China Headquarters
Address: 3/F, Block 2, Nanyou Tianan Industrial Park, Nanshan District Shenzhen, China
Web: http://www.leadshine.com

Sales Hot Line:
Tel: 86-755-2643 4369 (for All)
86-755-2641-7674 (for Asia, Australia, Africa areas)
86-755-2640-9254 (for Europe, America areas)
Fax: 86-755-2640-2718
Email: sales@leadshine.com

Technical Support:
Tel: 86 755-2641-8447 and 86-755-2647-1129
Fax: 86-755-2640-2718
Email: tech@leadshine.com and vic@leadshine.com

Leadshine Hong Kong
Address: Rm 3, 9/F, Block E, Wah Lok Industrial Center,31-41 Shan Mei St., Fo Tan, Shatin, Hong Kong
Tel: 852-2952-9114
Fax: 852-2952-9395
Email: hk_sales@leadshine.com

Leadshine U.S.A
Address: 15209 Dufief Dr., Gaithersburg, MD 20878, USA
Tel: 1-301-433-3780
Fax: 1-301-637-2718
Web: http://www.leadshineUSA.com
Email: usa_sales@leadshine.com and cli@leadshine.com

Leadshine

Leading Technology Shining Value

Motion Control Products 2009 - 2010

- Stepping Motors & Drives
- DC Servo Motors & Drives
- AC Servo Motors & Drives
- Motion Controllers
- Power Supplies

Company Overview

Founded in 1997, Leadshine Motion Technology Ltd. specializes in developing, manufacturing, and distributing high-quality cost-effective motion control products. Its products include motion controllers, stepping drives & motors, DC servo products, AC servo products, and power supplies. Leadshine serves various industrial and OEM customers in Asia, Europe, North/South America, Africa and Australia.

Leadshine is one of the LARGEST manufacturers of motion control products around the world. Leading by an MIT PhD graduate, Leadshine's R&D team of 50 talented engineers is capable of designing high-quality motion control products based on the latest technologies. Leadsine's manufacturing facilities are ISO-9001 certified and professionally staffed.

Leadshine is committed to provide its customers with world-class motion control products at highly competitive prices. "LEADING technology and SHINING value" is always what Leadshine intends to offer to its customers.

R&D

Leadshine is proud of its talented research & development team, which is one of the best in the motion control industry. We are capable of designing world-class products which can meet high requirements of our customers. Many of innovative designs and products from Leadshine have been awarded for patents by Chinese government.

Product Quality

Leadshine has been awarded the ISO 9001:2000 registration for quality management practices by SGS of Switzerland since September 2004. The certification is a testimony of Leadshine's commitment to provide its customers with high quality products and services.

Technical Support

Staffed with a highly professional and experienced technical support team, Leadshine can help its customers to increase productivity, reduce design & selection risks, and minimize the product development time. We are able to support our customers through email, telephone, field support, product studying conference, and some other approaches.

You can contact Leadshine technical support by phone at 86-755-2643-4369, by fax at 86-755-2640-2718, or by email at tech@leadshine.com.

One of the LARGEST stepping and servo manufacturers around the world.

Design & Verification

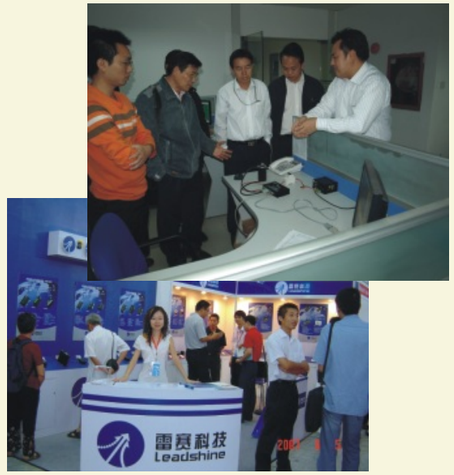
Since the formation in 1997, Leadshine has been investing heavily in research and development for the newest motion technology. Leadshine owns a large number of patents and copyrights on its hardware and software of its products. Before released to its customers, all Leadshine products have been verified and tested in Leadshine's state-of-art laboratory.

Assembly Line

Leadshine product quality is guaranteed by an ISO-certified manufacturing system which includes rigorous supplier selection, incoming parts QC, in-process QC, final QA, and 24-hour aging test. The certification is a testimony of Leadshine's commitment to provide its customers with high quality products and services.

QC & Aging Test

All Leadshine's products have to past QC & 24-hour aging test, making the usual return & repair rate is under 0.5%. And that is why Leadshine can offer **LONGER** warranty period (18 months) than most motion control product manufacturers.



Support & Service

Leadshine's professional and experienced technical team can help customers to reduce design & selection risks, and minimize product development time through support of email, field support, exhibitions, product studying conference, and etc.

Stepping Drives

Introduction

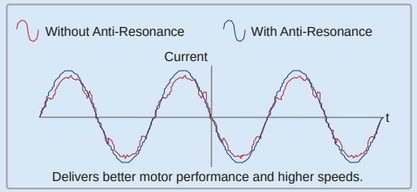
Since releasing its first stepping drive in 1997, Leadshine has been designing stepping drives to satisfy the requirements of its customers. Today, Leadshine is one of the LARGEST stepping drive manufacturers around the world. Every year, over 200,000 Leadshine stepping drives are implemented in thousands of applications around the world. Those applications include electronic equipments, packaging equipments, engraving machines, textile equipments, laser machines, pick-and-place devices, and so on.

Currently, Leadshine offers two main series of 2-phase microstepping drives, the digital DM series and analog M series. The high-performance DM drives are based on powerful 32-bit DSP control technology. Their features include super-low stepping noise, anti-resonance, low-speed ripple smoothing, and low motor heating. The low-cost M drives employ precise analog current control and are characterized by superior high-speed torque, relatively low stepping noise, and low motor heating. Leadshine also supplies 3-phase digital and analog stepping drives.

Features of Innovative DM Series Drives

Anti-Resonance / Electronic Damping

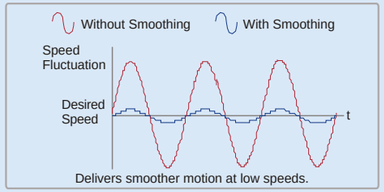
Stepping systems resonate at mid-range. The DM series drivers can calculate the system's natural frequency and apply damping to control algorithm for anti-resonance.



Delivers better motor performance and higher speeds.

Speed Ripple Smoothing

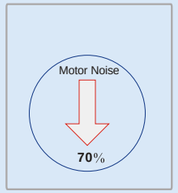
Smooth inherent low speed torque ripple making the motor motion much smoother at low speed.



Delivers smoother motion at low speeds.

Super Low Noise

Dramatically reduces about 70% motor noise.

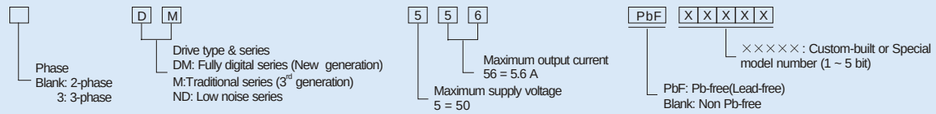


Selection Table

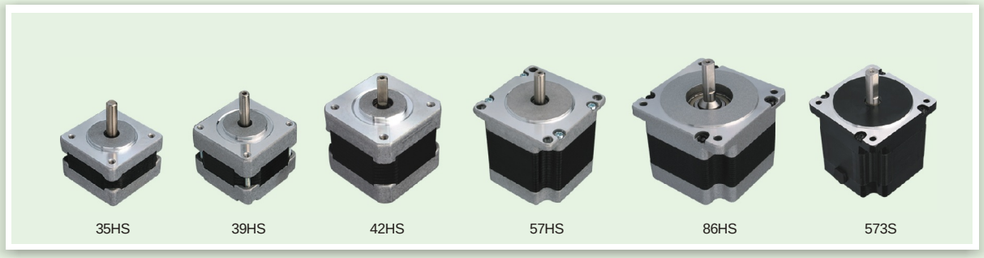
Phase	Series	Model	Output Current (A)	Supply Voltage (V)	Microstep Resolution	Driving Motors (NEMA Size)	Weight (kg)	Size (mm)	Control Signals	
									PUL/DIR; CW/CCW	Single-ended; Differential
2	DM	DM422C	0.3 - 2.2	DC(18-40)	1-512	14, 17, 23	0.115	86*55*20	PUL/DIR; CW/CCW	Single-ended; Differential
		DM432C	0.5 - 3.2	DC(18-40)	1-512	14, 17, 23	0.19	116*69*26.5	PUL/DIR; CW/CCW	Single-ended; Differential
		DM556	0.5 - 5.6	DC(18-50)	1-512	14, 17, 23	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		DM870	0.5 - 7.0	DC(18-80)	1-512	17, 23, 34	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
	M	M415B	0.21-1.5	DC(18-40)	1-64	14, 17, 23	0.115	86*55*20	PUL/DIR	Single-ended
		M325	0.39-2.5	DC(12-24)	1-8	14, 17, 23	0.115	86*55*20	PUL/DIR; CW/CCW	Single-ended
		M542	1.0-4.2	DC(20-50)	2-128, 5-125	14, 17, 23	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		M760	1.45-6.0	DC(20-75)	2-256, 5-200	17, 23, 34	0.28	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		M880A	2.8-7.8	DC(24-80)	2-256, 5-200	17, 23, 34, 42	0.57	151*97*48	PUL/DIR; CW/CCW	Single-ended; Differential
	ND	ND882	1.8-8.2	DC(24-80)	2-50	17, 23, 34	0.52	143*97*48	PUL/DIR; CW/CCW	Single-ended; Differential
		ND1182	0.7-8.2	AC(70-150)	2-128, 5-125	34, 42	1.3	200*137*81	PUL/DIR; CW/CCW	Single-ended; Differential
		ND2282	0.45-7.8	AC(80-220)	2-50	34, 42	2.0	202*167*63	PUL/DIR; CW/CCW	Single-ended; Differential
3	DM	3DM683	2.1-8.3	DC(18-60)	200-10000s/r	17, 23, 34	0.38	118*75.5*33	PUL/DIR; CW/CCW	Single-ended; Differential
		3DM883	2.1-8.3	DC(18-80)	200-25600s/r	17, 23, 34	1.05	143*97*48	PUL/DIR; CW/CCW	Single-ended; Differential

Note: Please visit **www.leadshine.com** for information about our latest drives.

Part Number



Stepping Motors



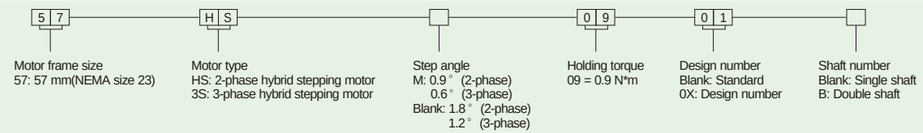
Introduction

Leadshine offers 2-phase and 3-phase stepping motors from NEMA frame size 14 to 34. Made of high quality cold roll sheet copper and anti-high temperature permanent magnet, Leadshine's stepping motors are highly reliable and generate low motor heating. Because of their nice internal damping characteristics, those stepping motors can run very smoothly and have no obvious resonance area within the whole speed ranges.

Selection Table

Phase	NEMA Size	Model	Step Angle (°)	# of Leads	Connection	Current/Phase (A)	Torque (Nm)	Length (mm)	Weight (kg)	Match Drives
2	14	35HS01	1.8	4	-	0.4	0.17	26	0.15	DM422C/DM432C/M325/M415B
	16	39HS02	1.8	4	-	0.6	0.22	34	0.2	DM422C/DM432C/M325/M415B
	17	42HS02	1.8	4	-	0.4	0.22	40	0.24	DM422C/DM432C/M325/M415B
		42HS03	1.8	8	Parallel	1.4	0.47	48	0.34	DM422C/DM432C/M325/M415B/M542
					Series	0.7	0.47			
					Unipolar	1.0	0.34			
		57HS04	1.8	6	Series	2.0	0.4	41	0.45	DM432C/DM556/M542
					Unipolar	2.8	0.28			
	23	57HS09	1.8	8	Parallel	4.2	1.3	54	0.6	DM432C/DM556/M542/M760
					Series	2.1	1.3			
					Unipolar	2.8	0.9			
		57HS13	1.8	8	Parallel	4.0	1.8	76	1.0	DM432C/DM556/M542/M760
					Series	2.0	1.8			
					Unipolar	2.8	1.3			
		57HS22	1.8	8	Parallel	5.6	2.2	81	1.15	DM432C/DM556/M542/M760
					Series	2.8	2.2			
					Unipolar	4.0	1.5			
	34	86HS35	1.8	8	Parallel	4.0	3.5	65	1.7	DM870/M880A/M760/ND882/ND1182
					Series	2.0	3.5			
					Unipolar	2.8	2.5			
		86HS45	1.8	8	Parallel	6.0	4.5	80	2.3	M880A/ND1182/ND882/DM870
					Series	3.0	4.5			
					Unipolar	4.2	3.2			
		86HS85	1.8	8	Parallel	6.8	8.5	118	3.8	DM870/M880A/ND1182/ND882/ND2282
					Series	3.4	8.5			
					Unipolar	4.9	6.0			
3	23	573S05	1.2	6	Delta	5.2	0.45	42	0.45	3DM683/3DM883
		573S09	1.2	6	Delta	3.5	0.6	50	0.6	3DM683/3DM883
		573S15	1.2	6	Delta	5.8	1.3	76	1.0	3DM683/3DM883
	34	863S22	1.2	6	Delta	4.5	2.3	79	2.3	3DM683/3DM883
		863S42	1.2	6	Delta	4.5	4.3	116	3.9	3DM683/3DM883
		863S68H	1.2	6	Delta	4.5	6.8	127	5.4	3DM683/3DM883

Part Number



DCS Series Brush DC Servo Drives

Features:

*High reliability, 32-bit DSP control technology
*Cost-effective, easy-to-use
*4 models (DCS303, DCS810, DCS810S, DCS920)
*Compact size, surface-mount technology
*Over-voltage, over-current and short-circuit protection
*PC based and handheld tuning tools, including ProTuner and STU-DCS (DCS303, DCS810, DCS810S)
*Position Following error lock range adjustable (DCS303, DCS810, DCS810S)
*Electronic gear ratio from 1/255 to 255 (DCS303, DCS810, DCS810S)
*Built-in motion controller for self-test with trapezoidal velocity profile (DCS303, DCS810, DCS810S)
*Separate current limits: Continuous, peak, and peak-time (DCS920)
*3 LEDs for faster setup: Normal / enable, power-OK, fault (DCS920)

Introduction

Leadshine's digital and analog servo drives accept various command signals and operate in many different modes. These drives support command inputs of step and direction, analog input. Whether your application requires torque mode operation, accurate speed / velocity control or positioning, you may find the right drive to meet your requirements.

The DCS303 is a micro-size servo drive powering servo motors up to 90W continuous power. The DCS810 and the DCS810S are fully digital brush servo drives based on 32-bit DSP control technology with high smooth servo control algorithm. In position control, it's easy for a user to upgrade stepping drives with the DCS810 and the DCS810S servo drives without changing control systems. The DCS810 offers good anti-interference performance by supporting differential control signals and differential encoder feedback signals. Drive parameter tuning is simple through multiple tools such as ProTuner software and STU-DCS (Small servo tuning unit). Adjustable current loops of these drives make them capable of working with servo motors from different manufacturers.

The DCS920 is an analog brush servo drive that can work in current mode or use tachometer (tachometer mode) to achieve excellent velocity loop performance. For the most part, tuning is fairly simple using potentiometers.

Electrical Specifications (T_j = 25℃)

Parameters	Specifications		
	DCS303 NEW	DCS810 / DCS810S NEW	DCS920 NEW
Command Input	Pulse/Direction (Single-ended)	Pulse/Direction	+/- 10V
Input Voltage (VDC)	18 - 30	18 - 80	24 - 90
Peak Current (A)	15 (Max)	20(Max)	20 (Max)
Continuous Current (A)	3 (Max)	10 (Max)	10 (Max)
Minimum Load Inductance (mH)	0.2 (Min)	0.2 (Min)	0.2 (Min)
Configuration / Tuning	ProTuner, STU-DCS	ProTuner, STU-DCS	Potentiometers
Operation Modes	Position	Position	Current, Velocity (tachometer)
Feedback	Single-ended encoder	Encoder	Tachometer, open-loop
Operating Temperature (℃)	0 - 50	0 - 50	0 - 50
Storage Temperature (℃)	-20 - 65	-20 - 65	-20 - 65
Humidity (%)	40 - 95	40 - 95	40 - 95
Vibration (m/s^2)	5.9 (Max)	5.9 (Max)	5.9 (Max)
Size (mm)	86*55*20	116*69*26.5	129*83*36
Weight（Kg）	0.115	0.35	0.27
Pulse Input Frequency（kHz）	250	250	-
Current Provided to Encoder（mA）	50 (Max)	50 (Max)	-

Applications

DCS810, DCS810S, DCS303

*Inkjet printers
*Engraving machines
*Automatic dot dispensing devices
*Laser machines
*Measuring machines
*Electronic packing equipments

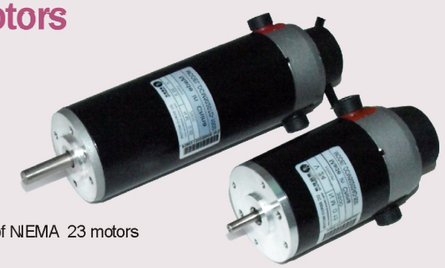
DCS920

*Semiconductor manufacturing machines
*CMM machines
*X-Y stages
*Robotics
*Automated assembly machines
*Automatically guided vehicles
*Magnetic bearing

DCM Series Brush DC Servo Motors

Features:

* Smooth operation, High precision and Low noise
* Low cost, High Reliability
* Mounting compatible with PITTMAN 14xxx motors
* Encoder resolution optional (1000 line or 500 line)
* Position error can be elimin ated to one pulse
* Mounting dimensions of DCM57xxx brush servo motors are th e same as those of NIEMA 23 motors



Introduction

The DCM50xxx/57xxx series motors are permanent magnet DC brush servo motors. These motors are high quality and cost-effective, making them ideal for cost sensitive applications. They include an attached encoder which provides position feedback to controllers. Mounting dimensions of DCM57xxx brush servo motors are the same as those of NEMA frame size 23 stepping motors

Electrical Specifications

No.	Parameters	Symbol	Units	DCM50202A	DCM57202	DCM5x205	DCM5x207
1	Continuous Torque (Max)	T_C	N·m	98.9 x 10^{-3}	98.9 x 10^{-3}	218.9 x 10^{-3}	353.1 x 10^{-3}
2	Peak Torque（Stall）	T_{PK}	N·m	0.76	0.76	1.59	2.90
3	No-load Speed	S_{NL}	rpm	4600±10%	4600±10%	4000±10%	3600±10%
4	Rated Speed	S_R	rpm	3500	3500	3000	2900
5	Rotor Inertia	J_M	kg·m^2	1.62 x 10^{-5}	1.62 x 10^{-5}	3.11 x 10^{-5}	4.73 x 10^{-5}
6	Winding Temperature	θ_{MAX}	℃	155 (Max)	155 (Max)	155 (Max)	155 (Max)
7	Thermal Impedance	R_{TH}	℃/watt	9.00	9.00	7.30	4.98
8	Weight (Plus Encoder)	W_M	g	694	754	1182	1338
9	Length (Plus Encoder)	L_1	mm	129±2	129±2	161±2	196±2
10	Rated Voltage	E	V	24	24	24	30.3
11	Rated Current	I	A	1.79	1.79	2.95	3.94
12	Torque Constant	K_T	N·m/A	55.1 x 10^{-3}	55.1 x 10^{-3}	74.2 x 10^{-3}	89.7 x 10^{-3}
13	Resistance	R_T	Ω	1.73	1.73	1.11	0.93
14	No-load Current	I_{NL}	A	0.4	0.5	0.8	0.6
15	Peak Current (Stall)	I_P	A	13.9	13.9	21.6	32.6
16	Encoder Resolution	-	Counts/rev.	500/1000	500/1000	500/1000	500/1000

Encoder Connections

Connection Table for Single-ended Encoder			Connection Table for Differential Encoder		
Pin	Color	Connection (DCS810-s / DB810A, DCS 810)	Pin	Color	Connection (DB810A, DCS810)
1	Blue	Channel B (EB / EB+)	1	Black	Channel A+ (EA+)
2	Yellow	Channel A (E A / EA+)	2	Blue	Channel A- (EA-)
3	Red	VCC (E+5V / E+5V)	3	Yellow	Channel B+ (EB+)
4	Black	Ground (EGND / EGND)	4	Green	Channel B- (EB-)
5	Green	Index / NC (NC / NC)	5	Red	VCC (E+5V)
			6	White	Ground (EGND)

Applications

The DCM5xxxx series brush DC servo motors are widely used in inkjet printers, measuring devices, engraving machines, cutting machines, electronic packing equipments, and so on.

Part Number

DCM 5 0 207 D — 1000

- DCM: Brush DC Servo motor
- 5: Series Symbol
- 0: Installation method 0: Screw connected 7: Flange connected
- 207: Power 207: 120 W 205: 80 W 202: 50 W 202A: 50W
- D: Encoder type D: Differential Blank: Single-ended
- 1000: Encoder resolution 1000: 1000-line 500: 500-line

ACS Series Cost-effective AC Servo Drives NEW

Features:

* Cost-effective, 32-bit DSP control technology
* Input: 18 - 180 VDC, Peak Current: 18A , Cont. Current: 6 A (Max)
* Powering 25 - 750W AC & Brushless DC servo motors
* FOC-SVPWM technologies
* Opto-isolated, support single-ended and differential inputs
* Support PUL/DIR and CW/CCW control signals
* Electronic gear rate from 1/255 to 255
* Self-test function with trapezoidal velocity profile
* PC based and handheld configuration tools optional
* Following error lock range adjustable
* Over-voltage, over-current, encoder failure protections
* 10 latest failures self-record function

Introduction

Leadshine's fully digital ACS servo drives are developed with 32-bit DSP control technology based on advanced control algorithm. Because of their high performance and highly competitive price, they are ideal for substituting some popular AC servo drives available on the markets. Those AC servo drives accept input commands of PUL/DIR signals, so they can be used to upgrade stepping drives to ACS servo drives without modifying control systems, offering higher precision, higher speed, lower heating and lower noise performance.

A built-in controller can be used for testing and tuning. PC based utility software and handheld configuration & tuning tools can meet different tuning environments or requirements.

Applications

Widely used in small and medium automation machines and equipments, such as inkjet printers, engraving machines, electronics manufacturing equipments ,special NC machines, pick and place devices, packing devices, and so on. Particularly suitable for applications desired for high speed, high precision, and low motor noise.

Specifications

Parameters	ACS606	ACS806	ACS1806
Maximum Continuous Power	200 W	400 W	750 W
Maximum Continuous Current	6 A	6 A	6 A
Peak Current	18 A	18 A	18 A
Input Voltage	+18 ~ +60 VDC	+20 ~ +80 VDC	+60 ~ +180 VDC
Logical Signal Input Current	7 ~ 20 mA	7 ~ 20 mA	7 ~ 20 mA
Pulse Input Frequency	0 ~ 250 kHz	0 ~ 600 kHz	0 ~ 600 kHz
Isolation Resistance	500 M Ω	500 M Ω	500 M Ω
Current Provided for Encoder	100 mA	100 mA	100 mA
Command Input	Step/Direction	Step/Direction CW/CCW ±10 V Analog Input	Step/Direction CW/CCW ±10 V Analog Input
Encoder Feedback	A, B, Z (Differential)	A, B, Z (Differential)	A, B, Z (Differential)
Hall Effect Sensor Feedback	U, V, W (Single-ended)	U, V, W (Differential)	U, V, W (Differential)
Regeneration Resistor	No	Support External Regen Resitor	Support External Regen Resitor

Part Number

ACS — 8 — 06 — PbF — □

- ACS: AC Servo Drive
- 8: Maximum Input Voltage 8: 80 VDC
- 06: Continuous Current 06: 6 A
- PbF: Pb-free (Lead-free) Blank: Non Pb-free
- □: X: Custom-built or Special model number Blank: Normal version

ACM Series Brushless AC Servo Motors NEW

Features:

*High reliability, High precision and Low no ise
*Cost-effective
*0.64 to 1.27 N-m (90.62 to 179 .83 oz-in) continuous torque accommodates a wide range of appl ication requirements.
*60mm square frame size offering 3 power options up to 400W
*Winding voltages of 36VDC to 220 VAC (36 to 325 VDC bus rated) me ets different voltage capability
*Rated speed of standard models up to 3000 RP M, meet many high spee d application requirements
*Maintenance-free 3 phase brushless construction
*Compact (high torque/volume ratio) for maximum torq ue in minimum space

Introduction

Leadshine's ACM series AC servo motors ranges from 100W to 1.5 KW. Those high performance motors are designed to operate over a broad range of speeds and have the advantage of reduced maintenance. All those servo motors come with standard 2500-line encoders with differential encoder signals, (A, B, Index), and Hall Sensors with standard Hall signals, (U, V, W). Driven by Leadshine ACS series servo drivers, the ACM series motors can meet many high speed application requirements and have very low torque ripple, at 0.3 % of rated torque.

Electrical Specifications (Visit www.leadshine.com for information about other servo motors.)

No.	Parameters	Units	ACM602V36	ACM602V60	ACM604V60	ACM604
1	Rated Voltage	V	36	60	60	220
2	Rated Power	W	200	200	400	400
3	Rated Torque	N*m	0.64	0.64	1.27	1.27
4	Peak Torque	N*m	1.91	1.91	3.82	3.82
5	Rated Speed	RPM	3000	3000	3000	3000
6	Peak Speed	RPM	5000	5000	5000	5000
7	Rated Armature Current	A	12	7	14	2.8
8	Peak Armature Current	A	34	22	44	8.5
9	Torque Constant	N*m/A	0.058	0.097	0.097	0.49
10	Back EMF Constant	V/RPM	2.03×10^{-3}	3.4×10^{-3}	3.4×10^{-3}	17×10^{-3}
11	Resistance	Ohm	71.5	181	80.5	1425
12	Inductance	mH	0.174	0.49	0.28	6
13	Inertia	Kgm^2*10^{-4}	0.296	0.296	0.3549	0.3549
14	Allowable Radial Load	N	245 (Max)	245 (Max)	245 (Max)	245 (Max)
15	Allowable Axial Load	N	68 (Max)	68 (Max)	74 (Max)	74 (Max)
16	Flange Size	mm	60	60	60	60
17	Motor Length	mm	100.7	100.7	127.8	127.8
18	Pole Pairs	-	4	4	4	4
19	Mass	Kg	0.966	0.966	1.463	1.48
20	Encoder Resolution	Line	2500	2500	2500	2500
21	Ambient Temperature	°C	0 - 40	0 - 40	0 - 40	0 - 40

Applications

Suitable for large and medium automation machines and equipments, such as inkjet printers, engraving machines, electronics manufacturing equipments ,special NC machines, pick and place devices, packing devices, and so on. Particularly adapt to the applications desired with high speed, high precision, and low motor noise.

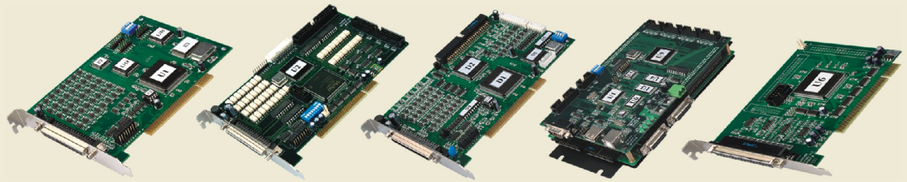
Part Number

ACM — 60 — 2 — V36 — 2500

- ACM: Brushless AC servo motor
- 60: Flange size 60: □60 mm
- 2: Rated power 1: 100W 2: 200W 4: 400W
- V36: Rated voltage Blank: 220 VAC V36: 36 VDC V60: 60 VDC
- 2500: Encoder resolution 2500: 2500 line 2000: 2000 line 1000: 1000 line

Note: Please see "**Leadshine Servo Catalog**" for information about BLM series brushless DC servo motors.

Motion Controllers



DMC1000 DMC2410 DMC5400 SMC6400 ENC7480

Introduction

Since releasing the first motion controller in 1997, Leadshine has been developing new products to meet the needs of its customers in a wide range of industries. Today, thousands of Leadshine motion controllers are deployed around the world in hundreds of industries. These applications include PCB drilling and milling machines, coordinate measuring machines (CMM), jet-ink machines, laser welding machines, engraving machines, robotics, electronic assembly and measurement equipments, AOI machines, screen printing machines and some other automation machines.

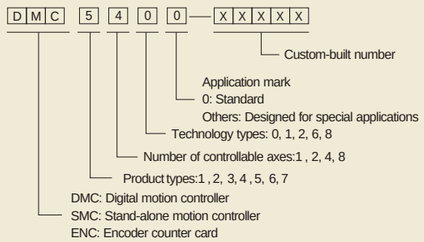
Leadshine is distinguished from others by providing motion controllers that are highly reliable, cost-effective, and easy-to-use. Leadshine's full line of motion controllers includes single and multi-axis, bus-based and stand-alone controllers. Available interface options for international markets include PCI, USB and RS232 for the moment. By using one ASIC microcomputer, Leadshine's controllers provide high speed performance and can handle many modes of motion such as point-to-point positioning, jogging, linear and circular interpolation, continuous interpolation and helix interpolation.

All of them are SMT processed with high reliability. They are suitable for stepping and digital servo control systems. Leadshine offers drivers, demo software, and documents to help the users to develop their own application software with VB/VC/LabVIEW in Window95/98/2000/NT/XP.

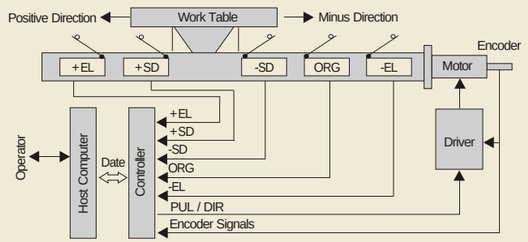
Selection Table

Features \ Model	DMC1000	DMC2410	DMC5400	SMC6400	ENC7480
Number of Controllable Axes	4	4	4	4	4
Interfaces	PCI	PCI	PCI	Stand-alone, USB, RS232	PCI
Pulse Output Frequency (Max)	400 KPPS	5 MPPS	6.5 MPPS	8.0 MPPS	-
Encoder Input Frequency (Max)	-	4 MHz	4 MHz	4 MHz	6.5 MHz
Position Ranges	25-bit ±(16,777,215 pulses)	28-bit ±(134,217,728 pulses)	28-bit ±(134,217,728 pulses)	28-bit ±(134,217,728 pulses)	-
General I/O	16 Inputs / 12 Outputs	20 Inputs / 20 Outputs	16 Inputs / 16 Outputs	16 Inputs / 24 Outputs	32 Inputs / 32 Outputs
Linear Interpolation	2~4 axes	2~4 axes	2~4 axes	2~4 axes	-
Circular Interpolation	Any 2 axes Software Interpolation	Any 2 axes Software Interpolation	Any 2 axes High Speed Hardware Interpolation	Any 2 axes Software Interpolation	-
Continuous Interpolation	-	Yes	Yes	Yes	-
Acceleration and Deceleration	Equal	Equal or Unequal	Equal or Unequal	Equal or Unequal	-
Encoder Counter	-	28-bit ±(134,217,728 pulses)	28-bit ±(134,217,728 pulses)	28-bit ±(134,217,728 pulses)	28-bit ±(134,217,728 pulses)
Manual Pulser Input	-	100 KHz (Max)	100 KHz (Max)	100 KHz (Max)	-
Index Signal Input	-	Yes	Yes	Yes	Yes

Part Number



Typical motion control system (1 axis)



SPS Series Switching Mode Supplies

Features:

* Specifically designed to power stepping / servo drives
* High efficiency and output power up to 300W
* Input voltage 220VAC ±10% or 110VAC±10% 50/60 Hz
* Short circuit, over-current, over-voltage & short-voltage protection
* Compact size, light weight

Introduction

The SPS series switching mode power supplies are specifically designed to power inductive loads generated in stepping & servo systems. The normal regulated switching power supplies popular in the market are usually working with bad reliability and low efficiency when used in stepping and servo driving, this is because that the conventional switching power supplies are designed for the constant and unvarying loads. Whereas, when the stepping or servo system running, the driving current varies extremely fast, which is belonged to inductive load, herein the drives and power supplies would be damaged easily if used normal power supplies. SPS series supplies are capable of delivering current to drives without affecting the reliability due to their unregulated specialty and bulky capacitors. By selecting appropriate model, one power supply can supply 1-3 drivers, saving the average cost of per shaft.

Specifications

Model	Output Voltage（V）	Output Current（A）	Input Voltage	Size（mm）	Weight（kg）
SPS407	42	7 (RMS)	220VAC±10% or 110VAC±10% Available	132*104*60	0.638
SPS487	48	7 (RMS)			
SPS705	68	5 (RMS)			

*Please point out the input supply voltage when you place an order.

Pin Assignment and Description

Pin	Description
L N	AC power input.
E	Ground terminal. Recommend connect this port to the ground for better safety.
GND	DC output negative.
V＋	DC output positive.

Order Information

220VAC (Input)	110VAC (Input)
SPS407	SPS407-L
SPS487	SPS487-L
SPS705	SPS705-L

PS Series Linear Supplies

Features:

* Low cost and high reliability
* 3 main output plus 1 auxiliary output
* Short circuit and over-voltage protection
* Simple structure
* PS405 / PS408 / PS806 are available

Part Number