



ADLEEPPOWER®
SINCE 1974. ISO 9001

Matchservo Motor & Drives

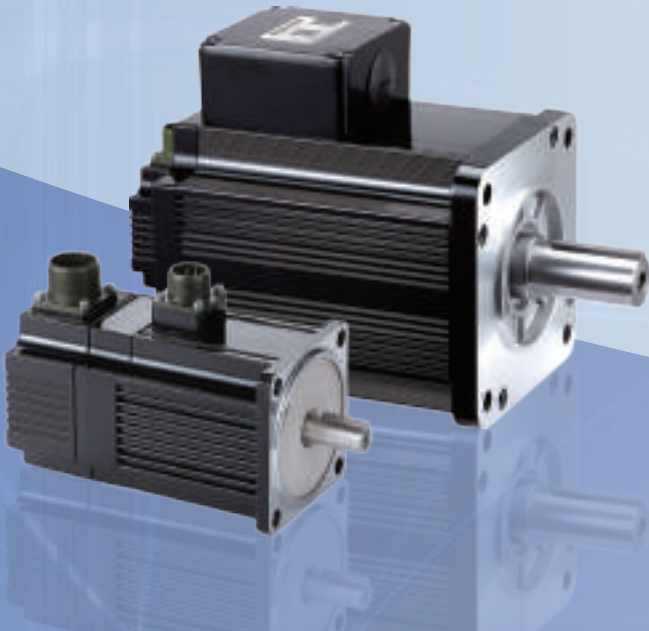


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Innovated Matchservo Motor

- Low noise, Minimize EMI and maintenance free.
- 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.
- A wide range of high-efficiency operation speed 30 RPM ~ 3000RPM, suitable for the load changes, speed variation operating conditions are generally advantages that conventional motors can't achieve.



Intelligent Drive Controller

- The drive provides position, speed and torque for three kinds of basic modes operation.
- Digital I / O output into regulation.
- Dual system control by torque and speed.
- Internal drive provides 8 segments speed, two-stage acceleration and deceleration control.
- Internal drive 7 segment provides position location, a return HOME mode, eliminate the cumulative amount of error, precise, no need of PC (such as HMI, PLC) control, save costs on PC, and therefore more in line with market demand.
- Available for all control interfaces, ex. RS 485, direct signal, PLC and HMI.
- Drive provides 24VDC for SENSOR require.

- Speed rendering and real output DC10V for external control header.
- Drive signals can be output 128 PPR for external control using.
- Position tolerance on high speed, avoid over-current, over-voltage and motor blocked protection against abnormal occurs.



MA2 / SD2

MA2 Servomotor Specification

Rated Power	W	120W	180W	370W	750W	1.5KW	2.2KW	3.7KW	5.5KW	7.5KW
Servomotor Model No.		MA2-120M/H	MA2-180M/H	MA2-370M/H	MA2-750M/H	MA2-1500M/H	MA2-2200M/H	MA2-3700M	MA2-5500M	MA2-7500M
Rated Torque	N.m	M:0.38/H:0.19	M:0.57/H:0.29	M:1.18/H:0.59	M:2.39/H:1.2	M:4.78/H:2.39	M:7.17/H:3.59	11.78	17.5	23.8
Max. Torque	N.m	M:1.16/H:0.57	M:1.73/H:0.87	M: 3.53/H:1.77	M: 7.18/H:3.6	M:14.0/H:7.17	M:20.3/H:10.76	29.4	43.75	59.5
Rated Current	Arms	M:0.65/H:0.6	M:0.9/H:0.8	M: 1.95/H:1.6	M:3.5/H:3.0	M:7.6/H:6.5	M:12/H:10	18	24.5	32.0
Max. Current	Arms	M:1.17/H:1.8	M:2.5/H:2.4	M:5.88/H:4.8	M:10.2/H:9	M:22.8/H:18.5	M:36/H:30	45	61.3	80
Rated Speed	RPM	M:3000/H:6000								
Torque Constant-KT	N.m/Arms	M:0.71/H:0.44				M:0.67/H:0.44	M:0.64/H:0.44	0.72	0.78	0.76
Rotor Moment of Inertia	10 ⁻⁴ *kgm ²	M:1.11/H:1.12	M:1.11/H:1.12	M:1.57/H:1.42	M:2.59/H:2.26	M:12.8/H:11.5	M:18.2/H:14.5	63.3	93.5	115
Mechanical Time Contant	ms	M:3.69/H:4.32	M:3.69/H:4.32	M:2.54/H:2.74	M:1.75/H:2.59	M:1.64/H:2.84	M:1.43/H:2.91			
Electric Time Contant	ms	M:2.15/H:3.54	M:2.15/H:3.54	M:2.51/H:4.25	M:3.35/H:4.9	M:7.77/H:10.73		19.7	24.8	25.3
Insulation		Class F								
IP Rating		IP65 (When an Oil Seal is Used to be Fitted to the Rotating Shaft)								
MA2 Dimension		FIG A	FIG B	FIG C	FIG D	FIG E	FIG F	FIG G	FIG H	FIG I
MA2 Weight	Kg	M:2.4/H:2.4	M:2.4/H:2.4	M:3.9/H:3.1	M:4.7/H:4.3	M:10/H:9.1	M:12/H:10.5	20	25.5	29

SD2 Servo Driver Specification

Rated Power.		W	120W	180W	370W	750W	1.5KW	2.2KW	3.7KW	5.5KW	7.5KW
Drive model No.			SD2-101M/H	SD2-102M/H	SD2-104M/H	SD2-107M/H	SD2-115M/H	SD2-122M/H	SD2-337M	SD2-355M	SD2-375M
Motor model No.			MA2-120M/H	MA2-180M/H	MA2-370M/H	MA2-750M/H	MA2-1500M/H	MA2-2200M/H	MA2-3700M	MA2-5500M	MA2-7500M
Input Voltage		A	220V±10% 1Ø						220V±10% 3Ø		
Input Frequency		H	50 / 60								
Rated Output Current		Arms	M:0.65/H:0.6	M:0.9/H:0.8	M:1.95/H:1.6	M:3.5/H:3.0	M:7.6/H:6.5	M:12/H:10	18	24.5	32.0
Max. Output Current		Arms	M:1.7/H:1.8	M:2.5/H:2.4	M:5.88/H:4.8	M:10.2/H:9.0	M:22.8/H:18.5	M:36/H:30	45	61.3	80
Encoder Type and Resolution			A、B、Z、HU、HV、HW Open Collector. (A、B Phase= 128PPR)								
ACC. DEC. Time			0.1~60.0 Sec.								
Speed Regulation	Load	±0.3%Below (0~Rated Torque at Rated Speed)									
	Voltage	±0.3%Below (Source Voltage ± 10%at Rated Speed no Load)									
	Temperature	±0.3%Below (0~45℃ / 32~113°F at Rated Speed no Load)									
Type of Control			Sin PWM								
Model of Control			1. Speed mode 2. Torque mode 3. Position mode								
Input Signal	Analog Panel	1. Vref, Tref ± 10V Analog Input 2. Panel VR 0~5V Analog Input									
	Digital Panel	DI0 ~ DI6 and COM common, Input Impedance 4.7KΩ to common									
Output Signal			DOx Open Collector (x=0~3), External Voltage(48VDC, 10mA below). Magnet brake relay please set at DO3.								
Protection			Overload, Over Current, Over Voltage, Over Heat Encoder Abnormal, Short Circuit								
SD2 Dimension		Fig	FIG 1	FIG 1	FIG 1	FIG 1	FIG 2	FIG 2	FIG 3	FIG 3	FIG 3
SD2 Weight		Kg	1.1	1.1	1.1	1.1	1.3	1.3	5	6	6

MA4 / SD4

MA4 Servomotor Specification

Rated Power	W	750W	1.5KW	2.2KW	3.7KW	5.5KW	7.5KW
Servomotor Model No.		MA4-750M/H	MA4-1500M/H	MA4-2200M/H	MA4-3700M	MA4-5500M	MA4-7500M
Rated Torque	N.m	M:2.39/H:1.2	M:4.78/H:2.39	M:7.17/H:3.59	11.78	17.5	23.8
Max. Torque	N.m	M:7.18/H:3.6	M:14/H:7.17	M:20.3/H:10.77	29.4	43.75	59.5
Rated Current	Arms	M:2.0/H:1.9	M:4.4/H:3.8	M:6.9/H:6.3	10	14.7	19.5
Max. Current	Arms	M:6.0/H:6	M:13.2/H:11	M:20.7/H:18	25	36.75	48.75
Rated Speed	RPM	M:3000/H:6000					
Torque Constant-KT	N.m/Arms	M:1.27/H:0.74	M:1.18/H:0.77	M:1.16/H:0.76	1.29	1.36	1.36
Rotor Moment of Inertia	10 ⁻⁴ *kgm ²	M:2.59/H:2.26	M:12.8/H:11.5	M:18.2/H:14.5	63.3	93.5	115
Mechanical Time Contant	ms	M:1.99/H:2.21	M:1.60/H:2.86	M:1.35/H:2.06	4.08	3.20	1.81
Electric Time Contant	ms	M:2.84/H:5.6	M:7.91/H:10.75	M:7.95/H:13.76	19.96	27.61	29.71
Insulation		Class F					
IP Rating		IP65 (When an Oil Seal is Used to be Fitted to the Rotating Shaft)					
MA4 Dimension Figure No.		FIG D	FIG E	FIG F	FIG G	FIG H	FIG I
MA4 Motor Weight	Kg	M:4.7/H:4.7	M:10/H:9	M:12/H:10.5	20	25.5	29



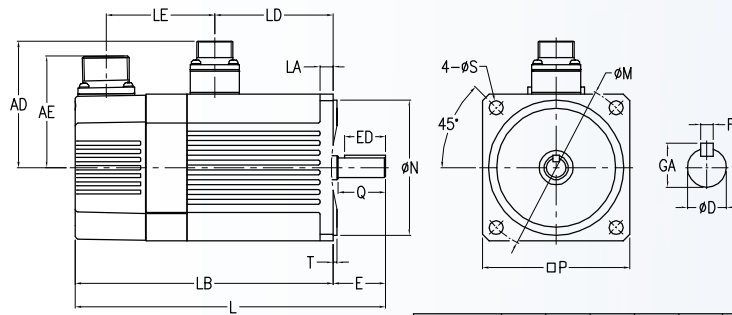
SD4 Servo Driver Specification

Rated Power	W	750W	1.5W	2.2KW	3.7KW	5.5KW	7.5KW
Drive model No.		SD4-307M/H	SD4-315M/H	SD4-322M/H	SD4-337M	SD4-355M	SD4-375M
Motor model No.		MA4-750M/H	MA4-1500M/H	MA4-2200M/H	MA4-3700M	MA4-5500M	MA4-7500M
Input Voltage	AC	380V±10% 3ø					
Input Frequency	Hz	50 / 60					
Rated Output Current	Arms	M:2.0/H:1.9	M:4.4/H:3.8	M:6.9/H:6.3	10	14.7	19.5
Max. Output Current	Arms	M:6.0/H:6	M:13.2/H:11	M:20.7/H:18	25	36.75	48.75
Encoder Type and Resolution		A、B、Z、HU、HV、HW Open Collector. (A、B Phase= 128PPR)					
ACC. DEC. Time		0.1~60.0 Sec.					
Speed Regulation	Load	±0.3%Below (0~Rated Torque at Rated Speed)					
	Voltage	±0.3%Below (Source Voltage ± 10%at Rated Speed no Load)					
	Temperature	±0.3%Below (0~45°C / 32~113°F at Rated Speed no Load)					
Type of Control		Sin PWM					
Model of Control		1. Speed mode 2. Torque mode 3. Position mode					
Input Signal	Analog Panel	1. Vref, Tref ± 10V Analog Input 2. Panel VR 0~5V Analog Input					
	Digital Panel	DI0 ~ DI6 and COM common, Input Impedance 4.7KΩ to common					
Output Signal		DOx Open Collector (x=0~3), External Voltage(48VDC, 10mA below). Magnet brake relay please set at DO3.					
Protection		Overload, Over Current, Over Voltage, Over Heat Encoder Abnormal, Short Circuit					
SD4 Dimension	Fig	FIG 2	FIG 2	FIG 2	FIG 3	FIG 3	FIG 3
SD4 Weight	Kg	1.1	1.3	1.3	5	6	6



Motor Dimensions

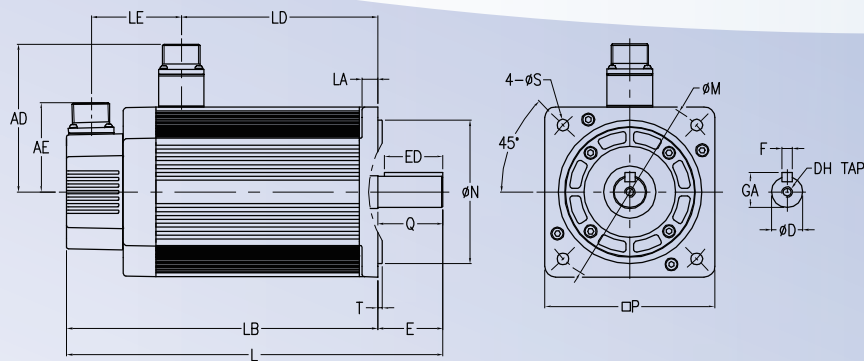
- **MA2-120M/H~MA2-750M/H**
- **MA4-750M/H**



UNIT:mm

FIG NO.	□P	φM	φS	φN	T	L	LA	LB	LD	LE	AE	AD	SHAFT END					
													ED	Q	E	φD	GA	F
FIG A	90	104	8.5	83	2.5	175	8	143	57.5	66.5	68.6	77.6	25	29	32	12	13.5	4
FIG B						190		158	72.5									
FIG C						245		213	127.5									
FIG D																		

- **MA2-1500M/H~MA2-2200M/H**
- **MA4-1500M/H~MA4-2200M/H**



UNIT: mm

FIG NO.	□P	φM	φS	φN	T	L	LA	LB	LD	LE	AE	AD	SHAFT END					
													ED	Q	E	φD	GA	F
FIG E	130	145	9	110	3.5	261.5	12	211.5	123.5	69	68.6	113.3	45	50	50	24	27	8
FIG F						288.5		238.5	150.5									

- **MA2-3700M~MA2-7500M**
- **MA4-3700M~MA4-7500M**

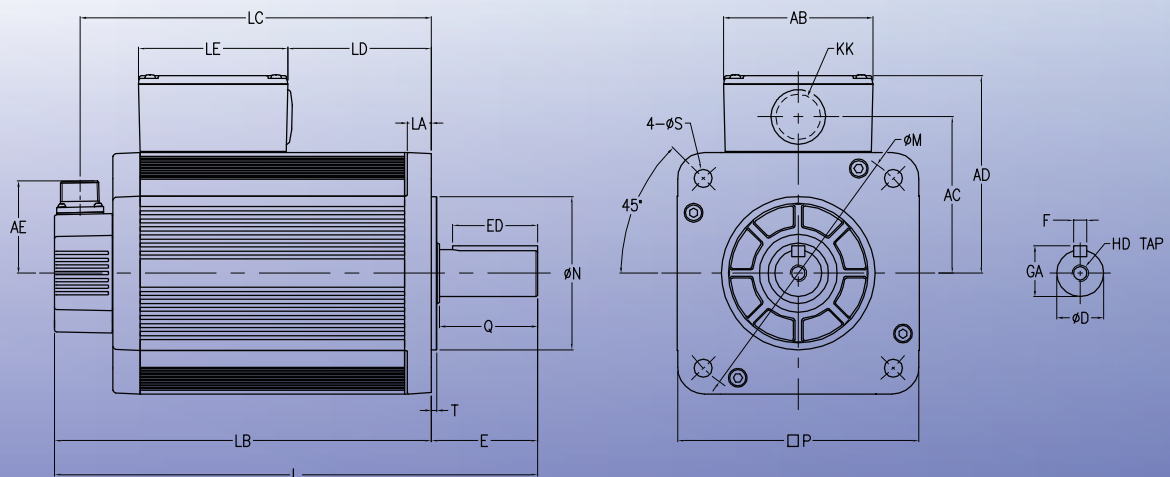
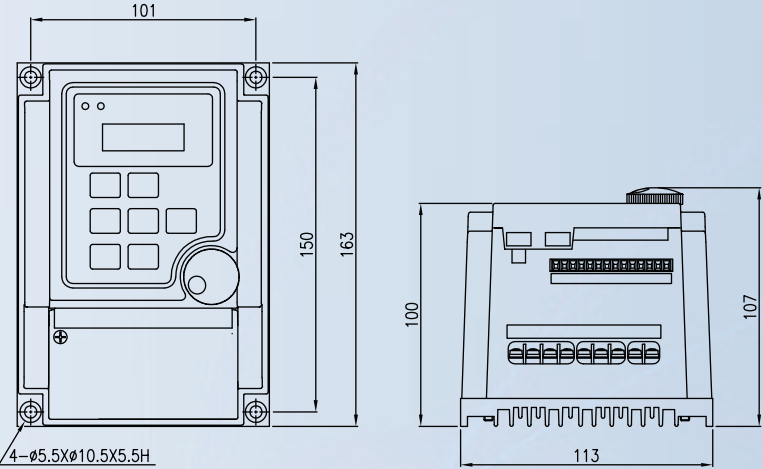


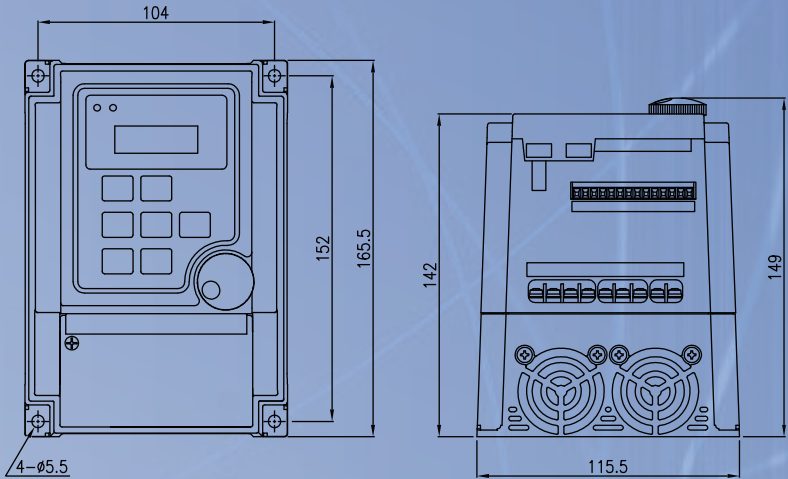
FIG NO.	□P	øM	øS	øN	T	L	LA	LB	LC	LD	LE	AB	AC	AD	AE	KK	SHAFT END						
																	ED	Q	E	øD	GA	F	DH
FIG G	180	200	13.5	114.3	4	359.5	18	280.5	261.5	107	111	111	116.5	147	68.6	33.5	63	73	79	35	38	10	M12
FIG H						454.5		341.5	322.5	168													
FIG I						484.5		371.5	352.5	198													

Driver Dimensions

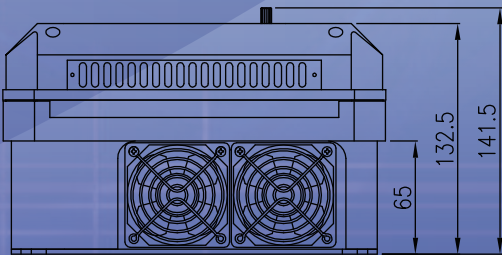
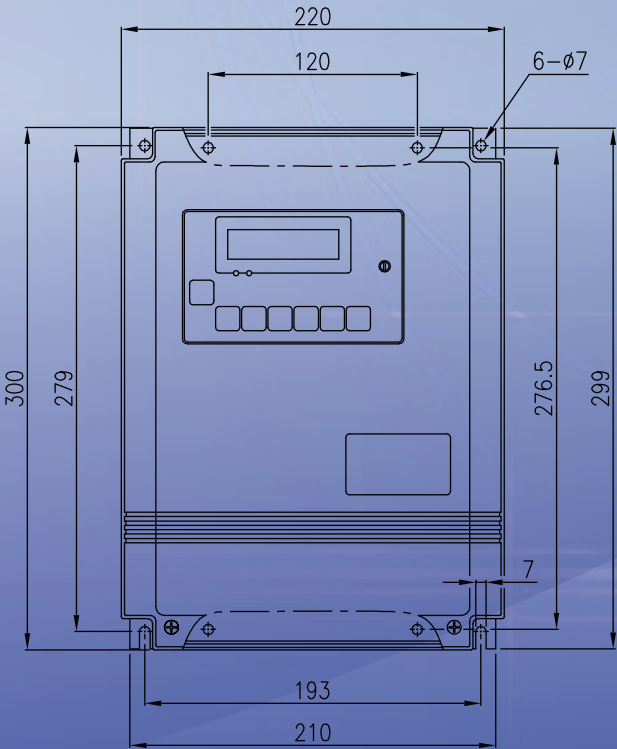
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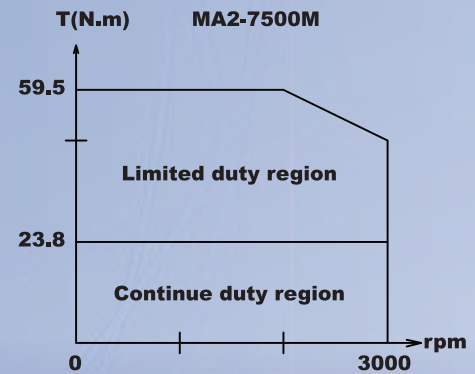
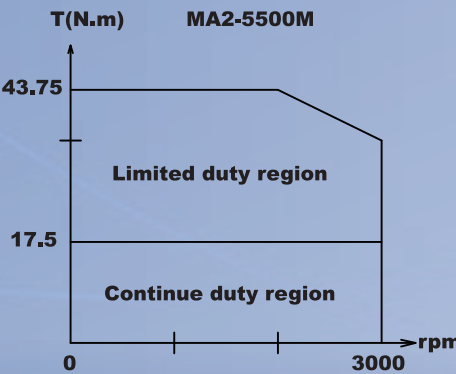
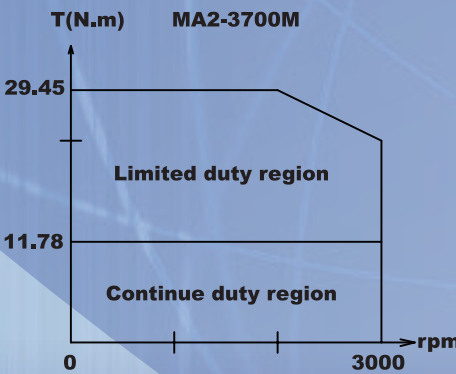
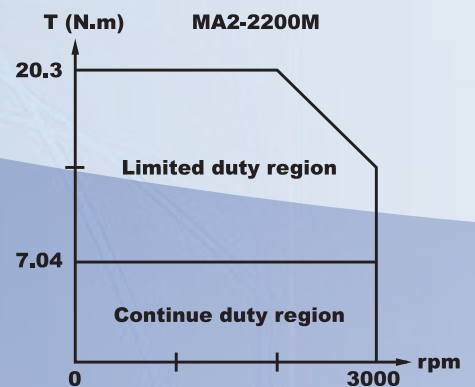
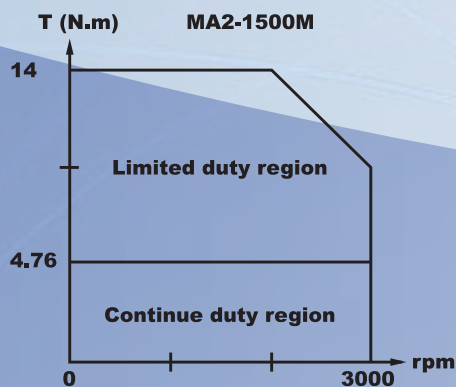
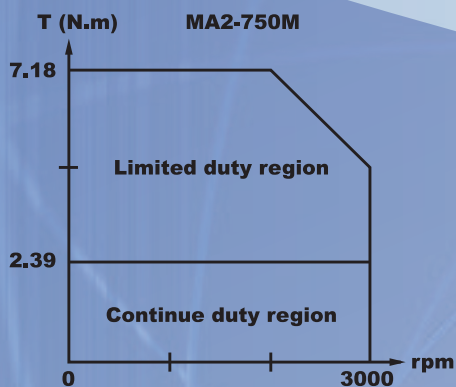
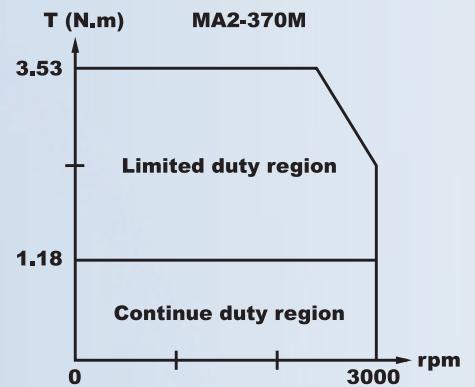
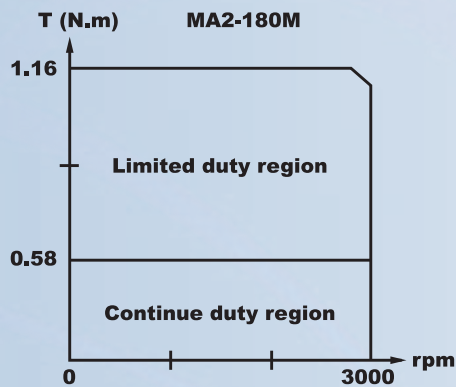
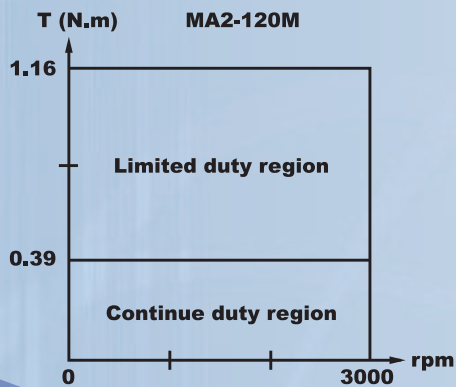


• **SD2-115M/H~SD2-122M/H** 2
• **SD4-307M/H~SD4-322M/H**



• **SD2-337M~SD2-375M** 3
• **SD4-337M~SD4-375M**





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