



ADLEEPOWER
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Brushless **IPM** Motor & Drives



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Brushless Hi-Torque Solution

IPM Motor & Drives

Innovated Brushless motor

- Minimize EMI and maintenance free. Low noise.
- Specialized designation to have smoother shaft rotation and improved reliability.
- Light weight and compact size. Higher power density, torque density and efficiency than conventional motors.
- The structure has an excellent behavior in energy saving during heavy load operation. The high efficiency range is much wider than other motors too.
- Built-in NTC thermal resistor to prevent over heat problem.

Intelligent drive controller

- Available for all control interface, ex.RS-485, direct signal, PLC, HMI.
- Convenience 220VAC driver power input from 60W. No more 24VDC power supply.
- Built-in 24VDC mechanical brake control power.
- Real motor speed display and signal output.
- Panel control is always enabled with removed control or terminal control or RS485 control.
- Convenience for system set up or maintenance.
- Excellent speed stability. Open loop and close loop speed control for selection.
- With 0~5VDC, 0~10VDC, and 4~20mA speed analog input.
- Over current/heat/voltage, Motor lock.



Brushless Motor Features

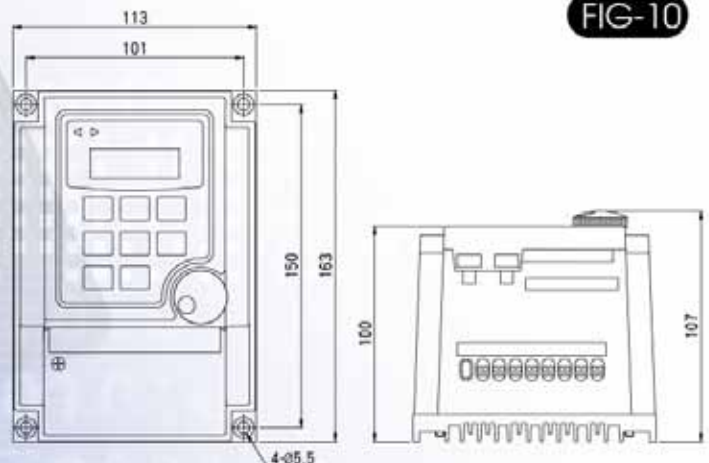
*Brushless IPM Motor
VS. Induction Motor
VS. Brush Motor*

Topic	Brushless DC Motor	Induction Motor	DC Brush Motor
Compact Size, Light Weight	⊙	×	△
Low Rotor Inertia, High Speed Rotation	⊙	△	×
No Rotor Copper Lose	⊙	×	△
High Efficiency	⊙	×	△
Heat Dissipation	⊙	△	△
No Carbon & Electric Flash	⊙	⊙	×
Low Speed Torque	⊙	×	△
No brush maintenance	⊙	⊙	×
Over Load Capability	⊙	×	△

⊙ Excellent △ Acceptable × Poor

Driver Dimensions

FIG-10



AM-60L-B

B : WITH BRAKE
 L : MAX. 2000RPM M : MAX. 3000RPM H : MAX. 6000RPM
 60, 90, 120, 180, 250, 370 · 750 · 1000 · 1500 · 2200W
 BRUSHLESS DC MOTOR

Rated Output	W	60	90	120	180	250	370	750
Motor model No.		AM-60L/M	AM-90L/M/H	AM-120L/M/H	AM-180L/M/H	AM-250L/M/H	AM-370L/M/H	AM-750M/H CM-750L/HX
Drive model No.		BL2-101	BL2-101	BL2-102	BL2-102	BL2-104	BL2-104	BL2-107
		D305						
Input Voltage	AC	220V±10%						
Input Frequency	HZ	50/60						
Max. Input Current	A	3.5	3.8	5.5	5.8	10.8	11	16
Motor Phase		3Φ						
Rated Torque	kg-cm	2.9/2.0	4.4/2.9/1.5	5.8/3.9/2.0	8.8/5.8/2.9	12.0/8.1/4.0	18.0/12.0/6.0	36.6/24.4/12.2
Rated Speed	RPM	L:2000 / M:3000 / H:6000						
Max. Efficiency	%	>80	>80	>80	>80	>80	>80	>85
Max. Output	W	210	270	360	450	750	900	1600
Max. Torque	kg-cm	10.5/7	13.2/8.7/4.5	18/14/6	26.4/17.4/8.7	36/24/13	54/36/18	AM:70/35 CM:95/24
Variable Speed Range	RPM	L:150-2000 M:150-3000 H & CM:300-6000						
Speed regulation		Below 1% (0-Rated Torque at Rated Speed)						
Motor Insulation / Max. working TEMP.		B Class (130 °C/266 °F) / Max. 100 °C/212 °F						
Type of Control		Rectangular wave PWM						
Speed Command		Digital-panel / analog (Built-in potentiometer / External Potentiometer 2KΩ / 0-5VDC, 0-10°)						
Protections		A/B fault relay output in over-heat, over-load, over current, motor lock, hall sensor signal fa						
Motor enclosure type		L/M/H-IP40						
Motor Figure No.		1	1	2	3	4	5	4(M/H) AM:6 CM:A/D
Driver Figure No.	BL2	10	10	10	10	10	10	11
	D305	13	13	13	13	13	13	
Motor Weight (AM)	Kg	2.1/2.1	2.4/2.4/2.4	2.6/2.5/2.5	2.9/2.7/2.7	4.0/3.8/3.7	4.5/4.5/4.0	11/39
Driver Weight	Kg	1.1	1.1	1.1	1.1	1.1	1.1	1.3

- ※ The varnished copper wire is F class insulation.
- ※ AM motor has magnet brake option. The AM60-370 brake torque is 25Kg-cm (21.6in-lb). The AM750-2200 brake torque is 160Kg-cm (135in-lb).
- ※ All of specification subject to change without notice.

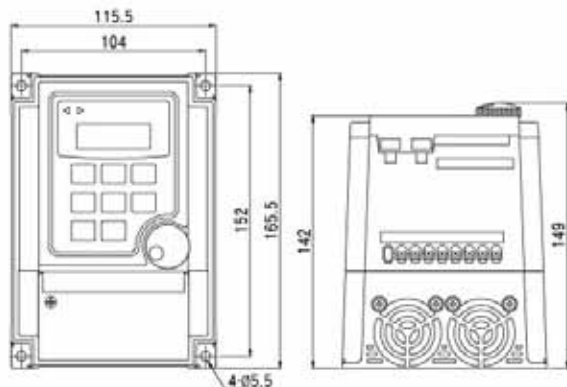
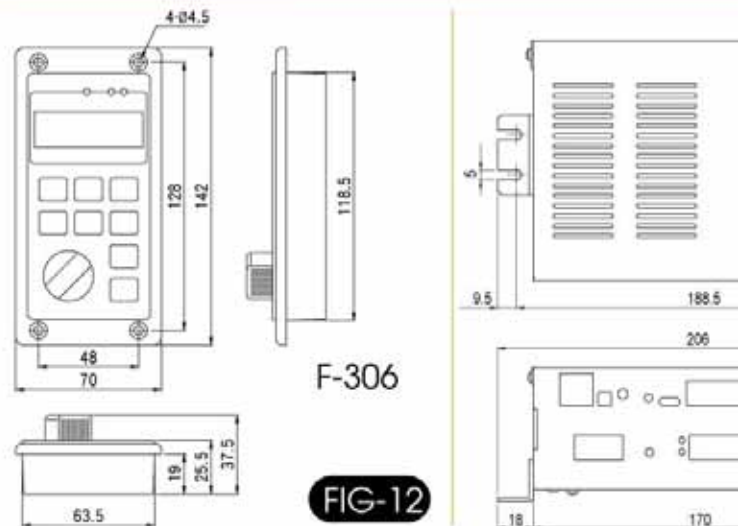


FIG-11



F-306

FIG-12

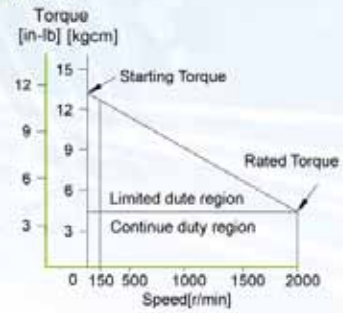
Performance

1000	1500	2200
AM-1000M/H	AM-1500M/H	AM-2200M/H
	CM-1500L/HX	CM-2200L/HX
BL2-115	BL2-115	BL2-122
None		
20.4	26	38
32.5/16.2	73.2/48.8/24.4	109.8/73.2/36.6
>85	>85	>85
2300	3000	4000
AM:110/55	AM:120/60	AM:180/90
	CM:100/45	CM:210/72
/DC, 4-20mA) / RS-485		
l, motor lock protection.		
L/M:IP54 H:IP40		
AM.7	AM.8	AM.9
	CM.B/E	CM.C/F
11	11	11
None		
17/87	113/97	
1.3	1.3	1.3

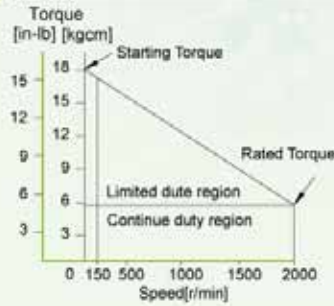
■ AM-60L



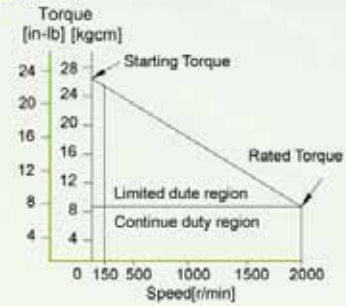
■ AM-90L



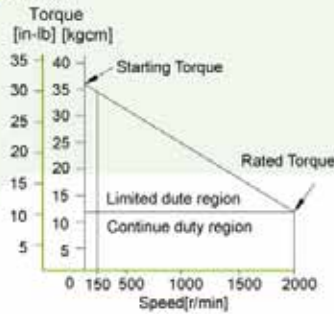
■ AM-120L



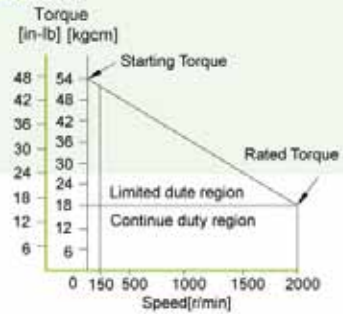
■ AM-180L



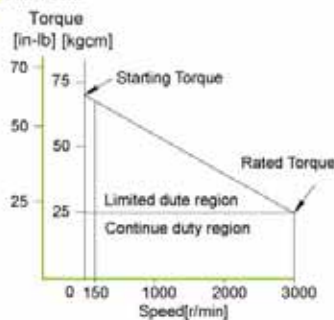
■ AM-250L



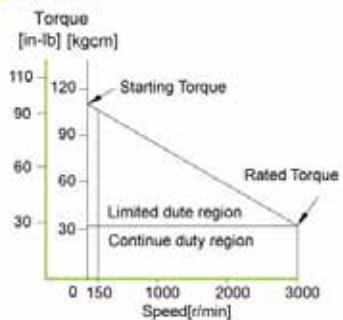
■ AM-370L



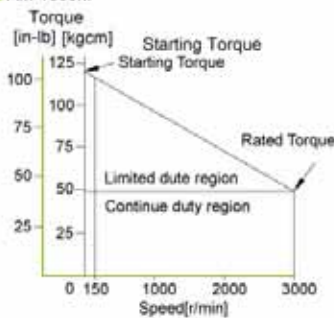
■ AM-750M



■ AM-1000M



■ AM-1500M



■ AM-2200M

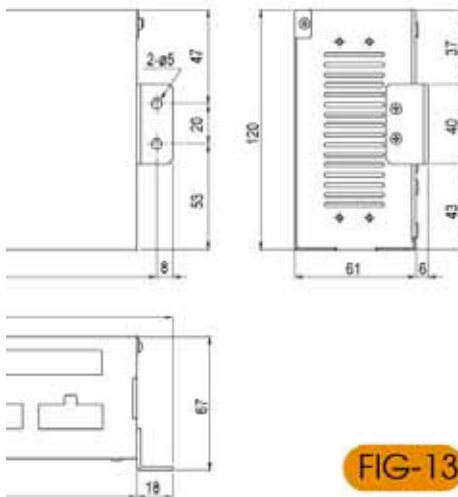
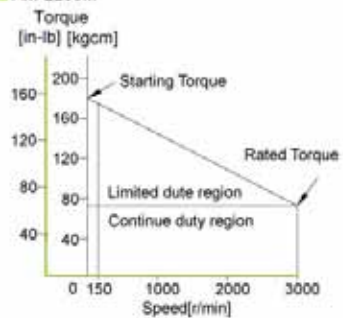
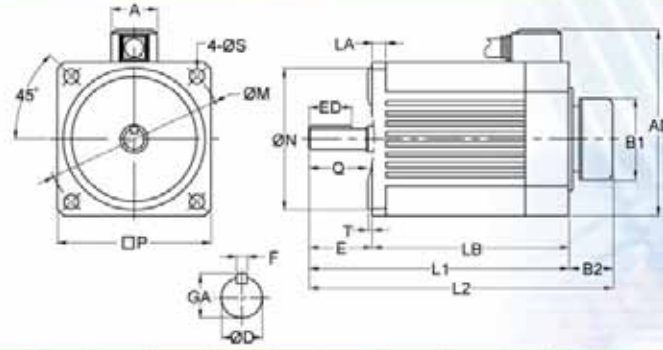


FIG-13

Motor Dimensions

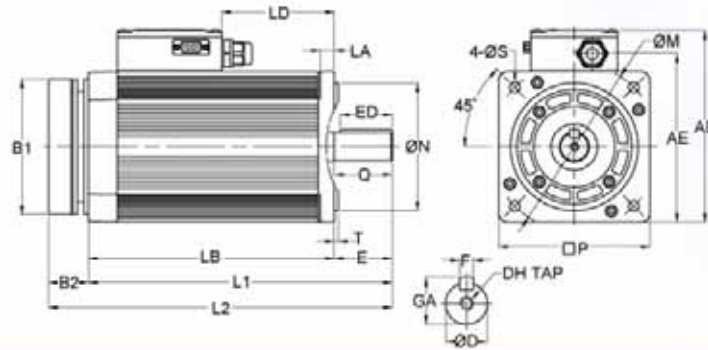
AM-60~370



UNIT : mm

No.	□P	ØM	ØS	ØN	T	LA	LB	L1	L2	AD	A	B1	B2	Output Shaft End						
														ED	Q	E	ØD	GA	F	
1							100	128	161						20	25	28	12	13.5	4
2							115	147	180											
3	90	104	8.5	83	2.5	8				109	27	61	33	25	29	32	14	16	5	
4							170	202	235											
5							185	217	250											

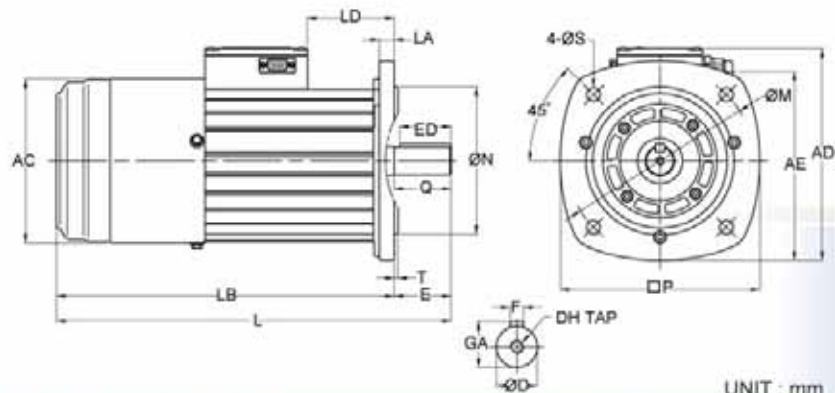
AM-750~2200



UNIT : mm

No.	□P	ØM	ØS	ØN	T	LA	LB	L1	L2	B1	B2	AD	AE	LD	Output Shaft End							
															ED	Q	E	ØD	GA	F	DH	
6							178	218	252.3						63	35	40	40	19	21.5	6	M6
7							195	245	279.3						80							
8	130	145	9	110	3.5	12	212	262	296.3	117	34.3	165.5	146	97	45	50	50	24	27	8	M8	
9							232	282	316.3					117								

CM-750~2200



UNIT : mm

No.	□P	ØM	ØS	ØN	T	LA	LB	L	AC	AD	AE	LD	Output Shaft End							
													ED	Q	E	ØD	GA	F	DH	
A							205	245					67	35	40	40	19	21.5	6	M6
B							239	289	142				101	45	50	50	24	27	8	M8
C	175	185	12	130	3.5	13	259	309		186	166	121	35	40	40	19	21.5	6	M6	
D							287	327	144				67	45	50	50	24	27	8	M8
E							296	346					76	45	50	50	24	27	8	M8



Hi-Torque Solution



ADLEE POWERTRONIC CO., LTD.

TAIWAN HEAD OFFICE /

No. 4 LANE 989, CHUNG SHAN ROAD, SHENGANG,

TAICHUNG TAIWAN, R.O.C.

TEL NO: 886-4-25622651

http://www.adlee.com

FAX NO: 886-4-25628289

E-mail: webmaster@adlee.com

CHINA GUANG DONG/

TEL NO: 86-757-26656498

CHINA SHANGHAI /

TEL NO: 86-21-64843529

CHINA WUHAN /

TEL NO: 86-27-59322991

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TEL NO: 852-24081937

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