

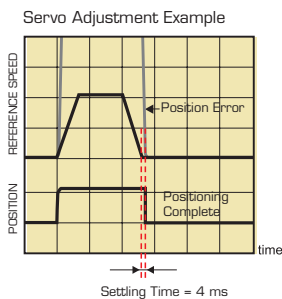
Sigma-5 Mini Ultra-Compact Servo



Sigma-5 Mini is an extension of Yaskawa's widely successful Sigma-5 servo series. SGM5V Sigma-5 Mini servo motors offer the highest performance with minimal size for maximum efficiency.

- Extensive lineup of compact, small capacity products (3 to 30 W)
- Two flange sizes (15 mm and 25 mm) available
- Input voltage options of 24-48VDC or 100/200VAC
- High resolution 17-bit (131,072 pulses/revolution) absolute value serial encoder for high-precision positioning. (SERVOPACK parameter settings also enable use as an incremental type)
- Rated Speed of 3000rpm and maximum speed of 6000rpm

Sigma-5 Mini SERVOPACK products retain the control performance and easy handling of the Sigma-5 Series and are available in both AC and DC input



- Performance: 1.6 kHz frequency response can slash setting time to under 4ms
- Simple tuning: multiple tuning options available to tweak performance
- Enhanced vibration suppression: reduces noise and vibration during operation
- Simple setup with SigmaWin+ Software

DC SERVOPACKS



- Compact design: 30 mm wide x 100 mm tall x 80 mm deep
- Input Power: 24/48 VDC
- Interfaces:
 - Analog
 - Pulse Train,
 - MECHATROLINK-II
 - MECHATROLINK-III

AC SERVOPACKS



- Same as standard Sigma-5
- Input Power: 200 VAC
- Interfaces:
 - Analog/Pulse Train,
 - MECHATROLINK-II
 - MECHATROLINK-III
 - EtherCAT
 - MP2600iec single-axis controller

Features

- Low inertia
- High resolution absolute serial encoder: 17-bit
- Maximum Speed: 6000 RPM
- 3W to 30W
- Holding Brake option available
- AC or DC Input Power

Applications

- Semiconductor production
- PCB assembly
- SMT placement systems
- Wafer processing
- Feeder systems
- Clean room robots
- Medical device assembly
- Chip mounters
- Inspection and measuring devices
- Robotic end effector actuation

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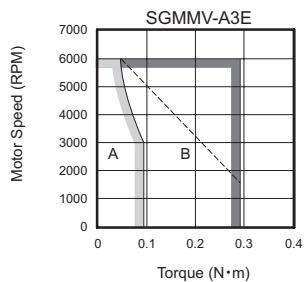
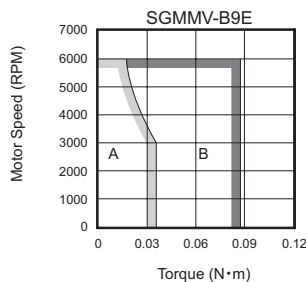
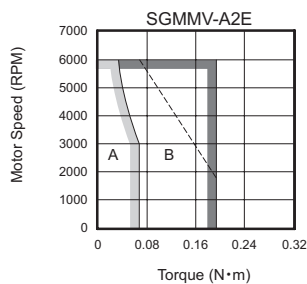
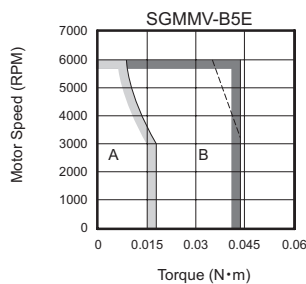
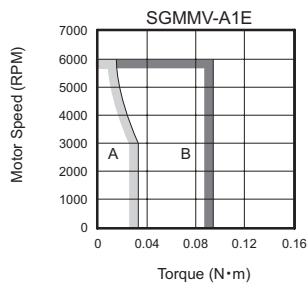
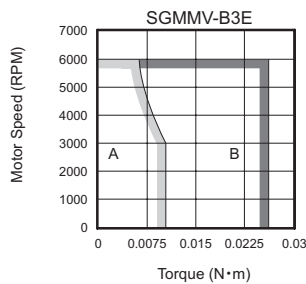
SGMMV Specifications

Voltage		24 VDC/48 VDC ³						200 VAC			
Servomotor Model: SGMMV-		B3E	B5E	B9E	A1E	A2E	A3E	A1A	A2A	A3A	
Rated Output	W	3.3	5.5	11	10	20	30	10	20	30	
Rated Torque	Nm	0.0105	0.0175	0.0350	0.0318	0.0637	0.0955	0.0318	0.0637	0.0955	
Instantaneous Peak Torque	Nm	0.0263	0.0438	0.0875	0.0955	0.191	0.286	0.0955	0.191	0.286	
Rated Current	A _{rms}	1.5	1.5	1.7	2.1	2.0	2.9	0.70	0.66	0.98	
Instantaneous Max. Current	A _{rms}	3.6	3.7	4.1	6.1	5.8	8.6	2.0	1.9	2.9	
Rated Speed	RPM	3000									
Max. Speed	RPM	6000									
Flange Size	mm	15×15				25×25					
Applicable SERVOPACK		1R7E			2R9E			R90□		1R6A, 2R1F	

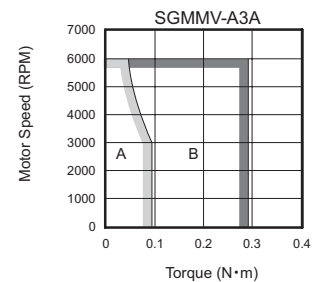
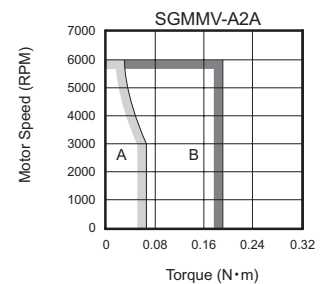
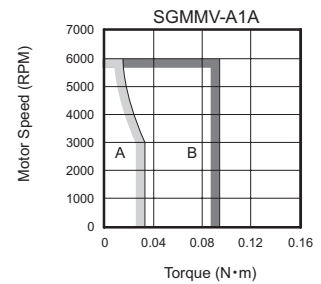
Speed/Torque Curves

▭ A : Continuous Duty Zone ▭ B : Intermittent Duty Zone

with DC SERVOPACKS



with AC SERVOPACKS



Solid lines indicate characteristics when a 48-VDC power supply is applied to the main circuit of the SERVOPACK, and dotted lines indicate characteristics when a 24 VDC is applied.