



ADLEEPPOWER®
SINCE 1974 ISO 9001

Brushless **IPM** Motor & Drives



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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

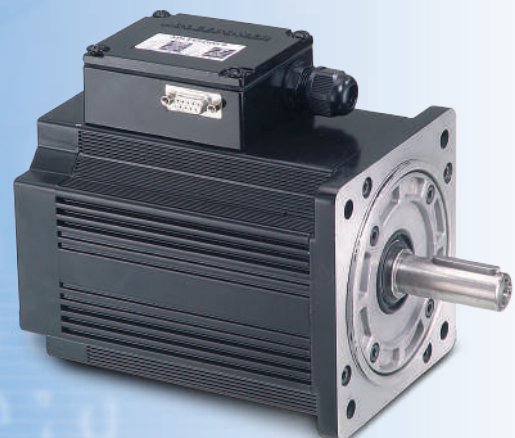
- Available for all control interface, ex.RS-485, direct signal, PLC, HMI.
- Convenience 220VAC and 380VAC driver power input from 60W. No more 24VDC power supply.
- Built-in 24VDC mechanical brake control power.
- Real motor speed display and signal output.
- Panel control is always enabled with removed 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 protection.

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



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
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
Drive model No.			BL2-101	BL2-101	BL2-102	BL2-102	BL2-104	BL2-104
Input Voltage		AC	220V±10% 1Ø					
Input Frequency		HZ	50/60					
Rated Current		A	0.7	1.1	1.5	2.1	2.9	3.6
Motor Phase			3Ø					
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
Rated Speed		RPM	L:2000 / M:3000 / H:6000					
Max. Efficiency		%	>80	>80	>80	>80	>80	>80
Max. Output		W	180	220	280	330	450	600
Max. Torque		kg-cm	12/6	15/9/5.5	18/12/8	27/18/10.5	36/24/13	54/36/20
Variable Speed Range		RPM	L:150-2000 M:150-3000 H: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, 0-10VDC, 4-20mA) / RS-485					
Protections			A/B fault relay output in over-heat, over-load, over current, motor lock, hall sensor signal fail, motor lock protection.					
Motor enclosure type			L/M/H:IP40					
Motor Figure No.			1	1	L&M:2 H:1	L&M:3 H:2	4	L:5 M&H:4
Driver Figure No.	BL2		10	10	10	10	10	10
	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
Driver Weight		Kg	1.1	1.1	1.1	1.1	1.1	1.1

※ 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).

※ Motor has oil seal option.

※ All of specification subject to change without notice.

Driver Dimensions

FIG-10

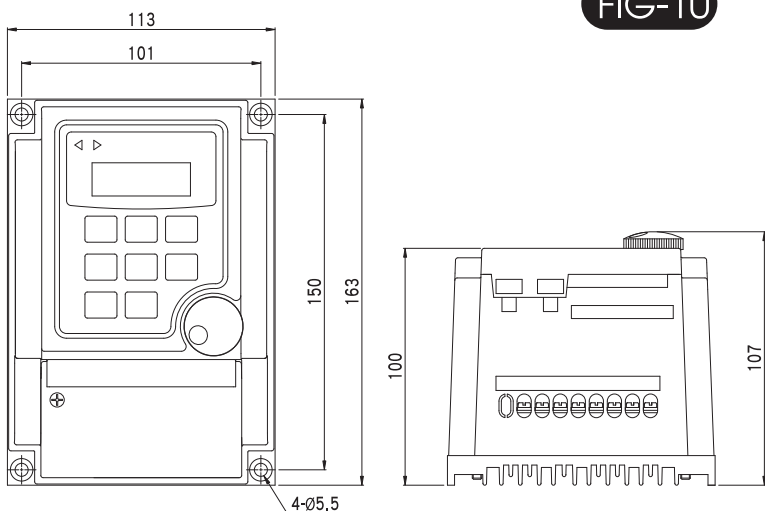
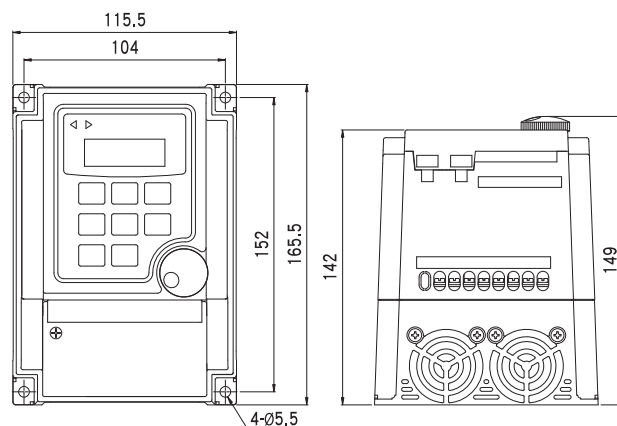


FIG-11



Rated Output	W	750	1000	1500	2200
Motor model No.		AM-750M/H	AM-1000M/H	AM-1500M/H	AM-2200M/H
		CM-750L//M/HX		CM-1500L/M/HX	CM-2200L/M/HX
Drive model No.		BL2-107	BL2-115	BL2-115	BL2-122
Input Voltage	AC	220V±10% 1Ø			
Input Frequency	HZ	50/60			
Rated Current	A	7.3	10	14	21
Motor Phase		3Ø			
Rated Torque	kg-cm	AM:24.4/12.2	AM:32.5/16.2	AM:48.8/24.4	AM:73.2/36.6
		CM:36.6/24.4/9.1		CM:73.2/48.8/18.3	CM:109.8/73.2/26.8
Rated Speed	RPM	L:2000 / M:3000 / H:6000 / HX:8000			
Max. Efficiency	%	>85	>85	>85	>85
Max. Output	W	1600	2300	3000	4000
Max. Torque	kg-cm	AM:48.8/24.4	AM:65/32.4	AM:97.6/48.8	AM:146.4/73.2
		CM:73.2/48.8/18.2		CM:146.4/97.6/36.6	CM:210/146.4/53.6
Variable Speed Range	RPM	L:150-2000 M:150-3000 H:300-6000 HX:300-8000			
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, 0-10VDC, 4-20mA) / RS-485			
Protections		A/B fault relay output in over-heat, over-load, over current, motor lock, hall sensor signal fail, motor lock protection.			
Motor enclosure type		L/M:IP54 H/HX:IP40			
Motor Figure No.		AM:6	AM:7	AM:8	AM:9
		CM:A/A/D		CM:B/B/E	CM:C/C/F
Driver Figure No. (BL2)		10	11	11	11
Motor Weight	Kg	AM:8.0/7.8	AM:9.4/8.7	AM:11.0/9.7	AM:13.2/16.5
		CM:11/11/14.2		CM:14/14/15.3	CM:15.6/15.6/16.5
Driver Weight	Kg	1.1	1.3	1.3	1.3

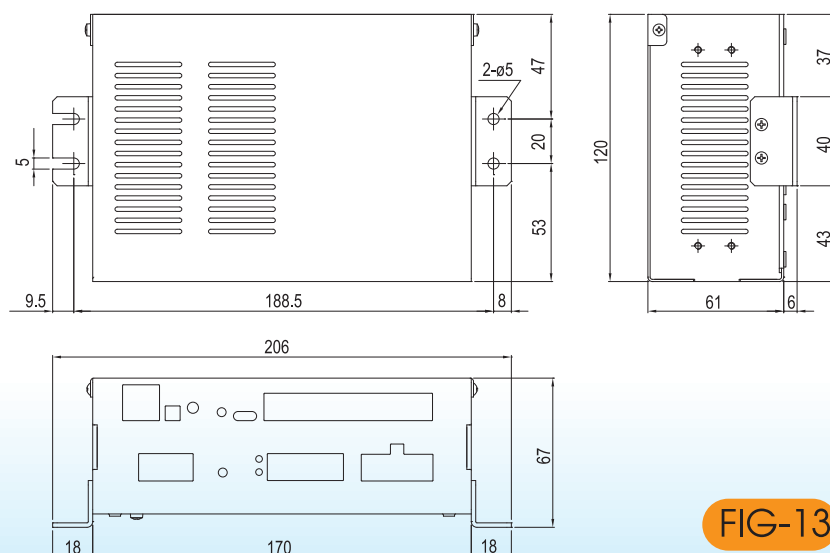
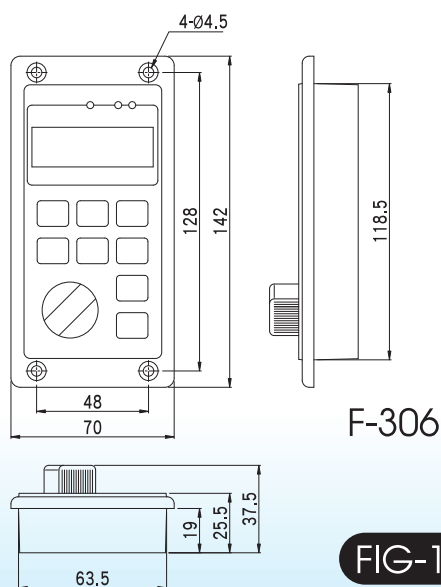
※ The varnished copper wire is F class insulation.

※ 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).

※ Motor has oil seal option.

※ All of specification subject to change without notice.

Driver Dimensions



Rated Output	W	370	750	1000	1500	2200
Motor model No.	AM-370L/M/H	AM-750M/H	AM-1000M/H	AM-1500M/H	AM-2200M/H	
		CM-750L/M/HX		CM-1500L/M/HX	CM-2200L/M/HX	
Drive model No.	BL4-304	BL4-307	BL4-315	BL4-315	BL4-322	
Input Voltage	AC	380/440 VAC±10% 3Ø				
Input Frequency	HZ	50/60				
Rated Current	A	1.4	2.2	3.0	3.5	5.0
Motor Phase		3Ø				
Rated Torque	kg-cm	AM:18.0/12.0/6.0	AM:24.4/12.2	AM:32.5/16.2	AM:48.8/24.4	AM:73.2/36.6
			CM:36.6/24.4/9.1		CM:73.2/48.8/18.3	CM:109.8/73.2/26.8
Rated Speed	RPM	L:2000 / M:3000 / H:6000 / HX:8000				
Max. Efficiency	%	>80	>85	>85	>85	>85
Max. Output (440 VAC)	W	600	1600	2300	3000	4000
Max. Torque	kg-cm	AM:54/36/20	AM:48.8/24.4	AM:65/32.4	AM:97.6/48.8	AM:146.4/73.2
			CM:73.2/48.8/18.2		CM:146.4/97.6/36.6	CM:210/146.4/53.6
Variable Speed Range	RPM	L:150-2000 M:150-3000 H:300-6000 HX:300-8000				
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, 0-10VDC, 4-20mA) / RS-485				
Protections		A/B fault relay output in over-heat, over-load, over current, motor lock, hall sensor signal fail, motor lock protection.				
Motor enclosure type		L/M/H:IP40		L/M:IP54 H/HX:IP40		
Motor Figure No.	5	4(M/H)	AM:6	AM:7	AM:8	AM:9
			CM:A/A/D		CM:B/B/E	CM:C/C/F
Driver Figure No. (BL4)		10	11	11	11	11
Motor Weight	Kg	AM:4.5/4.5/4.0	AM:8.0/7.8	AM:9.4/8.7	AM:11.0/9.7	AM:13.2/16.5
			CM:11/11/14.2		CM:14/14/15.3	CM:15.6/15.6/16.5
Driver Weight	Kg	1.1	1.3	1.3	1.3	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).

※ Motor has oil seal option.

※ All of specification subject to change without notice.



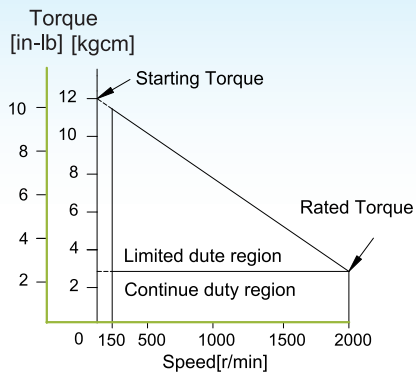
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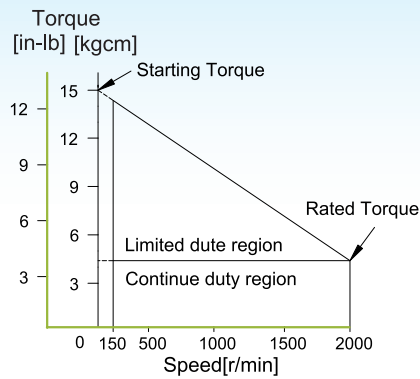
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Performance

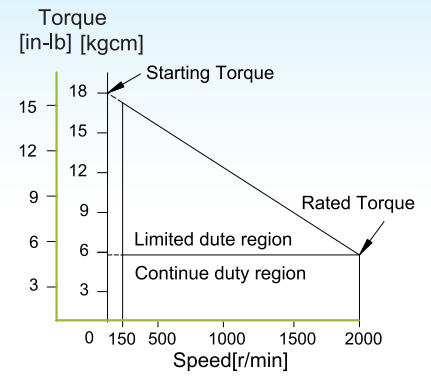
AM-60L



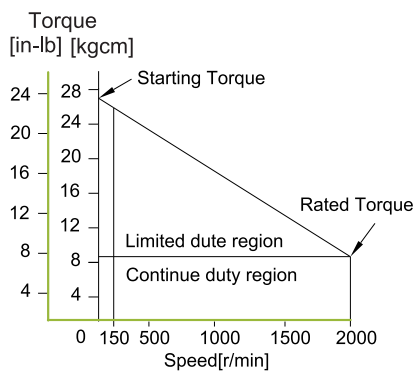
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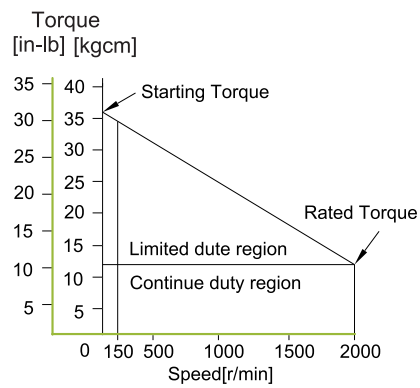
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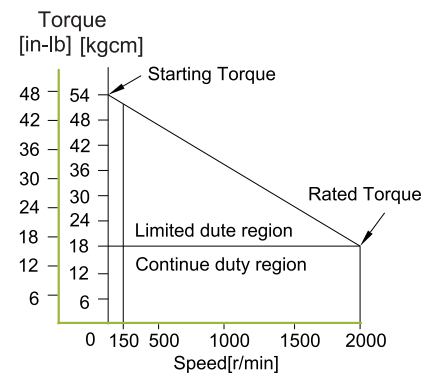
AM-180L



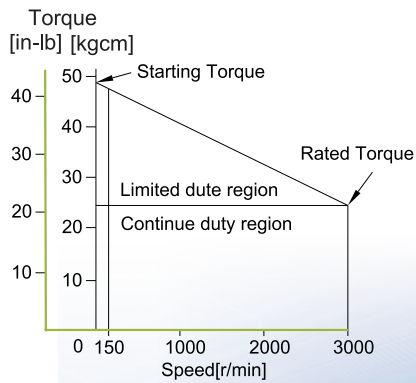
AM-250L



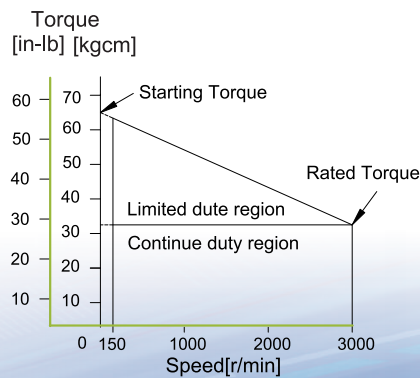
AM-370L



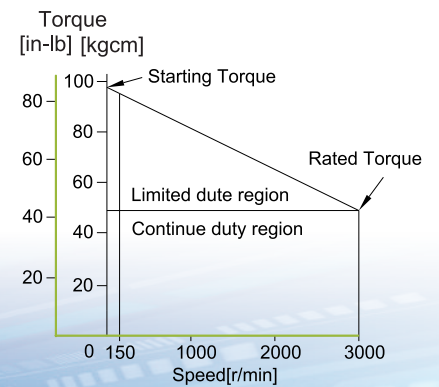
AM-750M



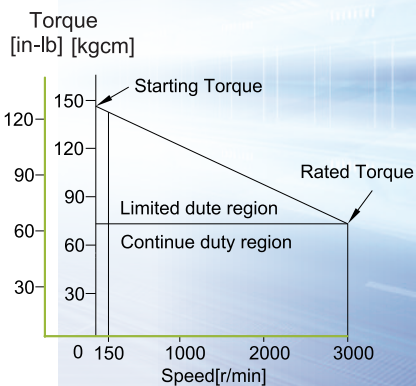
AM-1000M



AM-1500M



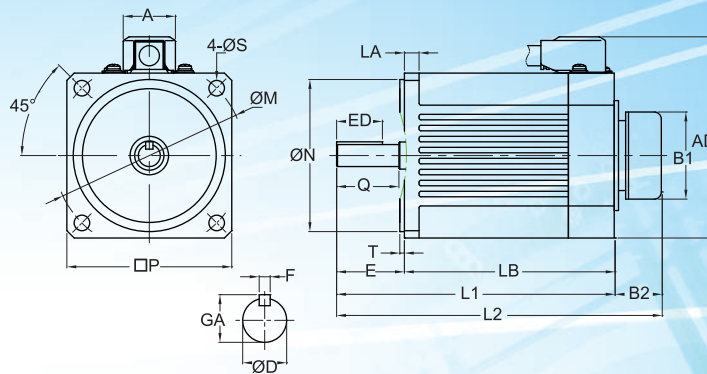
AM-2200M



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Motor Dimensions

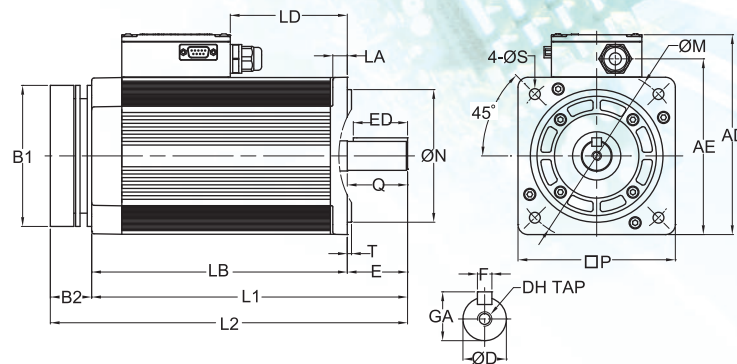
AM-60~370



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	90	104	8.5	83	2.5	8	99.5	127.5	160.5	109.8	28.5	61	33	20	25	28	12	13.5	4
2							114.5	146.5	179.5					25	29	32	14	16	5
3							169.5	201.5	234.5										
4							184.5	216.5	249.5										
5																			

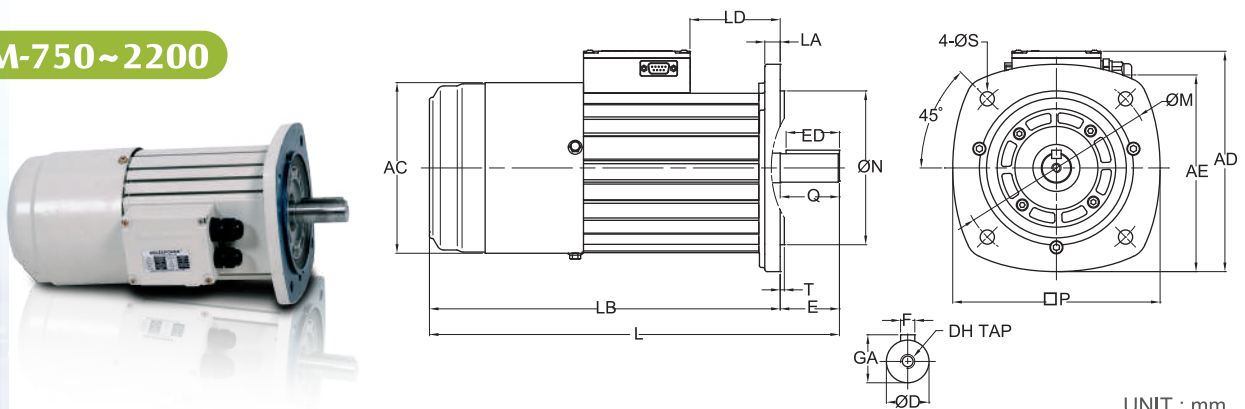
AM-750~2200



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	130	145	9	110	3.5	12	178	218	252.3	117	34.3	165.5	146	63	35	40	40	19	21.5	6	M6
7							195	245	279.3					80	45	50	50	24	27	8	M8
8							212	262	296.3					97							
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	175	165	12	130	3.5	13	205	245	142	186	166	67	35	40	40	19	21.5	6	M6
B							239	289				101	45	50	50	24	27	8	M8
C							259	309				121	35	40	40	19	21.5	6	M6
D							287	327	144			67							
E							337	346				76							
F																			

IPM



Hi-Torque Solution



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