed response
- Smooth and accurate
- High torque and high speed



iHSS57 Part No.

Model No.	Torque	Length(mm)
IHSS57-36-10-xxx	1N.M	85
IHSS57-36-20-xxx	2N.M	106
IHSS60-36-30-xxx	3N.M	118

INTEGRATED AC SERVO MOTOR

Model Designation

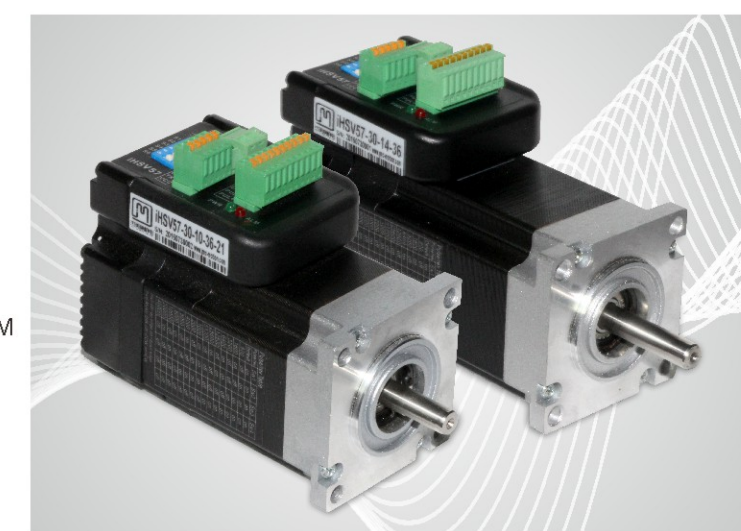
iHSV 57 - 30 - 10 - 24 - XX

1 2 3 4 5 6

- 1.Integrated Servo Motor
2. Frame size 57mm /60mm ,Nema 23/24
3. Motor Speed (Unit:x100RPM)
10 is 1000RPM ,20 is 2000RPM, 30 is 3000RPM
4. Output Wattage(Unit:x10W)
10 is 100W,20 is 200W
5. Rated DC Working Voltage (Unit:V)
24V is 24VDC, 36V is 36VDC
6. Input control Mode: Blank is Pulse +Signal ,
485 is RS485, CAN is can-open

Main Features

- High positioning accuracy
- High speed
- High torque
- Smooth and low noise
- Multi-model control
- High response
- Cost-effective
- Compact size



Specification

Model No.	Power
IHSV57-30-10-24-xxx	100W 24V
IHSV57-30-15-24-xxx	150W 36V
IHSV57-30-18-36-xxx	180W 36V
IHSV60-30-20-36-xxx	200W 36V

(100W-3000W)

Servo Drive model Introduction

JASD 400 - 2 - 20B - XX

① ② ③ ④ ⑤

Main Features

- 1.Three control modes:position control, speed control,torque control.
- 2.Location input pulse frequency up to 4MHZ,support pulse+direction,orthogonal pulse,double pulse position command a variety of ways.
- 3.Programmable 8-way input and 5-way output port available,users can define input,output requirements via settings, flexible application.
- 4.Can be matched with motors which are 23Bit high precision absolute encoder.
- 5.Drive communicates with PC via connecting RS232 port to have easy,quick debug servo drive system.



No.	Name	Introduction
①	Series	JMC JASD servo driver series
②	Driver Power	100:100W 200:200W 400:400W 750:750W 1000:1000W 1500:1500KW 2000:2000W 2500:2500W 3000:3000W
③	Input power	1:single phase 110V 2:sing phase /three phase 220V
④	Encoder line	1000:1000 line 1250:1250 line 2500:2500 line 17B:17bit 20B:20 bit
⑤	Product design serial number	Product design serial number

Servo motor model introduction

60 JASM 5 04 2 30 K - M23B - XX

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

No.	Name	Introduction
①	Frame size	60:60mm 80:80mm 110:110mm 130:130mm
②	Series name	JMC JASM series AC servo motor
③	Motor pole pairs	4:4 pairs(default) 5:5 pairs
④	Rated output power of motor	02:200W 04:400W 07:750W 08:850W 10:1000W 15:1500W 20:2000W 30:3000W
⑤	Power	1:110V 2:220V
⑥	Rated Speed	15:1500 20:2000 30:3000
⑦	Motor output shaft type	K:Key F: Flat axis S:optic axis G:Speed reducer adapter P:Special production
⑧	Encoder line	1000:1000 line 1250:1250 line 2500:2500 line 17B:17 Bit M23B:23 Bit
⑨	Product design serial number	Product design serial number SC:Brake

Motor	Frame Size	Power (W)	Speed(Rated/Max) rpm	Torque(Rated/Max) N.M	Drive
40JASM501230k-20B	40mm	100W	3000/5000	0.32/0.96	JASD2002-20B
60JASM502230k-20B	60mm	200W	3000/5000	0.64/2.3	JASD2002-20B
60JASM502230k-M23B	60mm	400W	3000/5000	1.27/4.45	JASD4002-20B
80JASM507230k-M23B	80mm	750W	3000/5000	2.39/6	JASD7502-20B
80JASM510230k-M23B	80mm	1000	3000/5000	3.18/8.2	JASD15002-20B
110JASM513230K-M23B	110mm	1300W	3000/4000	4.2/12.6	JASD15002-20B
110JASM516220K-M23B	110mm	1600W	2000/3000	7.5/22.5	JASD15002-20B
130JASM520230k-M23B	130mm	2000W	3000/4000	6.4/19.2	JASD20002-20B
130JASM515220k-M23B	130mm	1500W	2000/3000	7.5/22.5	JASD20002-20B
130JASM530220k-M23B	130mm	3000W	2000/3000	14.3/42.9	JASD30002-20B
130JASM508215k-M23B	130mm	850W	1500/3000	5.4/16.2	JASD15002-20B
130JASM515215K-M23B	130mm	1500W	1500/3000	9.6/28.8	JASD20002-20B
130JASM523215K-M23B	130mm	2300W	1500/3000	14.6/43.8	JASD20002-20B