

M2DC Series—DC Servo System



The M2DC Series Servo System from MOONS' features drives that are high on functionality with a range of control options, programmable notch filters, an anti-vibration algorithm and auto-tuning. The drives are designed to be used with MOONS' servo motors in the 60/100/200/300/400/550W/750W power range. The M2DC drives can communicate over Modbus/RTU, CANopen, Ethernet/IP and Ethernet(eSCL). Using MOONS' Q Programmer software they can create complex motion programs that can be stored in the drive and then run in a stand-alone mode.

Features:

- 20-70V DC Input
- Easy to Use On-line Auto Tuning
- Internal Regeneration Resistors
- Build-In Soft PLC - Q Programmer
- Pulse Position Control Modes
- Analog Position, Speed, Torque Modes
- SCL/eSCL Language Communication
- Support Modbus, CANopen, EtherNet/IP, Ethernet(eSCL) Communication Protocols
- Friendly Tuning Software

M2DC Servo Drive Numbering Information

M2DC - **5** - *******

M2 Series DC Servo Drive

Customized Specification (If Applicable)

Current Code	Continuous Current (RMS)	Peak Current (RMS)
6D0	6.0A	18.0A
10D	10.0A	30.0A
20D	20.0A	50.0A

Voltage Code	Input Voltage
5	20-70VDC

Communication Type	Configuration	Description	Communication
S	USB Mini-B	Basic Type	---
Q		Q Type	RS-232
R		Q Type (Modbus/RTU Type)	RS-485
C		CANopen Type	CANBus
D		eSCL Type	Ethernet
IP		EtherNet/IP Type	Ethernet

M2DC Drive Specifications

Basic Specifications	Input Power	M2DC-6D0	Main Circuit	20~60VDC	
		M2DC-10D	Control Circuit	10~60VDC	
	M2DC-20D				
	Environment	Temperature		Ambient temperature: 0°C to 50°C (If the ambient temperature of servo drive is higher than 40°C, please install the drive in a well-ventilated location) Storage temperature: -20°C to 65°C	
		Humidity		Both operating and storage: 10 to 85%RH or less	
		Altitude		Lower than 1000m	
		Vibration		9.8m/s ² or less, 10 to 60Hz (No continuous use at resonance frequency)	
	Control method			PWM Sinusoidal wave drive	
	Encoder feedback			2500 ppr Optical Encoder with Shared Commutation Signals	
	I/O	Digital Signals	Input	8 optical isolated multi function inputs, 5-24VDC, 20mA 2 optical isolated multi function inputs, 5-24VDC, 20mA	
			Output	6 optical isolated multi function outputs, 30VDC max, 20mA	
		Analog Signals	Input	2 inputs (12Bit A/D: 2 input)	
			Pulse Signals	Input	2 inputs (Photo-coupler input, Line receiver input) Photocoupler input is compatible with both line driver I/F and open collector I/F. Line receiver input is compatible with line driver I/F.
	Output	4 outputs (Line driver: 3 outputs, open collector: 1 outputs)			
	Communication	USB Mini-B		Connection with PC or 1 : 1 communication to a host	
		RS-232		RS-232 Communication	
		RS-485		RS-485 Communication & Modbus/RTU	
		CAN bus		CANopen Bus Communication	
		Ethernet		EtherNET/IP, eSCL	
	Front panel			4 keys (MODE, UP, DOWN, SET) , 5-digit LED display	
Regeneration Resistor			Built-in regenerative resistor 20W		
Control mode			(1) Position mode (2) Analog Velocity mode (3) Analog Position mode (4) Analog Position mode (5) Velocity Change mode (6) Command Torque mode (7) Command Velocity mode (8) Position Tables		
Control Input Signal			(1) Servo-ON input (2) Alarm clear input (3) CW/CCW Limit (4) Pulse & Direction or CW/CCW input (5) Gain Switch (6) Control mode Switch (7) Pulse Inhibition (8) Gear switch (9) Velocity Change mode (10) Analog input (11) General input		
Control Output Signal			(1) Alarm output (2) Servo-Ready output (3) External brake release (4) Speed reached output (5) Torque reached output (6) Position reached output (7) TachOut (8) Servo-on status output (9) General output		
Certification			RoHS		
Drive Mass	M2DC-6D0		0.59kg		
	M2DC-10D		0.59kg		
	M2DC-20D		0.61kg		

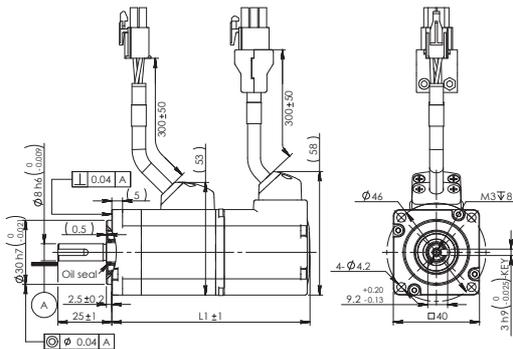
M2DC Servo Motor Specifications and Dimensions—Frame 40mm

Specifications

Model		SM0401HE 4-KCD-*NV	SM0402FE 4-KCD-*NV
Recommended Drive Input Voltage (DC-Bus)		36	60
Rated Output Power	watts	60	100
Rated Speed	rpm	3000	3000
Max. Speed	rpm	6000	6000
Rated Torque	Nm	0.19	0.32
Peak Torque	Nm	0.48	0.91
Rated Current	A (rms)	5.7	5.2
Peak Current	A (rms)	14.3	15.6
Voltage Constant±5%	V (rms) / K rpm	2.1	3.8
Torque Constant±5%	Nm / A (rms)	0.035	0.061
Winding Resistance(Line-Line)	Ohm @ 25°C	0.36	0.48
Winding Inductance(Line-Line)	mH (typ.)	0.39	0.58
Rotor Inertia	Kg·m ²	0.0232 × 10 ⁻⁴	0.0428 × 10 ⁻⁴
Rotor Inertia - With Brake	Kg·m ²	0.0298 × 10 ⁻⁴	0.0494 × 10 ⁻⁴
Shaft Load - Axial	N (max.)	50	50
Shaft Load - Radial (End of Shaft)	N (max.)	50	60
Weight	kg	0.4	0.55
Weight - With Brake	kg	0.65	0.8

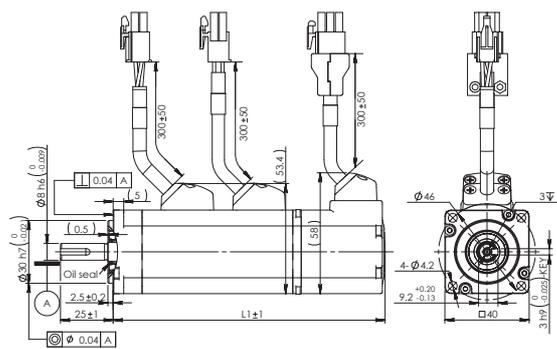
Dimensions (Unit:mm)

1) Without Brake



Without Brake	L1
SM0401HE4-KCD-NNV	92
SM0402FE4-KCD-NNV	109

2) With Brake

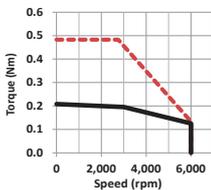


With Brake	L1
SM0401HE4-KCD-BNV	129
SM0402FE4-KCD-BNV	147

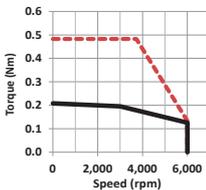
Torque Curves

Note: The torque and maximum speed depend on the DC bus voltage. Please choose proper supply voltage.

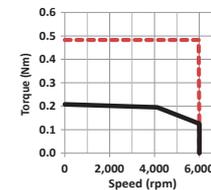
DC Bus--24VDC
SM0401HE4(60 Watts) -5.7 Amps



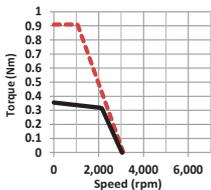
DC Bus--36VDC
SM0401HE4(60 Watts) - 5.7 Amps



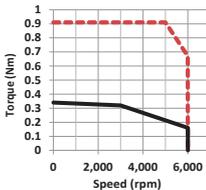
DC Bus--48VDC
SM0401HE4(60 Watts) - 5.7 Amp



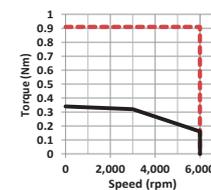
DC Bus--24VDC
SM0402FE4(100 Watts) -5.2Amps



DC Bus--48VDC
SM0402FE4(100 Watts) -5.2Amps



DC Bus--60VDC
SM0402FE4(100 Watts) -5.2Amps



----- Max. Intermittent Torque
————— Max. Continuous Torque

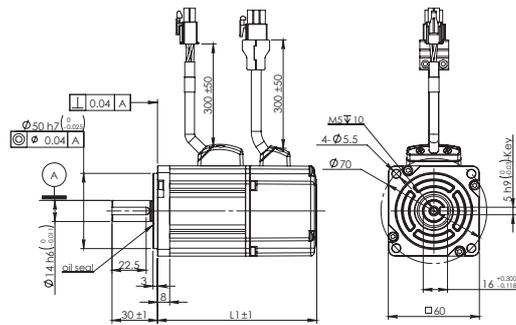
M2DC Servo Motor Specifications and Dimensions—Frame 60mm

Specifications

Model		SM0601GE 4-KCF-*NV	SM0602FE 4-KCF-*NV	SM0602GE 4-KCF-*NV
Recommended Drive Input Voltage (DC-Bus)		48	60	48
Rated Output Power	watts	200	400	400
Rated Speed	rpm	3000	3000	3000
Max. Speed	rpm	6000	6000	4500
Rated Torque	Nm	0.64	1.26	1.27
Peak Torque	Nm	1.9	3.6	3.4
Rated Current	A (rms)	10	10	12
Peak Current	A (rms)	30	30	36
Voltage Constant±5%	V (rms) / K rpm	4.1	7.5	6.3
Torque Constant±5%	Nm / A (rms)	0.065	0.124	0.103
Winding Resistance(Line-Line)	Ohm @ 25°C	0.192	0.25	0.214
Winding Inductance(Line-Line)	mH (typ.)	0.56	0.84	0.6
Rotor Inertia	Kg·m ²	0.165×10^{-4}	0.272×10^{-4}	0.272×10^{-4}
Rotor Inertia - With Brake	Kg·m ²	0.22×10^{-4}	0.326×10^{-4}	0.326×10^{-4}
Shaft Load - Axial	N (max.)	70	70	70
Shaft Load - Radial (End of Shaft)	N (max.)	200	240	240
Weight	kg	1.1	1.4	1.4
Weight - With Brake	kg	1.6	1.9	1.9

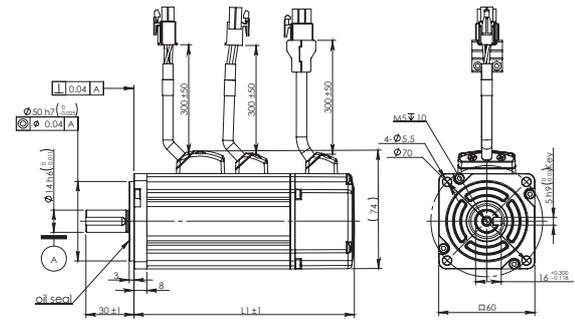
Dimensions (Unit:mm)

1) Without Brake



Without Brake	L1
SM0601GE4-KCF-NNV	105
SM0602FE4-KCF-NNV	125
SM0602GE4-KCF-NNV	125

2) With Brake

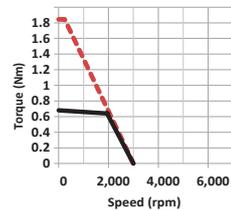


With Brake	L1
SM0601GE4-KCF-BNV	145
SM0602FE4-KCF-BNV	165
SM0602GE4-KCF-BNV	165

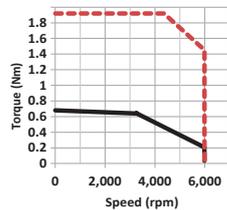
Torque Curves

Note: The torque and maximum speed depend on the DC bus voltage. Please choose proper supply voltage.

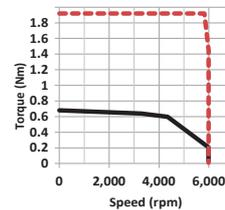
DC Bus--24VDC
SM0601GE4(200 Watts) -10Amps



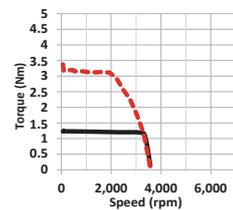
DC Bus--48VDC
SM0601GE4(200 Watts) -10Amps



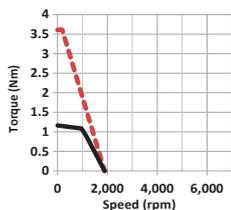
DC Bus--60VDC
SM0601GE4(200 Watts) -10Amps



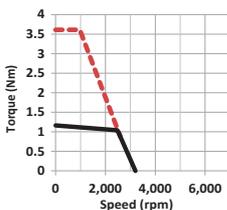
DC Bus--48VDC
SM0602GE4(400 Watts) -12Amps



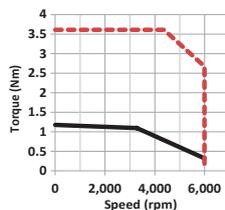
DC Bus--24VDC
SM0602FE4(400 Watts) -10Amps



DC Bus--48VDC
SM0602FE4(400 Watts) -10Amps



DC Bus--60VDC
SM0602FE4(400 Watts) -10Amps



----- Max. Intermittent Torque
————— Max. Continuous Torque

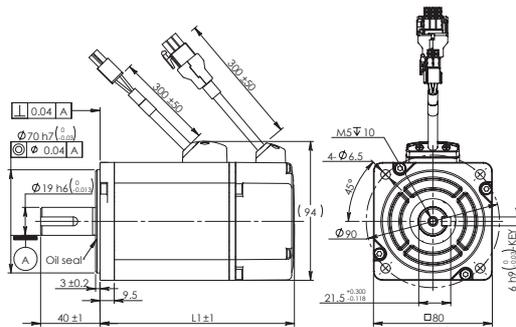
M2DC Servo Motor Specifications and Dimensions—Frame 80mm

Specifications

Model		SM0801GE4-KCF- [*] NV	SM0802EE4-KCF- [*] NV
Recommended Drive Input Voltage (DC-Bus)		48	80
Rated Output Power	watts	300	550
Rated Speed	rpm	3000	3000
Max. Speed	rpm	6000	5500
Rated Torque	Nm	0.95	1.8
Peak Torque	Nm	2.3	4.6
Rated Current	A (rms)	10	10
Peak Current	A (rms)	25	28
Voltage Constant±5%	V (rms) / K rpm	6.2	11.2
Torque Constant±5%	Nm / A (rms)	0.096	0.176
Winding Resistance(Line-Line)	mΩ @ 25°C	0.188	0.22
Winding Inductance(Line-Line)	mH (typ.)	0.85	1.25
Rotor Inertia	Kg·m ²	0.45×10^{-4}	0.63×10^{-4}
Rotor Inertia - With Brake	Kg·m ²	0.53×10^{-4}	0.71×10^{-4}
Shaft Load - Axial	N (max.)	90	90
Shaft Load - Radial (End of Shaft)	N (max.)	200	240
Weight	kg	1.7	2.2
Weight - With Brake	kg	2.5	3.0

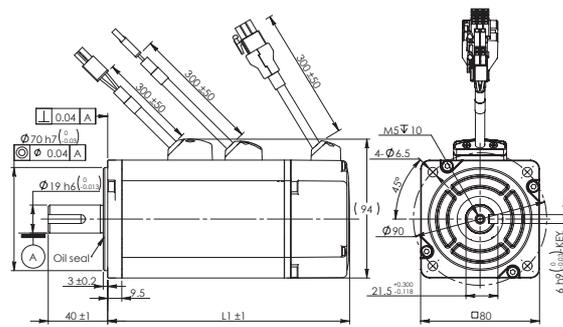
Dimensions (Unit:mm)

1) Without Brake



Without Brake	L1
SM0801GE4-KCF-NNV	101
SM0802EE4-KCF-NNV	116

2) With Brake

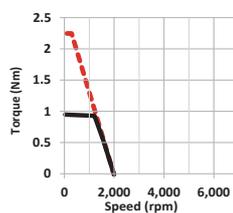


With Brake	L1
SM0801GE4-KCF-BNV	148
SM0802EE4-KCF-BNV	163

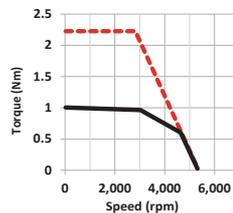
Torque Curves

Note: The torque and maximum speed depend on the DC bus voltage. Please choose proper supply voltage.

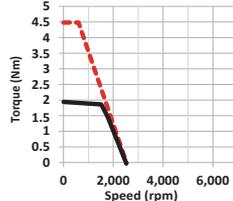
DC Bus--24VDC
SM0801GE4(300 Watts) -10Amps



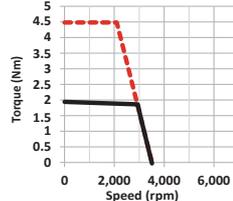
DC Bus--48VDC
SM0801GE4(300 Watts) -10Amps



48 VDC
SM0802 (550 Watts) - winding E
- 10 Amps



60 VDC
SM0802 (550 Watts) - winding E
- 10 Amps



----- Max. Intermittent Torque
————— Max. Continuous Torque

M2DC Servo Motor Specifications and Dimensions—Frame 80mm

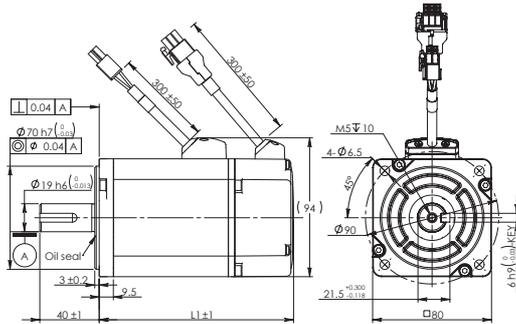
Introduction

M2 AC Servo System

Model		SM0803GE 4-KCF-NNV	
Recommended Drive Input Voltage (DC-Bus)		48	
Rated Output Power	watts	750	
Rated Speed	rpm	3000	
Max. Speed	rpm	3600	
Rated Torque	Nm	2.4	
Peak Torque	Nm	6	
Rated Current	A (rms)	22.5	
Peak Current	A (rms)	56.5	
Voltage Constant±5%	V (rms) / K rpm	7.8	
Torque Constant±5%	Nm / A (rms)	0.11	
Winding Resistance(Line-Line)	Ohm @ 25°C	0.06	
Winding Inductance(Line-Line)	mH (typ.)	0.43	
Rotor Inertia	Kg·m ²	0.89 × 10 ⁻⁴	
Rotor Inertia - With Brake	Kg·m ²	0.97 × 10 ⁻⁴	
Shaft Load - Axial	N (max.)	90	
Shaft Load - Radial (End of Shaft)	N (max.)	270	
Weight	kg	2.6	
Weight - With Brake	kg	3.4	

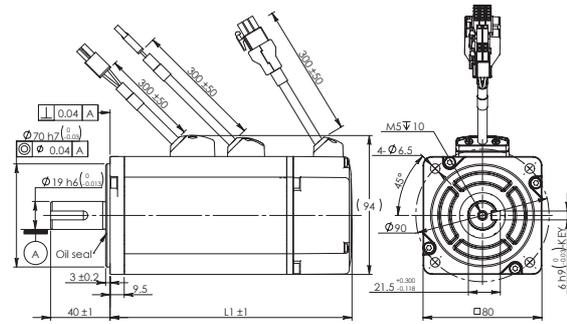
□ Dimensions (Unit:mm)

1) Without Brake



Without Brake	L1
SM0803GE4-KCF-NNV	130.8

2) With Brake

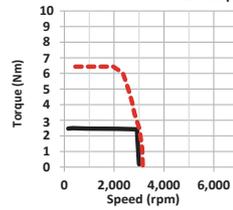


With Brake	L1
SM0803GE4-KCF-BNV	178

□ Torque Curves

Note: The torque and maximum speed depend on the DC bus voltage. Please choose proper supply voltage.

48 VDC
SM0803 (750 Watts) - winding G
- 20 Amps



--- Max. Intermittent Torque
— Max. Continuous Torque

BLD Brushless DC Motor & Drives

M2DC—Gearhead Servo Motors—40mm Frame

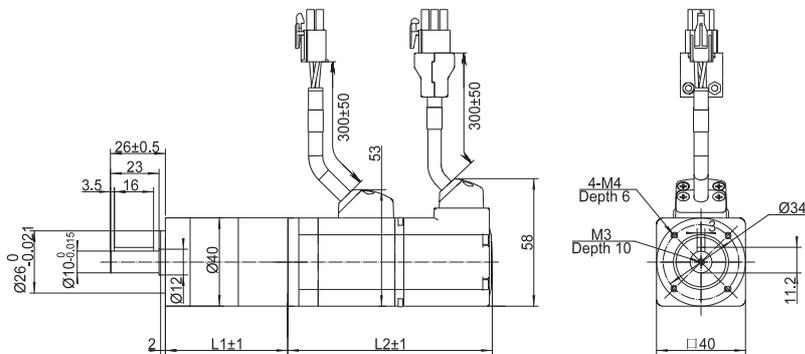
Specifications

Without Brake Type		SMD401HE 4-KCD-NNV-PG05A	SMD401HE 4-KCD-NNV-PG 10A	SMD401HE 4-KCD-NNV-PG 20A	SMD402FE 4-KCD-NNV-PG05A	SMD402FE 4-KCD-NNV-PG 10A	SMD402FE 4-KCD-NNV-PG 20A
With Brake Type		SMD401HE 4-KCD-BNV-PG05A	SMD401HE 4-KCD-BNV-PG 10A	SMD401HE 4-KCD-BNV-PG 20A	SMD402FE 4-KCD-BNV-PG05A	SMD402FE 4-KCD-BNV-PG 10A	SMD402FE 4-KCD-BNV-PG 20A
Motor Power	W	60			100		
Gear Ratio		5	10	20	5	10	20
Max. Output Torque	N·m	0.95	1.9	3.8	1.6	3.2	6.4
Peak Output Torque	N·m	2.4	4.8	11.4	4.65	9.3	18.6
Max Permissible Output Torque	N·m	6	8	12	6	8	40
Stage		1	1	2	1	1	2
Back lash	arcmin	≤12	≤12	≤15	≤12	≤12	≤15
Efficiency		96%	96%	94%	96%	96%	94%
Rated Output Speed	r/min	600	300	150	600	300	150
Max. Output Speed	r/min	1200	600	300	1200	600	300
Motor Rotor Inertia	Kg·m ²	0.0232x10 ⁻⁴ *(0.0298x10 ⁻⁴)			0.0428x10 ⁻⁴ *(0.0494x10 ⁻⁴)		
Gearhead Inertia	Kg·m ²	0.015x10 ⁻⁴	0.019x10 ⁻⁴	0.019x10 ⁻⁴	0.015x10 ⁻⁴	0.019x10 ⁻⁴	0.019x10 ⁻⁴
L1 Without Brake	mm	67.5	67.5	80.5	67.5	67.5	80.5
L2 Without Brake	mm	92	92	92	109	109	109
L1 With Brake	mm	67.5	67.5	80.5	67.5	67.5	80.5
L2 With Brake	mm	129	129	129	147	147	147
Matching Drive		M2DC-6D05 □					

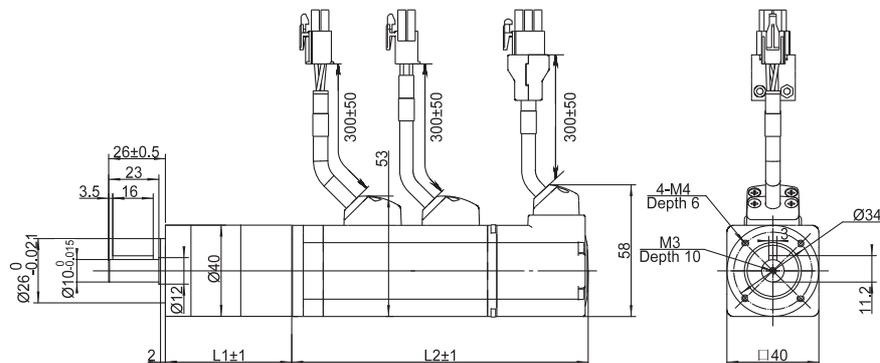
(*) With Brake

Dimensions (Unit:mm)

1) Without Brake



2) With Brake



M2DC—Gearhead Servo Motors—60mm Frame

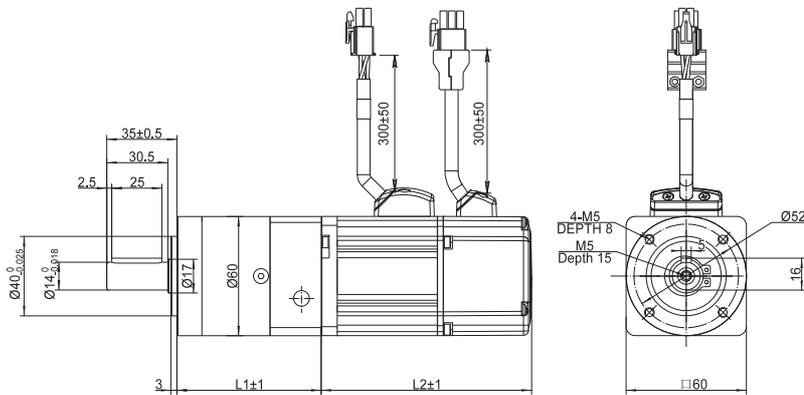
Specifications

Without Brake Type		SMD601GE 4-KCF-NNV-PG05A	SMD601GE 4-KCF-NNV-PG10A	SMD601GE 4-KCF-NNV-PG20A	SMD602FE 4-KCF-NNV-PG05A	SMD602FE 4-KCF-NNV-PG10A	SMD602FE 4-KCF-NNV-PG20A
With Brake Type		SMD601GE 4-KCF-BNV-PG05A	SMD601GE 4-KCF-BNV-PG10A	SMD601GE 4-KCF-BNV-PG20A	SMD602FE 4-KCF-BNV-PG05A	SMD602FE 4-KCF-BNV-PG10A	SMD602FE 4-KCF-BNV-PG20A
Motor Power	W	200			400		
Gear Ratio		5	10	20	5	10	20
Max. Output Torque	N·m	3.2	6.4	12.8	6.35	12.7	25.4
Peak Output Torque	N·m	9.5	19	38	19	38	76
Max Permissible Output Torque	N·m	32	24	88	32	24	88
Stage		1	1	2	1	1	2
Back lash	arcmin	≤10	≤10	≤15	≤10	≤10	≤15
Efficiency		96%	96%	94%	96%	96%	94%
Rated Output Speed	r/min	600	300	150	600	300	150
Max. Output Speed	r/min	1200	600	300	1200	600	300
Motor Rotor Inertia	Kg·m ²	0.165x10 ⁻⁴ *(0.22x10 ⁻⁴)			0.272x10 ⁻⁴ *(0.326x10 ⁻⁴)		
Gearhead Inertia	Kg·m ²	0.078x10 ⁻⁴	0.054x10 ⁻⁴	0.075x10 ⁻⁴	0.078x10 ⁻⁴	0.054x10 ⁻⁴	0.075x10 ⁻⁴
L1 Without Brake	mm	78.5	78.5	91.5	78.5	78.5	91.5
L2 Without Brake	mm	105	105	105	125	125	125
L1 With Brake	mm	78.5	78.5	91.5	78.5	78.5	91.5
L2 With Brake	mm	145	145	145	165	165	165
Matching Drive		M2DC-10D5 □					

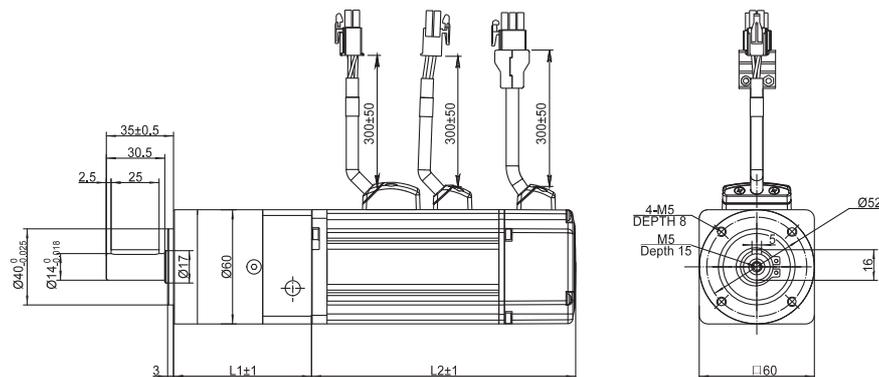
(*) With Brake

Dimensions (Unit:mm)

1) Without Brake



2) With Brake



M2DC—Gearhead Servo Motors—80mm Frame

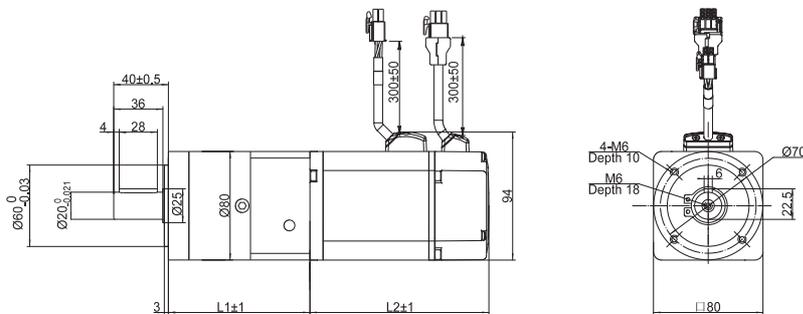
Specifications

Without Brake Type		SM0801GE 4-KCF-NNV-PG05A	SM0801GE 4-KCF-NNV-PG10A	SM0801GE 4-KCF-NNV-PG20A	SM0802E E 4-KCF-NNV-PG05A	SM0802E E 4-KCF-NNV-PG10A	SM0802E E 4-KCF-NNV-PG20A
With Brake Type		SM0801GE 4-KCF-BNV-PG05A	SM0801GE 4-KCF-BNV-PG10A	SM0801GE 4-KCF-BNV-PG20A	SM0802E E 4-KCF-BNV-PG05A	SM0802E E 4-KCF-BNV-PG10A	SM0802E E 4-KCF-BNV-PG20A
Motor Power	W	300			550		
Gear Ratio		5	10	20	5	10	20
Max. Output Torque	N·m	4.75	9.5	19	9	18	36
Peak Output Torque	N·m	11.5	23	46	23	46	92
Max Permissible Output Torque	N·m	100	80	240	100	80	240
Stage		1	1	2	1	1	2
Back lash	arcmin	≤10	≤10	≤15	≤10	≤10	≤15
Efficiency		96%	96%	94%	96%	96%	94%
Rated Output Speed	r/min	600	300	150	600	300	150
Max. Output Speed	r/min	1200	600	300	1200	600	300
Motor Rotor Inertia	Kg·m ²	0.45x10 ⁻⁴ *(0.53x10 ⁻⁴)			0.63x10 ⁻⁴ *(0.71x10 ⁻⁴)		
Gearhead Inertia	Kg·m ²	0.45x10 ⁻⁴	0.39x10 ⁻⁴	0.44x10 ⁻⁴	0.45x10 ⁻⁴	0.39x10 ⁻⁴	0.44x10 ⁻⁴
L1 Without Brake	mm	104	104	122	104	104	122
L2 Without Brake	mm	101	101	101	116	116	116
L1 With Brake	mm	104	104	122	104	104	122
L2 With Brake	mm	148	148	148	163	163	163
Matching Drive		M2DC-10D5 □					

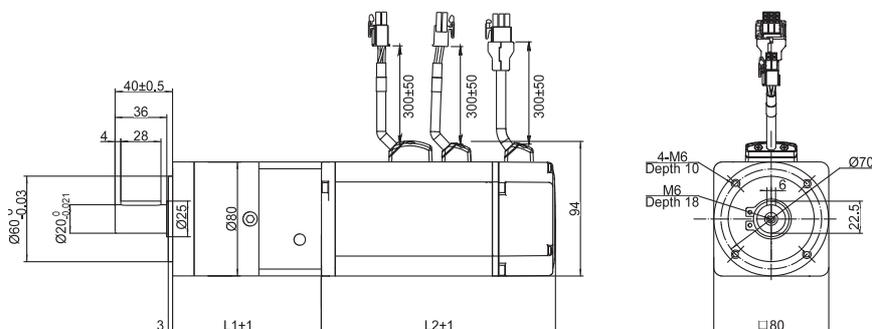
(*) With Brake

Dimensions (Unit:mm)

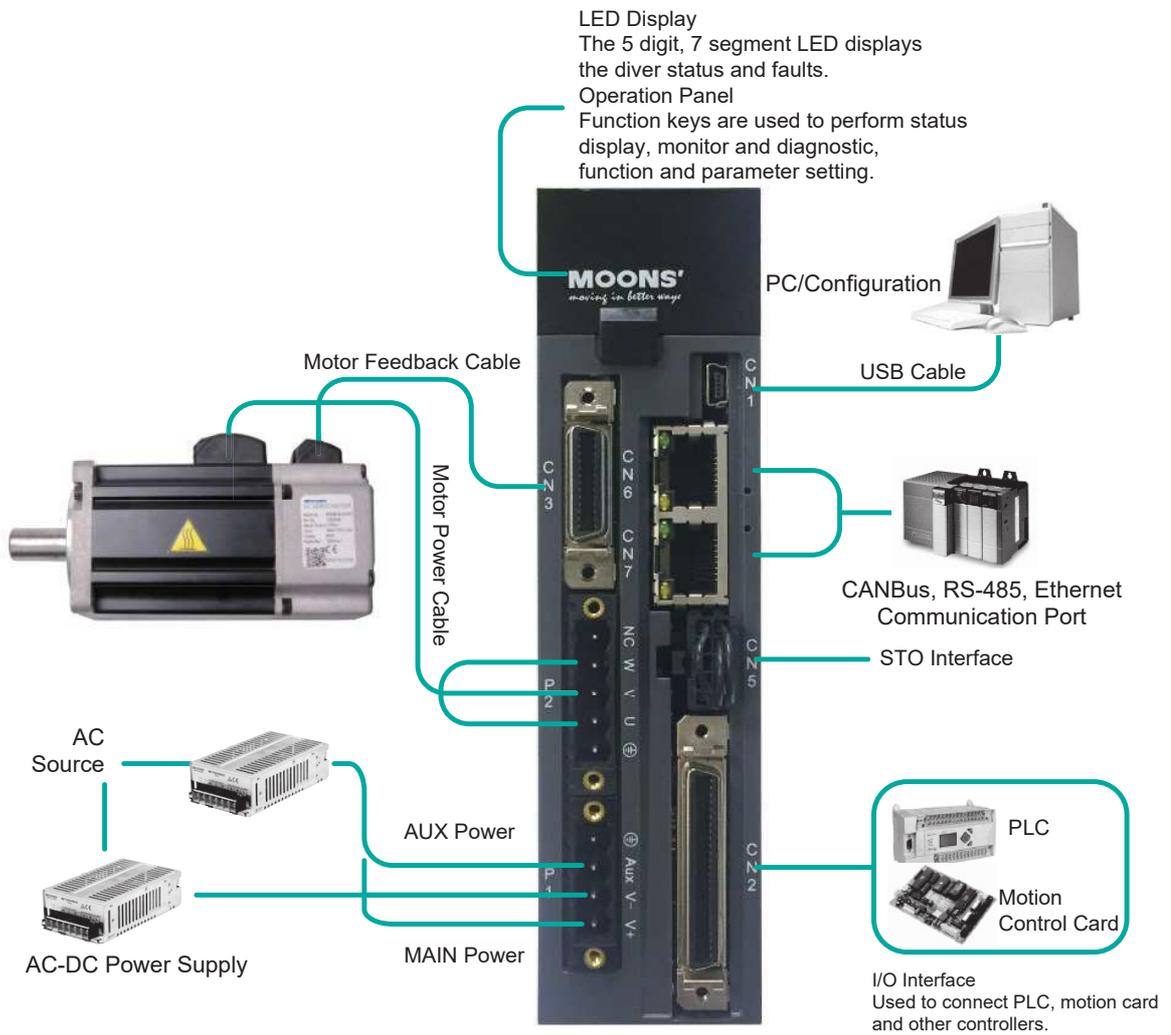
1) Without Brake



2) With Brake



M2DC System Configuration



Drive Motor Matching Table

Servo Drive				
				
Basic Type	M2DC-6D05S	M2DC-10D5S	M2DC-20D5S	
Q Program Type (RS-232 Communication)	M2DC-6D05Q	M2DC-10D5Q	M2DC-20D5Q	
Q Program Type (RS-485 Communication)	M2DC-6D05R	M2DC-10D5R	M2DC-20D5R	
CANopen	M2DC-6D05C	M2DC-10D5C	M2DC-20D5C	
eSCL	M2DC-6D05D	M2DC-10D5D	M2DC-20D5D	
EtherNet/IP*	M2DC-6D05IP	M2DC-10D5IP	M2DC-20D5IP	
Matching Motor				
				
	40 Frame, 60W, 100W	60 Frame, 200W, 400W	80 Frame, 300W, 550W	80 Frame, 750W
Without Brake	SM0401HE4-KCD-NNV SM0402FE4-KCD-NNV	SM0601GE4-KCF-NNV SM0602FE4-KCF-NNV SM0602GE4-KCF-NNV	SM0801GE4-KCF-NNV SM0802EE4-KCF-NNV	SM0803GE4-KCF-NNV
With Brake	SM0401HE4-KCD-BNV SM0402FE4-KCD-BNV	SM0601GE4-KCF-BNV SM0602FE4-KCF-BNV SM0602GE4-KCF-BNV	SM0801GE4-KCF-BNV SM0802EE4-KCF-BNV	SM0803GE4-KCF-BNV
Gearhead Motor				
Without Brake	SM0401HE4-KCD-NNV-PG**A SM0402FE4-KCD-NNV-PG**A	SM0601GE4-KCF-NNV-PG**A SM0602FE4-KCF-NNV-PG**A	SM0801GE4-KCF-NNV-PG**A SM0802EE4-KCF-NNV-PG**A	
With Brake	SM0401HE4-KCD-BNV-PG**A SM0402FE4-KCD-BNV-PG**A	SM0601GE4-KCF-BNV-PG**A SM0602FE4-KCF-BNV-PG**A	SM0801GE4-KCF-BNV-PG**A SM0802EE4-KCF-BNV-PG**A	
Accessories				
IO Connector	M2-50P			
USB mini-B Configuration	2620-150			
Standard* Cable	Motor power	1630-X00	1627-X00	1641-X00
	Encoder	2627-X00		
	Brake **	1602-X00		
Flexible** Cable	Motor power	1631-X00	1628-X00	1642-X00
	Encoder	2621-X00		
	Brake ***	1602-X00-C05		

* For the latest details, Please contact our company.

** Standard gear ratios are 5:1; 10:1 and 20:1.

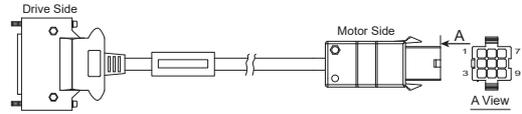
* Standard: Can not be used in a drag chain.

** Bending test: Min. bend radius: 100mm, Travel distance: 60mm, Lifetime: 5,000,000c.

Encoder Cables

Standard Type

P/N	Description
2627-100	M2 Common Encoder Cable, Shielded, 1m
2627-300	M2 Common Encoder Cable, Shielded, 3m
2627-500	M2 Common Encoder Cable, Shielded, 5m
2627-1000	M2 Common Encoder Cable, Shielded, 10m



Flexible Encoder Cable - Extra Type

P/N	Description
2621-100	M2 Flexible Encoder Cable, 1m
2621-300	M2 Flexible Encoder Cable, 3m
2621-500	M2 Flexible Encoder Cable, 5m
2621-1000	M2 Flexible Encoder Cable, 10m

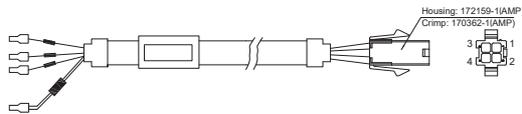
*: Min. band radius: 100mm; Travel distance: 600mm; Lifetime: 5,000,000c

Connect to drive	Signal	Colour	Connect to Motor
TYCO 3-2232346-1			AMP 172161-1
1	A+/U+	Blue	1
2	B+/V+	Green	2
3	Z+/W+	Yellow	3
14	A-/U-	Blue/Black	4
15	B-/V-	Green/Black	5
16	Z-/W-	Yellow/Black	6
11	+5V	Red	7
24	GND	Black	8
26	Shield	Shield	9

Motor Power Cable—M2DC-6DO

Standard Type

P/N	Description
1630-100	M2DC-6DO Common Motor Cable, 1m
1630-300	M2DC-6DO Common Motor Cable, 3m
1630-500	M2DC-6DO Common Motor Cable, 5m
1630-1000	M2DC-6DO Common Motor Cable, 10m



Flexible Motor Cable - Extra Type

P/N	Description
1631-100	M2DC-6DO Flexible Motor Cable, extra type, Shielded, 1m
1631-300	M2DC-6DO Flexible Motor Cable, extra type, Shielded, 3m
1631-500	M2DC-6DO Flexible Motor Cable, extra type, Shielded, 5m
1631-1000	M2DC-6DO Flexible Motor Cable, extra type, Shielded, 10m

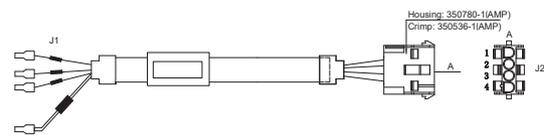
*: Min. band radius: 100mm; Travel distance: 600mm; Lifetime: 5,000,000c

Connect to drive	Signal	Colour	Connect to Motor
5452571(Phoenix)			AMP 172159-1
U	U	Red	1
V	V	Yellow	2
W	W	Blue	3
⊕	PE	Yellow/Green	4

Motor Power Cable—M2DC-10D

Standard Type

P/N	Description
1627-100	M2DC-10D Common Motor Cable, Shielded, 1m
1627-300	M2DC-10D Common Motor Cable, Shielded, 3m
1627-500	M2DC-10D Common Motor Cable, Shielded, 5m
1627-1000	M2DC-10D Common Motor Cable, Shielded, 10m



Flexible Motor Cable - Extra Type

P/N	Description
1628-100	M2DC-10D Flexible Motor Cable, extra type, Shielded, 1m
1628-300	M2DC-10D Flexible Motor Cable, extra type, Shielded, 3m
1628-500	M2DC-10D Flexible Motor Cable, extra type, Shielded, 5m
1628-1000	M2DC-10D Flexible Motor Cable, extra type, Shielded, 10m

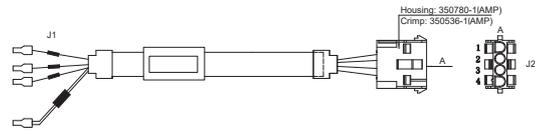
*: Min. band radius: 100mm; Travel distance: 600mm; Lifetime: 5,000,000c

Connect to drive	Signal	Colour	Connect to Motor
5452571(Phoenix)			AMP 350780-1
U	U	Red	1
V	V	Yellow	2
W	W	Blue	3
⊕	PE	Yellow/Green	4

Motor Power Cable—M2DC-20D

Standard Type

P/N	Description
1641-100	M2DC-20D Common Motor Cable, Shielded, 1m
1641-300	M2DC-20D Common Motor Cable, Shielded, 3m
1641-500	M2DC-20D Common Motor Cable, Shielded, 5m



Flexible Motor Cable - Extra Type

P/N	Description
1642-100	M2DC-20D Flexible Motor Cable, extra type, Shielded, 1m
1642-300	M2DC-20D Flexible Motor Cable, extra type, Shielded, 3m
1642-500	M2DC-20D Flexible Motor Cable, extra type, Shielded, 5m

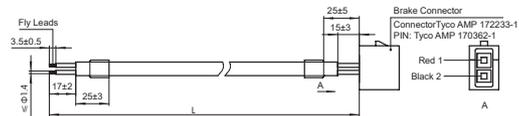
*: Min. band radius: 100mm; Travel distance: 600mm; Lifetime: 5,000,000c

Connect to drive	Signal	Colour	Connect to Motor
5452571(Phoenix)			AMP 350780-1
U	U	Red	1
V	V	Yellow	2
W	W	Blue	3
⊖	PE	Yellow/Green	4

Motor Brake Cable

P/N	Description
1602-100	M2 Motor Brake Cable, 1m
1602-300	M2 Motor Brake Cable, 3m
1602-500	M2 Motor Brake Cable, 5m
1602-1000	M2 Motor Brake Cable, 10m

P/N	Description
1602-100-C05	M2 Flexible Motor Brake cable, 1m
1602-300-C05	M2 Flexible Motor Brake cable, 3m
1602-500-C05	M2 Flexible Motor Brake cable, 5m
1602-1000-C05	M2 Flexible Motor Brake cable, 10m

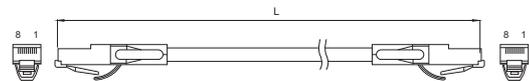


USB mini-B Configuration Cable

Description	P/N	Num.	Manufacturer	Details
USB mini-B Configuration Cable	2620-150	1	MOONS'	For connector CN1

CN6\CN7 RS-485\CAN Open Daisy Chain Cable

P/N	Description
2012-030	Common type, Twisted-pair, 0.3m
2012-300	Common type, Twisted-pair, 3m
2013-030	Shielded type, Twisted-pair, 0.3m
2013-300	Shielded type, Twisted-pair, 3m



■ Connector Accessories

◆ I/O Connector-CN2

P/N	M2-50P
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◇ Includes

Item	P/N	Num.	Manufacturer	Details
Connector (drive side)	5-2232346-1	1	TYCO	For I/O connector CN2

◆ Power Connector Kit(Drive side Below 6A)

P/N	M2 Motor Connector Kit
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◇ Includes

Item	P/N	Num.	Manufacturer	Details
Connector (drive side)	3-2232346-1	1	TYCO	For encoder connector CN3
Connector	172159-1	1		For motor power connector
Connector	172233-1	1		For motor brake connector
Connector PIN	170362-1	6		For motor power connector
Connector	172161-1	1		For motor encoder connector
Connector PIN	770834-1	9		

◆ Motor Connector Kit(Above 10A)

P/N	M2 Motor Connector Kit2
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◇ Includes

Item	P/N	Num.	Manufacturer	Details
Connector	350780-1	1	TYCO	For motor power connector
Connector PIN	350536-1	4		For motor power connector
Connector	172233-1	1		For motor brake connector
Connector PIN	170362-1	2		For motor brake connector
Connector	172161-1	1		For motor encoder connector
Connector PIN	770834-1	9		For motor encoder connector
Connector (drive side)	3-2232346-1	1		For encoder connector CN3

◆ Encoder Connector-CN3

P/N	M2-26P
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◇ Includes

Item	P/N	Num.	Manufacturer	Details
Connector (drive side)	3-2232346-1	1	TYCO	For encoder connector CN3

◆ STO Connector Kit

P/N	STO Connector Kit
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◇ Includes

Item	P/N	Num.	Manufacturer	Details
STO connector	STO connector	1	Molex	For connector CN5
Connector	43025-1000	1		
Connector PIN	43030-0005	10		