

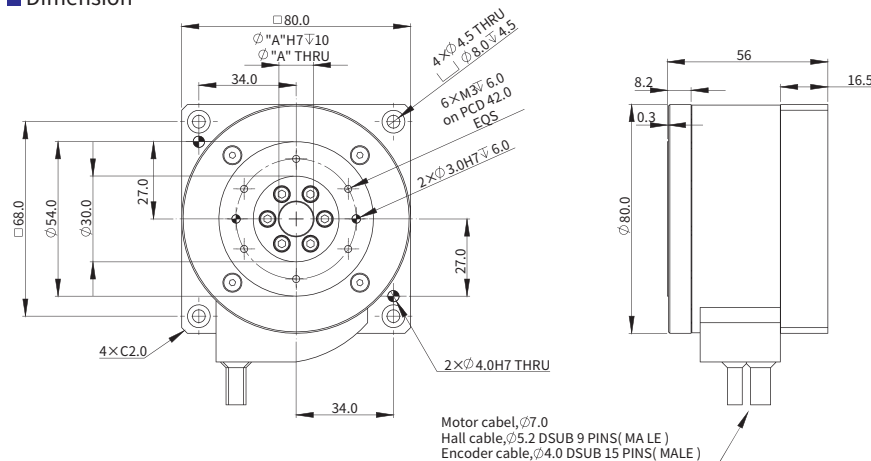


## AXD80-56

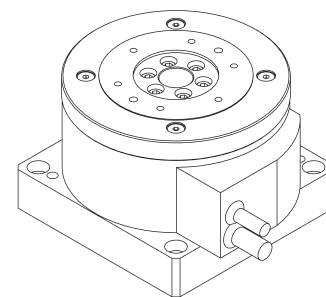
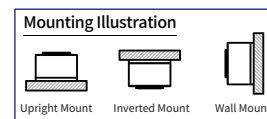
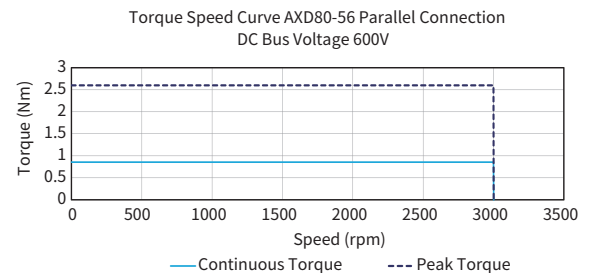
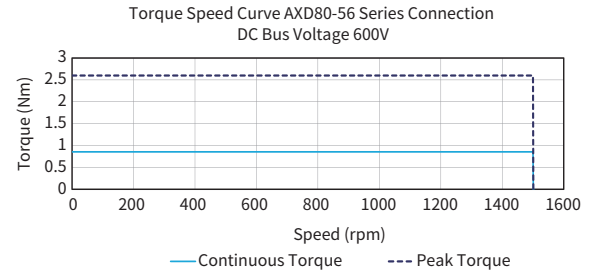
AXD80-56				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>1</sup>	T <sub>cn</sub>	Nm	0.9	0.9
Peak Torque	T <sub>pk</sub>	Nm	2.6	2.6
Torque Constant ±10%	K <sub>t</sub>	Nm/Arms	0.91	0.46
Back EMF Constant ±10%	K <sub>e</sub>	Vpeak/rpm	0.078	0.039
Motor Constant @25°C	K <sub>m</sub>	Nm/Sqrt(W)	0.25	0.25
Resistance (L-L) @25°C ±10% <sup>2</sup>	R <sub>25</sub>	Ω	9.1	2.3
Inductance (L-L) ±20% <sup>3</sup>	L	mH	28.1	7.0
Electrical Time Constant	τ <sub>e</sub>	ms	3.1	3.1
Continuous Current (NC) @100°C <sup>1</sup>	I <sub>cn</sub>	Arms	0.9	1.9
Peak Current	I <sub>pk</sub>	Arms	3.4	6.8
Continuous Power Dissipation (NC) @100°C <sup>1</sup>	P <sub>cn</sub>	W	15.6	15.6
Max. Coil Temperature	t <sub>max</sub>	°C	100	100
Thermal Dissipation Constant (NC) <sup>1</sup>	K <sub>thn</sub>	W/°C	0.2	0.2
Max. Bus Voltage	U <sub>bus</sub>	Vdc	600	600
Pole Number	2p	-	14	14
Max. Speed @continuous torque <sup>4</sup>	Ω <sub>max</sub>	rpm	1500	3000
Max. Speed @peak torque <sup>4</sup>	Ω <sub>max</sub>	rpm	1500	3000
Mechanical Parameters				
Overall Mass (NC)	mn	kg	1.5	1.5
Rotor Inertia	J <sub>r</sub>	kg·m <sup>2</sup>	1.82E-04	1.82E-04
Axial Runout <sup>5</sup>	-	μm	15 (10)	15 (10)
Radial Runout <sup>5</sup>	-	μm	15 (10)	15 (10)
Max Axial Load (Upright Mounting) <sup>6</sup>	-	N	350	350
Max Axial Load (Inverted / Wall Mounting)	-	N	100	100
Max Moment Load (Upright Mounting)	-	Nm	10	10
Max Moment Load (Inverted / Wall Mounting)	-	Nm	3	3
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	1062	1062
ABI Optical Incremental Encoder (80x)	-	counts/rev	84960	84960
ABI Optical Incremental Encoder (160x)	-	counts/rev	169920	169920
ABI Optical Incremental Encoder (400x)	-	counts/rev	424800	424800
ATOM DX Optical Incremental Encoder	-	lines/rev	2048	2048
ATOM DX Optical Incremental Encoder (200x)	-	counts/rev	409600	409600
Accuracy after Error Mapping <sup>7</sup>	-	arc sec	+/-12	+/-12
Repeatability <sup>7</sup>	-	arc sec	+/-6	+/-6
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- 1 Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
  - 2 Resistance is measured by DC current with standard 0.5m cable.
  - 3 Inductance is measured by current frequency of 1KHz.
  - 4 The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
  - 5 The runout value in parenthesis is optional.
  - 6 Please refer to the illustration for different mountings.
  - 7 Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.
- The contents of datasheet are subjected to change without prior notice.

### Dimension



### Torque-Speed Curve



ENCODER	ABI	ATOM DX
Ø"A"	Ø12.0	0

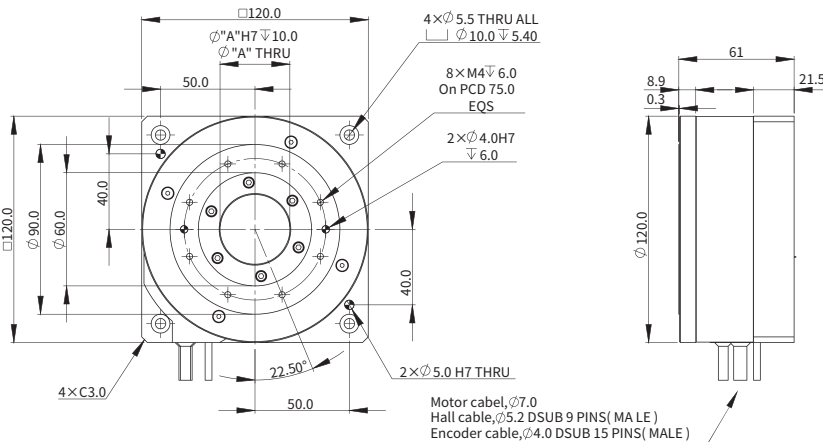
## AXD120-61

AXD120-61				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>①</sup>	Tcn	Nm	3.4	3.4
Peak Torque	Tpk	Nm	10.0	10.0
Torque Constant ±10%	Kt	Nm/Arms	3.04	1.52
Back EMF Constant ±10%	Ke	Vpeak/rpm	0.26	0.13
Motor Constant @25°C	Km	Nm/Sqrt(W)	0.64	0.64
Resistance (L-L) @25°C ±10% <sup>②</sup>	R25	Ω	15.2	3.8
Inductance (L-L) ±20% <sup>③</sup>	L	mH	47.7	11.9
Electrical Time Constant	τe	ms	3.1	3.1
Continuous Current (NC) @100°C <sup>①</sup>	Icn	Arms	1.1	2.2
Peak Current	Ipk	Arms	3.9	7.8
Continuous Power Dissipation (NC) @100°C <sup>①</sup>	Pcn	W	36.4	36.4
Max. Coil Temperature	tmax	°C	100	100
Thermal Dissipation Constant (NC) <sup>①</sup>	Kthn	W/°C	0.5	0.5
Max. Bus Voltage	Ubus	Vdc	600	600
Pole Number	2p	-	14	14
Max. Speed @continuous torque <sup>④</sup>	Ωmax	rpm	1400	1400
Max. Speed @peak torque <sup>④</sup>	Ωmax	rpm	1400	1400
Mechanical Parameters				
Overall Mass (NC)	mn	kg	2.7	2.7
Rotor Inertia	Jr	kg·m <sup>2</sup>	1.02E-03	1.02E-03
Axial Runout <sup>⑤</sup>	-	μm	20 (10)	20 (10)
Radial Runout <sup>⑤</sup>	-	μm	20 (10)	20 (10)
Max Axial Load (Upright Mounting) <sup>⑥</sup>	-	N	500	500
Max Axial Load (Inverted / Wall Mounting)	-	N	150	150
Max Moment Load (Upright Mounting)	-	Nm	30	30
Max Moment Load (Inverted / Wall Mounting)	-	Nm	10	10
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	2052	2052
ABI Optical Incremental Encoder (80x)	-	counts/rev	164160	164160
ABI Optical Incremental Encoder (160x)	-	counts/rev	328320	328320
ABI Optical Incremental Encoder (400x)	-	counts/rev	820800	820800
ATOM DX Optical Incremental Encoder	-	lines/rev	4306	4306
ATOM DX Optical Incremental Encoder (200x)	-	counts/rev	861200	861200
Accuracy after Error Mapping <sup>⑦</sup>	-	arc sec	+/-6	+/-6
Repeatability <sup>⑦</sup>	-	arc sec	+/-3	+/-3
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

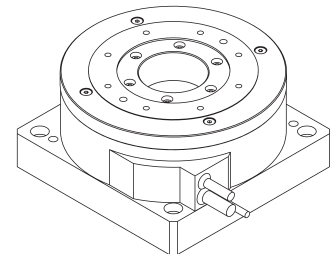
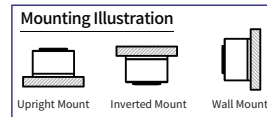
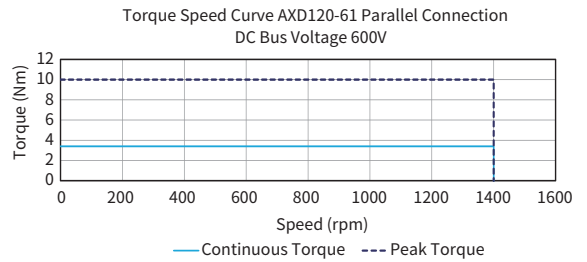
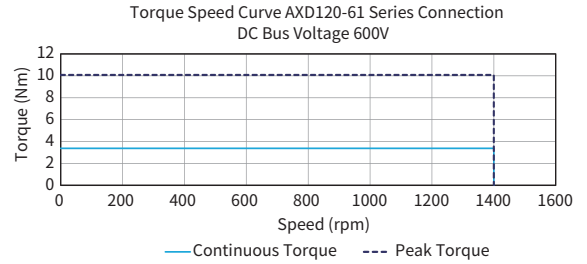
- ① Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
- ② Resistance is measured by DC current with standard 0.5m cable.
- ③ Inductance is measured by current frequency of 1kHz.
- ④ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
- ⑤ The runout value in parenthesis is optional.
- ⑥ Please refer to the illustration for different mountings.
- ⑦ Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.

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### Dimension



### Torque-Speed Curve



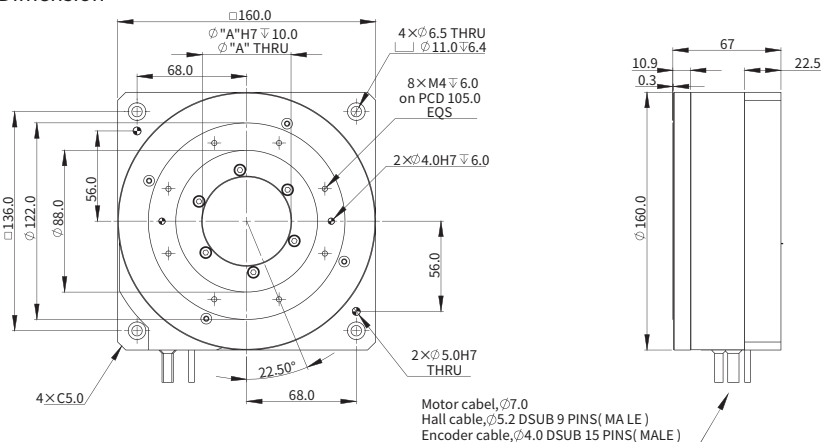
ENCODER	ABI	ATOM DX
Ø"A"	Ø37.0	Ø27.0

## AXD160-67

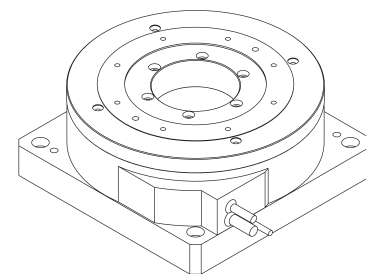
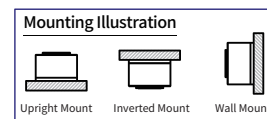
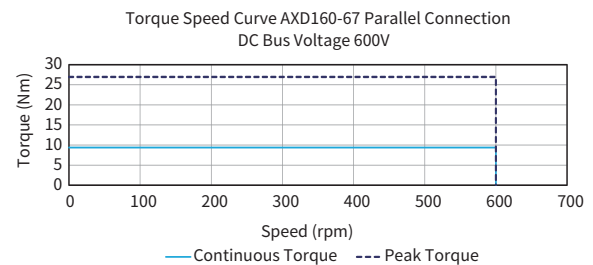
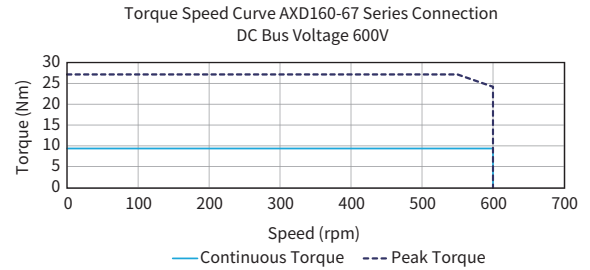
AXD160-67				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>①</sup>	Tcn	Nm	9.4	9.4
Peak Torque	Tpk	Nm	27.0	27.0
Torque Constant ±10%	Kt	Nm/Arms	5.85	2.93
Back EMF Constant ±10%	Ke	Vpeak/rpm	0.50	0.25
Motor Constant @25°C	Km	Nm/Sqrt(W)	1.24	1.24
Resistance (L-L) @25°C ±10% <sup>②</sup>	R25	Ω	14.9	3.7
Inductance (L-L) ±20% <sup>③</sup>	L	mH	92.1	23.0
Electrical Time Constant	τe	ms	6.2	6.2
Continuous Current (NC) @100°C <sup>④</sup>	Icn	Arms	1.6	3.2
Peak Current	Ipk	Arms	5.8	11.5
Continuous Power Dissipation (NC) @100°C <sup>⑤</sup>	Pcn	W	74.0	74.0
Max. Coil Temperature	tmax	°C	100	100
Thermal Dissipation Constant (NC) <sup>⑥</sup>	Kthn	W/°C	1.0	1.0
Max. Bus Voltage	Ubus	Vdc	600	600
Pole Number	2p	-	14	14
Max. Speed @continuous torque <sup>⑦</sup>	Ωmax	rpm	600	600
Max. Speed @peak torque <sup>⑧</sup>	Ωmax	rpm	550	600
Mechanical Parameters				
Overall Mass (NC)	mn	kg	5.6	5.6
Rotor Inertia	Jr	kg·m <sup>2</sup>	3.72E-03	3.72E-03
Axial Runout <sup>⑨</sup>	-	μm	30 (10)	30 (10)
Radial Runout <sup>⑩</sup>	-	μm	30 (10)	30 (10)
Max Axial Load (Upright Mounting) <sup>⑪</sup>	-	N	750	750
Max Axial Load (Inverted / Wall Mounting)	-	N	225	225
Max Moment Load (Upright Mounting)	-	Nm	40	40
Max Moment Load (Inverted / Wall Mounting)	-	Nm	12	12
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	2868	2868
ABI Optical Incremental Encoder (80x)	-	counts/rev	229440	229440
ABI Optical Incremental Encoder (160x)	-	counts/rev	458880	458880
ABI Optical Incremental Encoder (400x)	-	counts/rev	1147200	1147200
ATOM DX Optical Incremental Encoder	-	lines/rev	5900	5900
ATOM DX Optical Incremental Encoder (80x)	-	counts/rev	472000	472000
Accuracy after Error Mapping <sup>⑫</sup>	-	arc sec	+/-5	+/-5
Repeatability <sup>⑬</sup>	-	arc sec	+/-2.5	+/-2.5
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- ① Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
  - ② Resistance is measured by DC current with standard 0.5m cable.
  - ③ Inductance is measured by current frequency of 1kHz.
  - ④ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
  - ⑤ The runout value in parenthesis is optional.
  - ⑥ Please refer to the illustration for different mountings.
  - ⑦ Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.
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### Dimension



### Torque-Speed Curve



ENCODER	ABI	ATOM DX
$\varnothing 7.0$	$\varnothing 55.0$	$\varnothing 48.0$

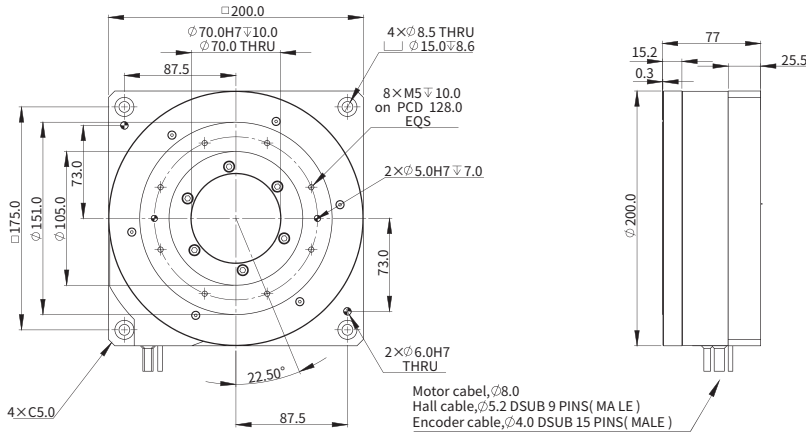
## AXD200-77

AXD200-77				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>①</sup>	Tcn	Nm	18.8	18.8
Peak Torque	Tpk	Nm	54.3	54.3
Torque Constant ±10%	Kt	Nm/Arms	9.42	4.71
Back EMF Constant ±10%	Ke	Vpeak/rpm	0.81	0.40
Motor Constant @25°C	Km	Nm/Sqrt(W)	2.13	2.13
Resistance (L-L) @25°C ±10% <sup>②</sup>	R25	Ω	13.0	3.3
Inductance (L-L) ±20% <sup>③</sup>	L	mH	121.0	30.3
Electrical Time Constant	τe	ms	9.3	9.3
Continuous Current (NC) @100°C <sup>①</sup>	Icn	Arms	2.0	4.0
Peak Current	Ipk	Arms	7.2	14.4
Continuous Power Dissipation (NC) @100°C <sup>①</sup>	Pcn	W	100.9	100.9
Max. Coil Temperature	tmax	°C	100	100
Thermal Dissipation Constant (NC) <sup>①</sup>	Kthn	W/°C	1.3	1.3
Max. Bus Voltage	Ubus	Vdc	600	600
Pole Number	2p	-	14	14
Max. Speed @continuous torque <sup>④</sup>	Ωmax	rpm	400	400
Max. Speed @peak torque <sup>④</sup>	Ωmax	rpm	330	400
Mechanical Parameters				
Overall Mass (NC)	mn	kg	8.8	8.8
Rotor Inertia	Jr	kg·m <sup>2</sup>	1.00E-02	1.00E-02
Axial Runout <sup>⑤</sup>	-	μm	40 (10)	40 (10)
Radial Runout <sup>⑤</sup>	-	μm	40 (10)	40 (10)
Max Axial Load (Upright Mounting) <sup>⑥</sup>	-	N	1000	1000
Max Axial Load (Inverted / Wall Mounting)	-	N	300	300
Max Moment Load (Upright Mounting)	-	Nm	50	50
Max Moment Load (Inverted / Wall Mounting)	-	Nm	15	15
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	3934	3934
ABI Optical Incremental Encoder (80x)	-	counts/rev	314720	314720
ABI Optical Incremental Encoder (160x)	-	counts/rev	629440	629440
ABI Optical Incremental Encoder (400x)	-	counts/rev	1573600	1573600
ATOM DX Optical Incremental Encoder	-	lines/rev	7900	7900
ATOM DX Optical Incremental Encoder (80x)	-	counts/rev	632000	632000
Accuracy after Error Mapping <sup>⑦</sup>	-	arc sec	+/-4	+/-4
Repeatability <sup>⑦</sup>	-	arc sec	+/-2	+/-2
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

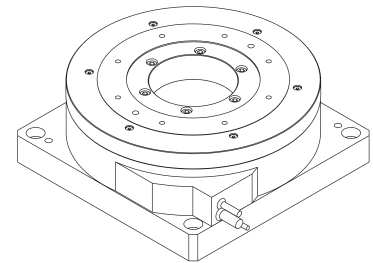
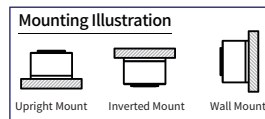
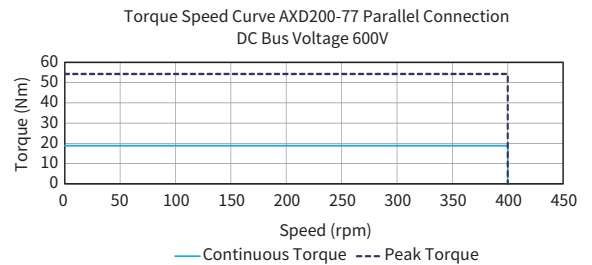
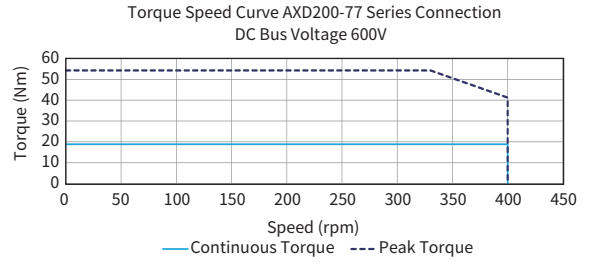
- ① Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
- ② Resistance is measured by DC current with standard 0.5m cable.
- ③ Inductance is measured by current frequency of 1KHz.
- ④ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
- ⑤ The runout value in parenthesis is optional.
- ⑥ Please refer to the illustration for different mountings.
- ⑦ Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.

The contents of datasheet are subjected to change without prior notice.

### Dimension



### Torque-Speed Curve

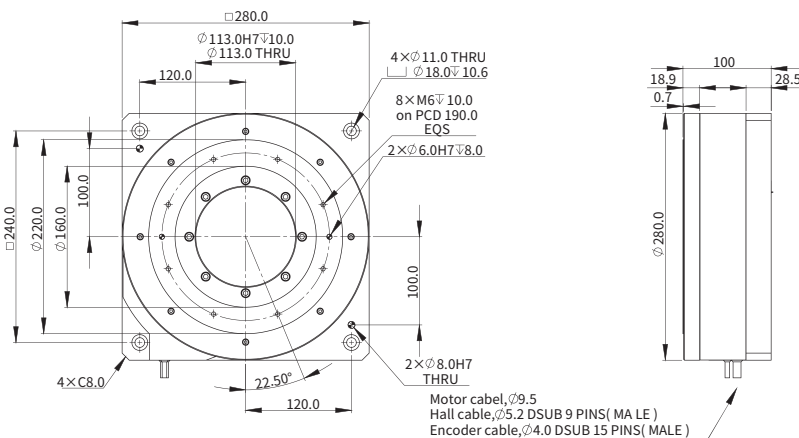


## AXD280-100

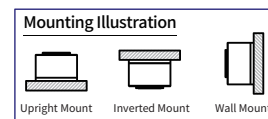
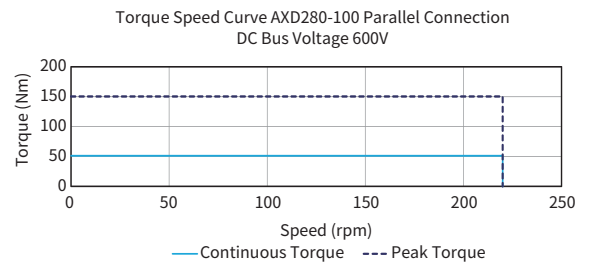
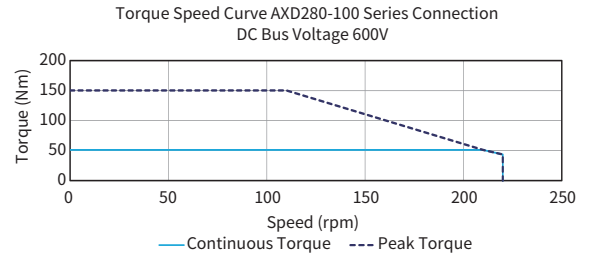
AXD280-100				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>①</sup>	Tcn	Nm	51.1	51.1
Peak Torque	Tpk	Nm	150.3	150.3
Torque Constant ±10%	Kt	Nm/Arms	22.23	11.12
Back EMF Constant ±10%	Ke	Vpeak/rpm	1.90	0.95
Motor Constant @25°C	Km	Nm/Sqrt(W)	4.34	4.34
Resistance (L-L) @25°C ±10% <sup>②</sup>	R25	Ω	17.5	4.4
Inductance (L-L) ±20% <sup>③</sup>	L	mH	194.0	48.5
Electrical Time Constant	τe	ms	11.1	11.1
Continuous Current (NC) @100°C <sup>①</sup>	Icn	Arms	2.3	4.6
Peak Current	Ipk	Arms	8.0	16.0
Continuous Power Dissipation (NC) @100°C <sup>①</sup>	Pcn	W	179.7	179.7
Max. Coil Temperature	tmax	°C	100	100
Thermal Dissipation Constant (NC) <sup>①</sup>	Kthn	W/°C	2.4	2.4
Max. Bus Voltage	Ubus	Vdc	600	600
Pole Number	2p	-	28	28
Max. Speed @continuous torque <sup>④</sup>	Ωmax	rpm	210	220
Max. Speed @peak torque <sup>④</sup>	Ωmax	rpm	110	220
Mechanical Parameters				
Overall Mass (NC)	mn	kg	23.0	23.0
Rotor Inertia	Jr	kg·m <sup>2</sup>	6.00E-02	6.00E-02
Axial Runout <sup>⑤</sup>	-	μm	50 (15)	50 (15)
Radial Runout <sup>⑤</sup>	-	μm	50 (15)	50 (15)
Max Axial Load (Upright Mounting) <sup>⑥</sup>	-	N	1800	1800
Max Axial Load (Inverted / Wall Mounting)	-	N	500	500
Max Moment Load (Upright Mounting)	-	Nm	75	75
Max Moment Load (Inverted / Wall Mounting)	-	Nm	23	23
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	5560	5560
ABI Optical Incremental Encoder (80x)	-	counts/rev	444800	444800
ABI Optical Incremental Encoder (160x)	-	counts/rev	889600	889600
ABI Optical Incremental Encoder (400x)	-	counts/rev	2224000	2224000
ATOM DX Optical Incremental Encoder	-	lines/rev	11152	11152
ATOM DX Optical Incremental Encoder (80x)	-	counts/rev	892160	892160
Accuracy after Error Mapping <sup>⑦</sup>	-	arc sec	+/-4	+/-4
Repeatability <sup>⑦</sup>	-	arc sec	+/-2	+/-2
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- ① Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
  - ② Resistance is measured by DC current with standard 0.5m cable.
  - ③ Inductance is measured by current frequency of 1kHz.
  - ④ The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
  - ⑤ The runout value in parenthesis is optional.
  - ⑥ Please refer to the illustration for different mountings.
  - ⑦ Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.
- The contents of datasheet are subjected to change without prior notice.

### Dimension



### Torque-Speed Curve



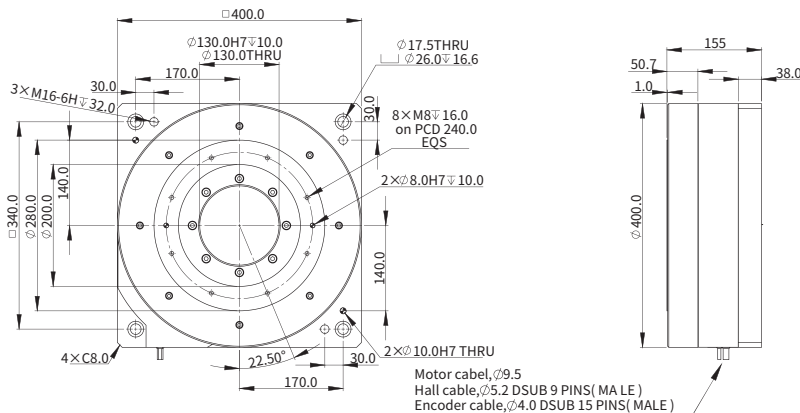


## AXD400-155

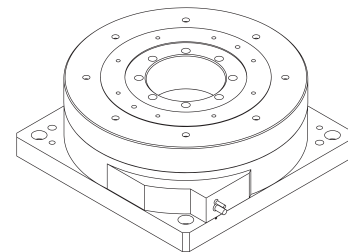
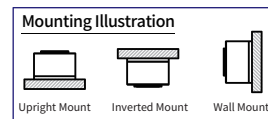
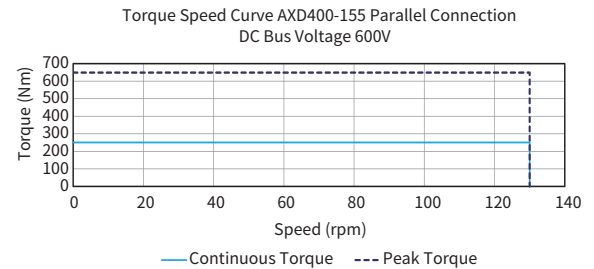
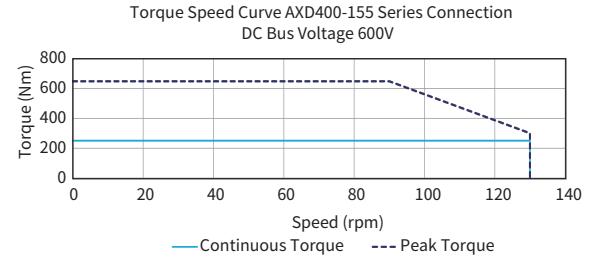
AXD400-155				
Performance Parameters	Symbol	Unit	Series	Parallel
Continuous Torque (NC) @100°C <sup>1</sup>	Tcn	Nm	250.6	250.6
Peak Torque	Tpk	Nm	648.9	648.9
Torque Constant ±10%	Kt	Nm/Arms	35.80	17.90
Back EMF Constant ±10%	Ke	Vpeak/rpm	3.06	1.53
Motor Constant @25°C	Km	Nm/Sqrt(W)	15.62	15.62
Resistance (L-L) @25°C ±10% <sup>2</sup>	R25	Ω	3.5	0.875
Inductance (L-L) ±20% <sup>3</sup>	L	mH	74.0	18.5
Electrical Time Constant	te	ms	21.1	21.1
Continuous Current (NC) @100°C <sup>1</sup>	Icn	Arms	7.0	14.0
Peak Current	Ipk	Arms	25.0	50.0
Continuous Power Dissipation (NC) @100°C <sup>1</sup>	Pcn	W	332.9	332.9
Max. Coil Temperature	tmax	°C	100	100
Thermal Dissipation Constant (NC) <sup>1</sup>	Kthn	W/°C	4.4	4.4
Max. Bus Voltage	Ubus	Vdc	600	600
Pole Number	2p	-	28	28
Max. Speed @continuous torque <sup>4</sup>	Ωmax	rpm	130	130
Max. Speed @peak torque <sup>4</sup>	Ωmax	rpm	90	130
Mechanical Parameters				
Overall Mass (NC)	mn	kg	80.0	80.0
Rotor Inertia	Jr	kg·m <sup>2</sup>	5.12E-01	5.12E-01
Axial Runout <sup>5</sup>	-	μm	70 (20)	70 (20)
Radial Runout <sup>6</sup>	-	μm	70 (20)	70 (20)
Max Axial Load (Upright Mounting) <sup>6</sup>	-	N	8000	8000
Max Axial Load (Inverted / Wall Mounting)	-	N	1500	1500
Max Moment Load (Upright Mounting)	-	Nm	100	100
Max Moment Load (Inverted / Wall Mounting)	-	Nm	30	30
Encoder Parameters				
ABI Optical Incremental Encoder (SIN/COS)	-	lines/rev	7500	7500
ABI Optical Incremental Encoder (80x)	-	counts/rev	600000	600000
ABI Optical Incremental Encoder (160x)	-	counts/rev	1200000	1200000
ABI Optical Incremental Encoder (400x)	-	counts/rev	3000000	3000000
ATOM DX Optical Incremental Encoder	-	lines/rev	15000	15000
ATOM DX Optical Incremental Encoder (80x)	-	counts/rev	1200000	1200000
Accuracy after Error Mapping <sup>7</sup>	-	arc sec	+/-4	+/-4
Repeatability <sup>7</sup>	-	arc sec	+/-2	+/-2
Other Information				
Insulation Class	Class B (130°C)			
Protection Grade	IP40			
Compliance with Global Standards	RoHS, CE			
Ambient Temperature	Operation	0°C to 40°C (non-freezing)		
	Storage	-15°C to 70°C (non-freezing)		
Ambient Humidity	Operation	10%RH to 80%RH (non-condensing)		
	Storage	10%RH to 90%RH (non-condensing)		
Recommended Ambience	Indoor (no direct sunlight); No corrosive gas, inflammable gas, oil mist or dust.			

- <sup>1</sup> Measurement is taken at ambient temperature 25°C. Value depends on the thermal environment.
  - <sup>2</sup> Resistance is measured by DC current with standard 0.5m cable.
  - <sup>3</sup> Inductance is measured by current frequency of 1kHz.
  - <sup>4</sup> The value is based on ABI optical SIN/COS encoder (4096x interpolation) under max. bus voltage.
  - <sup>5</sup> The runout value in parenthesis is optional.
  - <sup>6</sup> Please refer to the illustration for different mountings.
  - <sup>7</sup> Based on ABI optical SIN/COS encoder (4096x interpolation) with standard runout.
- The contents of datasheet are subjected to change without prior notice.

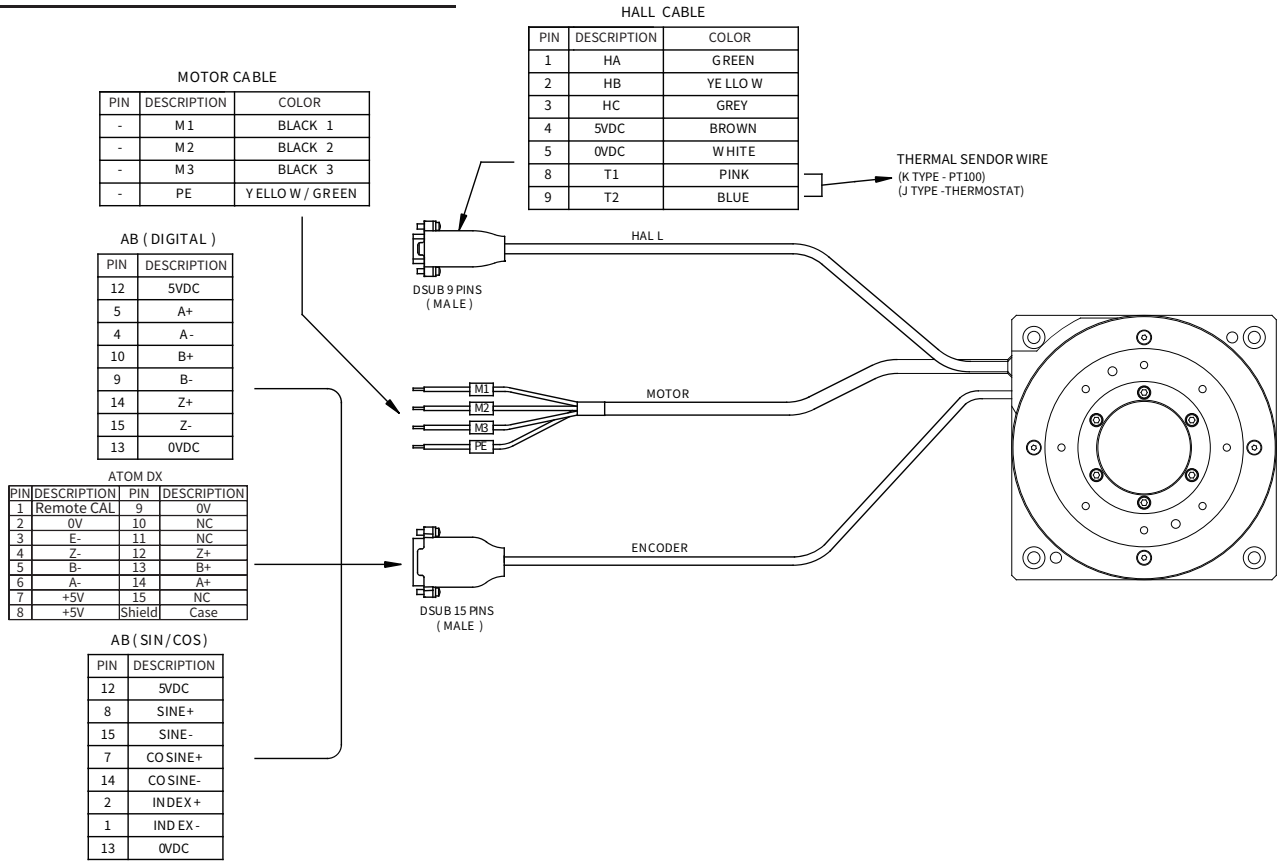
### Dimension



### Torque-Speed Curve



## Motor Cable Connection



## Part Numbering

**AXD160-67-P-J-H9D-0.5-NFB-AB-3934-400X-P30-ORB**

Motor Model:

AXD80-56 / AXD120-61  
 AXD160-67 / AXD200-77  
 AXD280-100 / AXD400-155

Version No.:

ORB

Winding:

S = Series / P = Parallel

Runout:<sup>6</sup>

P15 / P20 / P30  
 P40 / P50 / P70

Thermal Sensor Options:

J-Thermostat (standard)  
 K-PT100(RTD)

Interpolation Option:<sup>5</sup>

80X / 160X / 400X / SINCOS

Hall Cable Option:

NH / H9D<sup>2</sup>

Encoder Option:

AXD80-56: AB-1062 / R5G2  
 AXD120-61: AB-2052 / R5G2  
 AXD160-67: AB-2868 / R5F2  
 AXD200-77: AB-3934 / R5F2  
 AXD280-100: AB-5560 / R5F2  
 AXD400-155: AB-7500 / R5F2

Cable length (m):

0.5

Motor Cable Option:<sup>3</sup>

NFB / 9W4M

- <sup>1</sup> NH = Without Built-in Hall Sensor but with Thermal Sensor
- <sup>2</sup> H9D = With Built-in hall sensor, comes with 9-Pins D-Sub Connector
- <sup>3</sup> NFB = Without ferrite bead
- <sup>4</sup> 9W4M = Without ferrite bead C/W D-Sub 9W4 Male Connector
- <sup>5</sup> This item should be empty when ATOM encoder is selected
- <sup>6</sup> AXD80:P15 = Axial Runout 15µm, Radial Runout is 15µm  
 AXD120:P20 = Axial Runout 20µm, Radial Runout is 20µm  
 AXD160:P30 = Axial Runout 30µm, Radial Runout is 30µm  
 AXD200:P40 = Axial Runout 40µm, Radial Runout is 40µm  
 AXD280:P50 = Axial Runout 50µm, Radial Runout is 50µm  
 AXD400:P70 = Axial Runout 70µm, Radial Runout is 70µm