

Yokogawa UR1BG3-015N-6KC-1TA-N
DrvG III Dynaserv Intelligent Drive



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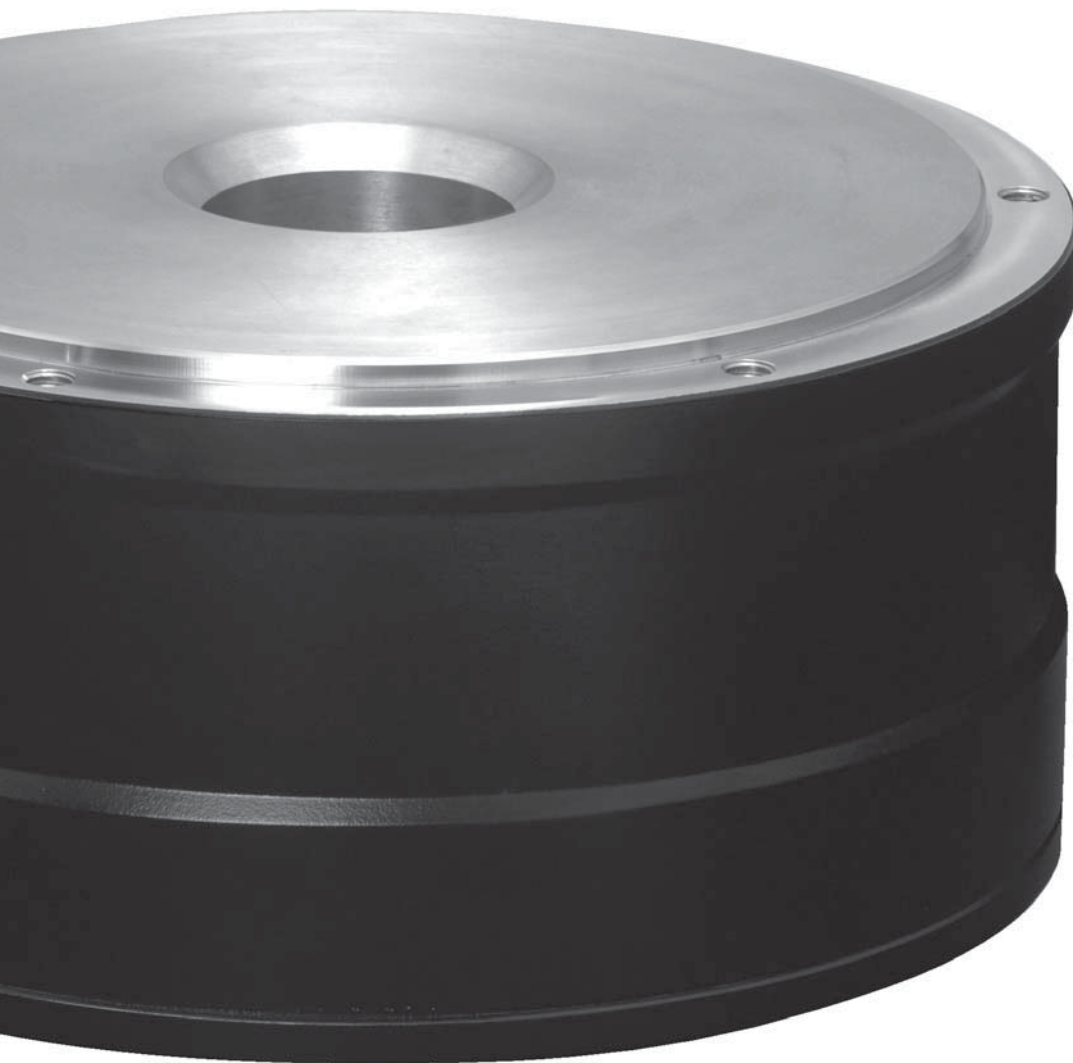
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Motion Dynamics

Direct Drive Motor

Product Catalog



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■ Outline

The DYNASERV is a direct drive motor with high accuracy, high speed and high torque.

It is an outer rotor model.

DM□□model : High accuracy optical encoder model with aluminum body that enables high torque per weight ratio.

DR5H00 : Low height iron body model with magnetic encoder.

DR□□model : Magnetic encoder with large center aperture, high speed and high torque.

DB5C : Absolute encoder model.

■ Features

●DM□□Motor High Accuracy and High Resolution Model

Available three types(DM1A, DM1B and DM1C) with various torque size.

- High Accuracy and High Resolution
- Optical Encoder
- Excellent torque to weight ratio
- Aluminum body

●DR5H00 Motor Flat Profile Model

Motor Height 42mm(on 10N · m & 20N · m) & 62mm(on 40N · m)

- Motor Height 42mm & 62mm
- Magnetic encoder
- Encoder resolution:3,407,872pulse/rev, Repeatable Accuracy:±0.4arc sec

●DR□□ Motor Large Center Aperture, High Speed and High Torque Model

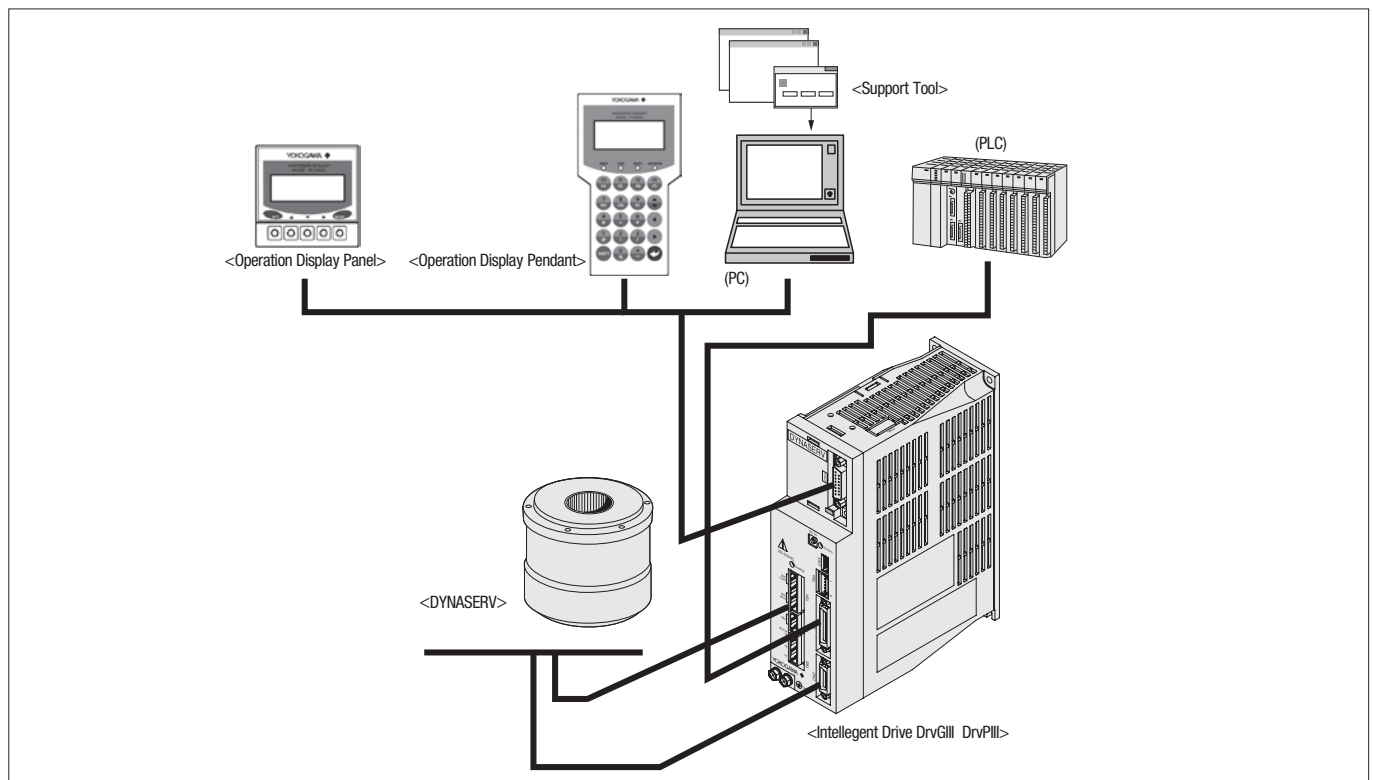
Available in two speed categories, standard speed type:DR1A,DR1E and DR1B, high speed type :DR5A,DR5E,DR5B and DR5C.

- Large Center Aperture, High Speed and High Torque
- Excellent Environment Resistance
- Magnetic encoder
- DR5A,DR5E,DR5B and DR5C is High Speed Type

●DB5C Motor Absolute Encoder Model

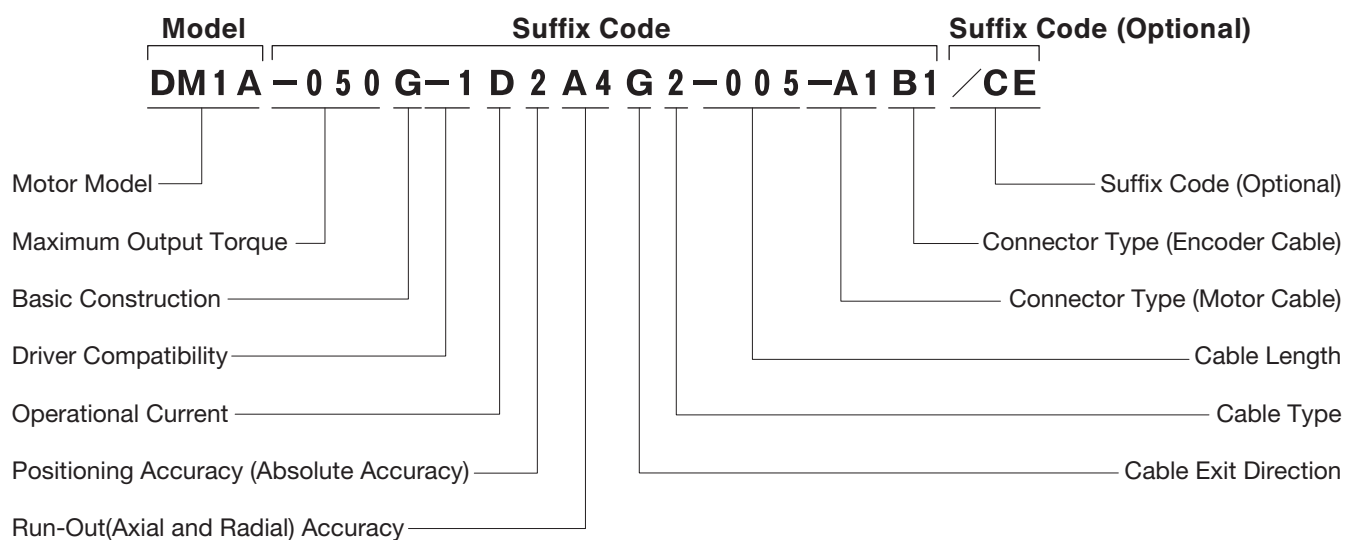
DB5C motor with an absolute positional detection function, which are derived from the DR□□ motors.

- Absolute encoder

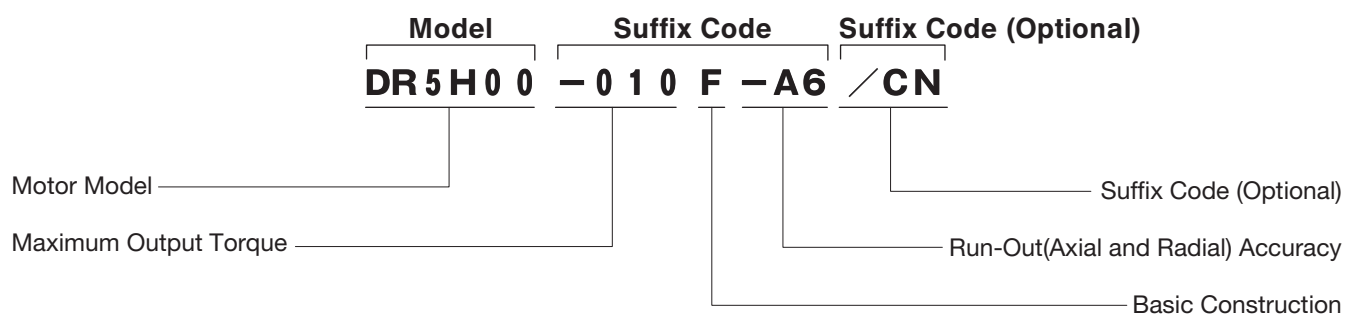


■ Model and Suffix Codes

(1) For DM□□, DR□□, DB5C Motor



(2) For DR5H00 Motor



* : For more information, please refer to the (recommended) Model and Suffix Codes. (Page 54)

Specifications

(1) DM1A

Model				DM1A			
Motor and Drive	Maximum Output Torque		N · m	50	100	150	200
	Maximum Speed		rps	1.2 [1.2]			
	Rated Speed		rps	1.0 [1.0]		1.0 [0.5]	
	Rotation Positioning	Encoder Resolution	pulse/rev	4,096,000 ^①			
		Absolute Accuracy	arc sec	±15			
		Repeatable Accuracy	arc sec	±1 ^①			
	Number of homing position		pulse/rev	100			
	Maximum Power Consumption		kVA	2.4 [1.2]	2.7 [1.35]	3.0 [1.5]	3.0 [1.5]
Rated Power Consumption ^②		kVA	0.71 [0.71]	1.12 [1.12]	1.5 [1.12]	1.9 [1.32]	
Motor	Rotor Inertia		kg · m ²	96×10 ⁻³	119×10 ⁻³	142×10 ⁻³	167×10 ⁻³
	Mechanical Tolerance	Axial Load	Compression	N	4.0×10 ⁴		
			Tension		2.0×10 ⁴		
		Maximum Overhung Load		N · m	400		
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	2.0×10 ⁻⁶		
			Tension		3.0×10 ⁻⁶		
		Over hung load Stiffness		rad/N · m	4.0×10 ⁻⁷		
	Run-Out (Axial and Radial) Accuracy ^③		μm	100 (10, 5) ^④ or less			
	Weight		kg	14.5	19	24	29

(2) DM1B and DM1C

Model				DM1B					DM1C	
Motor and Drive	Maximum Output Torque		N · m	6	15	30	45	60	4	
	Maximum Speed		rps	2.5 [2.0]	2.4 [2.4]				2.5 [2.2]	
	Rated Speed		rps	2.0 [2.0]	2.0 [2.0]	2.0 [1.5]	2.0 [1.0]	1.5 [1.0]	2.0 [2.0]	
	Rotation Positioning	Encoder Resolution		pulse/rev	2,621,440 ^①					
		Absolute Accuracy		arc sec	±20 or ±60 ^④	±15				±20 or ±60 ^④
		Repeatable Accuracy		arc sec	±3 ^①	±1 ^①				±3 ^①
	Number of homing position		pulse/rev	124	60				124	
	Maximum Power Consumption		kVA	0.5 [0.35]	1.6 [0.8]	2.0 [1.0]	2.0 [1.0]	2.2 [1.1]	0.4 [0.25]	
	Rated Power Consumption ^②		kVA	0.3 [0.3]	0.5 [0.5]	0.75 [0.67]	1.0 [0.75]	1.0 [0.8]	0.2 [0.2]	
Motor	Rotor Inertia		kg · m ²	7.5×10 ⁻³	12×10 ⁻³	15×10 ⁻³	19×10 ⁻³	23×10 ⁻³	2.5×10 ⁻³	
	Mechanical Tolerance	Axial Load	Compression	N	200	3.0×10 ⁴			50	
			Tension		200	1.0×10 ⁴			50	
		Maximum Overhung Load		N · m	50	200			—	
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	—	2.5×10 ⁻⁶			—	
			Tension		—	3.0×10 ⁻⁶			—	
		Over hung load Stiffness		rad/N · m	—	1.0×10 ⁻⁶			—	
	Run-Out (Axial and Radial) Accuracy ^③		μm	10 or less	100 (10, 5) ^④ or less			100 (10) ^④ or less	10 or less	
	Weight		kg	5	5.5	7.5	9.5	12	3	

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)

Others Structure : Outer Rotor Type, Excitation Method : 3 Phase, Coating : Black

(Caution) ① Shows the highest value. Depends on the driver settings.

② Indicate continuous rating according to CE.

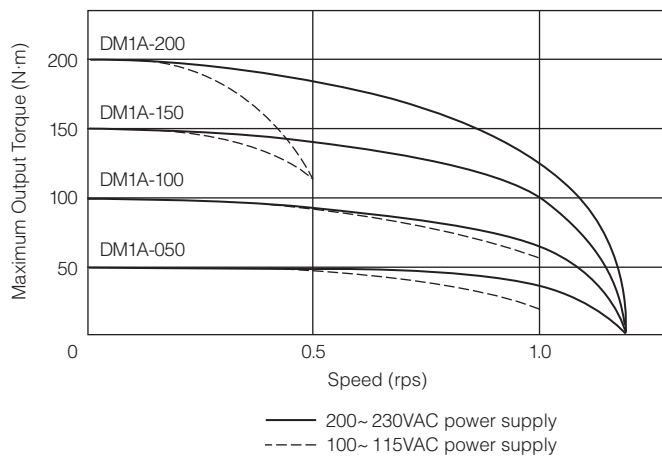
③ Axial and radial run-out of the load mounting surface.

④ Selectable.

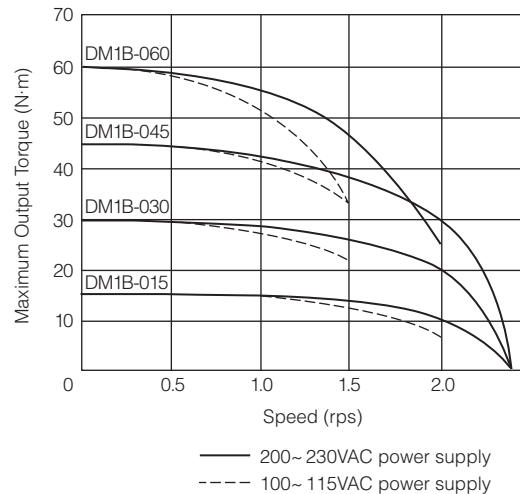
All specifications are of 200-230VAC. Figures in [] represent the specification for 100-115VAC.

Torque/Velocity Characteristics

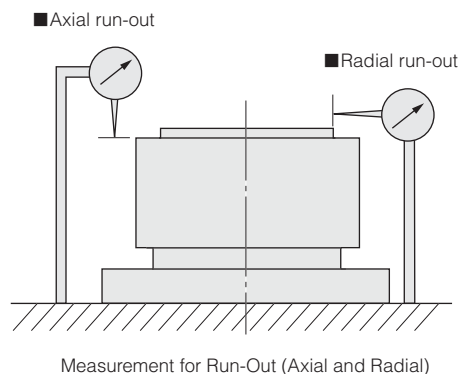
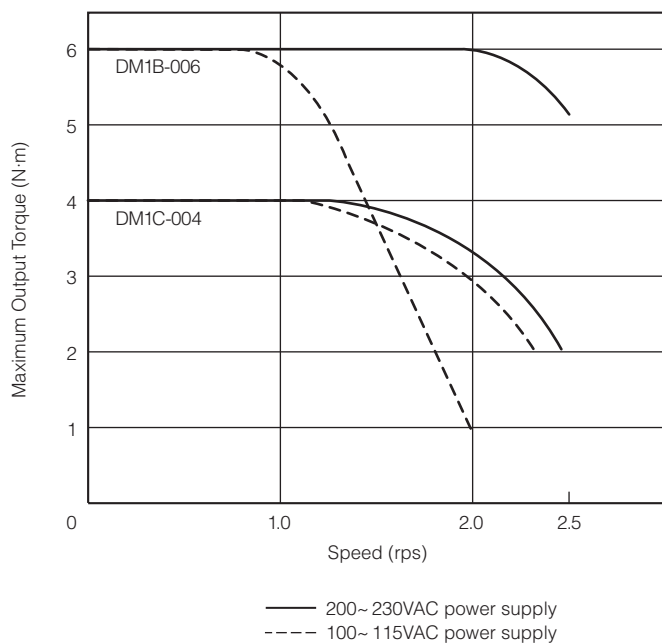
(1) DM1A



(2) DM1B (Expect DM1B-006)



(3) DM1B-006 and DM1C

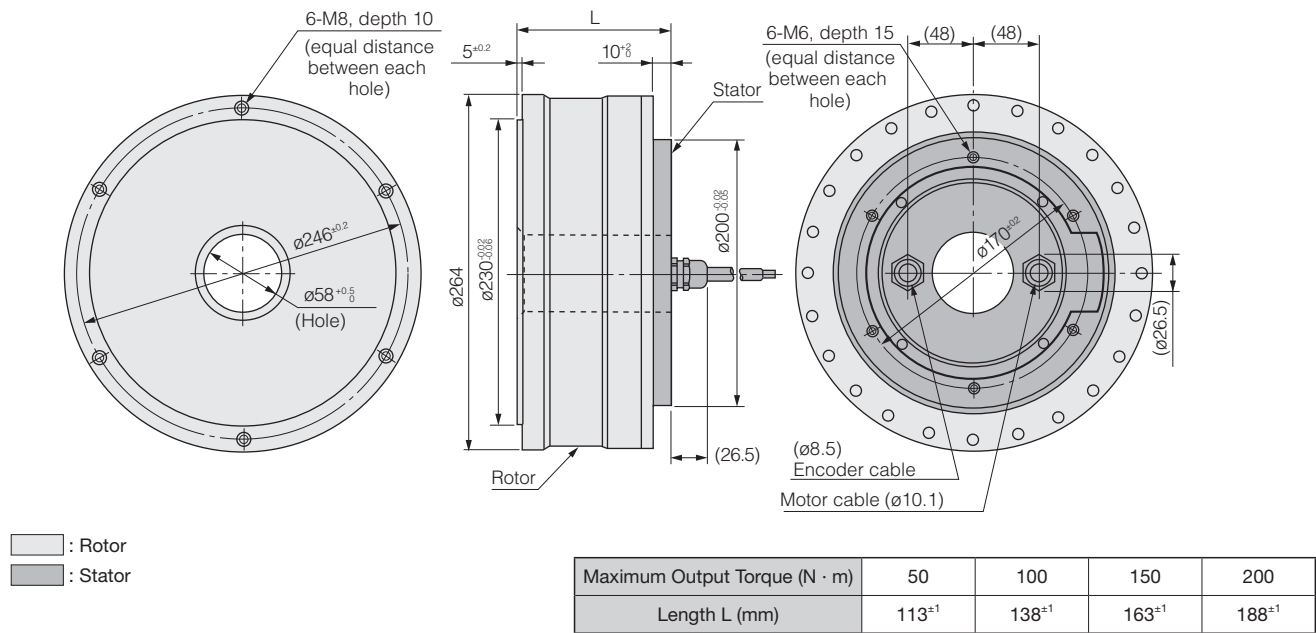


Environment Specifications

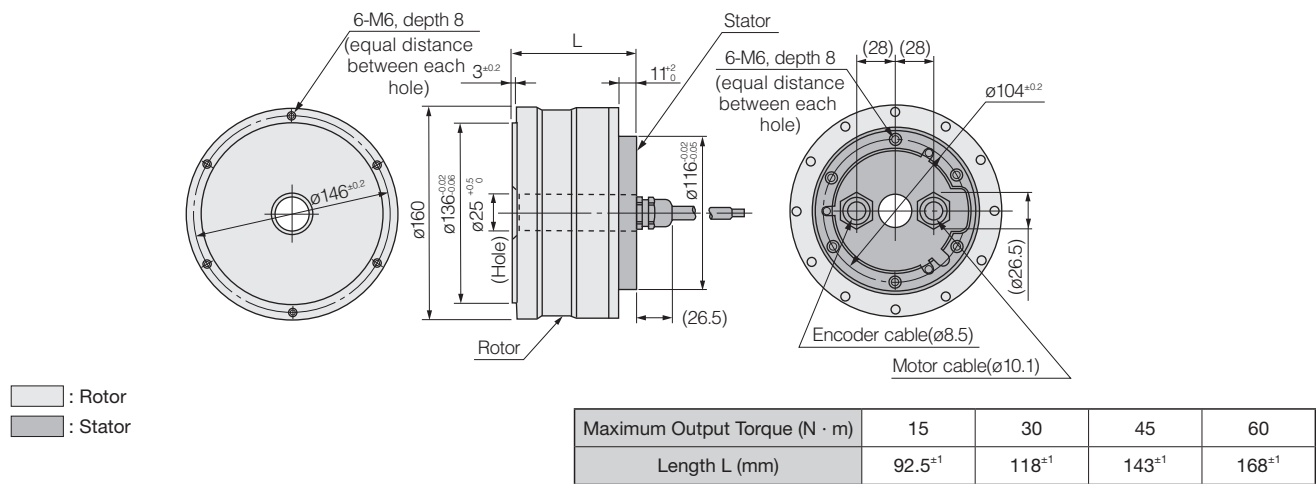
		Motor	Remarks
Operation	Temperature	0 to 45°C: Standard 0 to 40°C: CE continuous rating	
	Humidity	20 to 85% RH	No condensation
Storage	Temperature	-20 to 85°C	
	Humidity	20 to 85% RH	No condensation
Atmosphere		Must be no corrosive gasses, dust and dirt. Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	

External Dimensions (Unit:mm)

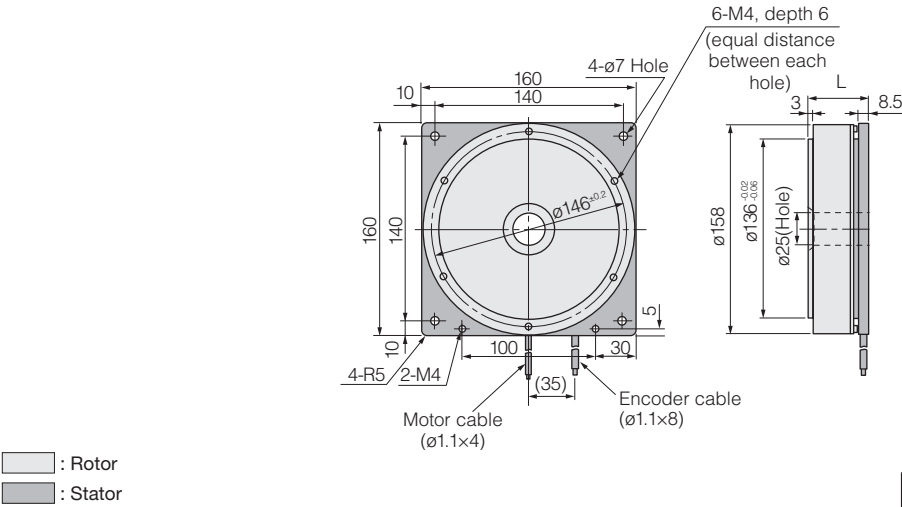
(1) DM1A



(2) DM1B(Expect DM1B-006)

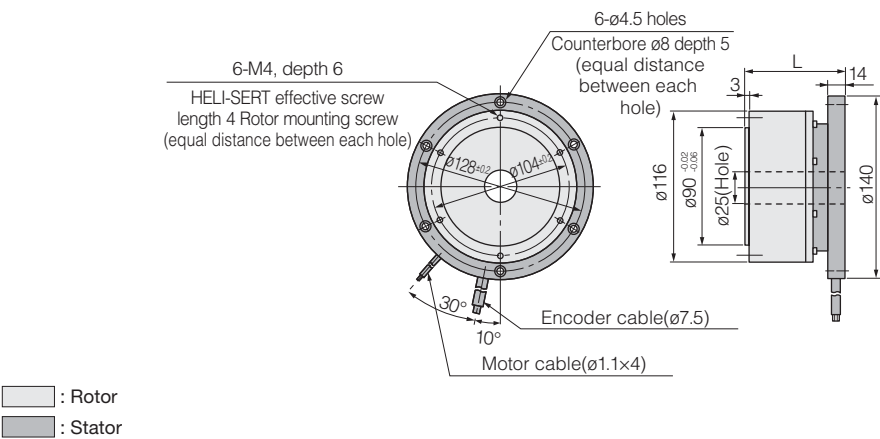


(3) DM1B-006



Maximum Output Torque (N · m)	6
Length L (mm)	$65^{+0.7}$

(4) DM1C



Maximum Output Torque (N · m)	4
Length L (mm)	$77^{+0.5}$

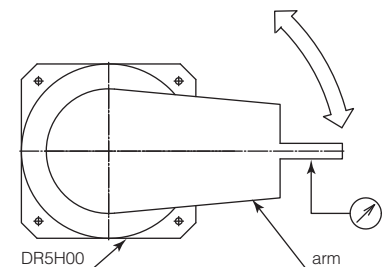
Specifications

Model				DR5H00			
Motor and Drive	Maximum Peak Torque		N · m	10	20	40	
	Mamximum Constant Torque ^①		N · m	6	12	30	
	Maximum Speed		rps	3.6 [2.5]		3.6 [3.6]	
	Constant Speed		rps	3.0 [1.5]	3.0 [1.6]	3.0 [2.7]	
	Rotation Positioning	Encoder Resolution		pulse/rev	3,407,872 ^②		
		Absolute Accuracy		arc sec	±80		
		Repeatable Accuracy ^③		arc sec	±0.4 ^③		
	Number of homing position		pulse/rev	52			
	Maximum Power Consumption		kVA	1.3 [0.65]		3.2 [1.6]	
	Rated Power Consumption ^④		kVA	0.86 [0.43]		2.64 [1.32]	
Motor	Origin Sensor		—	Included			
	Rotor Inertia		kg · m ²	2.2×10 ⁻²		3.7×10 ⁻²	
	Mechanical Tolerance	Axial Load	Compression	N	2000		
			Tension	N	1000		
		Maximum Overhung Load		N · m	100		
		Load Inertia		kg · m ²	2.2		3.7
	Run-Out (Axial and Radial) Accuracy ^⑤		μm	50(20, 5) ^⑥ or less			
	Weight		kg	10		13	
	Environment Specifications	Temperature		—	0~40°C(for working)/-20~85°C(for storage) (If not conform to CE Standard;0~45°C(for working))		
		Humidity		—	20~85% RH Non Condensation		
Atmosphere		—	No corrosive gas, dust and dirt must be present. Altitude must be less than 1000 meters above sea level.				

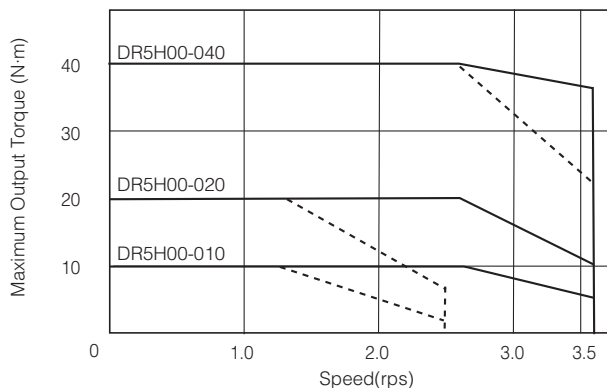
* : DR5H00 motor supports the CE mark without suffix code(optional)"/CE".

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)
Others Structure : Outer Rotor Type, Excitation Method : 3 Phase

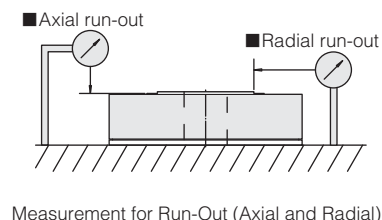
- (Caution) ① In the condition where metal base with adequate heat absorption characteristic.
② Shows the highest value. Depends on the driver settings.
③ The value was measured in the following setting using micro-meter: A metal arm with loading inertia of 0.04 kg · m² was attached to a motor.
The motor turned to stop at the same position seven times from the same direction.
④ Indicate continuous rating according to CE.
⑤ Axial and radial run-out of the load mounting surface.
⑥ Selectable.
All specifications are of 200-230VAC.
Figures in [] represent the specification for 100-115VAC.



Torque/Velocity Characteristics



———— 200~ 230VAC power supply - - - - - 100 ~ 115VAC power supply



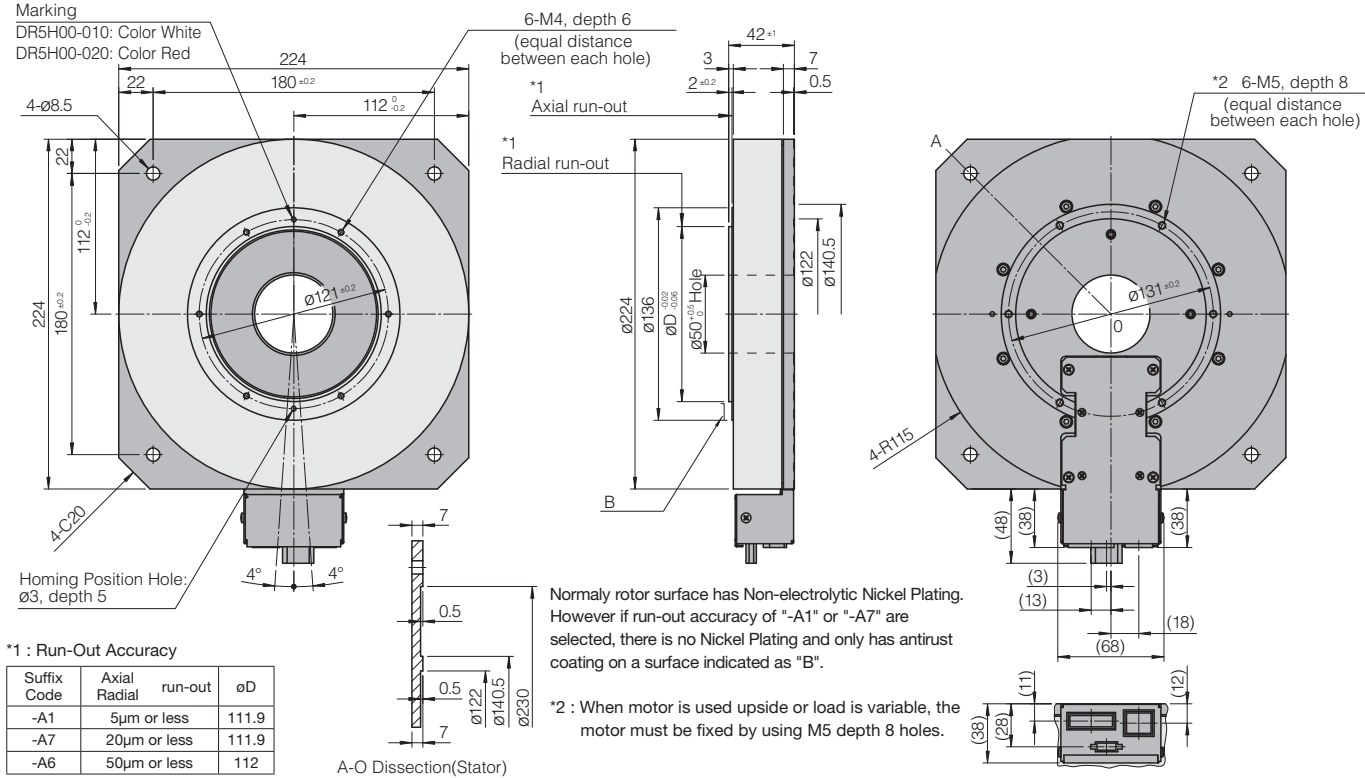
Measurement for Run-Out (Axial and Radial)

DR5H00 Motor Flat Profile Model

■ External Dimensions (Unit:mm)

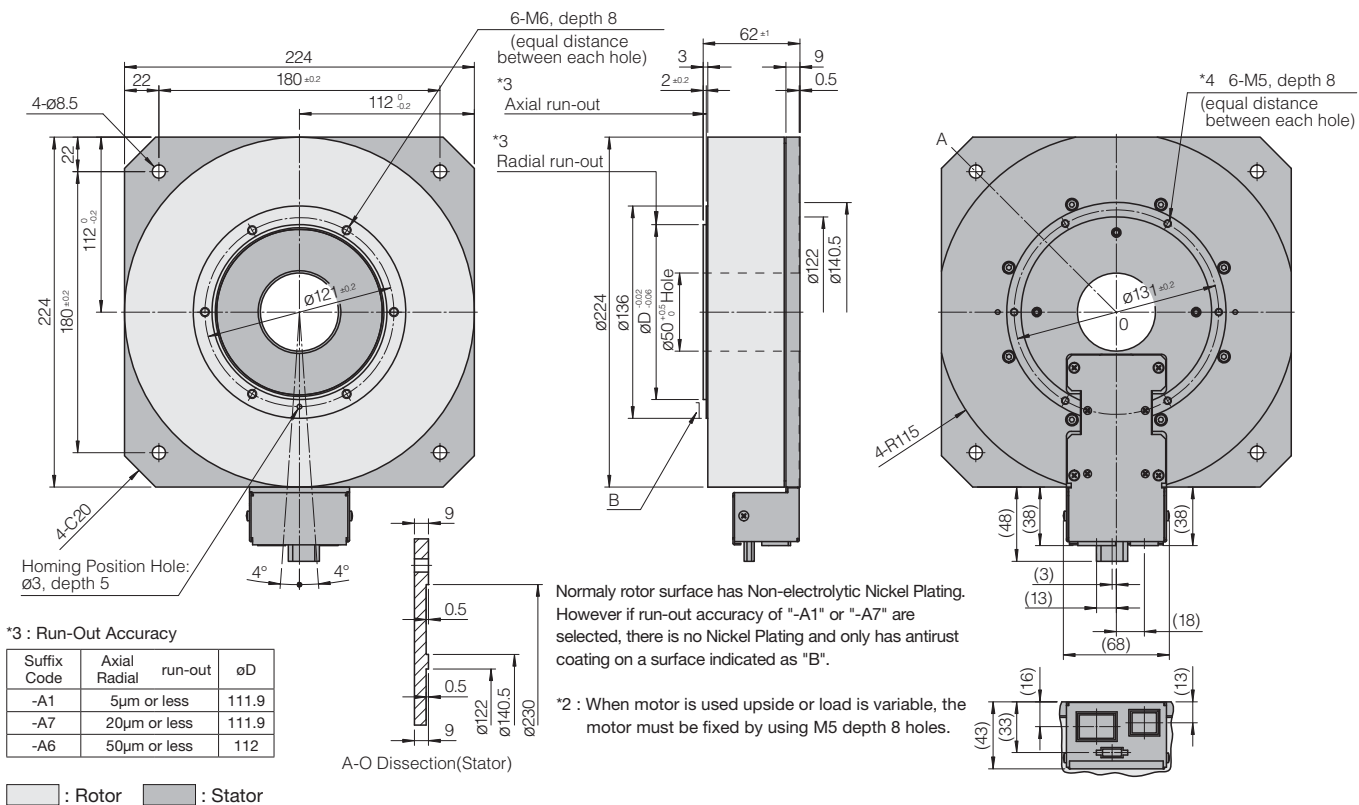
(1) DR5H00-010 and DR5H00-020

DR5H00-010: Color White
DR5H00-020: Color Red



 : Rotor  : Stator

(2) DR5H00-040



 : Rotor  : Stator

DR1□ Motor Large Center Aperture and High Torque Model

Specifications

(1) DR1A

Model			DR1A						
Motor and Drive	Maximum Output Torque		N · m	50	100	150	200	300	400
	Maximum Speed		rps	1.8 [1.8]	1.2 [1.2]	1.2 [1.0]	1.2 [0.8]	1.0 [0.5]	0.8 [0.4]
	Rated Speed		rps	1.5 [1.5]	1.0 [1.0]	1.0 [0.5]		0.5 [0.25]	
	Rotation Positioning	Encoder Resolution	pulse/rev	1,638,400 ^①					
		Absolute Accuracy	arc sec	±30					
		Repeatable Accuracy	arc sec	±3 ^①					
	Number of homing position		pulse/rev	200					
	Maximum Power Consumption		kVA	2.5 [1.25]	2.5 [1.25]	3.0 [1.5]	3.0 [1.5]	3.2 [1.6]	3.2 [1.6]
	Rated Power Consumption ^②		kVA	1.0 [1.0]	1.12 [1.12]	1.5 [0.85]	1.9 [1.06]	1.4 [0.9]	1.8 [1.12]
Motor	Rotor Inertia		kg · m ²	180×10 ⁻³	200×10 ⁻³	230×10 ⁻³	285×10 ⁻³	340×10 ⁻³	400×10 ⁻³
	Mechanical Tolerance	Axial Load	Compression	N	4.0×10 ⁴				
			Tension		2.0×10 ⁴				
		Maximum Overhung Load		N · m	400				
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	2.0×10 ⁻⁶				
			Tension		3.0×10 ⁻⁶				
		Over hung load Stiffness		rad/N · m	4.0×10 ⁻⁷				
	Run-Out (Axial and Radial) Accuracy ^③			μm	100 (10, 5) ^④ or less			100 (20) ^④ or less	
	Weight			kg	26	31	36	45	55

(2) DR1E and DR1B

Model				DR1E							DR1B						
Motor and Drive	Maximum Output Torque			N · m	30	70	100	130	160	220	250	8	15	30	45	60	
	Maximum Speed			rps	2.4 [2.0]		2.4 [1.5]	1.2 [1.2]	1.2 [1.0]	1.2 [0.7]		2.4 [2.4]			2.4 [1.8]	2.4 [1.4]	
	Rated Speed			rps	2.0 [1.5]		1.5 [1.0]	1.0 [0.5]				2.0 [2.0]		2.0 [1.5]	2.0 [1.0]	1.5 [1.0]	
	Rotation Positioning	Encoder Resolution		pulse/rev	1,228,800 ^①							1,015,808 ^①					
		Absolute Accuracy		arc sec	±45							±45					
		Repeatable Accuracy		arc sec	±3 ^①							±3 ^①					
	Number of homing position			pulse/rev	150							124					
	Maximum Power Consumption			kVA	1.8 [0.9]	2.0 [1.0]	2.3 [1.15]	2.5 [1.25]	2.8 [1.4]	3.0 [1.5]	3.2 [1.6]	1.0 [0.5]	1.4 [0.7]	1.8 [0.9]	2.1 [1.05]	2.3 [1.15]	
	Rated Power Consumption ^②			kVA	0.9 [0.71]	1.4 [1.0]	1.5 [1.06]	1.25 [0.75]	1.5 [0.9]	1.6 [1.12]	1.8 [1.25]	0.4 [0.4]	0.5 [0.5]	0.75 [0.67]	0.8 [0.67]	0.71 [0.71]	
Motor	Rotor Inertia			kg · m ²	72×10 ⁻³	85×10 ⁻³	100×10 ⁻³	125×10 ⁻³	140×10 ⁻³	170×10 ⁻³	185×10 ⁻³	15×10 ⁻³	21×10 ⁻³	24×10 ⁻³	26×10 ⁻³	33×10 ⁻³	
	Mechanical Tolerance	Axial Load	Compression	N	4.0×10 ⁴							3.0×10 ⁴					
			Tension		2.0×10 ⁴							1.0×10 ⁴					
		Maximum Overhung Load			N · m	400							200				
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	2.0×10 ⁻⁶							3.0×10 ⁻⁶					
			Tension		3.0×10 ⁻⁶							4.0×10 ⁻⁶					
		Over hung load Stiffness			rad/N · m	4.0×10 ⁻⁷							2.0×10 ⁻⁶				
	Run-Out (Axial and Radial) Accuracy ^③				μm	100 (10, 5) ^④ or less			100 (20) ^④ or less			100 (10, 5) ^④ or less				100 (10) ^④ or less	
	Weight				kg	18	22	26	32	36	44	48	6.0	9.0	11	13	15.5

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)
Others Structure : Outer Rotor Type, Excitation Method : 3 Phase, Coating : Black

(Caution) ① Shows the highest value. Depends on the driver settings.

② Indicate continuous rating according to CE.

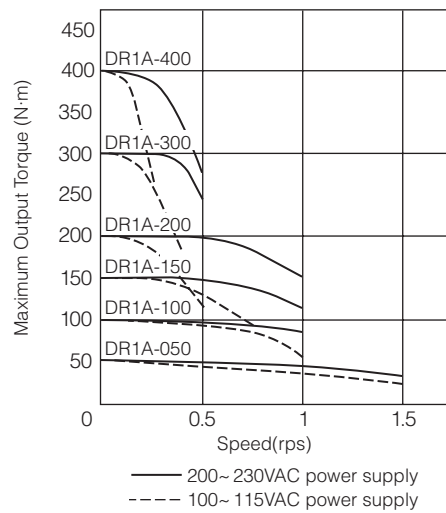
③ Axial and radial run-out of the load mounting surface.

④ Selectable.

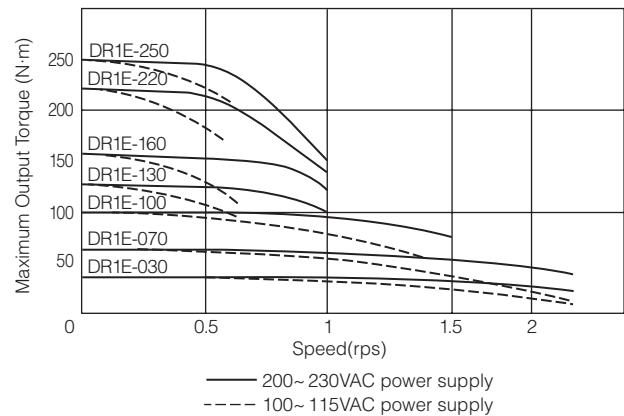
All specifications are of 200-230VAC. Figures in [] represent the specification for 100-115VAC.

Torque/Velocity Characteristics

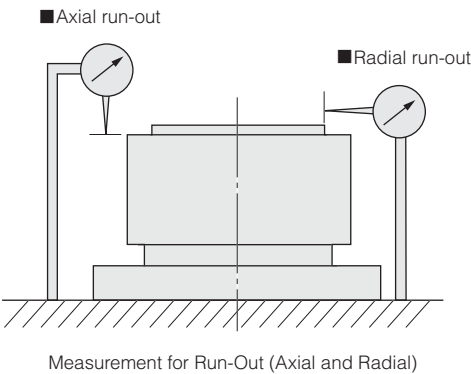
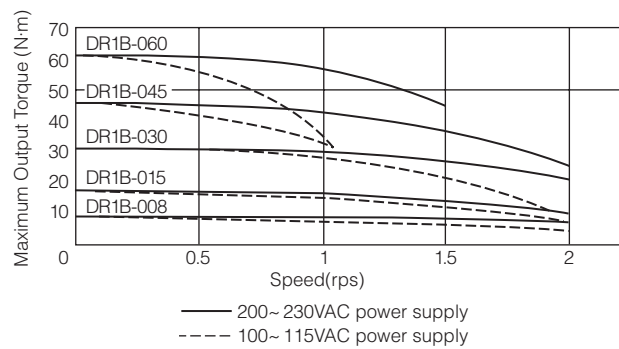
(1) DR1A



(2) DR1E



(3) DR1B



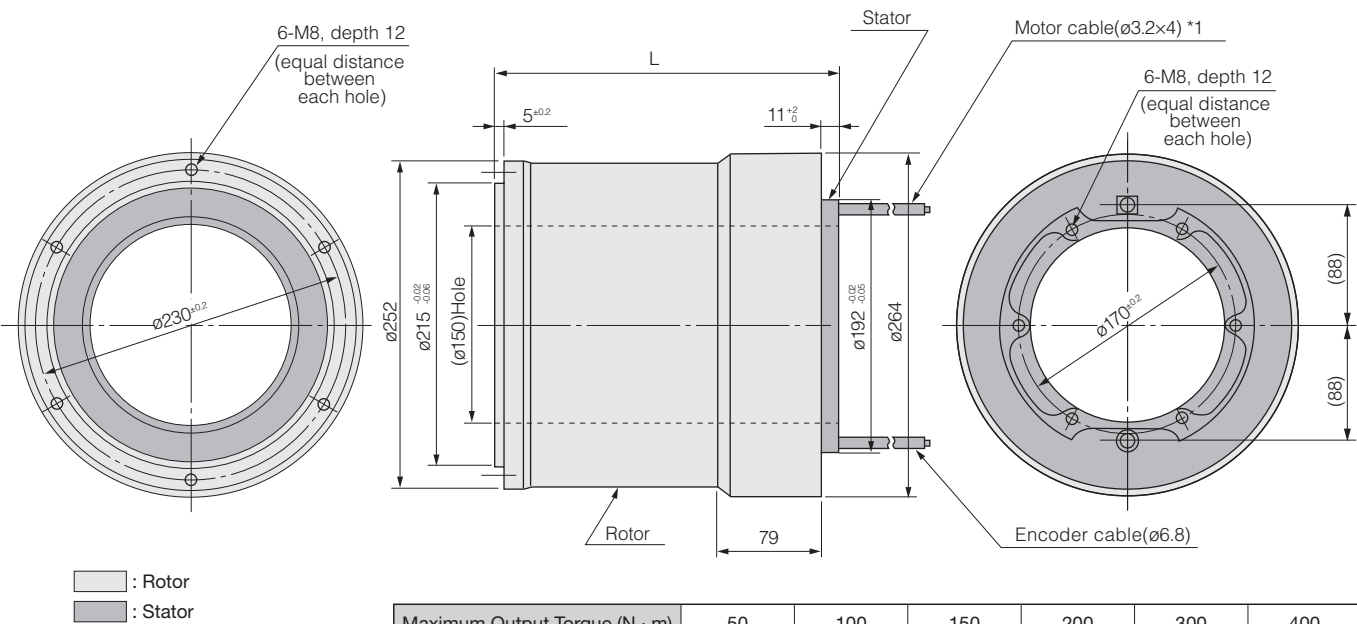
Environment Specifications

		Motor	Remarks
Operation	Temperature	0 to 45°C: Standard 0 to 40°C: CE continuous rating	
	Humidity	20 to 85% RH	No condensation
Storage	Temperature	-20 to 85°C	
	Humidity	20 to 85% RH	No condensation
Atmosphere		Must be no corrosive gasses, dust and dirt. Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	

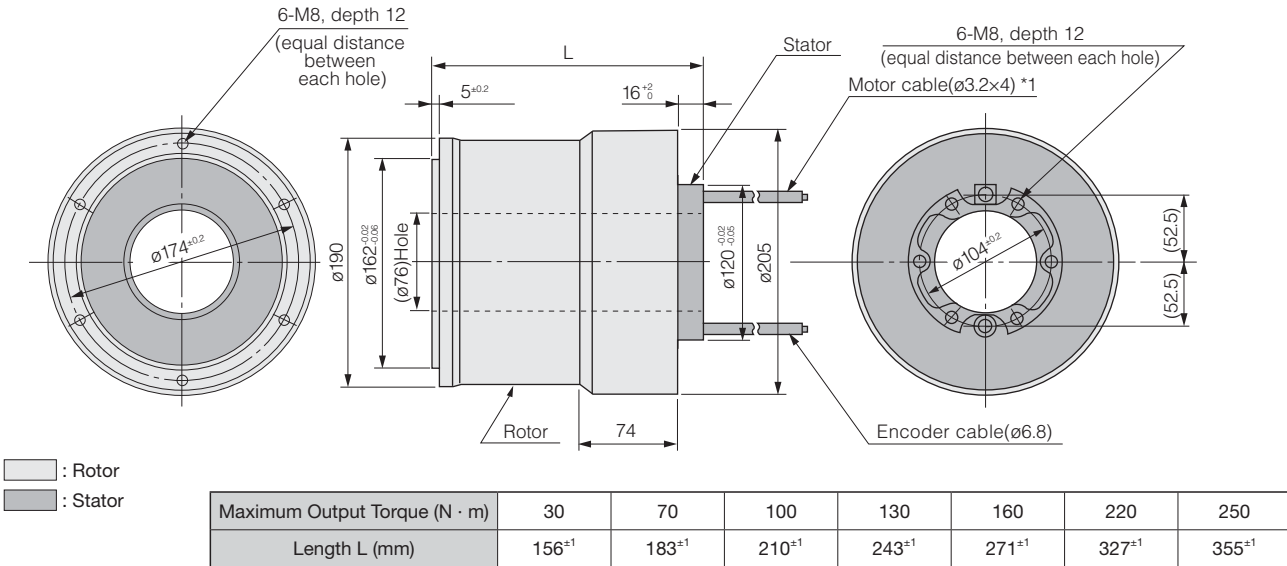
DR1□ Motor Large Center Aperture and High Torque Model

External Dimensions (Unit:mm)

(1) DR1A



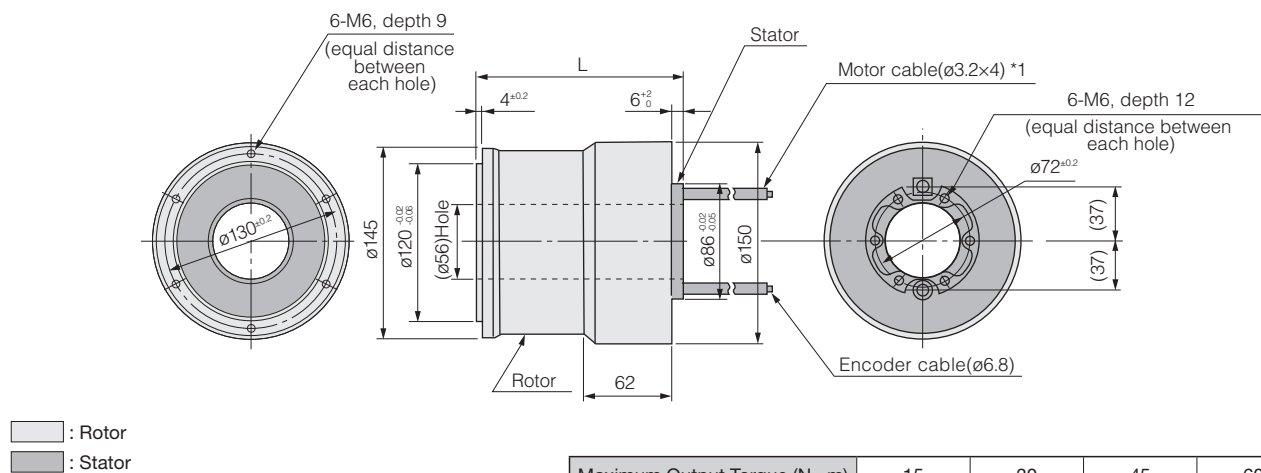
(2) DR1E



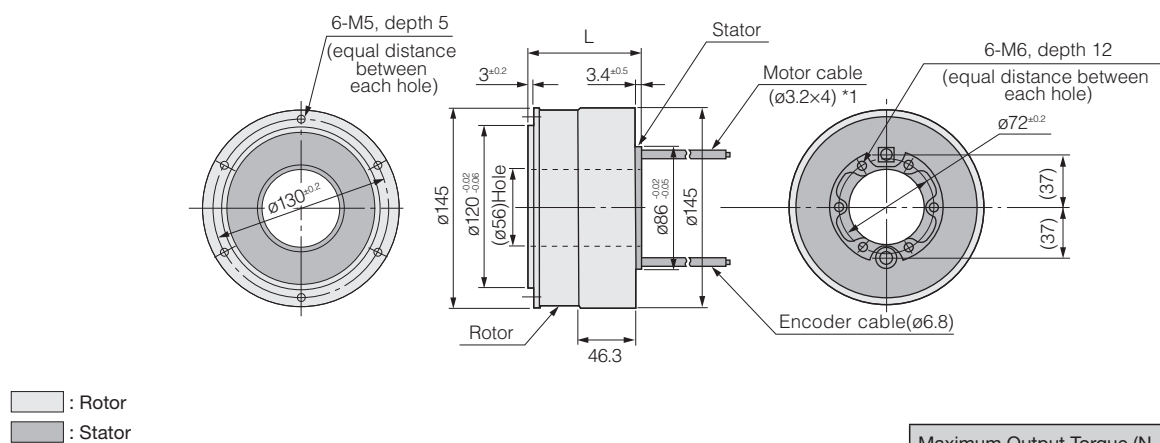
*1 : If more than 4m long cables can be shielded multi-conductor line. For more information please contact us.

DR1□ Motor Large Center Aperture and High Torque Model

(3) DR1B(Expect DR1B-006)



(4) DR1B-008



*1 : If more than 4m long cables can be shielded multi-conductor line. For more information please contact us.

DR5 ☐ Motor Large Center Aperture, High Speed and High Torque Model

Specifications

(1) DR5A

Model				DR5A		
Motor and Drive	Maximum Output Torque		N · m	300	400	500
	Maximum Speed		rps	2.0		
	Rated Speed		rps	1.5		
	Rotation Positioning	Encoder Resolution	pulse/rev	851,968 ^①		
		Absolute Accuracy	arc sec	±45		
		Repeatable Accuracy	arc sec	±3 ^①		
	Number of homing position		pulse/rev	104		
	Maximum Power Consumption		kVA	7.0	7.3	7.6
	Rated Power Consumption ^②		kVA	2.4	2.9	3.4
Motor	Rotor Inertia		kg · m ²	340×10 ⁻³	400×10 ⁻³	460×10 ⁻³
	Mechanical Tolerance	Axial Load	Compression	N	4.0×10 ⁴	
			Tension		2.0×10 ⁴	
		Maximum Overhung Load		N · m	400	
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	2.0×10 ⁻⁶	
			Tension		3.0×10 ⁻⁶	
		Over hung load Stiffness		rad/N · m	4.0×10 ⁻⁷	
	Run-Out (Axial and Radial) Accuracy ^③		μm	100 or less		
	Weight		kg	55	65	75

(2) DR5E, DR5B and DR5C

Model				DR5E		DR5B			DR5C				
Motor and Drive	Maximum Output Torque			N · m	70	100	30	50	70	5	10	15	
	Maximum Speed			rps	4.0		5.0			6.0			
	Rated Speed			rps	2.0		4.0			4.0			
	Rotation Positioning	Encoder Resolution		pulse/rev	638,976 ^①		557,056 ^①			425,984 ^①			
		Absolute Accuracy		arc sec	±90		±90			±150			
		Repeatable Accuracy		arc sec	±4 ^①		±5 ^①			±5 ^①			
	Number of homing position			pulse/rev	78		68			52			
	Maximum Power Consumption			kVA	3.1	3.4	3.1	3.1	3.4	0.6	1.2	1.4	
	Rated Power Consumption ^②			kVA	1.25	1.7	0.67	0.95	1.18	0.3	0.35	0.3	
Motor	Rotor Inertia			kg · m ²	100×10 ⁻³	125×10 ⁻³	27×10 ⁻³	34×10 ⁻³	37×10 ⁻³	6×10 ⁻³	7×10 ⁻³	8×10 ⁻³	
	Mechanical Tolerance	Axial Load	Compression	N	4.0×10 ⁴		3.0×10 ⁴			5×10 ³			
			Tension		2.0×10 ⁴		1.0×10 ⁴			3×10 ³			
	Maximum Overhung Load			N · m	400		200			20			
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	2.0×10 ⁻⁶		3.0×10 ⁻⁶			4×10 ⁻⁶			
			Tension		3.0×10 ⁻⁶		4.0×10 ⁻⁶			8×10 ⁻⁶			
		Over hung load Stiffness			rad/N · m	4.0×10 ⁻⁷		2.0×10 ⁻⁶			8×10 ⁻⁶		
	Run-Out (Axial and Radial) Accuracy ^③			μm	100 or less		100 (10, 5) ^④ or less	100 (20) ^④ or less			100 (10) ^④ or less		
	Weight			kg	26	32	13.5	16.0	18.0	5.5	6.5	7.5	

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)
Others Structure : Outer Rotor Type, Excitation Method : 3 Phase, Coating : Black

(Caution) ① Shows the highest value. Depends on the driver settings.

② Indicate continuous rating according to CE.

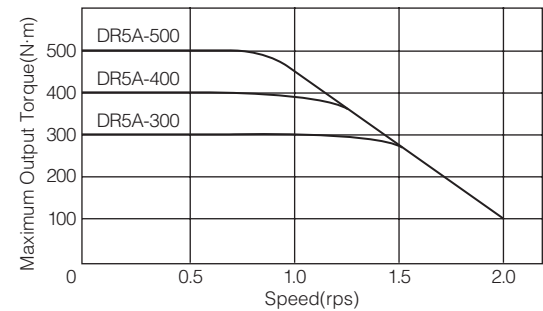
③ Axial and radial run-out of the load mounting surface.

④ Selectable.

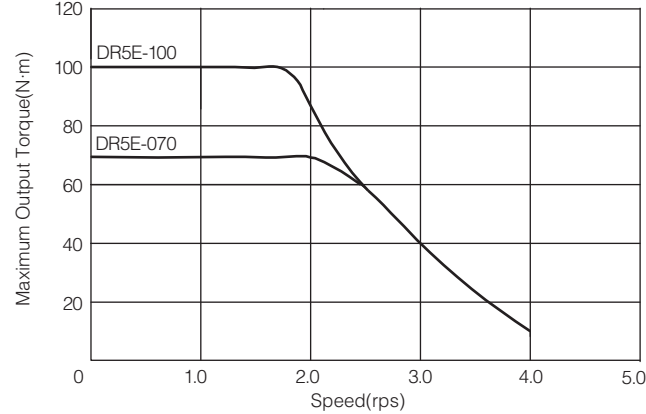
All specifications are of 200-230VAC.

Torque/Velocity Characteristics

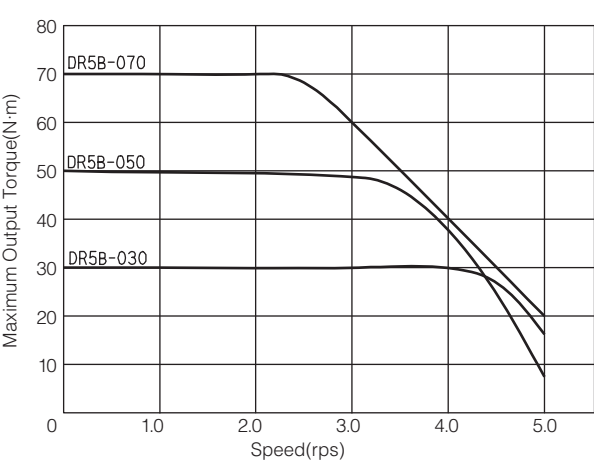
(1) DR5A



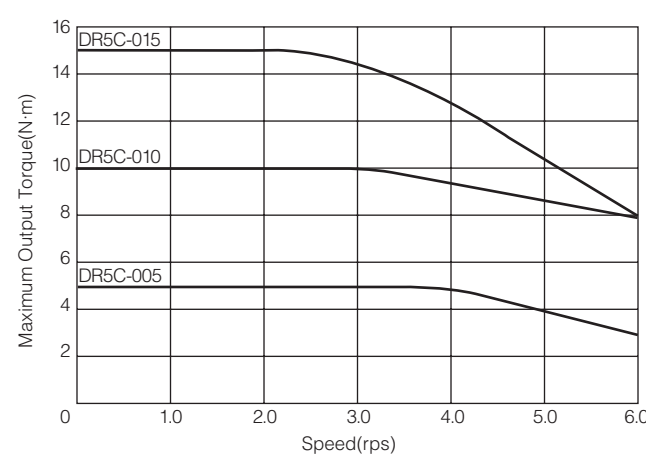
(2) DR5E



(3) DR5B

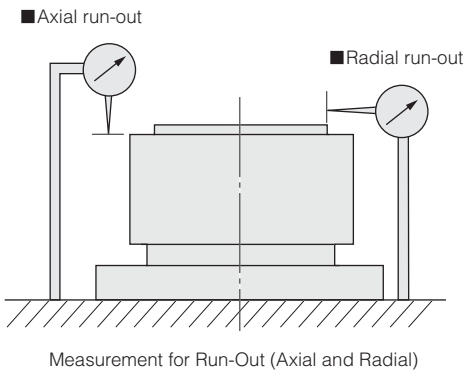


(4) DR5C



Environment Specifications

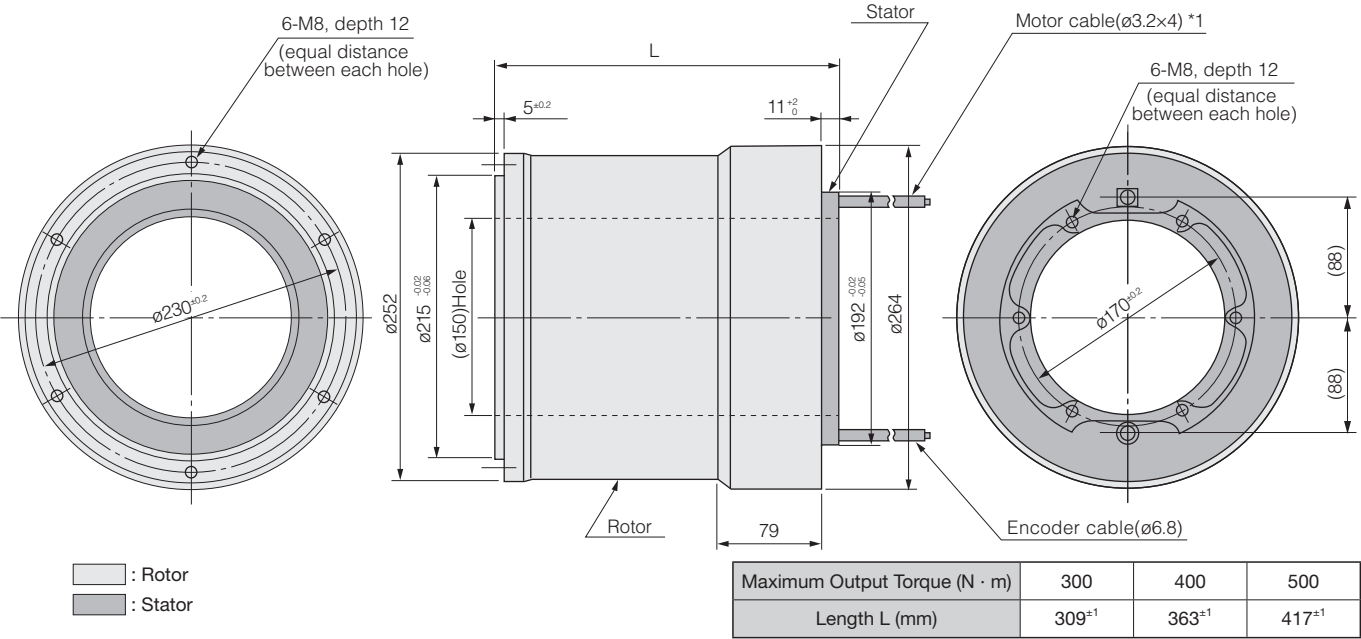
		Motor	Remarks
Operation	Temperature	0 to 45°C: Standard 0 to 40°C: CE continuous rating	
	Humidity	20 to 85% RH	No condensation
Storage	Temperature	-20 to 85°C	
	Humidity	20 to 85% RH	No condensation
Atmosphere		Must be no corrosive gasses, dust and dirt. Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	



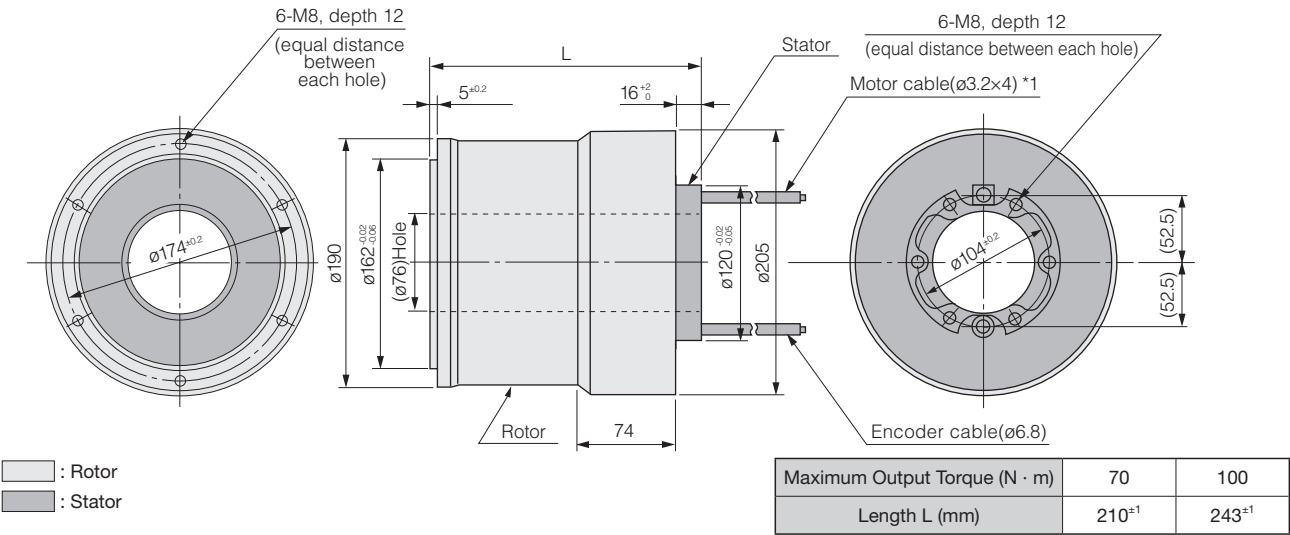
DR5 Motor Large Center Aperture, High Speed and High Torque Model

External Dimensions (Unit:mm)

(1) DR5A



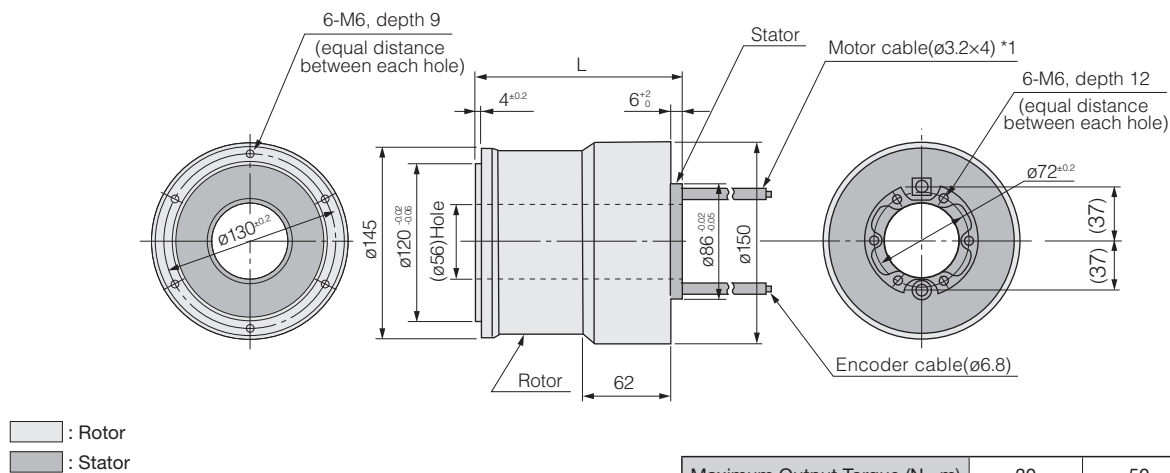
(2) DR5E



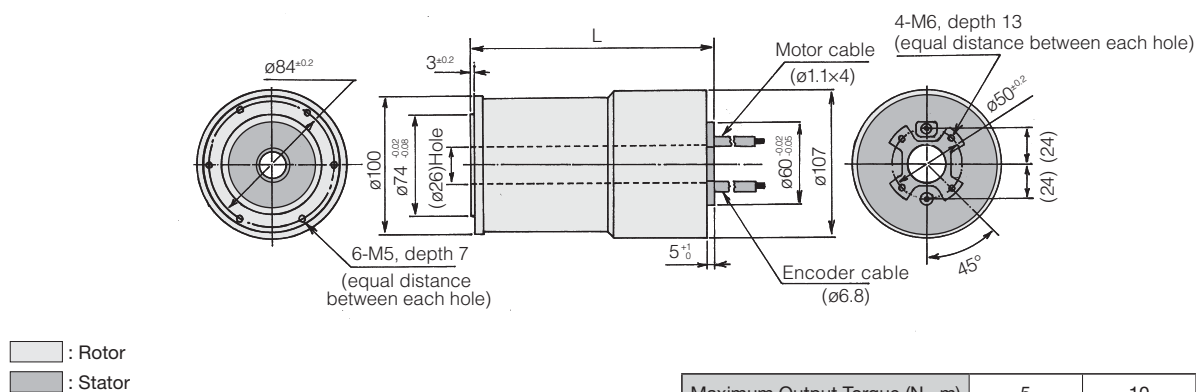
*1 : If more than 4m long cables can be shielded multi-conductor line. For more information please contact us.

DR5 Motor Large Center Aperture, High Speed and High Torque Model

(3) DR5B



(4) DR5C



*1 : If more than 4m long cables can be shielded multi-conductor line. For more information please contact us.

Specifications

Model				DB5C		
Motor and Drive	Maximum Output Torque		N · m	5	10	15
	Maximum Speed		rps	6.0		
	Rated Speed		rps	4.0		
	Rotation Positioning	Encoder Resolution	pulse/rev	425.984 ^①		
		Absolute Accuracy	arc sec	±150		
		Repeatable Accuracy	arc sec	±5 ^①		
	Maximum Power Consumption		kVA	0.6	1.2	1.4
	Rated Power Consumption ^②		kVA	0.3	0.35	0.3
Motor	Rotor Inertia		kg · m ²	6×10 ⁻³	7×10 ⁻³	8×10 ⁻³
	Mechanical Tolerance	Axial Load	Compression	N	5×10 ³	
			Tension		3×10 ³	
		Maximum Overhung Load		N · m	20	
	Variable Load Tolerance	Axial Stiffness	Compression	mm/N	4×10 ⁻⁶	
			Tension		8×10 ⁻⁶	
		Over hung load Stiffness		rad/N · m	8×10 ⁻⁶	
	Run-Out (Axial and Radial) Accuracy ^③		μm	100 (10) ^④ or less		
Weight		kg	5.5	6.5	7.5	

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)
Others Structure : Outer Rotor Type, Excitation Method : 3 Phase, Coating : Black

(Caution) ① Shows the highest value. Depends on the driver settings.

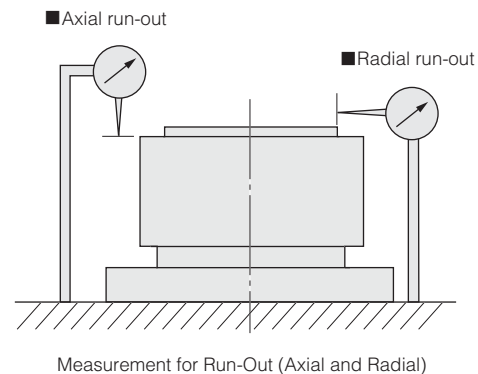
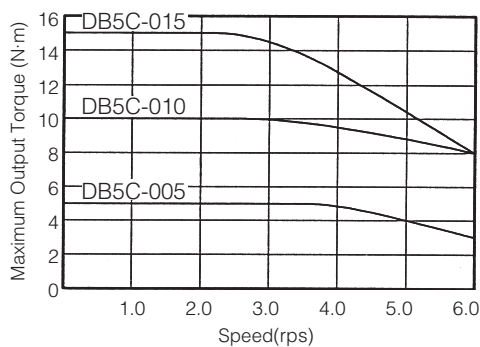
② Indicate continuous rating according to CE.

③ Axial and radial run-out of the load mounting surface.

④ Selectable.

All specifications are of 200-230VAC.

Torque/Velocity Characteristics

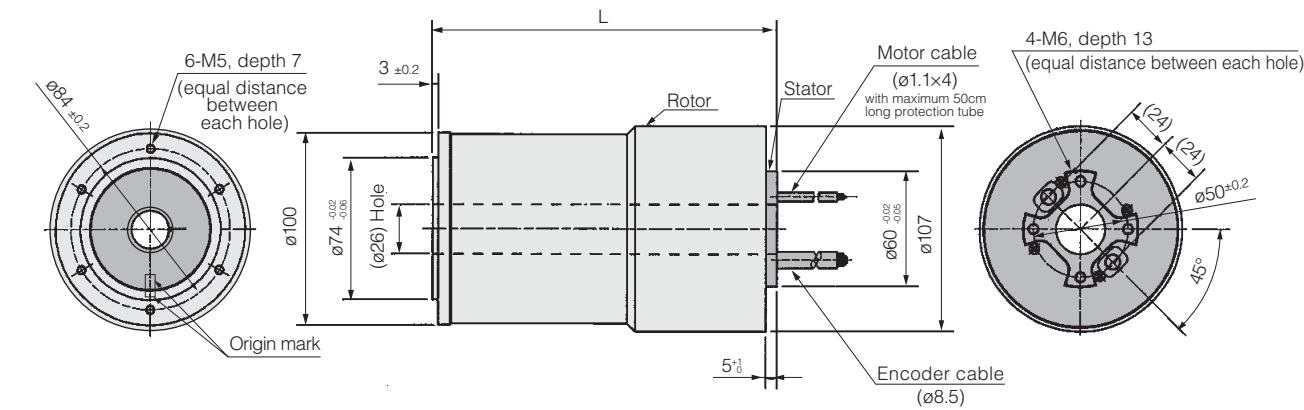


Environment Specifications

		Motor	Remarks
Operation	Temperature	0 to 45°C: Standard 0 to 40°C: CE continuous rating	
	Humidity	20 to 85% RH	No condensation
Storage	Temperature	-20 to 85°C	
	Humidity	20 to 85% RH	No condensation
Atmosphere		Must be no corrosive gasses, dust and dirt. Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	

External Dimensions (Unit:mm)

DB5C



 : Rotor
 : Stator

Maximum Output Torque (N · m)	5	10	15
Length L (mm)	128 ⁺¹	155 ⁺¹	182 ⁺¹

Outline

The LINEARSERV is a linear motor which employs the same technology to DYNASERV.

It features built-in interpolated linear encoder with a unique glass scale, High accuracy position control and smooth driving that are never achieves using traditional AC Servomotors with ball screws.

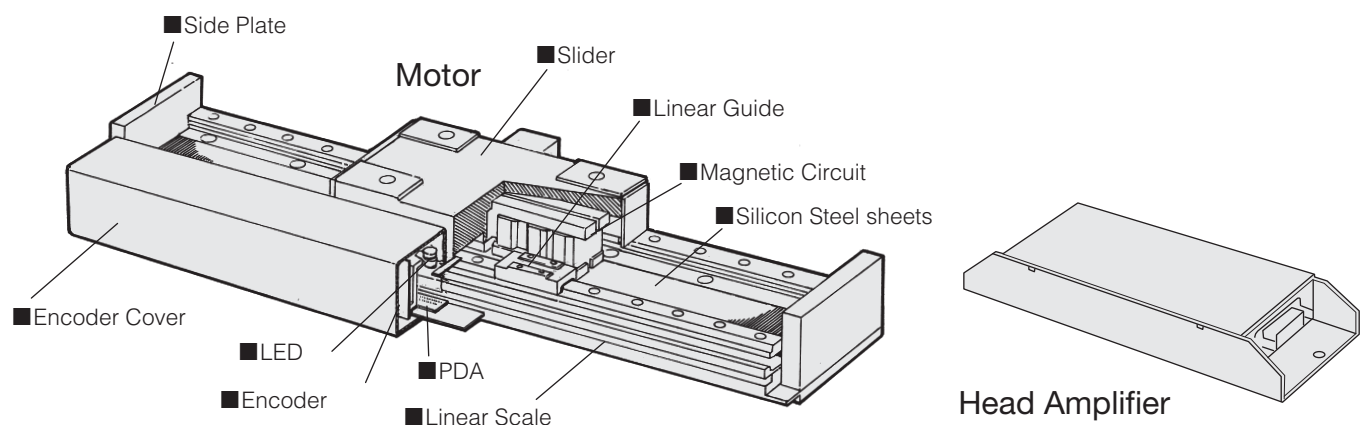
The main features of LINEARSERV are as follows:

- **Absolute accuracy: maximum of 10 μm or maximum scale length of 1000 mm**
- **Positioning repeatability: 0.1-0.5 μm**
- **Low vibration**
- **Force-to-weight ratio: 7 G**
- **All-in-one design**
- **Maximum number of slider: 4 sliders(Depends on the stroke length)**
- **Independent positioning for multiple sliders**
- **Low heat emission**

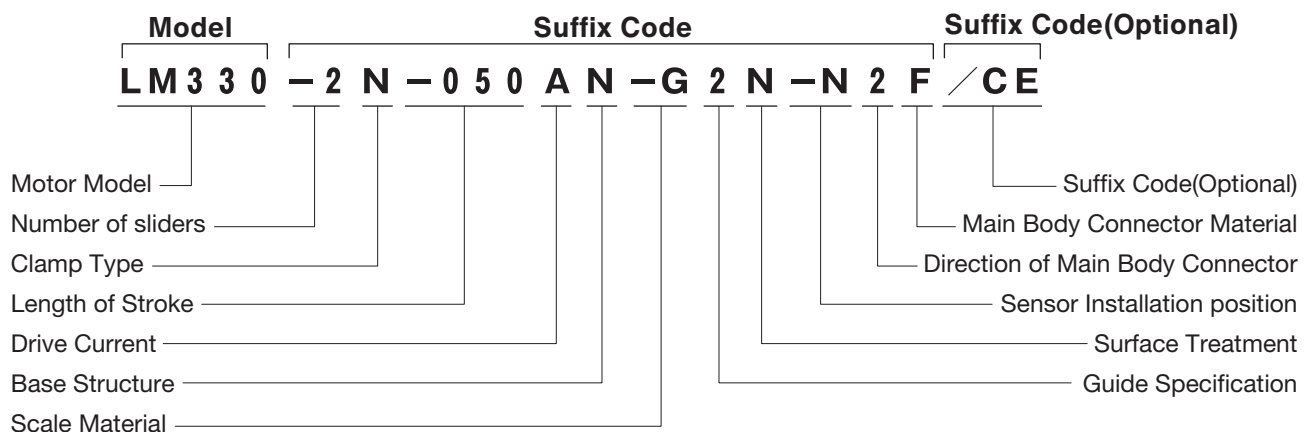
It has rigid structure to withstand heavy load, thanks to structurally hard-wearing linear guide. Higher stiffness models as well as high speed(2m/s) models are available. The driver has an I-PD position control function which gives shorter settling time and quick response to change in load. Drivers are compatible with serial pulse as well as various interface. It is easy to use in terms of adjustment and parameter setting.

The LINEARSERV offers 14 stroke lengths in the range of 50-1200 mm, 4 thrust levels (50, 100, 300, and 400 N), and 4 models (standard model, high-stiffness model, high-speed model, and a high-stiffness and high-speed model). The stroke length, thrust level, and model can be combined for the chosen application.

Composition



Model and Suffix Codes



* : For more information, please refer to the (recommended) Model and Suffix Codes. (Page 58)

LM□□□ Motor High Accuracy Positioning Linear Motor

Specifications

LM1□□(Standard Model) LM2□□(High Stiffness Model) LM5□□(High Speed Model) LM3□□(High Stiffness & High Speed Model)

Model	50N		100N		300N				400N
	LM205	LM305	LM210	LM310	LM130	LM230	LM530	LM330	LM240
Maximum Thrust (N) ^③	50	40	100	90	300		270		400
Maximum Velocity (m/s) ^{②③}	0.83 (0.16)	2.0	0.83 (0.16)	2.0	0.83 (0.16)		2.0		0.83 (0.16)
Encoder resolution (μm) ^②	0.25 (0.05)	0.5	0.25 (0.05)	0.5	0.25 (0.05)		0.5		0.25 (0.05)
Repeatable accuracy (μm) ^②	±0.5 (±0.1)	±1	±0.5 (±0.1)	±1	±0.5 (±0.1)		±1		±0.5 (±0.1)
Absolute positioning accuracy by Length of stroke [Ls] (μm) ^①	5+ $\frac{5}{1000}$ Ls								
Maximum Power Consumption [];100V VA	600 [300]	600 [300]	700 [350]	700 [350]	800 [400]	800 [400]	1100 [550]	1100 [550]	1100 [550]
Rated Power Consumption [];100V VA	170 [170]	250 [250]	212 [212]	355 [315]	475 [315]	475 [315]	630 [315]	630 [315]	475 [315]
Maximum load (N)	600	600	600	600	1000	2000	1000	2000	2000
Slider weight (kg)	1.4	1.4	1.8	1.8	5.0	8.7	5.0	8.7	10.0
Rail weight (kg/m)	15	15	18	18	25	45	25	45	50
Home signal (pulse/mm)	1/2.048	1/4.096	1/2.048	1/4.096	1/2.048		1/4.096		1/2.048
Length of stroke [Ls] (mm) ^④	50, 100, 150, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200								

[Common Spec] Motor Winding Part Insulating Classes : Class F, Isolation Voltage : 1minute 1500VAC, Insulation Resistance : Over 10MΩ(500VDC)
Others Excitation Method : 3 Phase

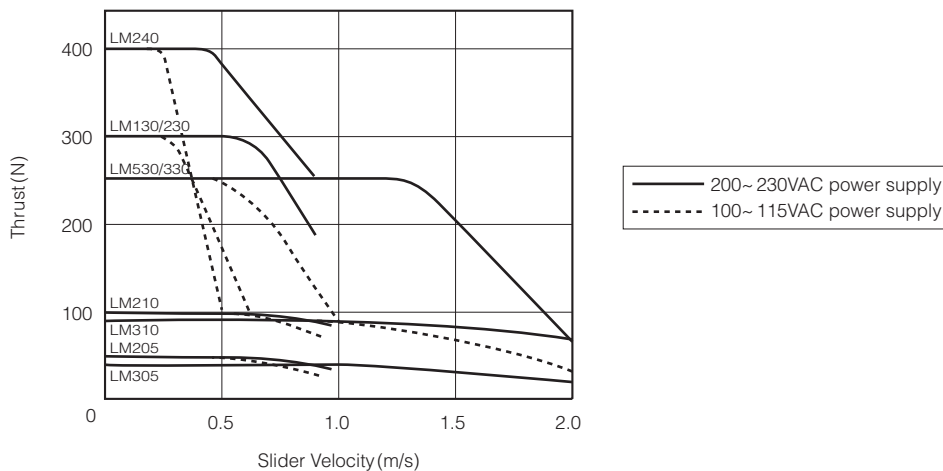
(Caution) ① Scale accuracy specification at 23°C (expansion coefficient of glass lines: $8 \times 10^{-6}/^{\circ}\text{C}$)

② Values in () indicate a Encoder Resolution specification of 0.05 μm.

③ Maximum Thrust and Maximum Velocity described here are with 200-230 VAC power input to the drive. Refer to the Thrust/Velocity characteristic graph for 100-115 VAC.

④ Depending on the Model Code, you can choose the Length of Stroke[Ls]. For more information, please refer to the (recommended) Model and Suffix Code. (Page 58)

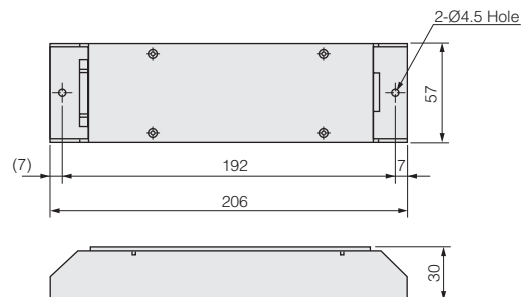
Thrust/Velocity Characteristics



Environment Specifications

		Motor	Remarks
Operation	Temperature	0 to 45°C: Standard 0 to 40°C: CE continuous rating	
	Humidity	20 to 85% RH	No condensation
Storage	Temperature	-20 to 85°C	
	Humidity	20 to 85% RH	No condensation
Atmosphere		Must be no corrosive gasses, dust and dirt. Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	

Head Amplifier Dimensions (Unit:mm)



(Caution) Please ensure serial number of motor and that of amplifier match exactly. Otherwise in many result in damaging both motor and driver.

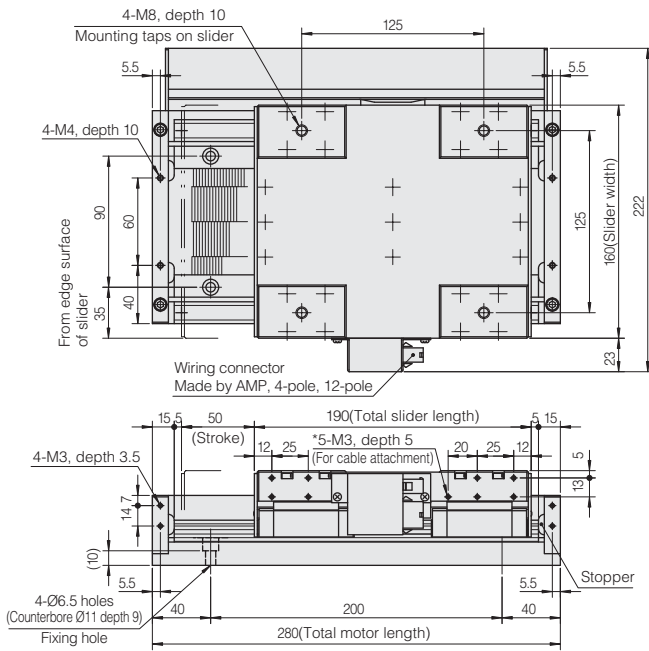
■ External Dimensions (Unit:mm)

Depending on the Model Code, you can choose the Length of Stroke[*Ls*].

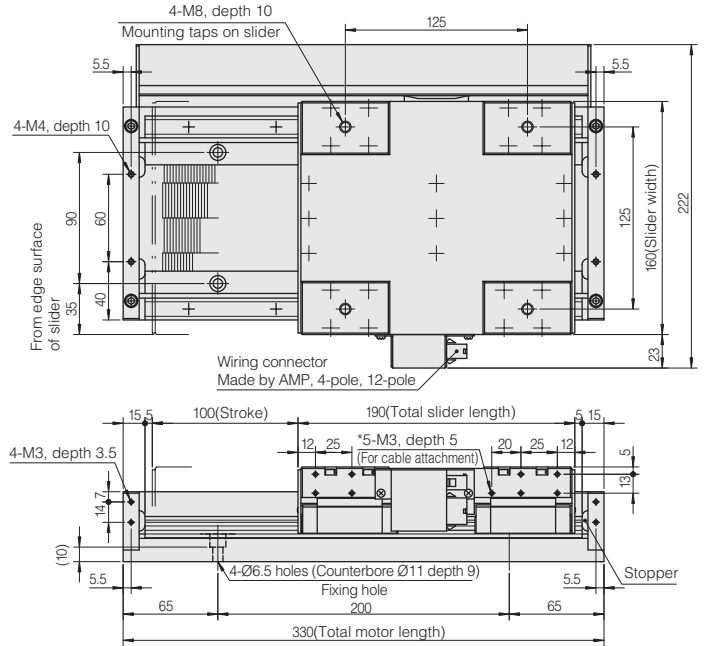
For more information, please refer to the (recommended) Model and Suffix Codes. (Page 58)

LM130, LM530

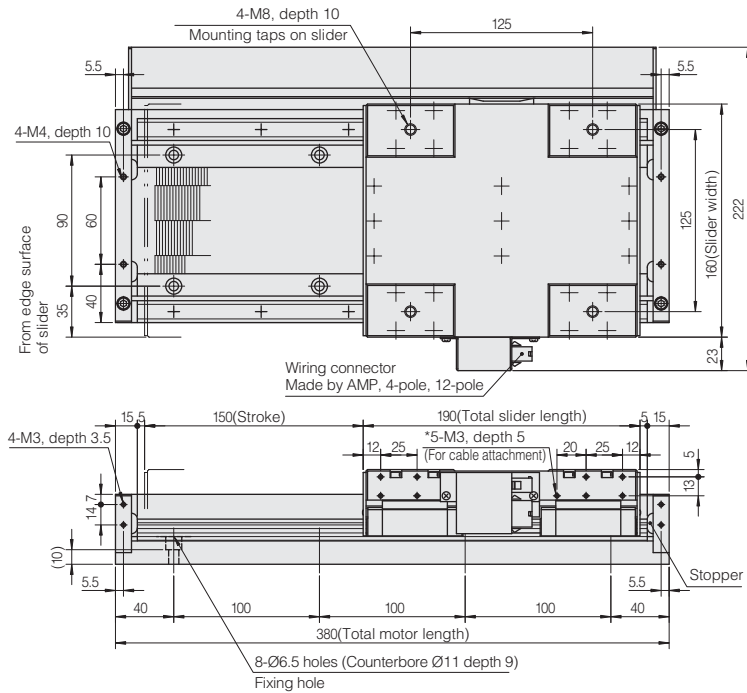
(1) Length of stroke 50mm



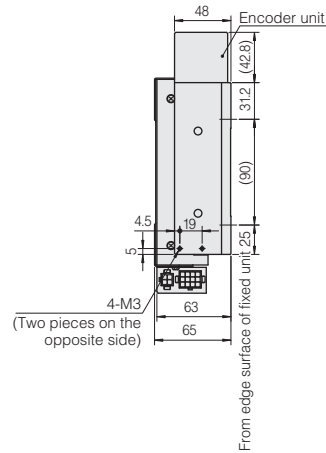
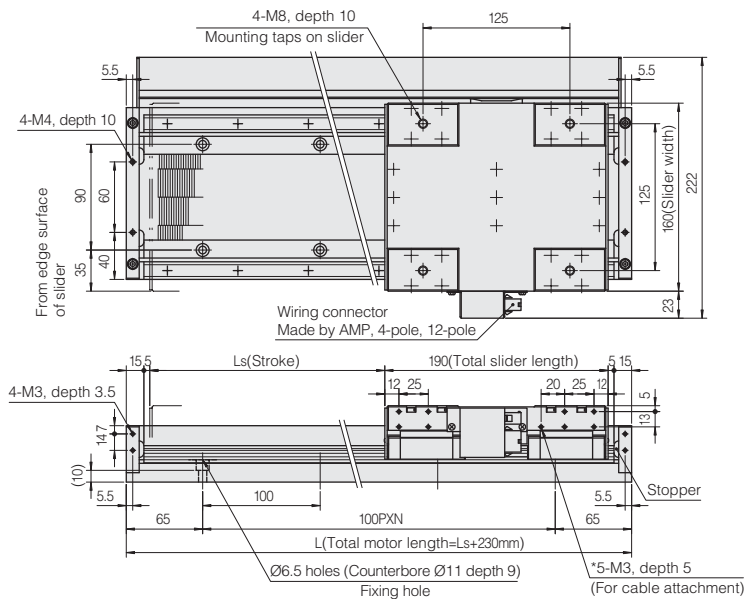
(2) Length of stroke 100mm



(3) Length of stroke 150mm



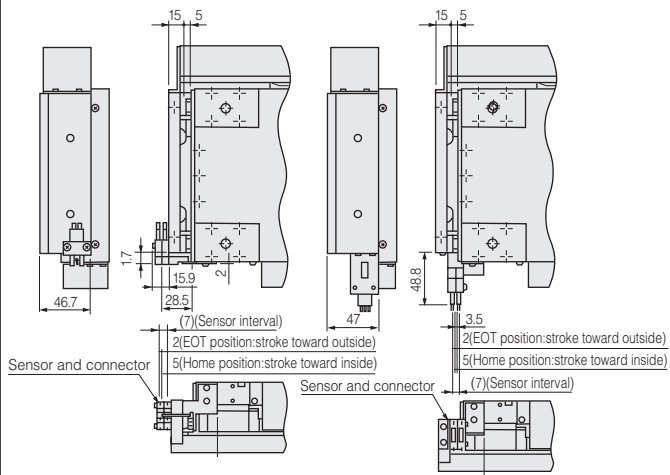
(4) Length of stroke 200 to 1200mm



**Sensor mounting position diagram
(e.g. LM130)**

(1) Outside sensors

(2) Inside sensors



Sensor: EE-SX670A or EE-SX670 (Omron)

Connector: EE-1001 (Omron)

Mounting 4 pieces, 2 for each side

Stroke	L	LS	N	Number of fixing hole
-020	430	200	3	2×4
-030	530	300	4	2×5
-040	630	400	5	2×6
-050	730	500	6	2×7
-060	830	600	7	2×8
-070	930	700	8	2×9
-080	1030	800	9	2×10
-090	1130	900	10	2×11
-100	1230	1000	11	2×12
-110	1330	1100	12	2×13
-120	1430	1200	13	2×14

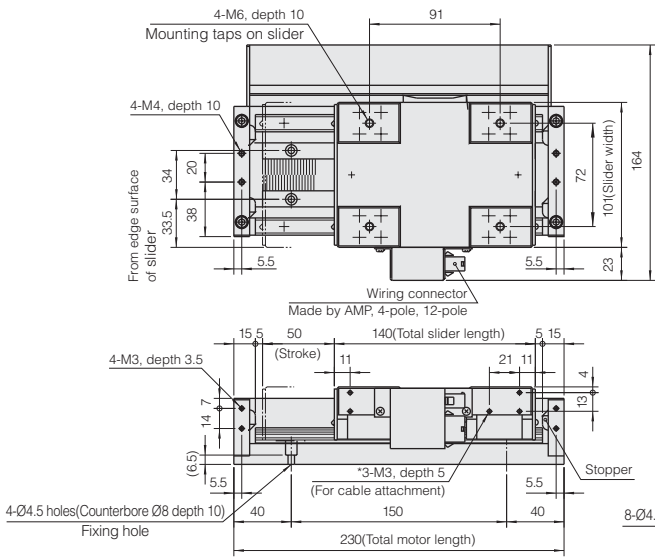
LM Motor High Accuracy Positioning Linear Motor

External Dimensions (Unit:mm)

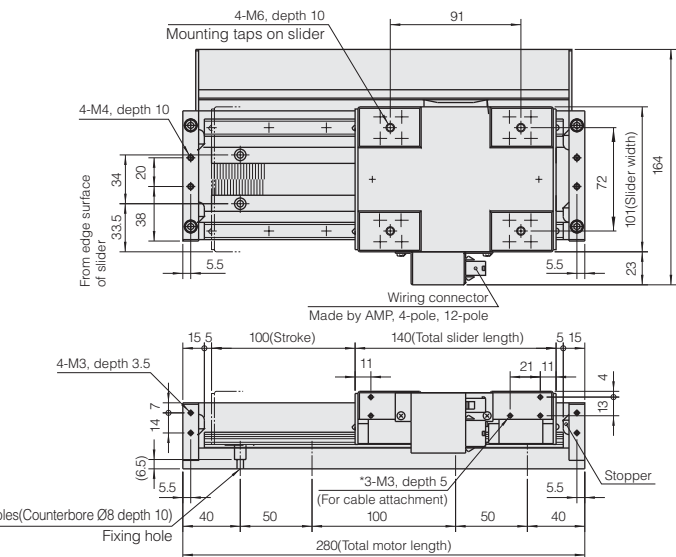
Depending on the Model Code, you can choose the Length of Stroke[Ls].
For more information, please refer to the (recommended) Model and Suffix Codes. (Page 58)

LM205, LM305

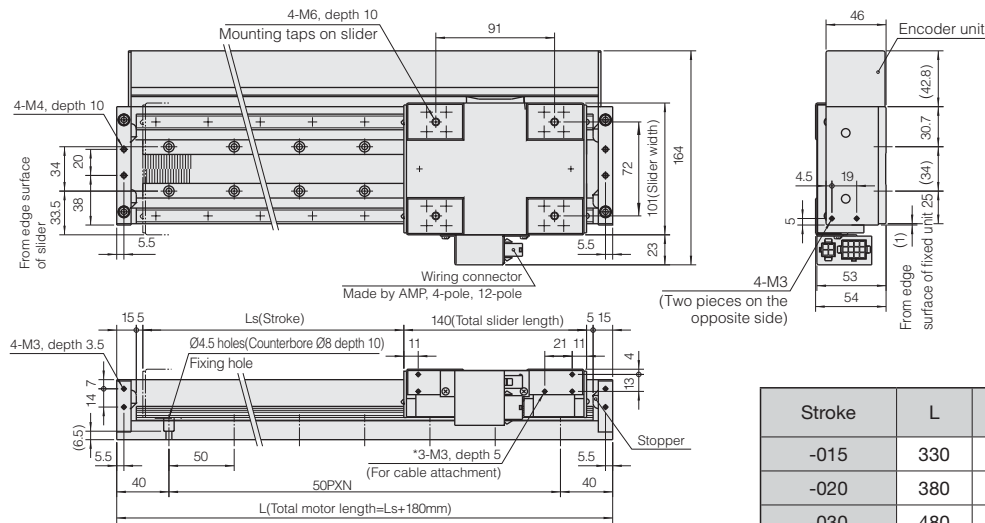
(1) Length of stroke 50mm



(2) Length of stroke 100mm



(3) Length of stroke 150 to 1200mm

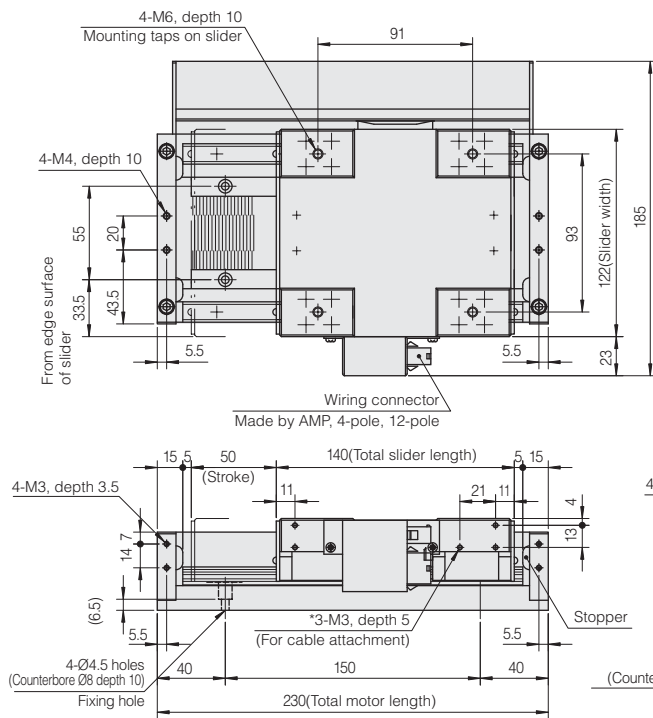


Stroke	L	Ls	N	Number of fixing hole
-015	330	150	5	2×6
-020	380	200	6	2×7
-030	480	300	8	2×9
-040	580	400	10	2×11
-050	680	500	12	2×13
-060	780	600	14	2×15
-070	880	700	16	2×17
-080	980	800	18	2×19
-090	1080	900	20	2×21
-100	1180	1000	22	2×23
-110	1280	1100	24	2×25
-120	1380	1200	26	2×27

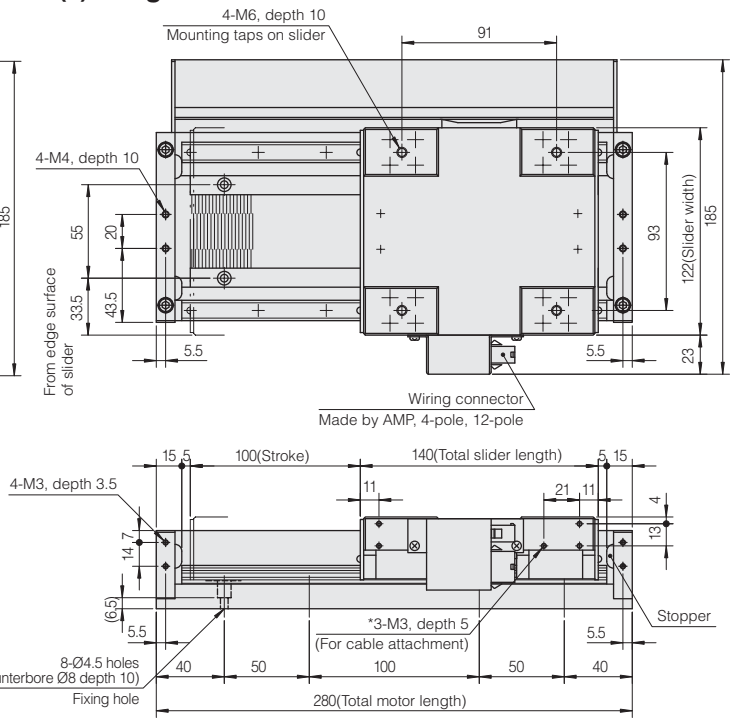
LM Motor High Accuracy Positioning Linear Motor

LM210, LM310

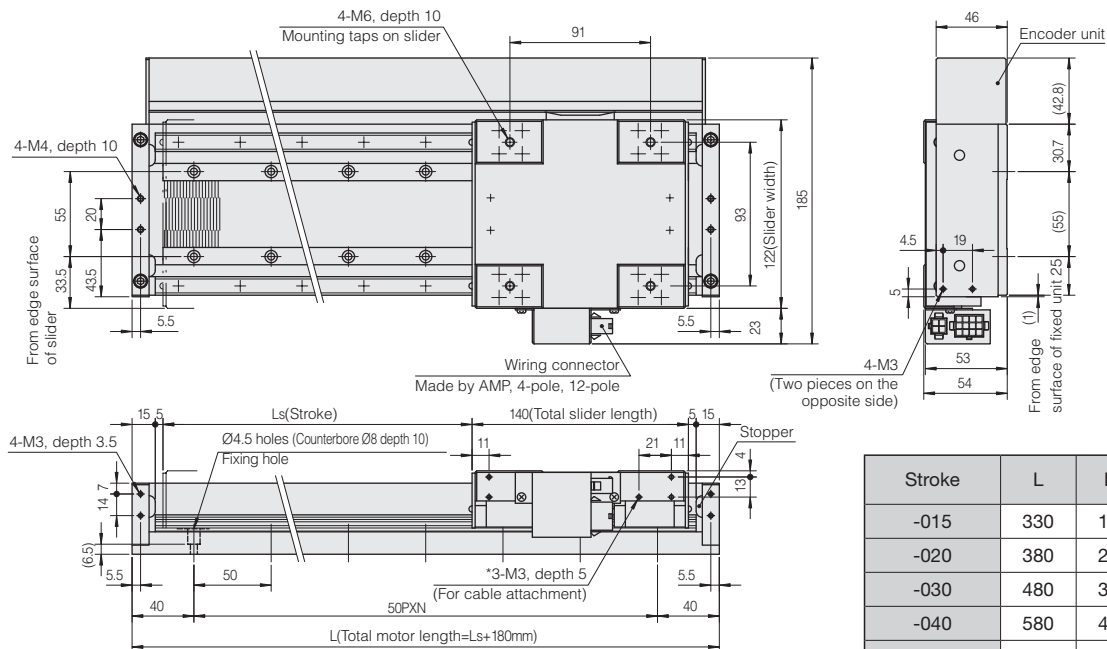
(1) Length of stroke 50mm



(2) Length of stroke 100mm



(3) Length of stroke 150 to 1200mm



Stroke	L	Ls	N	Number of fixing hole
-015	330	150	5	2×6
-020	380	200	6	2×7
-030	480	300	8	2×9
-040	580	400	10	2×11
-050	680	500	12	2×13
-060	780	600	14	2×15
-070	880	700	16	2×17
-080	980	800	18	2×19
-090	1080	900	20	2×21
-100	1180	1000	22	2×23
-110	1280	1100	24	2×25
-120	1380	1200	26	2×27

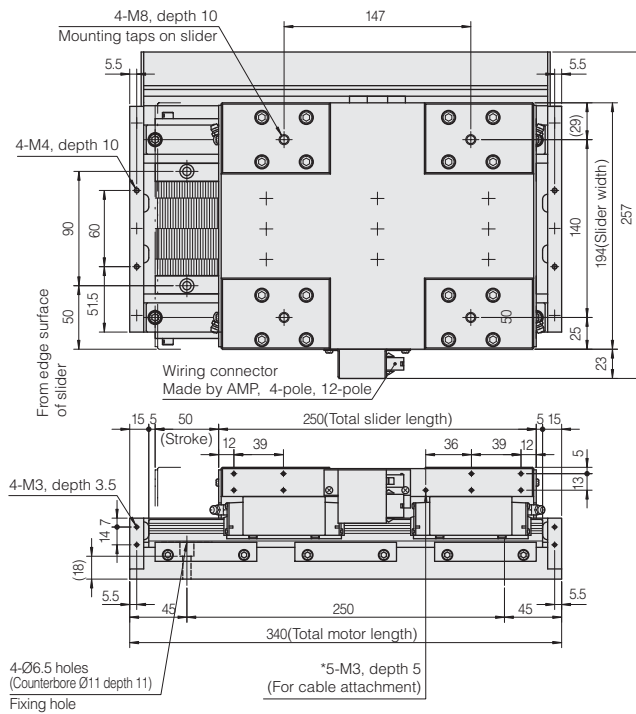
LM Motor High Accuracy Positioning Linear Motor

External Dimensions (Unit:mm)

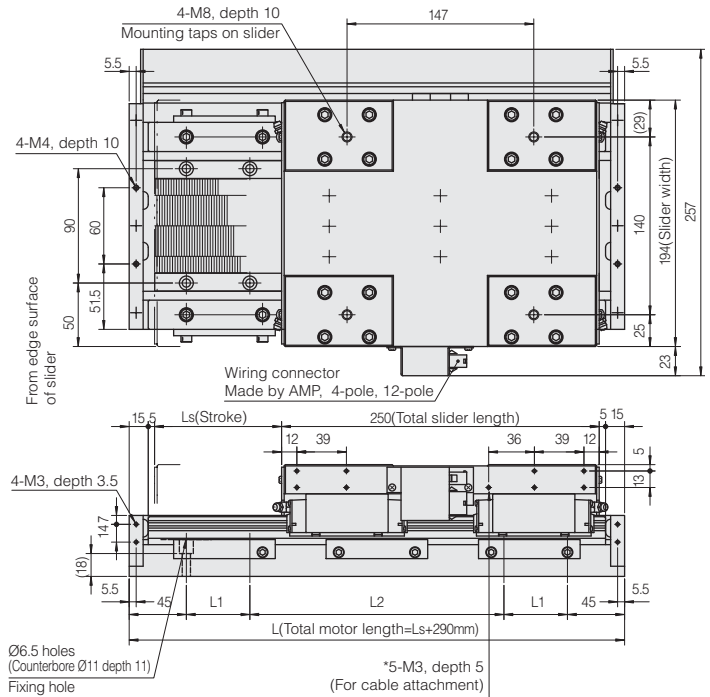
Depending on the Model Code, you can choose the Length of Stroke[L_s].
For more information, please refer to the (recommended) Model and Suffix Codes. (Page 58)

LM230, LM330

(1) Length of stroke 50mm

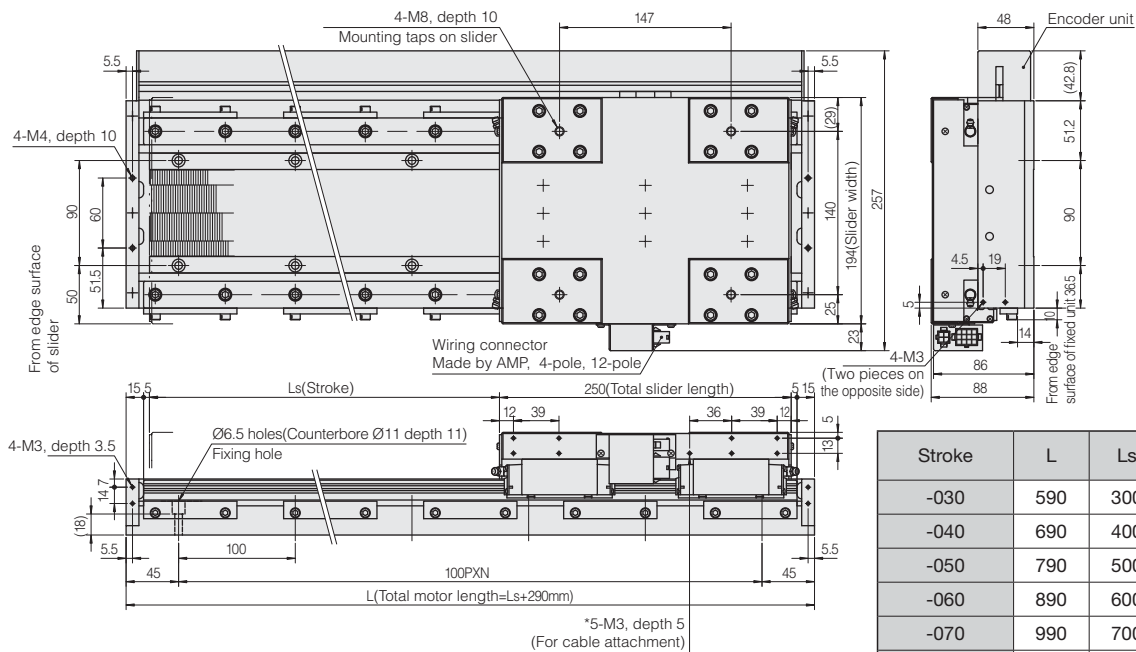


(2) Length of stroke 100 to 200mm



Stroke	L	Ls	L1	L2	Number of fixing hole
-010	390	100	50	200	2×4
-015	440	150	100	150	2×4
-020	490	200	100	200	2×4

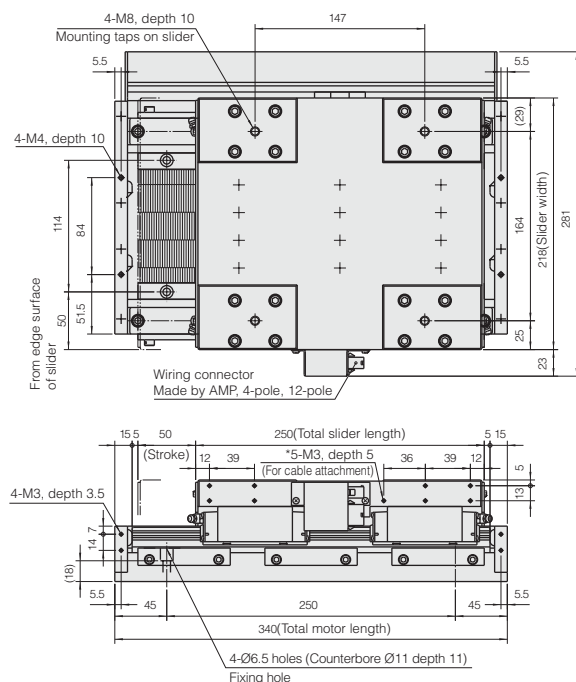
(3) Length of stroke 300 to 1200mm



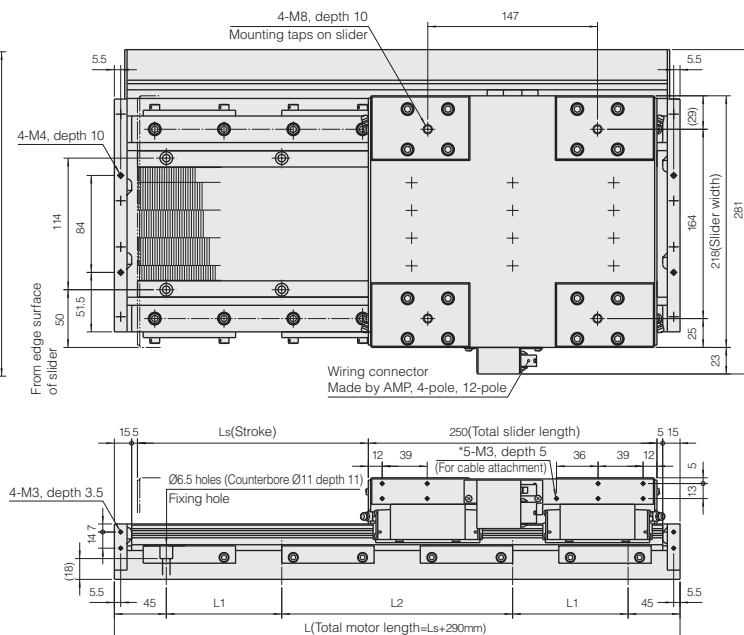
Stroke	L	Ls	N	Number of fixing hole
-030	590	300	5	2×6
-040	690	400	6	2×7
-050	790	500	7	2×8
-060	890	600	8	2×9
-070	990	700	9	2×10
-080	1090	800	10	2×11
-090	1190	900	11	2×12
-100	1290	1000	12	2×13
-110	1390	1100	13	2×14
-120	1490	1200	14	2×15

LM240

(1) Length of stroke 50mm

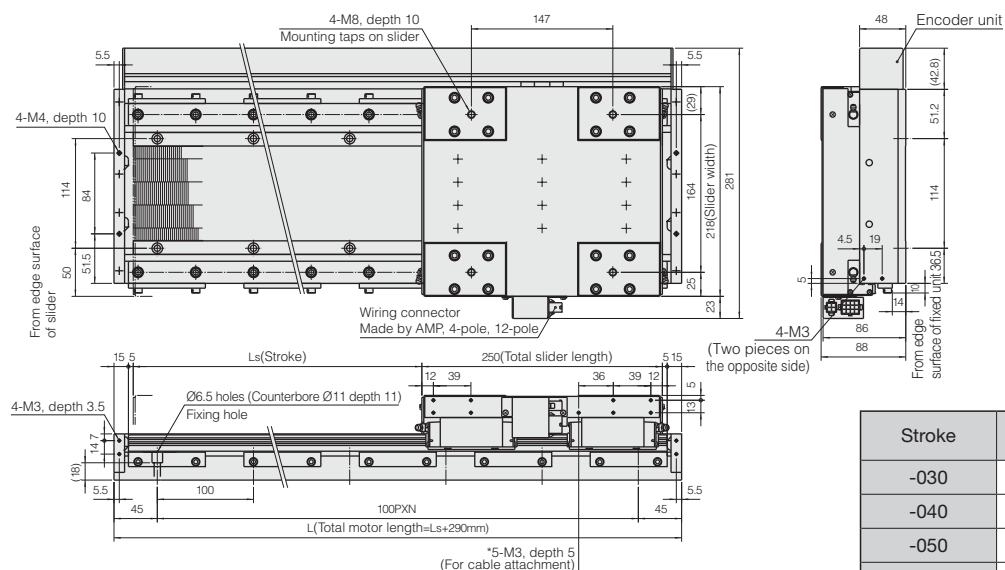


(2) Length of stroke 100 to 200mm



Stroke	L	Ls	L1	L2	Number of fixing hole
-010	390	100	50	200	2×4
-015	440	150	100	150	2×4
-020	490	200	100	200	2×4

(3) Length of stroke 300 to 1200mm



Stroke	L	Ls	N	Number of fixing hole
-030	590	300	5	2×6
-040	690	400	6	2×7
-050	790	500	7	2×8
-060	890	600	8	2×9
-070	990	700	9	2×10
-080	1090	800	10	2×11
-090	1190	900	11	2×12
-100	1290	1000	12	2×13
-110	1390	1100	13	2×14
-120	1490	1200	14	2×15

■ Outline

DD STAGE is YOKOGAWA's unique X-Y-θ stage which integrates DYNASERV(direct drive motor) and LINEARSERV(direct drive linear motor).

YOKOGAWA's DYNASERV has been having a good sales record for over years, and LINEARSERV was developed in line with the concept of DYNASERV.

The DYNASERV enjoys high accuracy and high tact time that does not require any speed reduction devices.

DYNASERV has replaced traditional AC/DC servomotors, and it has been used in many FA devices and machines.

DD STAGE has high accuracy actuator that is fast and compact.

DD STAGE has been praised highly in many applications such as semiconductor manufacturing and inspection devices and FPD manufacturing devices.

This precision stage has been delivered to a great many customers.

■ **Perpendicular Accuracy: 25μm**

■ **Parallel Accuracy: ±20μm (In a full stroke)**

■ **Repeatable accuracy: ±0.1μm (for both X and Y directions)**

■ **Encoder resolution: 0.05μm (for both X and Y directions)**

■ **Multi-slider**

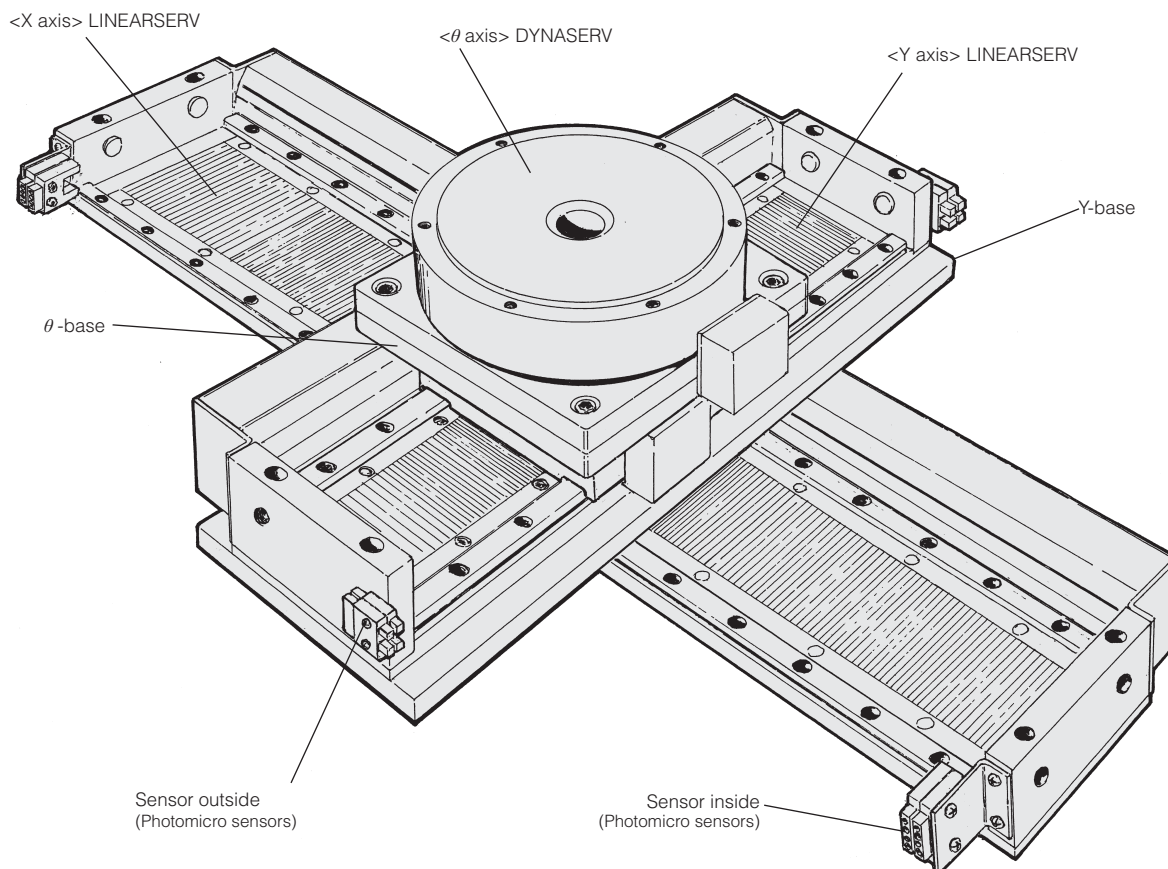
■ **Mounting accuracy is tuned and guaranteed by YOKOGAWA.**

■ **Tandem stage (High-Thrust)**

■ **Basic composition and stroke please refer to the reference drawings in following pages.**

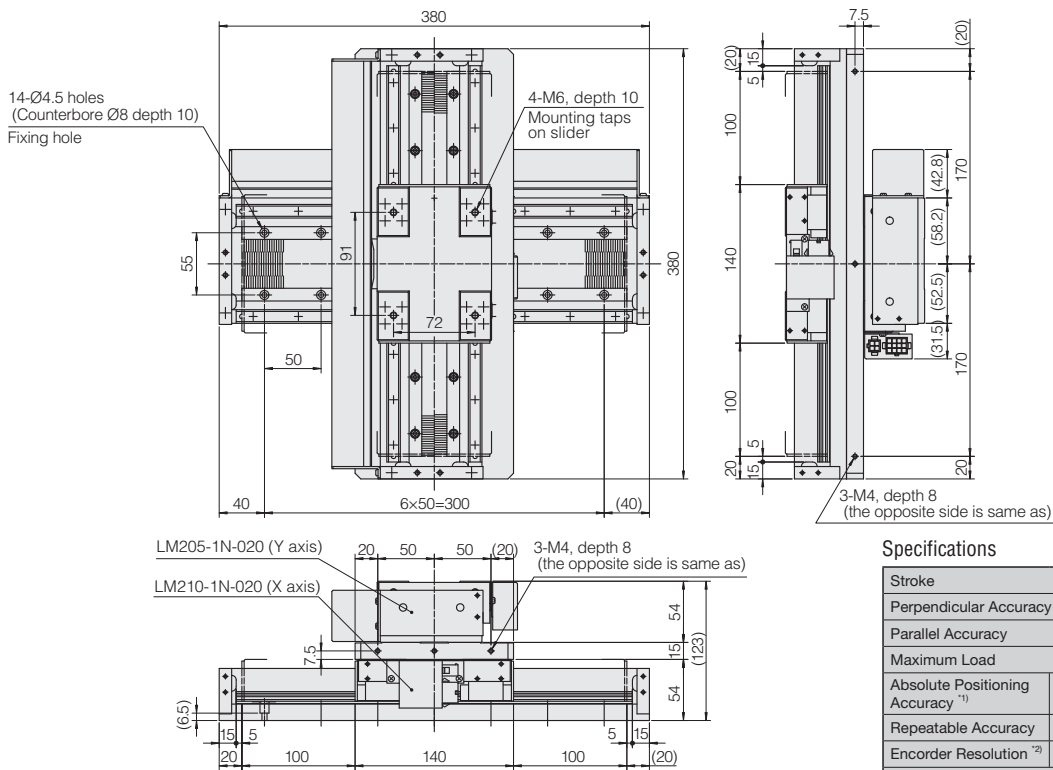
For more information, please contact us.

■ Example of Stage

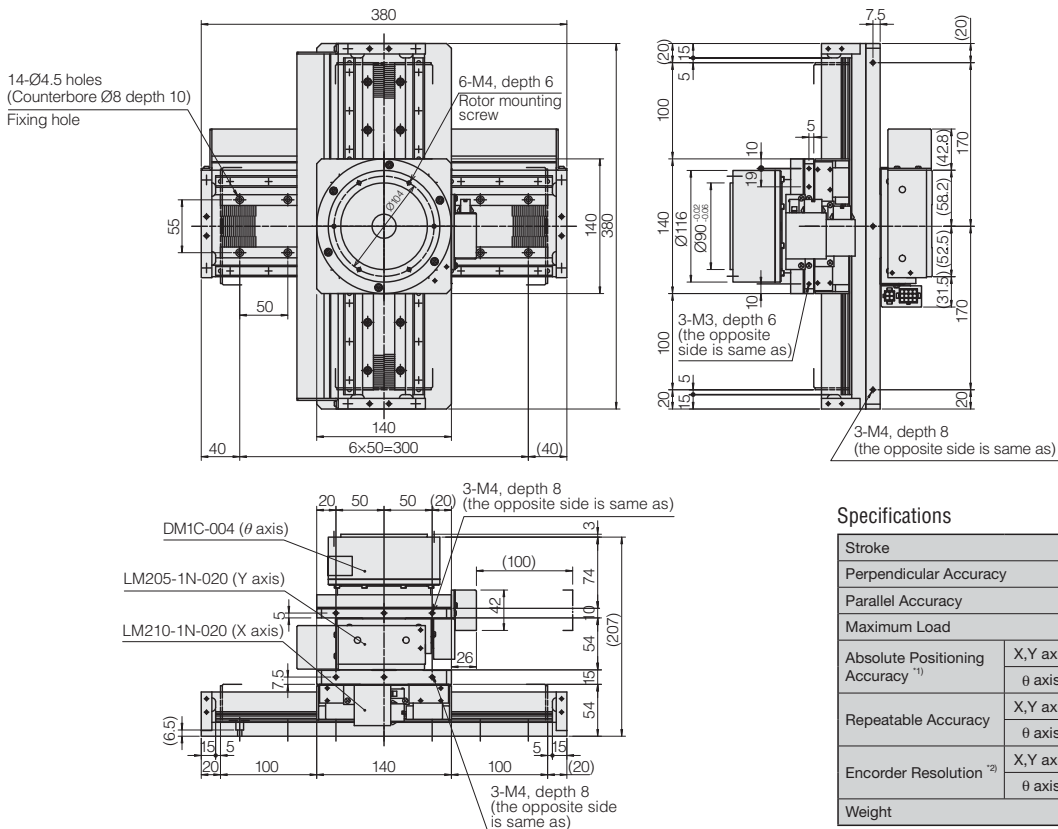


MicroStage / DD STAGE High Accuracy Positioning X-Y-θ Stage

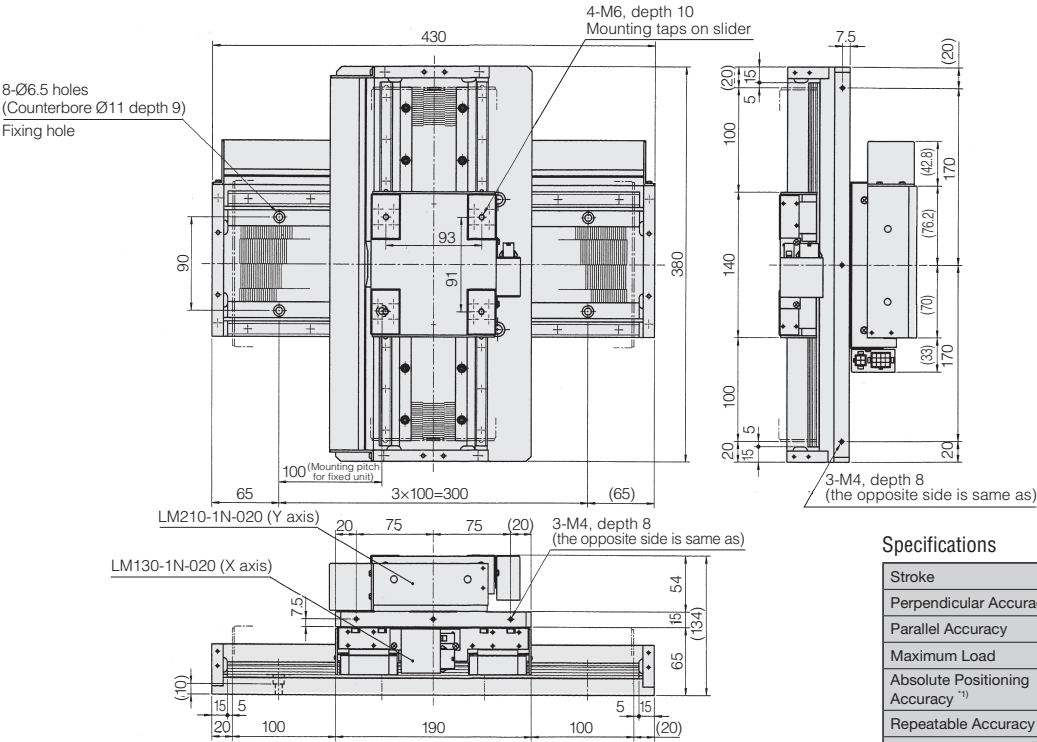
■ Reference Drawing (1) (Unit:mm)



■ **Reference Drawing (2) (Unit:mm)**



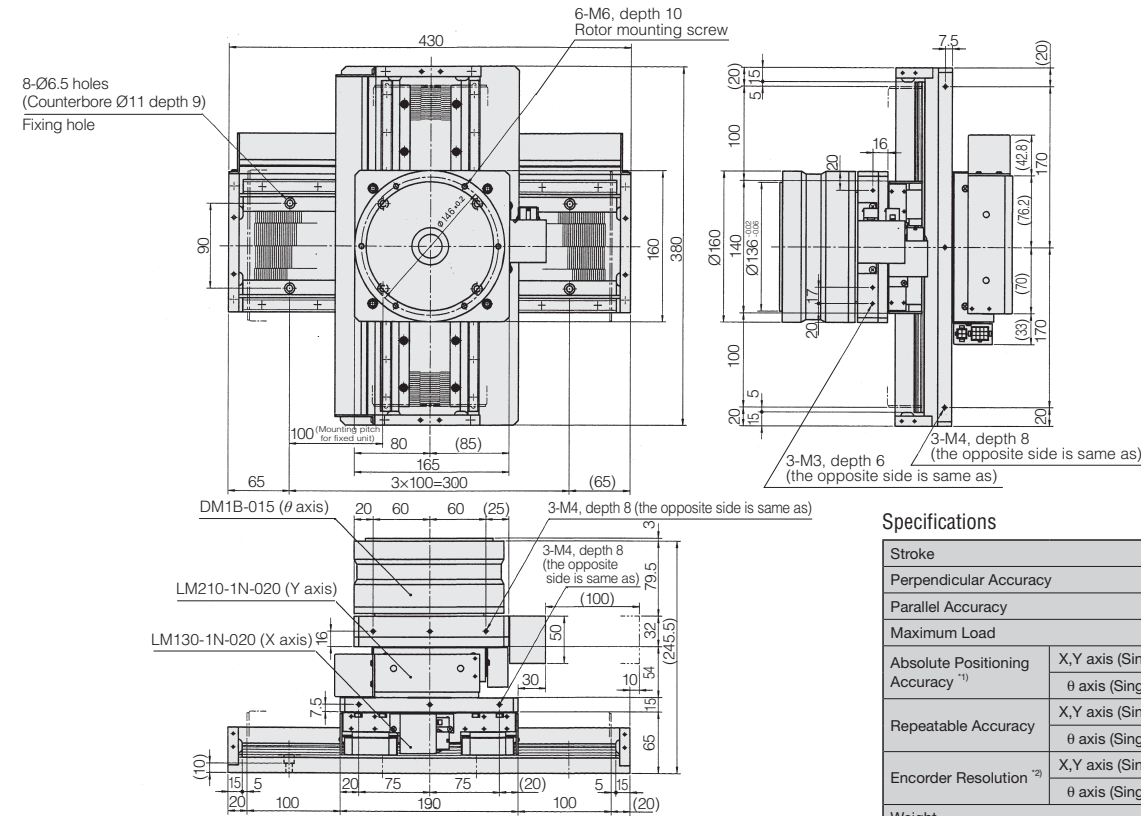
Reference Drawing (3) (Unit:mm)



Specifications		
Stroke	200mm×200mm	
Perpendicular Accuracy	25μm	
Parallel Accuracy	±20μm (Full stroke)	
Maximum Load	30kg	
Absolute Positioning Accuracy ^{*1)}	X,Y axis (Single axis)	6μm
Repeatable Accuracy	X,Y axis (Single axis)	±0.5μm
Encoder Resolution ^{*2)}	X,Y axis (Single axis)	0.25μm
Weight	34kg	

*1) Scale accuracy specification at 23°C
*2) Resolution is different depending on the driver.

Reference Drawing (4) (Unit:mm)

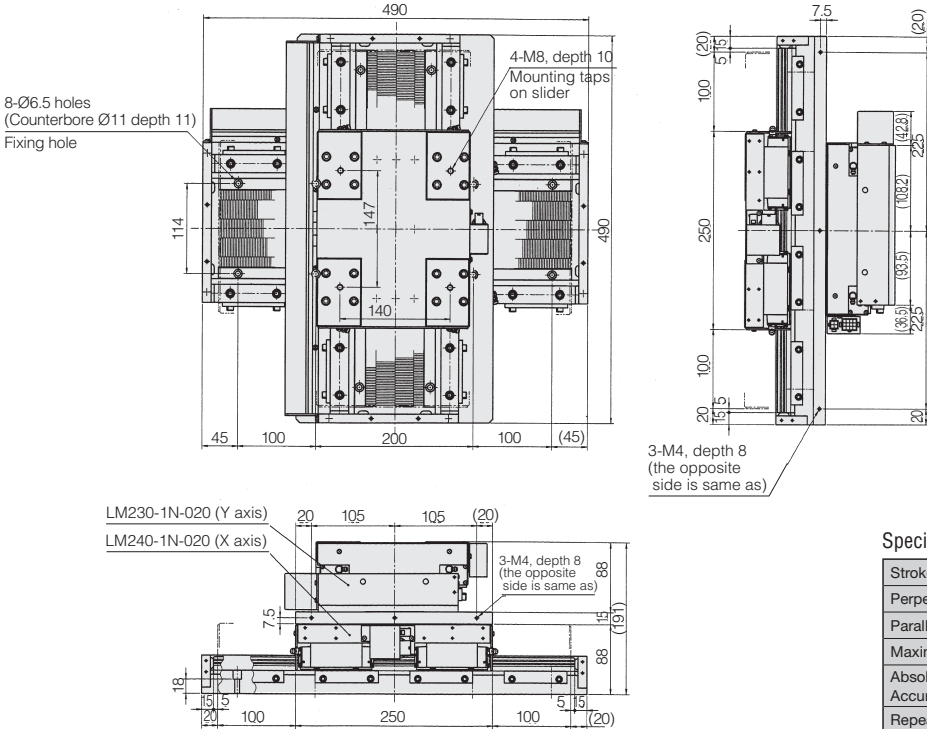


Specifications		
Stroke	200mm×200mm	
Perpendicular Accuracy	25μm	
Parallel Accuracy	±20μm (Full stroke)	
Maximum Load	20kg	
Absolute Positioning Accuracy ^{*1)}	X,Y axis (Single axis)	6μm
	θ axis (Single axis)	±15 arc sec
Repeatable Accuracy	X,Y axis (Single axis)	±0.5μm
	θ axis (Single axis)	±1 arc sec
Encoder Resolution ^{*2)}	X,Y axis (Single axis)	0.25μm
	θ axis (Single axis)	2,621,440 p/rev
Weight	42kg	

*1) Scale accuracy specification at 23°C
*2) Resolution is different depending on the driver.

MicroStage / DD STAGE High Accuracy Positioning X-Y-θ Stage

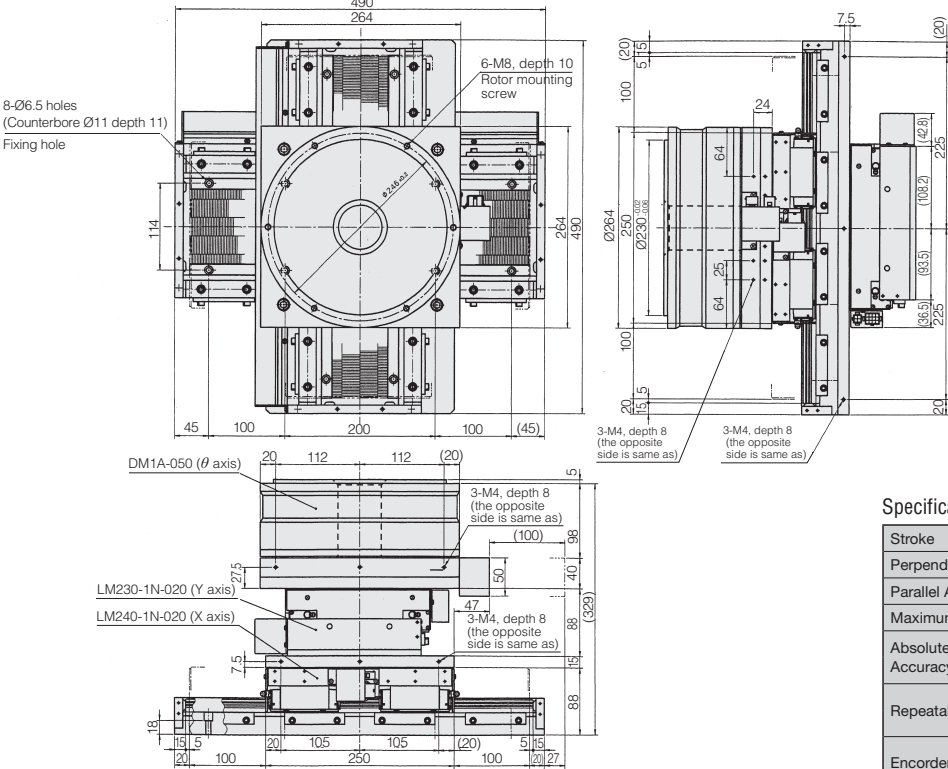
Reference Drawing (5) (Unit:mm)



Specifications		
Stroke	200mm×200mm	
Perpendicular Accuracy	25μm	
Parallel Accuracy	±20μm (Full stroke)	
Maximum Load	50kg	
Absolute Positioning Accuracy ^{*1)}	X,Y axis (Single axis)	6μm
Repeatable Accuracy	X,Y axis (Single axis)	±0.5μm
Encoder Resolution ^{*2)}	X,Y axis (Single axis)	0.25μm
Weight	81kg	

^{*1)} Scale accuracy specification at 23°C
^{*2)} Resolution is different depending on the driver.

Reference Drawing (6) (Unit:mm)

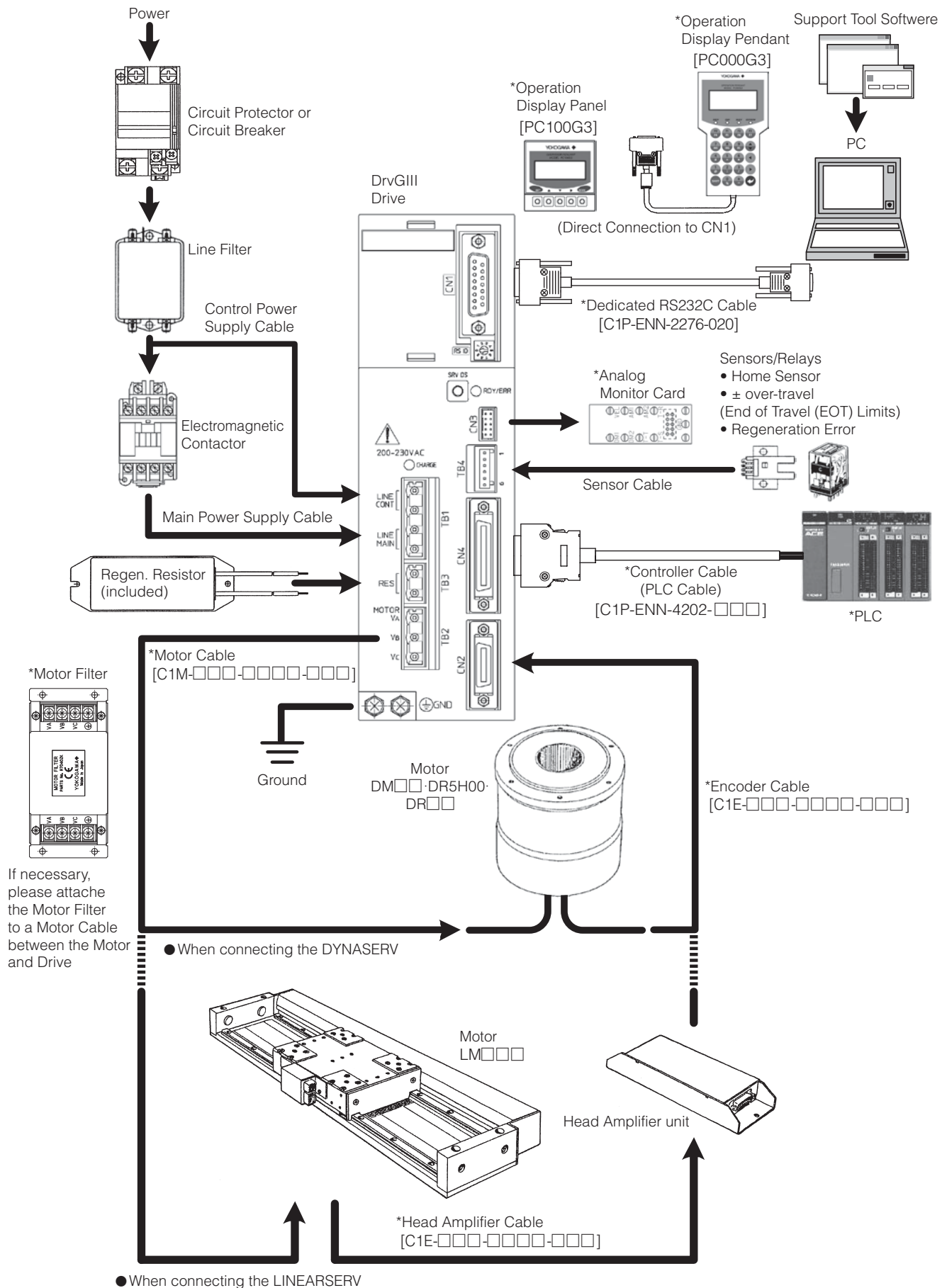


Specifications		
Stroke	200mm×200mm	
Perpendicular Accuracy	25μm	
Parallel Accuracy	±20μm (Full stroke)	
Maximum Load	30kg	
Absolute Positioning Accuracy ^{*1)}	X,Y axis (Single axis)	6μm
	θ axis (Single axis)	±15 arc sec
Repeatable Accuracy	X,Y axis (Single axis)	±0.5μm
	θ axis (Single axis)	±1 arc sec
Encoder Resolution ^{*2)}	X,Y axis (Single axis)	0.25μm
	θ axis (Single axis)	4,096,000 p/rev
Weight	104kg	

^{*1)} Scale accuracy specification at 23°C
^{*2)} Resolution is different depending on the driver.

The features are as follows:

System Configuration/Connection Diagram



* Separate sale for motor and drive.

Specifications

Wattage Class			500W Class		2kW Class	
Basic Specifications	Power supply	Main power supply	200 to 230VAC / 100 to 115VAC ^{+10%} _{-15%} 50/60Hz			
			Maximum power consumption 1.3kVA		Maximum power consumption 3.4kVA	
		Control power supply	200 to 230VAC / 100 to 115VAC ^{+10%} _{-15%} 50/60Hz			
			Maximum power consumption 40VA			
	Environment	Temperature	0 to +50°C (Operation) / -20 to +85°C (Storage)			
		Humidity	20 to 90%RH No condensing (Operation and Storage)			
		Atmosphere	No corrosive gases, dust-free atmosphere Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)			
	Construction	Installation	Wall-mount			
		Fan	N/A		Built-in DC Fan	
		Regenerative Resistor	External		Built-in	
	External Dimensions		60 W×195 H×150 D (mm)		100 W×195 H×200 D (mm)	
	Weight		1.2 kg		2.5 kg	
	Conformed Standard		Low voltage (declaration) EN50178, EMC (declaration) EN55011 class A group 1, EN61800-3			
			UL508C			
KC mark						
Resistance and Pressure		Insulation resistance : 10MΩ or more (DC500V), Insulation pressure : 1500VAC 1min				
Encoder Resolution Value inside () is factory default value for command and monitor pulses	DYNASERV	UD1BG3 ; 2,621,440p/rev (655,360p/rev) UD1CG3 ; 2,621,440p/rev (655,360p/rev) UR5HG3 ; 3,407,872p/rev (425,984p/rev) UR5CG3 ; 425,984p/rev (212,992p/rev)		UD1AG3 ; 4,096,000p/rev (1,024,000p/rev) UD1BG3 ; 2,621,440p/rev (655,360p/rev) UR5HG3 ; 3,407,872p/rev (425,984p/rev) UR1AG3 ; 1,638,400p/rev (819,200p/rev) UR1EG3 ; 1,228,800p/rev (614,400p/rev) UR1BG3 ; 1,015,808p/rev (507,904p/rev) UR5EG3 ; 638,976p/rev (319,488p/rev) UR5BG3 ; 557,056p/rev (278,528p/rev)		
	LINEARSERV	UM1LG3-□□□B ; 0.5μm (1.0μm) UM1LG3-□□□C ; 0.25μm (0.5μm) UM1LG3-□□□E ; 0.05μm (0.1μm)		— — —		
Communication Interface	Serial Interface (RS232C/RS485)		Communication Communication Speed Multi-channel (RS485)	Start-stop system, binary communication 38,400 bps Max. 10 channels		
	Controller Interface		Pos. Command pulse (input) Pos. Monitor pulse (output) Contact I/O Analog input	[PLS-SIGN (STEP-DIR)], [UP-DOWN], [A-B encoder] [UP-DOWN], [A-B encoder] 12 for input, 6 for output (with user configurable function) Velocity, Torque/Thrust command (Select "T" in the suffix code) Torque/Thrust limit, Torque/Thrust feed forward		
	Open Network		MECHATROLINK-II compatible (Select "M2" in the suffix code) *1 Drive Model : UD1AG3, UD1BG3, UD1CG3, UR5HG3, UR1AG3, UR1EG3, UR1BG3, UR5EG3, UR5BG3, UR5CG3, UM1LG3			
Mechanical Input Signal			Homing sensor, End Of Travel (EOT)			
Control Section	Position Control		I-PD control, PID control			
	Velocity Control		Proportional control, PID control			
	Feed Forward		Position, velocity and acceleration			
	Filter		Velocity command, velocity feedback, phase delay compensation and notch (2ch) filters			
Operation Functions			Homing, test, auto-tuning, positioning and jog move functions			
Safety Features			Encoder error, over voltage, over current, low bus line power voltage, power failure, over load, regen. Error detection, over speed, excessive pos. deviation, hardware EOT and software EOT (for linear coordinate)			
Monitor			Velocity, current instruction, analog (2ch) and digital (2ch)			
Operation / Display			Operation Display Panel (Optional) Operation Display Pendant (Optional) *2 Support Tool (Downloaded from our website) www.yokogawa.com/ddm/			
Miscellaneous			Servo deceleration function at power failure (immediate stop) Dynamic brake (Select "-1B" or "-1L" in the suffix code)			

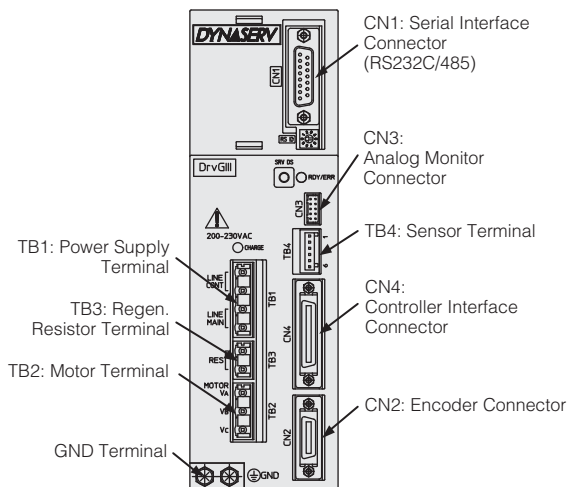
*1 : When Considering a MECHATROLINK, please contact us.

*2 : This unit CANNOT be used with DrvGIII with MECHATROLINK-II (suffix code "M2") and DrvPIII with PROFIBUS-DP (suffix code "P1")

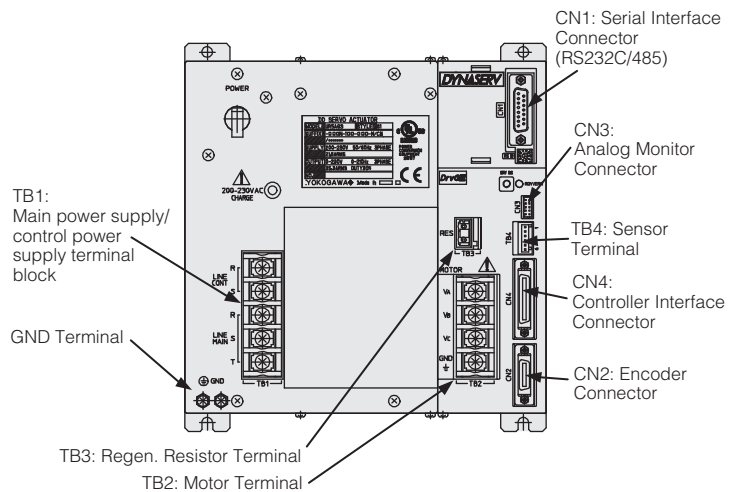
Wattage Class		4kW Class	
Basic Specifications	Power supply	Main power supply	3 phase 200 to 230 VAC ^{+10%} _{-15%} 50/60Hz
			Maximum power consumption 7.6kVA(varies depending on the connected motor)
		Control power supply	Single phase 200 to 230VAC ^{+10%} _{-15%} 50/60Hz
			Maximum power consumption 40VA
	Environment	Temperature	0 to +50°C (Operation) / -20 to +85°C (Storage)
		Humidity	20 to 90%RH No condensing (Operation and Storage)
		Atmosphere	No corrosive gases, dust-free atmosphere Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)
	Construction	Installation	Wall-mount
		Fan	2 Built-in DC Fans
		Regenerative Resistor	Built-in (Note : External regenerative resistor may be required depending on the operating conditions.)
	External Dimensions		200 W×195 H×200 D (mm)
	Weight		6.5 kg
	Conformed Standard	Low voltage (declaration) EN61800-5-1, EMC (declaration) EN55011 class A group 1, EN61800-3	
		UL508C	
		KC mark	
	Resistance and Pressure		Insulation resistance : 10MΩ or more (DC500V), Insulation pressure : 1500VAC 1min
	Encoder Resolution		DYNASERV UR5AG3 ; 851,968p/rev (425,984p/rev)
	Value inside () is factory default value for command and monitor pulses		
Communication Interface	Serial Interface (RS232C/RS485)		Communication Communication Speed 38,400 bps Multi-channel (RS485) Max. 10 channels
	Controller Interface		Pos. Command pulse (input) [PLS-SIGN (STEP-DIR)], [UP-DOWN], [A-B encoder] Pos. Monitor pulse (output) [UP-DOWN], [A-B encoder] Contact I/O 12 for input, 6 for output (with user configurable function) Analog input Velocity, Torque/Thrust command (Select "T" in the suffix code) Torque/Thrust limit, Torque/Thrust feed forward
Mechanical Input Signal		Homing sensor, End Of Travel (EOT)	
Control Section	Position Control		I-PD control, PID control
	Velocity Control		Proportional control, PID control
	Feed Forward		Position, velocity and acceleration
	Filter		Velocity command, velocity feedback, phase delay compensation and notch (2ch) filters
Operation Functions		Homing, test, auto-tuning, positioning and jog move functions	
Safety Features		Encoder error, over voltage, over current, low bus line power voltage, power failure, open-phase detection, over load, regen. Error detection, over speed, excessive pos. deviation, hardware EOT and software EOT (for linear coordinate)	
Monitor		Velocity, current instruction, analog (2ch) and digital (2ch)	
Operation / Display		Operation Display Panel (Optional) Operation Display Pendant (Optional) *2 Support Tool(Downloaded from our website) www.yokogawa.com/ddm/	
Miscellaneous		Servo deceleration function at power failure (immediate stop)	

Connectors and Terminals

<500W class · 2kW class>



<4kW class>



Power Supply

<500W class · 2kW class>

No.	Item	Connector Part Number	Description	Remark
TB1	Power Supply Terminal	Connector : 231-204/026-000 (WAGO)	For main and control power supply	Included
TB2	Motor Terminal	Connector : 231-203/026-000 (WAGO)	For motor cable	Included
TB3	Regen. Resistor Terminal	Connector : 231-202/026-000 (WAGO)	For regenerative resistor	Together with regenerative resistor
GND	GND Terminal	M4 screw	Protected ground	

<4kW class>

No.	Item	Connector Part Number	Description	Remark
TB1	Main power supply/control power supply terminal	Terminal block with M4 screw	For main and control power supply	
TB2	Motor Terminal	Terminal block with M4 screw	For motor cable	
TB3	Regen. Resistor Terminal	Connector : 231-202/026-000 (WAGO)	For regenerative resistor	
GND	GND Terminal	M4 screw	Protected ground	

<500W class · 2kW class>

TB1:Power Supply Terminal

Pin No.	Signal	Definition
1	LINE (CONT) L	AC power input for control circuit
2	LINE (CONT) N	AC power input for control circuit
3	LINE (MAIN) L	AC power input for driving motor
4	LINE (MAIN) N	AC power input for driving motor

TB2: Motor Terminal

Pin No.	Signal	Definition
1	VA	Output of phase A of motor
2	VB	Output of phase B of motor
3	VC	Output of phase C of motor

TB3: Regenerative Resistor Terminal

Pin No.	Signal	Definition
1	RES +	Regenerative resistor +
2	RES -	Regenerative resistor -

<4kW class>

TB1:Main power supply/control power supply terminal

Pin No.	Signal	Definition
1	LINE (CONT) R	AC power input for control circuit
2	LINE (CONT) S	AC power input for control circuit
3	LINE (MAIN) R	AC power input for driving motor
4	LINE (MAIN) S	AC power input for driving motor
5	LINE (MAIN) T	AC power input for driving motor
-	GND	Protected ground

TB2: Motor Terminal

Pin No.	Signal	Definition
1	VA	Output of phase A of motor
2	VB	Output of phase B of motor
3	VC	Output of phase C of motor
4	GND	Motor GND

TB3: Regenerative Resistor Terminal

Pin No.	Signal	Definition
1	RES +	Regenerative resistor +
2	RES -	Regenerative resistor -

Control section

<500W class · 2kW class · 4kW class>

TB4	Sensor Terminal	Connector : 733-106 (WAGO)	For home sensor and $\pm$ EOT	Standard
CN1	Serial Interface Connector (RS232C/485)	Connector : DA-15PF-N (JAE) Cover : DA-C8-J10-F4-1R	For Operation Display Panel, Operation Display Pendant and PC	Optional
CN2	Encoder Connector	Connector : PCR-S20FS+ (Honda) Cover : PCR-LS20LA1	For encoder cable	Optional
CN3	Analog Monitor Connector	Analog monitor card	For monitors and oscilloscope	Optional
CN4	Controller Interface Connector	Suffix code "SA", "SB", "TA", "TB", "UA", "UB"	For connection to PLC	Optional
		Suffix code "M2" *1		
		Connector : PCR-S36FS+ (Honda) Cover : PCR-LS36LA		
		Cable : MECHATROLINK-II standard cable		Please prepare by yourself.

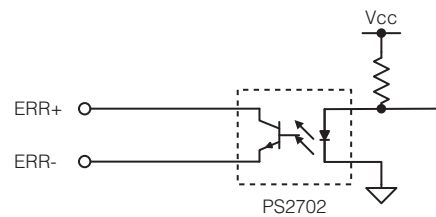
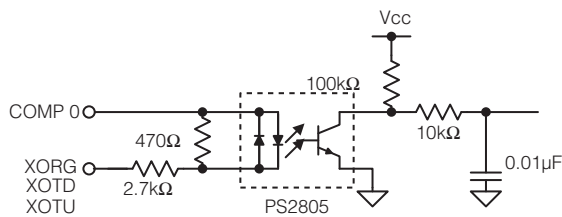
*1: When Considering a MECHATROLINK, please contact us. 4 kW class drive UR5AG3(Motor model DR5A) is not supported on MECHATROLINK-II(Suffix code "M2")

TB4: Sensor Terminal

Pin No.	Signal	Definition
1	COMP0	Sensor power
2	XORG	Home input Normal-close
3	XOTD	- EOT input Normal-close
4	XOTU	+EOT input Normal-close
5	ERR+	Regeneration error output +
6	ERR-	Regeneration error output -

Sensor Input Specifications	
Rated Voltage	12~24VDC ($\pm 10\%$)
Rated Input Current	4.1mA/point (at 12VDC) 8.5mA/point (at 24VDC)
Input Impedance	3.0k Ω
Operating Voltage (for COMP0)	3.0VDC when power is OFF 9.0VDC when power is ON
Breaker Capacity	To be off at less than 1.0mA

Regeneration Error Output	
Max. Working Voltage	30VDC
Max. Output Current	50mA



CN1: Serial Interface Connector(RS232C/485)

Pin No.	Signal	Definition
1	FG	Frame GND Signal (Shield)
2	RxD	RxD terminal RS232C single channel communication
3	TxD	TxD terminal RS232C single channel communication
4	A	Rx (+) side terminal RS485 multi-channel communication
5	Y	Tx (+) side terminal RS485 multi-channel communication
6	485SW	Busy condition bit RS485 multi-channel communication
7	TRMP	Terminator terminal RS485 multi-channel communication (short circuit to #14 TRMN)
8	CN1SW	Busy condition bit CN1
9	+5V	+5V power (Operation Display Panel and Pendant) *2
10	SG	Signal GND terminal
11	B	Rx (-) side terminal RS485 multi-channel communication
12	Z	Tx (-) side terminal RS485 multi-channel communication
13	SG	Signal GND terminal
14	TRMN	Terminator terminal RS485 multi-channel communication (short circuit to #7 TRMP)
15	SG	Signal GND terminal

*2 : Do not connect in RS232C/485 communication

CN2: Encoder Connector

Pin No.	Signal			
	DM1B-006 DM1C-004	DM□□ Motor (excl. Left hand side models)	LM□□ Motor	DR5H00- DR□□ Motor
1	+10V	+10V	+10V	—
2	—	—	—	+S0
3	θ SIG 0	θ SIG 0	SIG 0	—
4	—	ECLK+(10V)	—	—
5	θ SIG 1	θ SIG 1	SIG 1	—
6	—	—	—	-S0
7	ECLK+(3V)	—	ECLK+(3V)	—
8	—	—	—	-C0
9	—	ZERO+	—	—
10	—	—	FG	+C0
11	—	—	—	+S180
12	GND	GND	GND	—
13	—	ECLK-(10V)	—	—
14	GND	GND	GND	—
15	—	—	—	-S180
16	GND	GND	GND	—
17	—	—	—	-C180
18	ECLK-(3V)	—	ECLK-(3V)	—
19	—	ZERO-	—	—
20	—	—	FG	+C180
Case	Shielding wire	Shielding wire	Shielding wire	FG / Shielding wire

CN3: Analog Monitor Connector

Pin No.	Signal	Definition
1	VEL	Velocity monitor terminal
2	AMON1	Analog monitor terminal 1 (general purpose monitor 1)
3	AMON2	Analog monitor terminal 2 (general purpose monitor 2)
4	DMON1	Digital monitor terminal 1 (general purpose monitor 1)
5	DMON2	Digital monitor terminal 2 (general purpose monitor 2)
6	T-R	Current command
7	T-T	Reserved For maintenance purpose
8	T-S	Reserved For maintenance purpose
9	<Prohibited>	Reserved Do not connect any line.
10	GND	GND terminal for monitor

CN4: Controller Interface Connector

●Contact I/O Suffix Code "SA", "SB", "TA", "TB", "UA", "UB" (for interface type and specification)

Pin No.	Signal	Definition
1	COMP1	Interface power +
2	COMN1	Interface power -
3	DO_0	I/O output 0
4	DO_1	I/O output 1
5	DO_2	I/O output 2
6	DO_3	I/O output 3
7	DO_4	I/O output 4
8	DO_5	I/O output 5
9	UA_OUT+	Position present pulse 1+
10	UA_OUT-	Position present pulse 1-
11	DB_OUT+	Position present pulse 2+
12	DB_OUT-	Position present pulse 2-
13	Z_OUT+	Z-pulse +
14	Z_OUT-	Z-pulse -
15	PUA_IN+	Position command pulse 1+
16	PUA_IN-	Position command pulse 1-
17	SDB_IN+	Position command pulse 2+
18	SDB_IN-	Position command pulse 2-
19	DI_0	I/O input 0
20	DI_1	I/O input 1
21	DI_2	I/O input 2
22	DI_3	I/O input 3
23	DI_4	I/O input 4
24	DI_5	I/O input 5
25	DI_6	I/O input 6
26	DI_7	I/O input 7
27	DI_8	I/O input 8
28	DI_9	I/O input 9
29	DI_10	I/O input 10
30	DI_11	I/O input 11
31	(NC)	Do not connect any line.
32	(NC)	
33	ASUB_IN+	Analog sub (auxiliary) input +
34	ASUB_IN-	Analog sub (auxiliary) input -
35	ACMD_IN+	Analog command input +
36	ACMD_IN-	Analog command input -
Shield	Shield treatment terminal	Inputs velocity or torque / force command (select "T" in the model and suffix code).

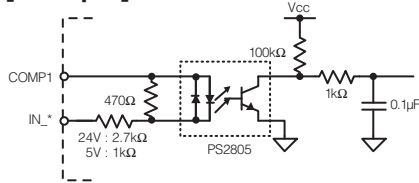


Default Signal Assignment Settings		
Logic I/O	Definition	Logic
OUT_DRDY	Driver (CPU) ready	Positive
OUT_SRDY	Servo ready	Positive
OUT_BUSY	Busy	Positive
OUT_OVL	Overload signal	Negative
OUT_OVER	Over speed signal	Positive
OUT_COIN	Coin signal	Positive



Default Signal Assignment Settings		
Logic I/O	Definition	Logic
IN_ERR_RESET	Error reset	Positive
IN_SERVO	Servo command	Positive
IN_START	Drive execution command	Positive
IN_ABORT	Stops motion & Table Operation	Positive
IN_I_CODE.0	Code input 0	Positive
IN_I_CODE.1	Code input 1	Positive
IN_POSW.0	Coin window select 0	Positive
IN_POSW.1	Coin window select 1	Positive
IN_VELFREQ_SEL	Velocity control bandwidth select	Positive
IN_POSFREQ_SEL	Position control bandwidth select	Positive
IN_PLS_DIRECT	Pulse priority select	Positive
IN_POSINT_INH	Pos. control integration prohibited	Positive

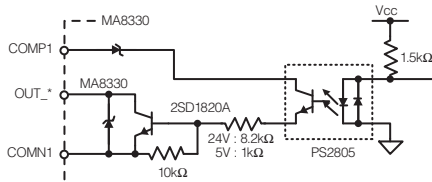
[I/O Input] DI_0 ~ DI_11



Input is in the on-state when the photo-coupler is in the on-state.

Interface Specification	A	B
Rated Voltage	12 ~ 24VDC (±10%)	5VDC (±10%)
Rated Input Current	4.1mA / point (at 12VDC) 8.5mA / point (at 24VDC)	4.0mA / point (at 5VDC)
Input Impedance	3.0kΩ	1.0kΩ
Operating Voltage (for COMP0)	3.0VDC when power is OFF 9.0VDC when power is ON	1.0VDC when power is OFF 4.0VDC when power is ON
Breaker Capacity	To be off at less than 1.0mA	

[I/O Output] DO_0 ~ DO_5



Output is in the on-state when the transistor is in the on-state.

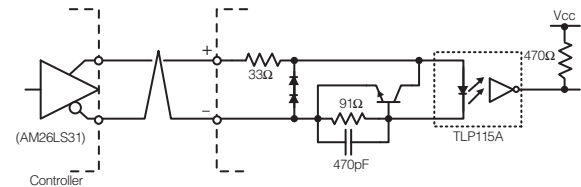
Interface Specification	A	B
Rated Voltage	12 ~ 24VDC (±10%)	5VDC (±10%)
Max. Load Current	0.1A / point, 0.5A / common	
On-state Voltage	Less than 0.5VDC	
Off-state Leakage Current	Less than 0.1mA	

[Position Command Pulse Input] PUA_IN±, SDB_IN±

■ Differential Input Specification

Connect the differential line driver conforming to RS422A standards, which is equivalent to AM26LS31.

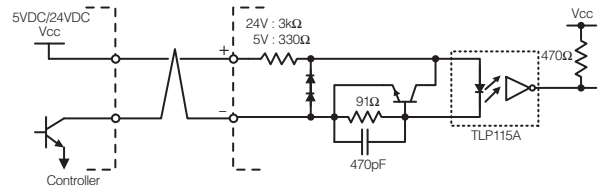
On-state: Positive terminal has higher electric charge than negative terminal, thereby electricity flow through photo-coupler.



■ Open Collector Input Specification

Input power source for interface.

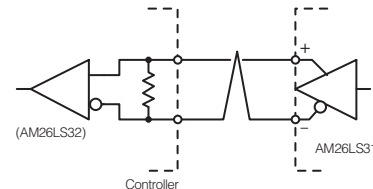
On-state when the photo-coupler is engaged.



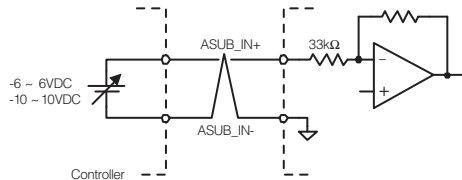
[Actual Position Pulse Output] UA_OUT±, DB_OUT±, Z_OUT±

Connect the differential line receiver conforming to RS422A standards, which is equivalent to AM26LS32.

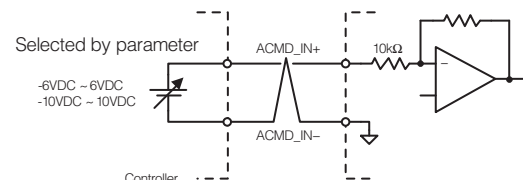
On-state: Positive terminal becomes a higher voltage than the negative terminal.



[Analog Sub (Auxiliary) Input] ASUB_IN±



[Analog Command Input] ACMD_IN±



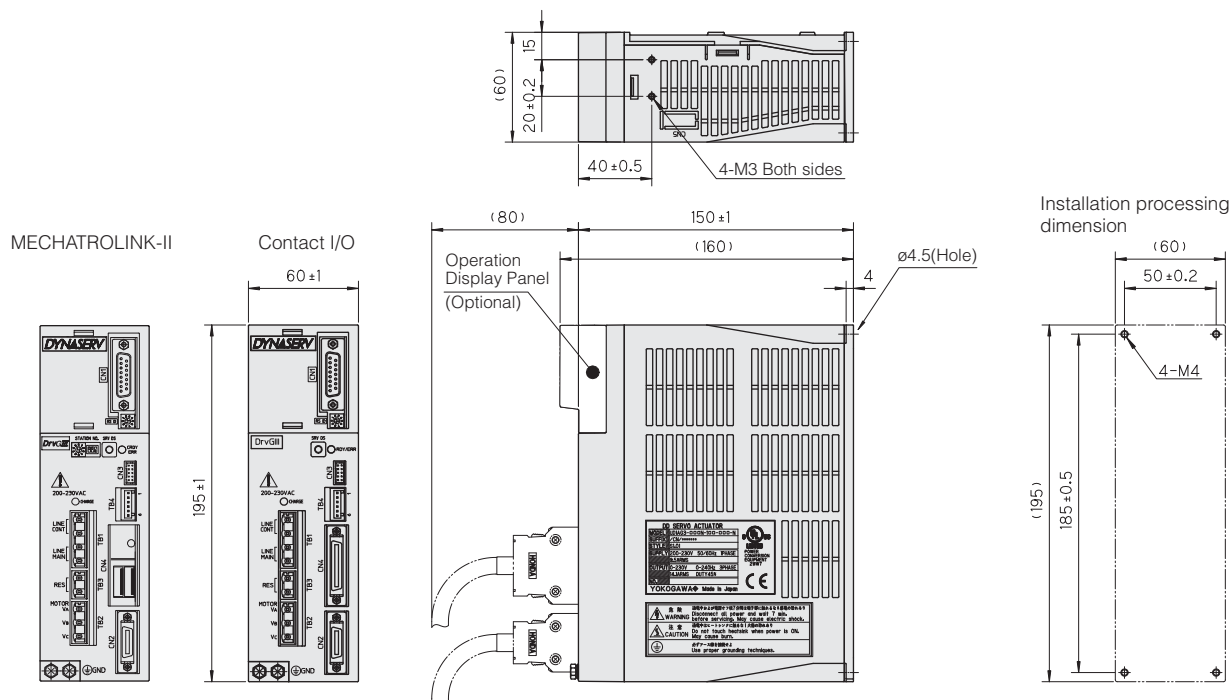
● MECHATROLINK-II Suffix Code "M2" (for interface type and specification)

Transmission Rate	10Mbps
Maximum Transmission Distance	50m
Minimum Distance between Stations	50cm
Number of Connectable Stations	Max. 9 when transmission cycle time is 1 ms. (Compliant to MECHATROLINK-II communications specifications)
Transmission Cycle Time	1ms.2ms
Communication Cycle Time	x 1 fixed
Transmission Byte	17 bytes / 32 bytes selectable

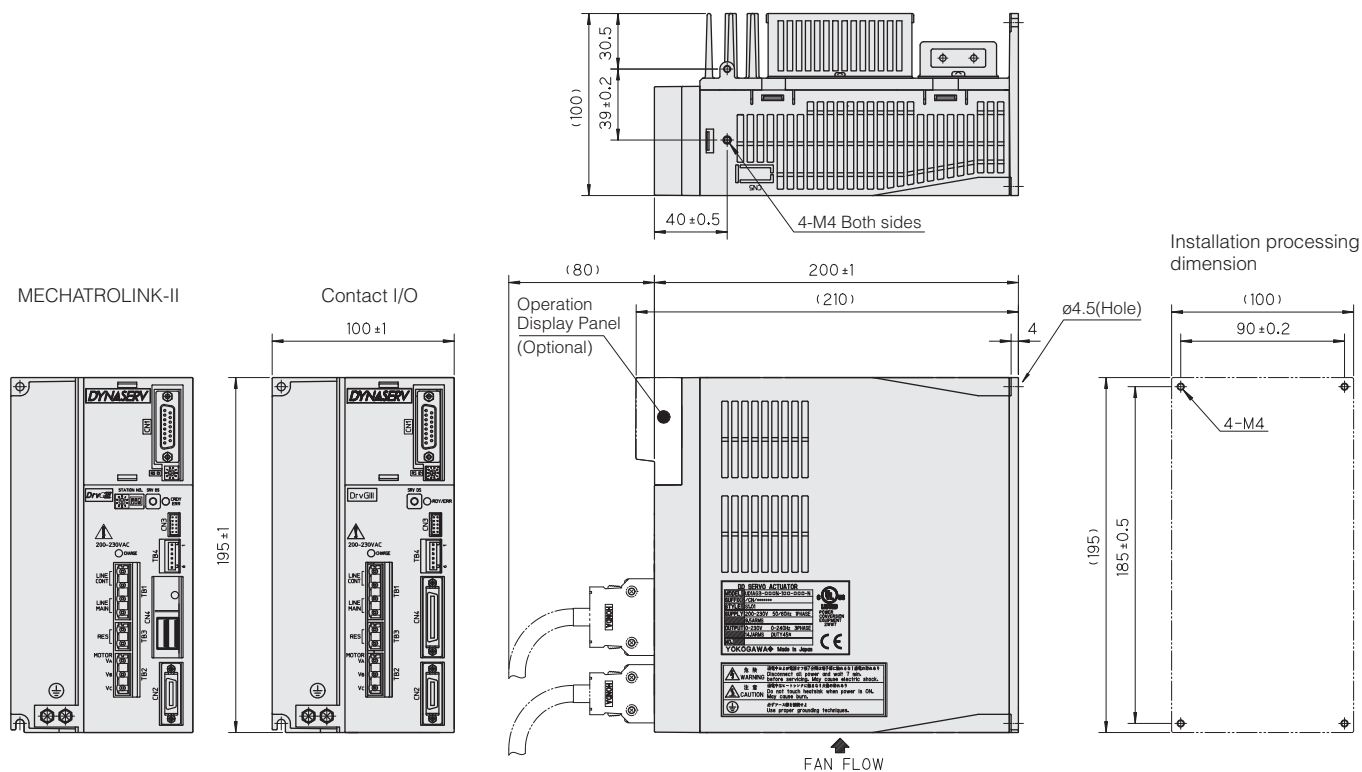
*:When Considering a MECHATROLINK, please contact us. 4 kW class drive UR5AG3(Motor model DR5A) is not supported on MECHATROLINK-II(Suffix code "M2").

External Dimensions (Unit:mm)

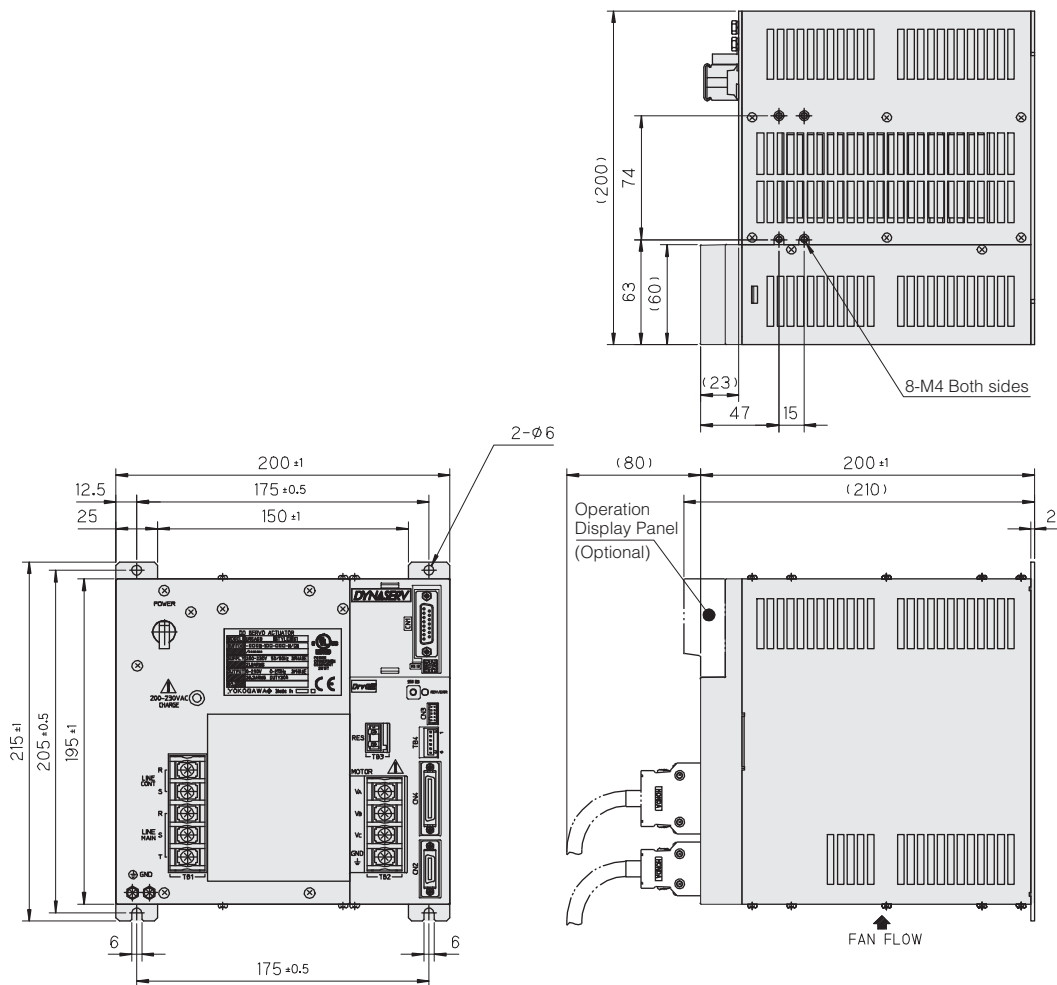
500W class



2kW class



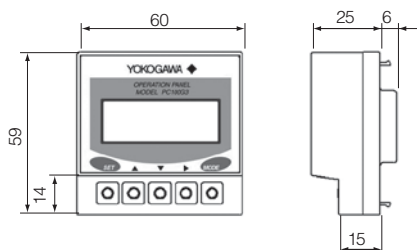
4kW class



Operation Display Panel (Optional)

Model:PC100G3

Operation Display Panel offers the ability to display and set various parameters, and alarms. Connect to CN1 on the drive.



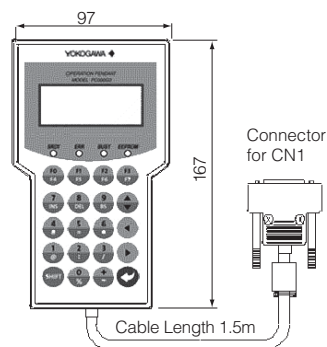
Operation Display Pendant (Optional)

Model:PC000G3

Operation Display Pendant offers the ability to display and set various parameters, and alarms. In addition, 16sets of parameter data can be stored on the Pendant. Connect to CN1 on the drive.

(Caution)

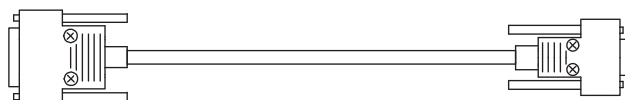
This unit CANNOT be used with DrvGIII with MECHATROLINK - II (suffix code "M2") and DrvPIII with PROFIBUS-DP (suffix code "P1").



Dedicated RS232C Cable(Optional)

Model:C1P-ENN-2276-020

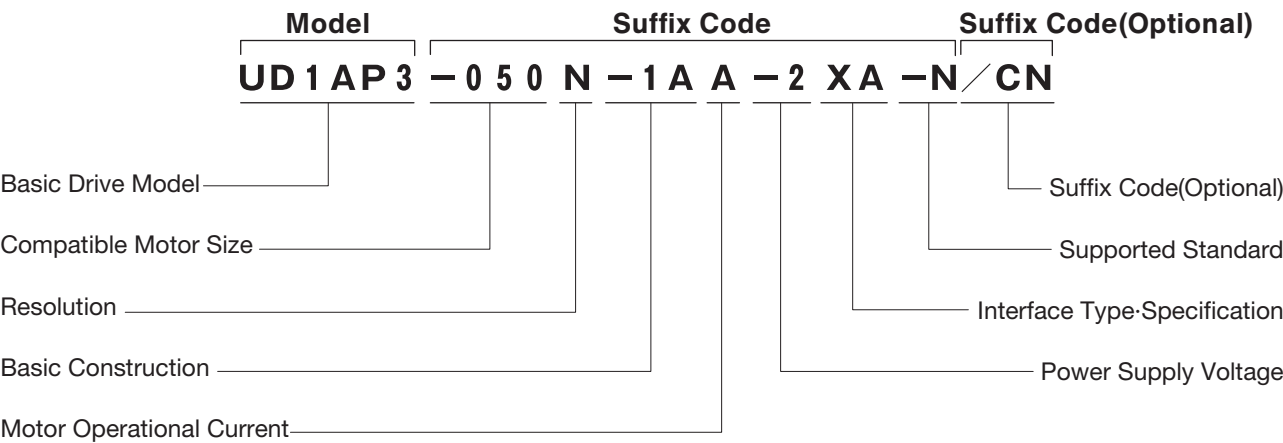
Cable that connect PC with Drive in order to use Support Tool.



■ **Features**

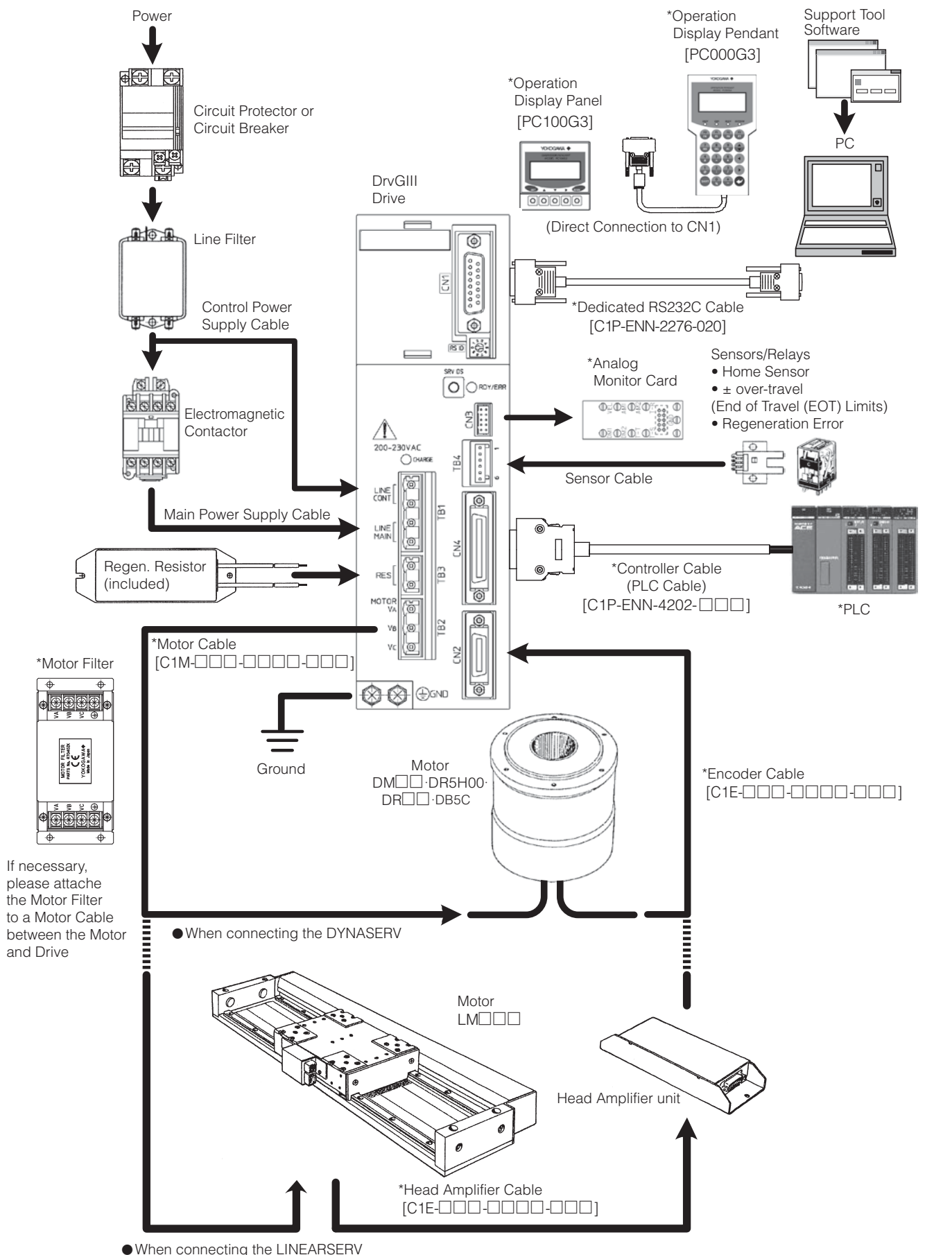
- The DrvPIII Intelligent Drive improved controlability and performance. It is compatible with absolute-type encoder and increment-type encoder as well as with various field networks.
- The features of the DrvPIII Intelligent Drive are as follows:
- (1) It is equipped not only with I/O contact points, but also with the CC-Link and PROFIBUS-DP interfaces, which have been adopted in many FA systems.
 - (2) When combined with the DB5C that has a built-in absolute encoder, it can serve as a absolute direct drive motor that can operate without necessity of homing operation.
 - (3) The position settling time is shortened by enhanced controllability.
 - (4) The built-in position controller allows operation by program table.
 - (5) An auto tuning function has been added.
 - (6) In addition to the CE mark, the UL certificate and KC mark has been granted for the DrvPIII Intelligent Drive.
 - (7) A multi-function support tool is available. This user-friendly tool can be used on a PC to perform numerous functions, such as oscilloscope functions, motorless operation, and terminal assignment.
 - (8) For user convenience, the Operation Display Panel and the Operation Display Pendant are available for parameter setting and maintenance.

■ **Model and Suffix Codes**



* : For more information, please refer to the (recommended) Model and Suffix Codes. (Page 67)

System Configuration/Connection Diagram



* Separate sale for motor and drive.

Specifications

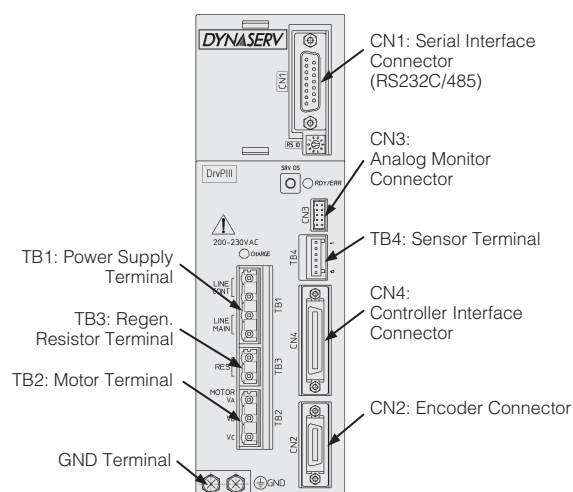
Wattage Class			500W Class	2kW Class
Basic Specifications	Power supply	Main power supply	200 to 230VAC / 100 to 115VAC ^{+10%} _{-15%} 50/60Hz	
			Maximum power consumption 1.3kVA	Maximum power consumption 3.4kVA
		Control power supply	200 to 230VAC / 100 to 115VAC ^{+10%} _{-15%} 50/60Hz	
			Maximum power consumption 40VA	
	Environment	Temperature	0 to +50°C (Operation) / -20 to +85°C (Storage)	
		Humidity	20 to 90%RH No condensing (Operation and Storage)	
		Atmosphere	No corrosive gases, dust-free atmosphere Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	
	Construction	Installation	Wall-mount	
		Fan	N/A	Built-in DC Fan
		Regenerative Resistor	External	Built-in
	External Dimensions		60 W×195 H×150 D (mm)	100 W×195 H×200 D (mm)
	Weight		1.2 kg	2.5 kg
	Conformed Standard		Low voltage (declaration) EN50178, EMC (declaration) EN55011 class A group 1, EN61800-3	
			UL508C	
			KC mark	
Resistance and Pressure		Insulation resistance : 10MΩ or more (DC500V), Insulation pressure : 1500VAC 1min		
Encoder Resolution	DYNASERV	UD1BP3 ; 2,621,440p/rev (360,000p/rev) UD1CP3 ; 2,621,440p/rev (360,000p/rev) UR5HP3 ; 3,407,872p/rev (360,000p/rev) UR5CP3 ; 425,984p/rev (360,000p/rev) UB5CP3 ; 425,984p/rev (360,000p/rev)	UD1AP3 ; 4,096,000p/rev (360,000p/rev) UD1BP3 ; 2,621,440p/rev (360,000p/rev) UR5HP3 ; 3,407,872p/rev (360,000p/rev) UR1AP3 ; 1,638,400p/rev (360,000p/rev) UR1EP3 ; 1,228,800p/rev (360,000p/rev) UR1BP3 ; 1,015,808p/rev (360,000p/rev) UR5EP3 ; 638,976p/rev (360,000p/rev) UR5BP3 ; 557,056p/rev (360,000p/rev)	
		LINEARSERV	— — —	
Value inside () is factory default value for command and monitor pulses				
Communication Interface	Serial Interface (RS232C/RS485)		Communication Start-stop system, binary communication Communication Speed 38,400 bps Multi-channel (RS485) Max. 10 channels	
	Controller Interface		Contact I/O (Suffix Code "XA" for interface type and specification) No. of input points: 12 points, No. of output points: 6 points (with a terminal assignment function)	
			CC-Link (Suffix Code "C1" for interface type and specification) Mono channel 16 input points, 16 output points 4 input resistors, 4 output resistors Dual channel 48 input points, 48 output points 8 input resistors, 8 output resistors	
			PROFIBUS-DP (Suffix Code "P1" for interface type and specification) Drive Model : UR5HP3,UR1AP3,UR1EP3,UR1BP3,UR5EP3,UR5BP3,UR5CP3,UB5CP3 32 input points, 32 output points	
	Mechanical Input Signal		Homing sensor, End Of Travel (EOT)	
Control Section	Position Control		I-PD control, PID control	
	Velocity Control		Proportional control, PID control	
	Feed Forward		Position, velocity and acceleration	
	Filter		Velocity command, velocity feedback, phase delay compensation and notch (2ch) filters	
Operation Functions		Homing, test, auto-tuning, positioning and jog move functions		
Safety Features		Encoder error, over voltage, over current, low bus line power voltage, power failure, over load, regen. Error detection, over speed, excessive pos. deviation, hardware EOT and software EOT (for linear coordinate)		
Monitor		Velocity, current instruction, analog (2ch) and digital (2ch)		
Operation / Display		Operation Display Panel (Optional) Operation Display Pendant (Optional)* Support Tool(Downloaded from our website) www.yokogawa.com/ddm/		
Miscellaneous		Servo deceleration function at power failure (immediate stop) Dynamic brake (Select "-1B" or "-1L" in the suffix code)		

* : This unit CANNOT be used with DrvPIII with PROFIBUS-DP (suffix code "P1") and with DrvGIII MECHATROLINK-II (suffix code "M2")

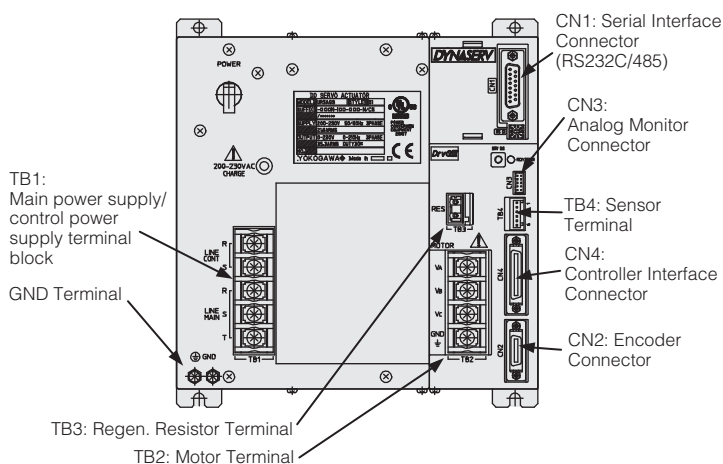
Wattage Class			4kW Class	
Basic Specifications	Power supply	Main power supply	3 phase 200 to 230 VAC ^{+10%} _{-15%} 50/60Hz	
			Maximum power consumption 7.6kVA(varies depending on the connected motor)	
		Control power supply	Single phase 200 to 230VAC ^{+10%} _{-15%} 50/60Hz	
			Maximum power consumption 40VA	
	Environment	Temperature	0 to +50°C (Operation) / -20 to +85°C (Storage)	
		Humidity	20 to 90%RH No condensing (Operation and Storage)	
		Atmosphere	No corrosive gases, dust-free atmosphere Must be used at a maximum altitude of 1000 meters above sea level (CE mounting condition)	
	Construction	Installation	Wall-mount	
		Fan	2 Built-in DC Fans	
		Regenerative Resistor	Built-in(Note:External regenerative resistor may be required depending on the operating conditions.)	
	External Dimensions		200 W×195 H×200 D (mm)	
	Weight		6.5 kg	
	Conformed Standard		Low voltage (declaration) EN61800-5-1, EMC (declaration) EN55011 class A group 1, EN61800-3	
			UL508C	
			KC mark	
	Resistance and Pressure		Insulation resistance : 10MΩ or more (DC500V), Insulation pressure : 1500VAC 1min	
Encoder Resolution		DYNASERV UR5AP3 ; 851,968p/rev (360,000p/rev)		
Value inside () is factory default value for command and monitor pulses				
Communication Interface	Serial Interface (RS232C/RS485)		Communication	Start-stop system, binary communication
	Controller Interface		Communication Speed	38,400 bps
			Multi-channel (RS485)	Max. 10 channels
			Contact I/O (XA for interface type and specification) No. of input points: 12 points, No. of output points: 6 points (with a terminal assignment function)	
		CC-Link (Suffix Code "C1" for interface type and specification) Mono channel 16 input points, 16 output points 4 input resistors, 4 output resistors Dual channel 48 input points, 48 output points 8 input resistors, 8 output resistors		
Mechanical Input Signal			Homing sensor, End Of Travel (EOT)	
Control Section	Position Control		I-PD control, PID control	
	Velocity Control		Proportional control, PID control	
	Feed Forward		Position, velocity and acceleration	
	Filter		Velocity command, velocity feedback, phase delay compensation and notch (2ch) filters	
Operation Functions			Homing, test, auto-tuning, positioning and jog move functions	
Safety Features			Encoder error, over voltage, over current, low bus line power voltage, power failure, open-phase detection, over load, regen. Error detection, over speed, excessive pos. deviation, hardware EOT and software EOT (for linear coordinate)	
Monitor			Velocity, current instruction, analog (2ch) and digital (2ch)	
Operation / Display			Operation Display Panel (Optional) Operation Display Pendant (Optional) Support Tool (Downloaded from our website) www.yokogawa.com/ddm/	
Miscellaneous			Servo deceleration function at power failure (immediate stop)	

Connectors and Terminals

<500W class·2kW class>



<4kW class>



Power Supply

<500W class·2kW class>

No.	Item	Connector Part Number	Description	Remark
TB1	Power Supply Terminal	Connector : 231-204/026-000 (WAGO)	For main and control power supply	Included
TB2	Motor Terminal	Connector : 231-203/026-000 (WAGO)	For motor cable	Included
TB3	Regen. Resistor Terminal	Connector : 231-202/026-000 (WAGO)	For regenerative resistor	Together with regenerative resistor
GND	GND Terminal	M4 screw	Protected ground	

<4kW class>

No.	Item	Connector Part Number	Description	Remark
TB1	Main power supply/control power supply terminal	Terminal block with M4 screw	For main and control power supply	
TB2	Motor Terminal	Terminal block with M4 screw	For motor cable	
TB3	Regen. Resistor Terminal	Connector : 231-202/026-000 (WAGO)	For regenerative resistor	
GND	GND Terminal	M4 screw	Protected ground	

<500W class·2kW class>

TB1:Power Supply Terminal

Pin No.	Signal	Definition
1	LINE (CONT) L	AC power input for control circuit
2	LINE (CONT) N	AC power input for control circuit
3	LINE (MAIN) L	AC power input for driving motor
4	LINE (MAIN) N	AC power input for driving motor

TB2: Motor Terminal

Pin No.	Signal	Definition
1	VA	Output of phase A of motor
2	VB	Output of phase B of motor
3	VC	Output of phase C of motor

TB3: Regenerative Resistor Terminal

Pin No.	Signal	Definition
1	RES +	Regenerative resistor +
2	RES -	Regenerative resistor -

<4kW class>

TB1:Main power supply/control power supply terminal

Pin No.	Signal	Definition
1	LINE (CONT) R	AC power input for control circuit
2	LINE (CONT) S	AC power input for control circuit
3	LINE (MAIN) R	AC power input for driving motor
4	LINE (MAIN) S	AC power input for driving motor
5	LINE (MAIN) T	AC power input for driving motor
-	GND	Protected ground

TB2: Motor Terminal

Pin No.	Signal	Definition
1	VA	Output of phase A of motor
2	VB	Output of phase B of motor
3	VC	Output of phase C of motor
4	GND	Motor GND

TB3: Regenerative Resistor Terminal

Pin No.	Signal	Definition
1	RES +	Regenerative resistor +
2	RES -	Regenerative resistor -

Control section

<500W class · 2kW class · 4kW class>

TB4	Sensor Terminal	Connector : 733-106 (WAGO)	For home sensor and $\pm$ EOT	Standard
CN1	Serial Interface Connector (RS232C/485)	Connector : DA-15PF-N (JAE) Cover : DA-C8-J10-F4-1R	For Operation Display Panel, Operation Display Pendant and PC	Optional
CN2	Encoder Connector	Connector : PCR-S20FS+ (Honda) Cover : PCR-LS20LA1	For encoder cable	Optional
CN3	Analog Monitor Connector	Analog monitor card	For monitors and oscilloscope	Optional
CN4	Controller Interface Connector	Suffix code "XA" Connector : PCR-S36FS+ (Honda) Cover : PCR-LS36LA	For connection to PLC	Optional
		Suffix code "C1" Connector : TMSTBP2.5/4-STF-5.08 (Phoenix Contact)		
		Suffix code "P1" *1 Connector : PROFIBUS Standard cable(D-SUB 9-pin)		Please prepare by yourself.

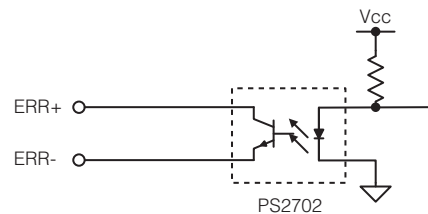
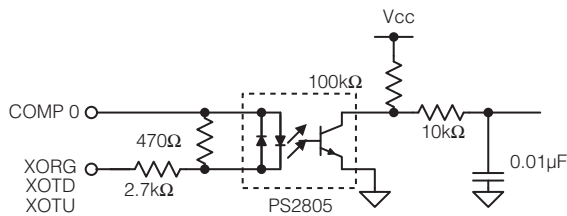
*1: PROFIBUS-DP(Suffix Code "P1") corresponding model has been limited. Please refer to page44~45

TB4: Sensor Terminal

Pin No.	Signal	Definition
1	COMP0	Sensor power
2	XORG	Home input B-contact Normal-close
3	XOTD	- EOT input B-contact Normal-close
4	XOTU	+EOT input B-contact Normal-close
5	ERR+	Regeneration error output +
6	ERR-	Regeneration error output -

Sensor Input Specifications	
Rated Voltage	12~24VDC ($\pm$ 10%)
Rated Input Current	4.1mA/point (at 12VDC) 8.5mA/point (at 24VDC)
Input Impedance	3.0k Ω
Operating Voltage (for COMP0)	3.0VDC when power is OFF 9.0VDC when power is ON
Breaker Capacity	To be off at less than 1.0mA

Regeneration Error Output	
Max. Working Voltage	30VDC
Max. Output Current	50mA



CN1: Serial Interface Connector(RS232C/485)

Pin No.	Signal	Definition
1	FG	Frame GND Signal (Shield)
2	RxD	RxD terminal RS232C single channel communication
3	TxD	TxD terminal RS232C single channel communication
4	A	Rx (+) side terminal RS485 multi-channel communication
5	Y	Tx (+) side terminal RS485 multi-channel communication
6	485SW	Busy condition bit RS485 multi-channel communication
7	TRMP	Terminator terminal RS485 multi-channel communication (short circuit to #14 TRMN)
8	CN1SW	Busy condition bit CN1
9	+5V	+5V power (Operation Display Panel and Pendant) *2
10	SG	Signal GND terminal
11	B	Rx (-) side terminal RS485 multi-channel communication
12	Z	Tx (-) side terminal RS485 multi-channel communication
13	SG	Signal GND terminal
14	TRMN	Terminator terminal RS485 multi-channel communication (short circuit to #7 TRMP)
15	SG	Signal GND terminal

*2 : Do not connect in RS232C/485 communication

CN2: Encoder Connector

Pin No.	Signal				
	DM1B-006 DM1C-004	DM□□ Motor (excl. Left hand side models)	LM□□ Motor	DR5H00- DR□□ Motor	DB5C Motor
1	+10V	+10V	+10V	—	-1XS0
2	—	—	—	+S0	1XS
3	θ SIG 0	θ SIG 0	SIG 0	—	-1XS180
4	—	ECLK+(10V)	—	—	—
5	θ SIG 1	θ SIG 1	SIG 1	—	-1XC0
6	—	—	—	-S0	-NXS0
7	ECLK+(3V)	—	ECLK+(3V)	—	-1XC180
8	—	—	—	-C0	-NXC0
9	—	ZERO+	—	—	—
10	—	—	FG	+C0	1XC
11	—	—	—	+S180	NXS
12	GND	GND	GND	—	—
13	—	ECLK-(10V)	—	—	—
14	GND	GND	GND	—	—
15	—	—	—	-S180	-NXS180
16	GND	GND	GND	—	—
17	—	—	—	-C180	-NXC180
18	ECLK-(3V)	—	ECLK-(3V)	—	—
19	—	ZERO-	—	—	—
20	—	—	FG	+C180	NXC
Case	Shielding wire	Shielding wire	Shielding wire	FG / Shielding wire	FG / Shielding wire

CN3: Analog Monitor Connector

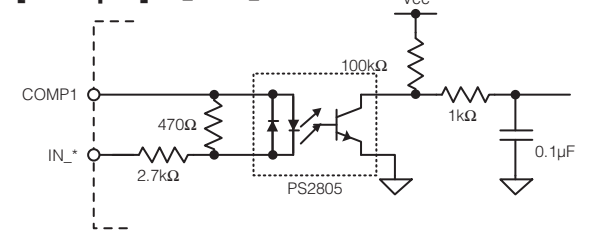
Pin No.	Signal	Definition
1	VEL	Velocity monitor terminal
2	AMON1	Analog monitor terminal 1 (general purpose monitor 1)
3	AMON2	Analog monitor terminal 2 (general purpose monitor 2)
4	DMON1	Digital monitor terminal 1 (general purpose monitor 1)
5	DMON2	Digital monitor terminal 2 (general purpose monitor 2)
6	T-R	Current command
7	T-T	Reserved For maintenance purpose
8	T-S	Reserved For maintenance purpose
9	<Prohibited>	Reserved Do not connect any line.
10	GND	GND terminal for monitor

CN4: Controller Interface Connector

●Contact I/O Suffix Code "XA" (for interface type and specification)

Pin No.	Signal	Definition	
1	COMP1	Interface power +	Select appropriate power input according to the interface.
2	COMN1	Interface power -	
3	DO_0	I/O output 0	User Configurable Outputs. Defined by assigned signal function. Able to reverse output signal logic.
4	DO_1	I/O output 1	
5	DO_2	I/O output 2	
6	DO_3	I/O output 3	
7	DO_4	I/O output 4	
8	DO_5	I/O output 5	
9~18	(NC)		Do not connect any line.
19	DI_0	I/O input 0	User Configurable Inputs. Defined by assigned signal function. Able to reverse input signal logic.
20	DI_1	I/O input 1	
21	DI_2	I/O input 2	
22	DI_3	I/O input 3	
23	DI_4	I/O input 4	
24	DI_5	I/O input 5	
25	DI_6	I/O input 6	
26	DI_7	I/O input 7	
27	DI_8	I/O input 8	
28	DI_9	I/O input 9	
29	DI_10	I/O input 10	
30	DI_11	I/O input 11	
31~36	(NC)		Do not connect any line.
Shield		Shield treatment terminal	

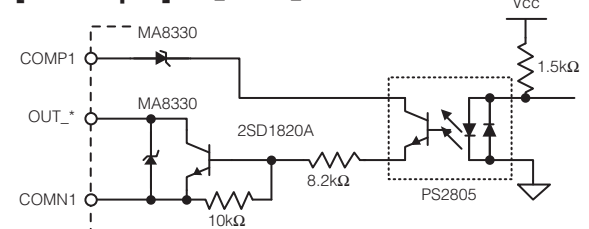
[I/O Input] DI_0 ~ DI_11



Input is in the on-state when the photo-coupler is in the on-state.

Rated Voltage	12~24VDC (±10%)
Rated Input Current	4.1 mA / point (at 12 VDC) 8.5 mA / point (at 24 VDC)
Input Impedance	3.0kΩ
Operating Voltage (for COMP0)	3.0 VDC when power is OFF 9.0 VDC when power is ON
Breaker Capacity	To be off at less than 1.0 mA

[I/O Output] DO_0 ~ DO_5



Output is in the on-state when the transistor is in the on-state.

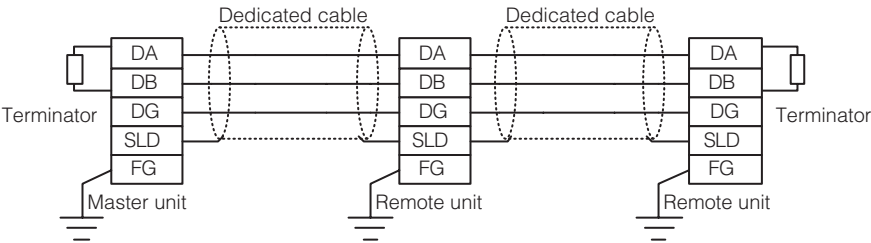
Rated Voltage	12~24VDC (±10%)
Max. Load Current	0.1 A / point, 0.5 A / common
On-state Voltage	Less than 0.5 VDC
Off-state Leakage Current	Less than 0.1 mA

●CC-Link Suffix Code "C1" (for interface type and specification)

Communication Speed	156kbps, 625kbps, 2.5Mbps, 5Mbps, 10Mbps	Dependent on parameter
Occupied Stations	One station or Two stations	Dependent on parameter
Station Number assignment	Mono channel 1 to 64 Dual channel (1,2),(2,3),....(63,64)	Dependent on rotary switch

Pin No.	Signal name	Wire color
01	DA	Blue
02	DB	White
03	DG	Yellow
04	SLD	—

Refer to the panel of drive for signal detail.



●PROFIBUS-DP Suffix Code "P1" (for interface type and specification)

Communication Speed	9.6kbps~12Mbps	Auto
Occupied Stations	One station	Fix
Station Number assignment	1~99	Dependent on rotary switch
Terminator	Not installed	Dependent on external Terminator

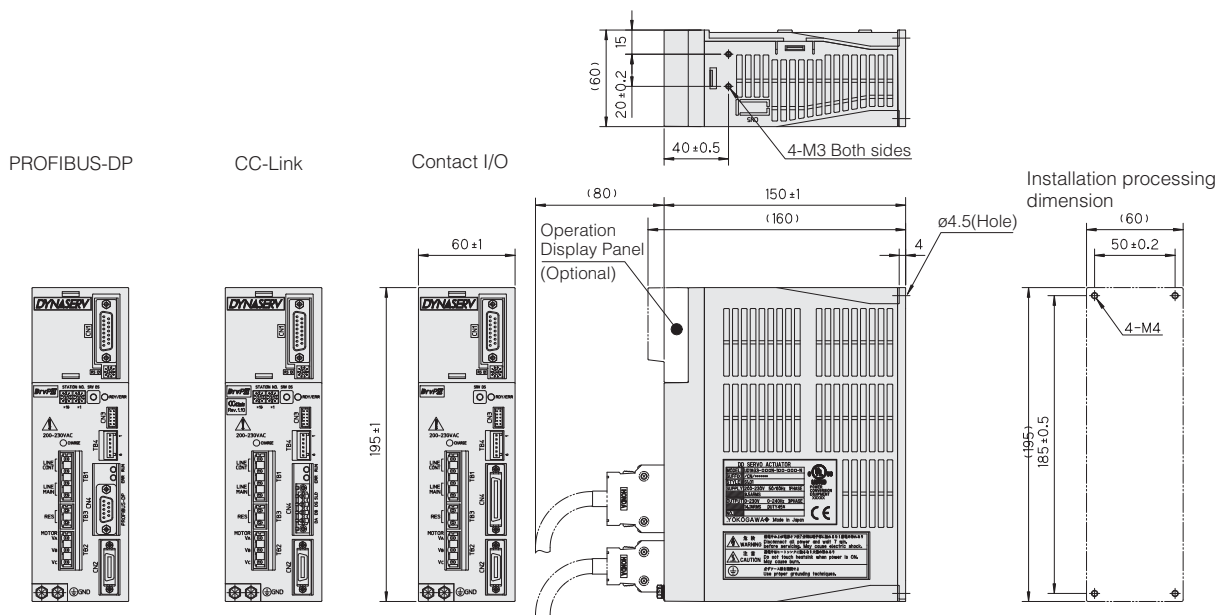
PROFIBUS-DP(Suffix Code "P1") corresponding model has been limited. Please refer to page44~45

01	(NC)	06	+5V BUS
02	(NC)	07	(NC)
03	B-Line	08	A-Line
04	RTS	09	(NC)
05	GND BUS		

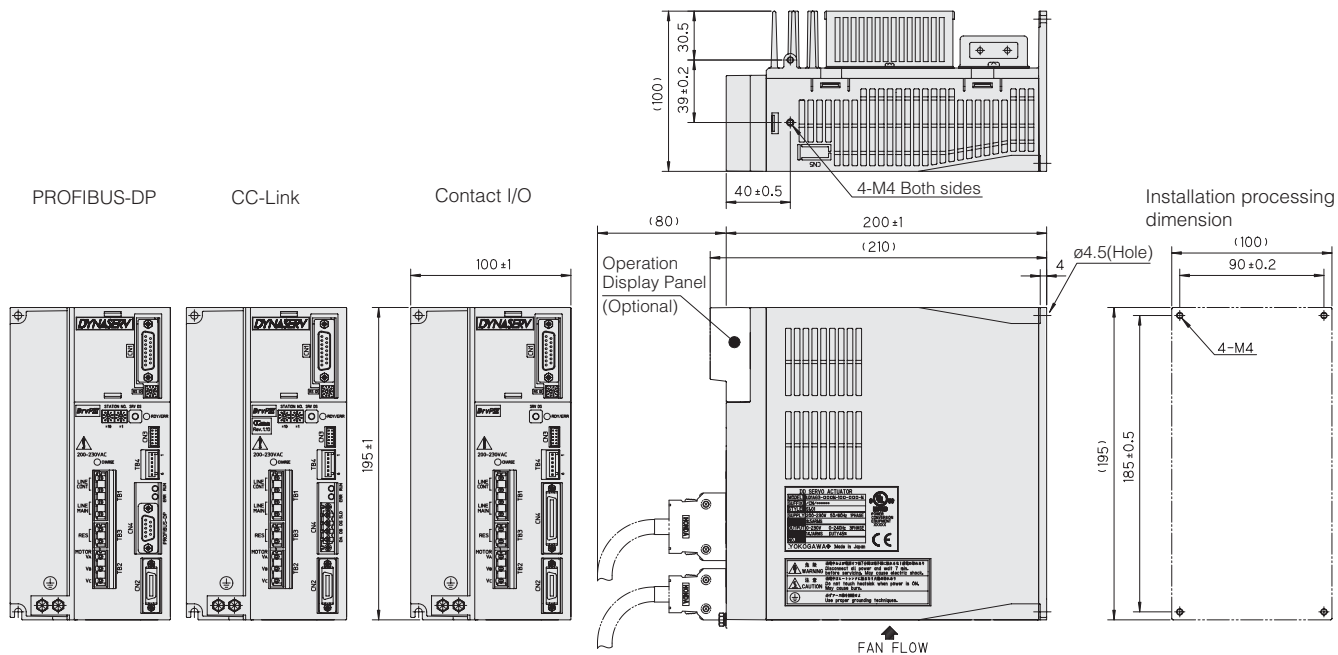
Please use the PROFIBUS Standard connecor(D-SUB 9-pin).
Board side connector housing is connected to protective ground.

External Dimensions (Unit:mm)

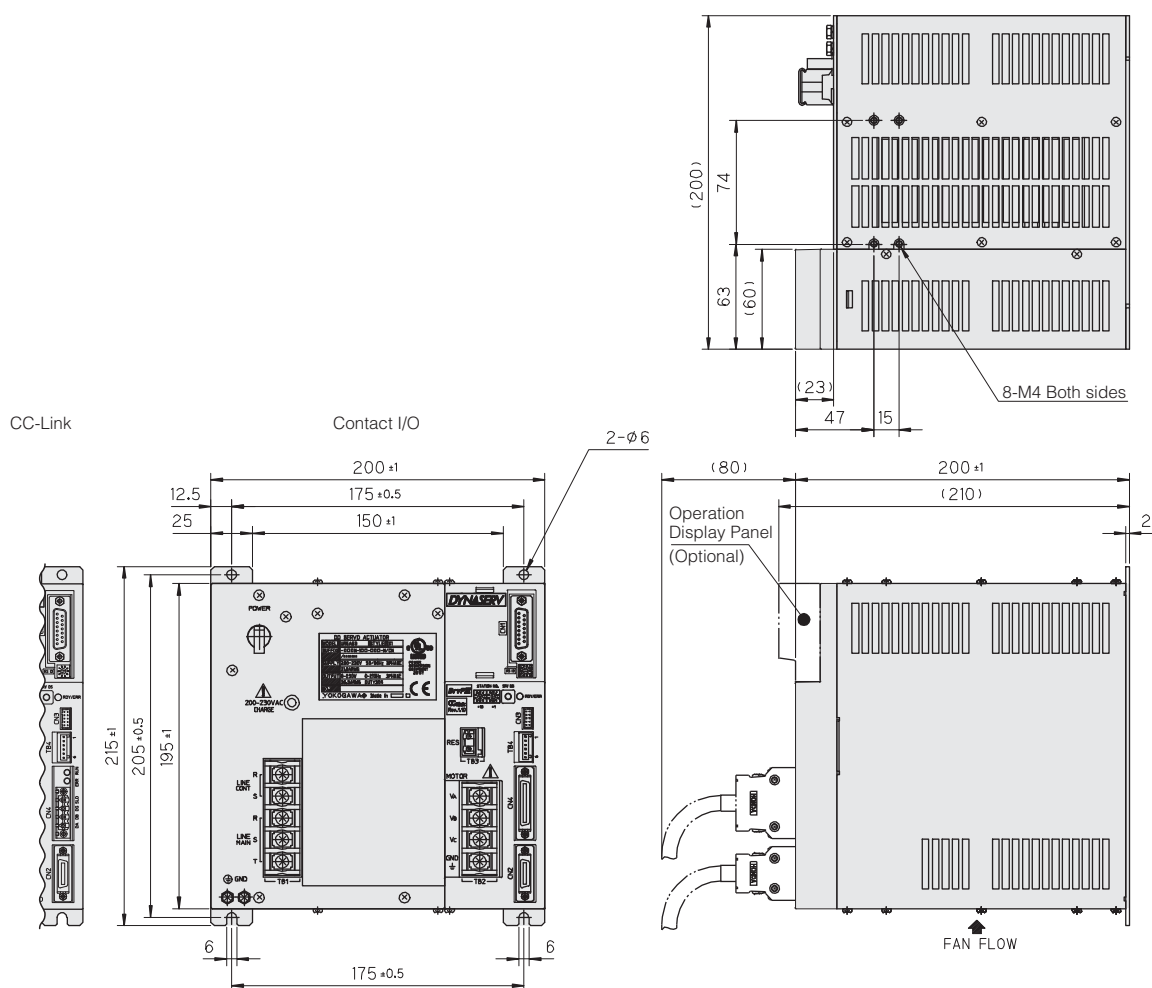
500W class



2kW class



4kW class

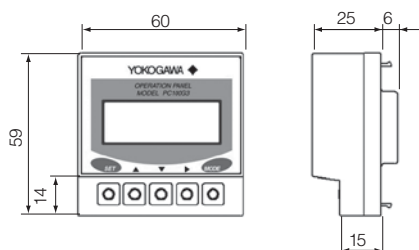


Operation Display Panel (Optional)

Model:PC100G3

Operation Display Panel offers the ability to display and set various parameters, and alarms.

Connect to CN1 on the drive.



Operation Display Pendant (Optional)

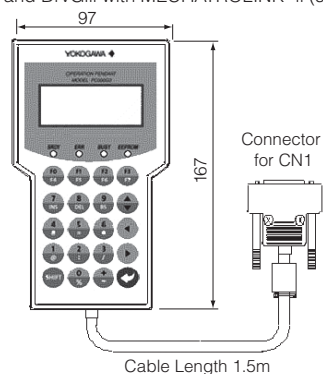
Model:PC000G3

Operation Display Pendant offers the ability to display and set various parameters, and display alarms. In addition, 16sets of parameter data can be stored on the Pendant.

Connect to CN1 on the drive.

(Caution)

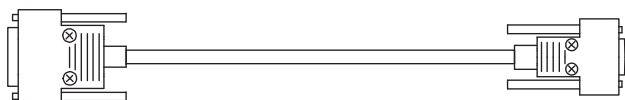
This unit CANNOT be used with DrvPIII with PROFIBUS-DP (suffix code "P1") and DrvGIII with MECHATROLINK-II (suffix code "M2").



Dedicated RS232C Cable(Optional)

Model:C1P-ENN-2276-020

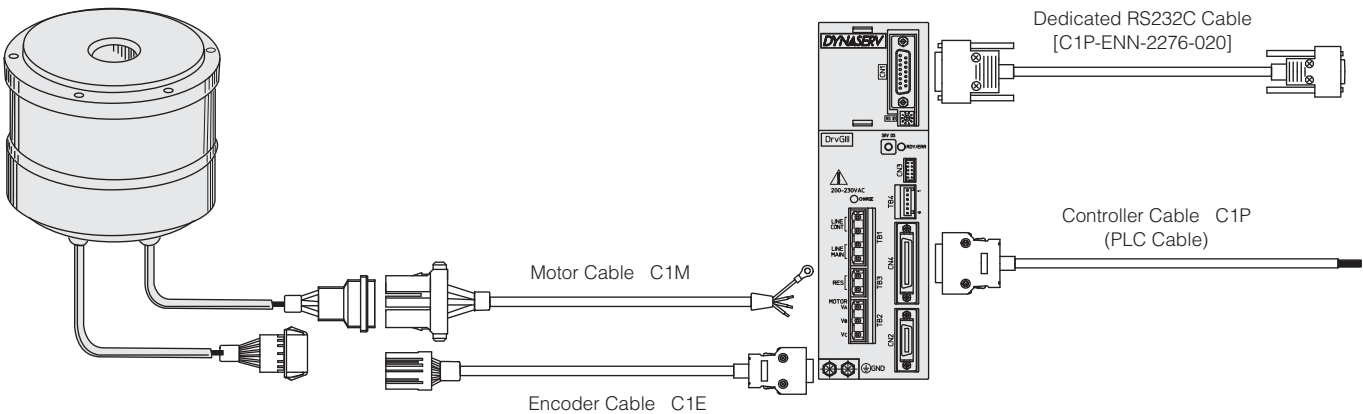
Cable that connect PC with Drive in order to use Support Tool.



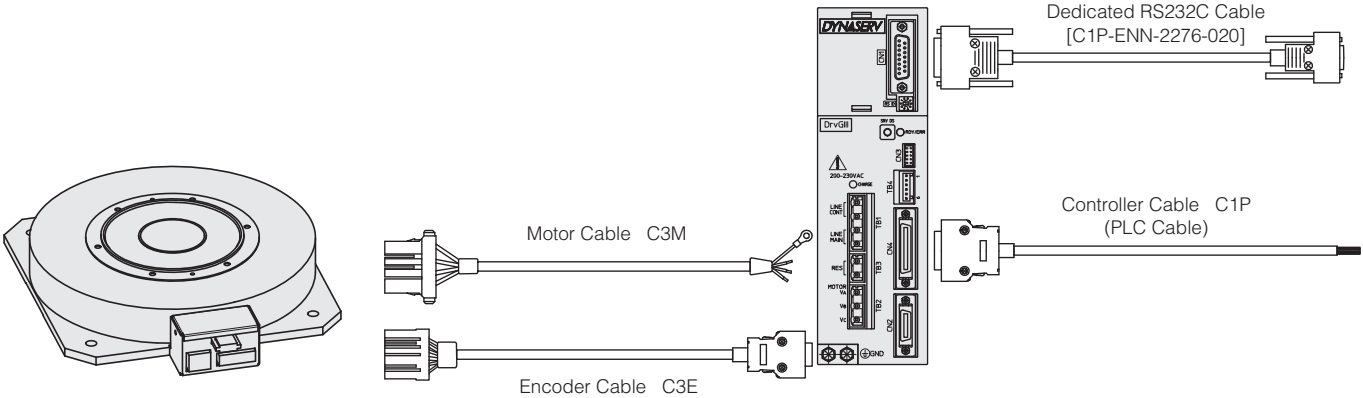
Cable

■ Diagram for DYNASERV Cable

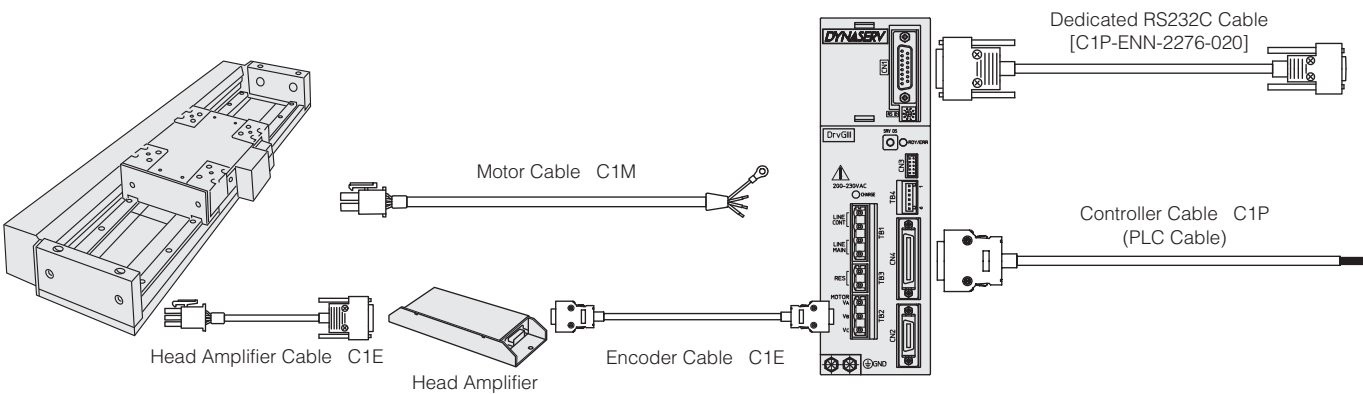
(1) For DM□□, DR□□, DB5C Motor



(2) For DR5H00 Motor



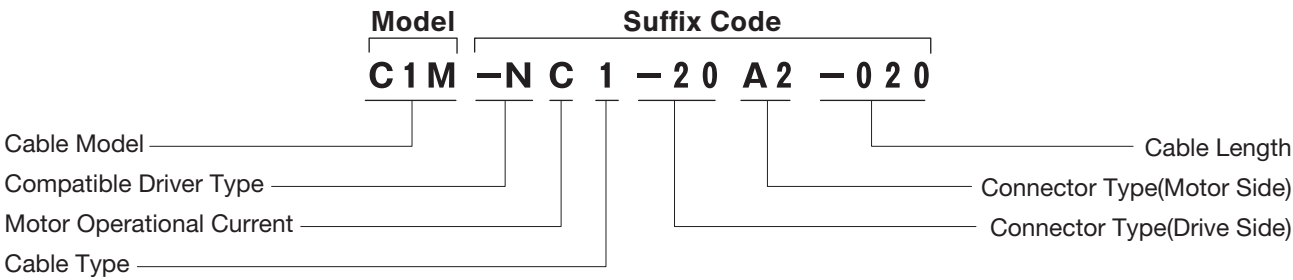
■ Diagram for LINEARSERV Cable



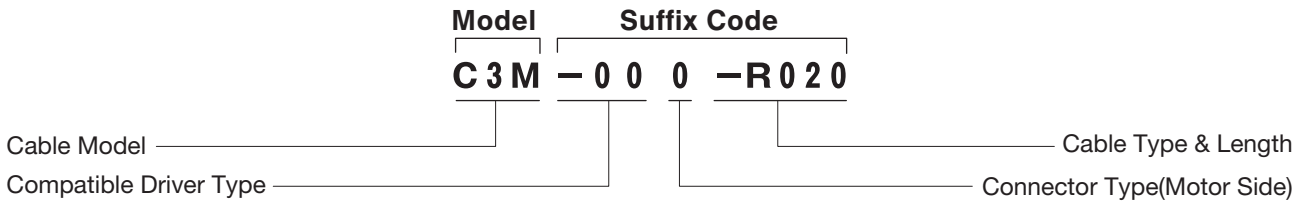
■ Model and Suffix Codes

(1) Motor Cable

· Model:C1M For DM□□, DR□□, DB5C, LM□□□ Motor

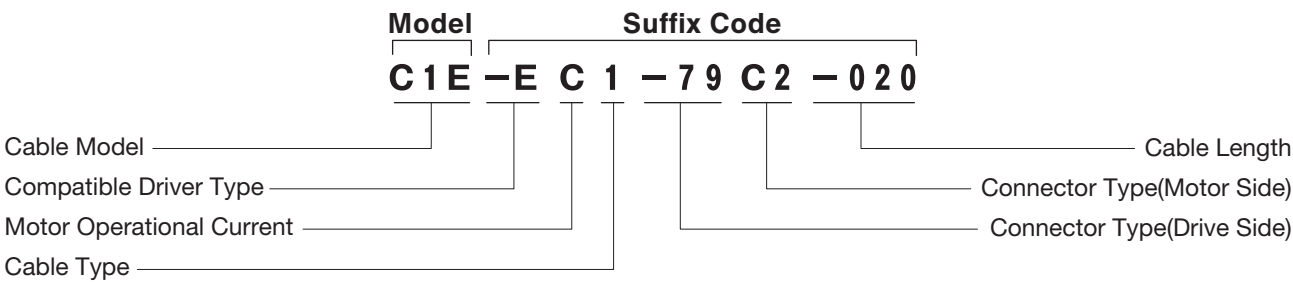


· Model:C3M For DR5H00 Motor

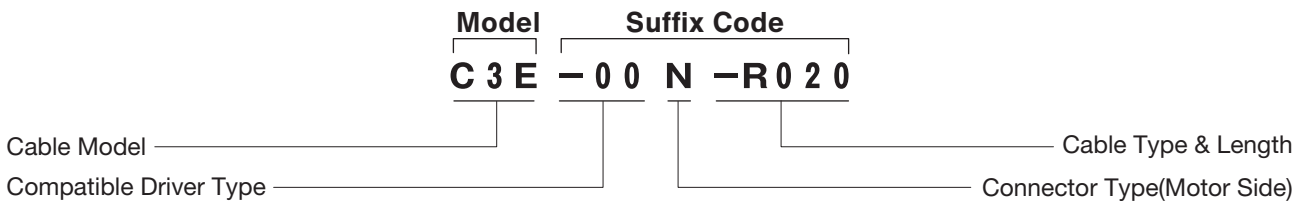


(2) Encoder Cable · Head Amplifier Cable(For LINEARSERV)

· Model:C1E For DM□□, DR□□, DB5C, LM□□□ Motor

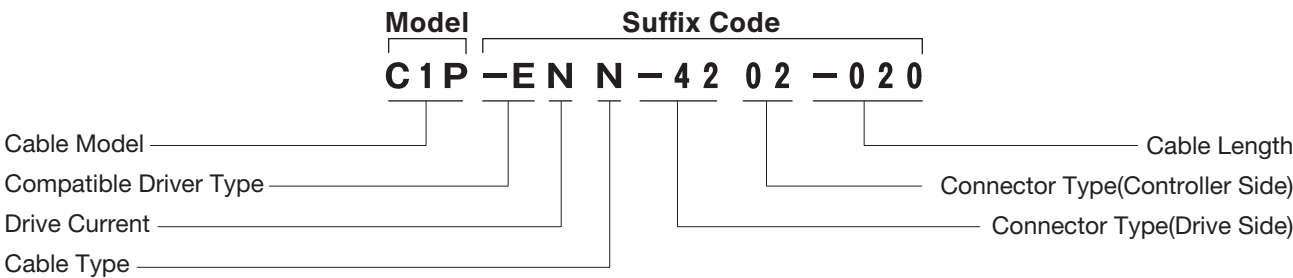


· Model:C3E For DR5H00 Motor



(3) Controller Cable

· Model:C1PM For PLC(For CN4)



* : For more information, please refer to the (recommended) Model and Suffix Codes. (Page 72)

(Recommended) Model and Suffix Codes

DYNASERV

DM1A (for UD1AG3, UD1AP3 Drive)

Model	Suffix Code	Compatibility				Descriptions
DM1A		-050	-100	-150	-200	Direct Drive Motor with built-in Optical Encoder
Maximum Output Torque	-050					With a torque of 50 N-m
	-100					With a torque of 100 N-m
	-150					With a torque of 150 N-m
	-200					With a torque of 200 N-m
Construction	G					Standard profile
Driver Compatibility	-1					Compatible
Motor Operational Current	D					20A
Positioning Accuracy	2					±15 arc second
Run-Out Accuracy	A1					Axial and Radial run-out 5μm or less
	A2					Axial and Radial run-out 10μm or less
	A4					Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)
Cable Exit Direction	G					Standard Access(bottom surface)
	S					Horizontal
Cable Type	2					Fixed Cable
Cable Length	-005					0.5m
Connector Type(Motor Cable)	-A1					Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg
Connector Type(Encoder Cable)	B1					Housing J21DPM-16V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg
Suffix Code(Optional)	/CE					Support the CE mark

"X" indicates unavailable combination.

DM1B (for UD1BG3, UD1BP3 Drive)

Model	Suffix Code	Compatibility				Descriptions
DM1B		-006	-015	-030	-045	Direct Drive Motor with built-in Optical Encoder
Maximum Output Torque	-006					With a torque of 6 N-m
	-015					With a torque of 15 N-m
	-030					With a torque of 30 N-m
	-045					With a torque of 45 N-m
	-060					With a torque of 60 N-m
Construction	F		X	X	X	With Base [For 6N-m motor]
	G		X	X	X	Standard profile [Not available for 6N-m motor]
Driver Compatibility	-1					Compatible
Motor Operational Current	A		X	X	X	5A [For 6N-m motor]
	C		X	X	X	15A [Not available for 6N-m motor]
Positioning Accuracy	2		X	X	X	± 15 arc second [Not available for 6N-m motor]
	3		X	X	X	± 20 arc second [Available only with 6N-m motor]
Run-Out Accuracy	A1		X	X	X	Axial and Radial run-out 5μm or less [Available only with 15N-m, 30N-m or 45N-m motor]
	A2		X	X	X	Axial and Radial run-out 10μm or less
	A4		X	X	X	Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less) [Not available for 6N-m motor]
Cable Exit Direction	G		X	X	X	Standard Access(bottom surface)[Not available for 6N-m motor]
	S		X	X	X	Horizontal
Cable Type	2					Fixed Cable
Cable Length	-005					0.5m
Connector Type(Motor Cable)	-A1		X	X	X	Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg
	-A4		X	X	X	Housing F32MSF-04V-KX Contact BF3M-01GF-M2.0N made by J.S.T.Mfg
Connector Type(Encoder Cable)	B1					Housing J21DPM-16V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg
Suffix Code(Optional)	/CE					Support the CE mark

"X" indicates unavailable combination.

DM1C (for UD1CG3, UD1CP3 Drive)

Model	Suffix Code	Compatibility				Descriptions
DM1C		-004				Direct Drive Motor with built-in Optical Encoder
Maximum Output Torque	-004					With a torque of 4 N-m
Construction	F					With Base
Driver Compatibility	-1					Compatible
Motor Operational Current	A					5A
Positioning Accuracy	3					±20 arc second
Run-Out Accuracy	A2					Axial and Radial run-out 10μm or less
Cable Exit Direction	S					Horizontal
Cable Type	2					Fixed cable
Cable Length	-005					0.5m
Connector Type(Motor Cable)	-A4					Housing F32MSF-04V-KX Contact BF3M-01GF-M2.0N made by J.S.T.Mfg
Connector Type(Encoder Cable)	B1					Housing J21DPM-16V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg
Suffix Code(Optional)	/CE					Support the CE mark

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

DR5H00 (for UR5HG3, UR5HP3 Drive)

Model	Suffix Code	Compatibility			Descriptions
DR5H00		-010	-020	-040	Direct Drive Motor with built-in Magnetic Encoder
Maximum Output Torque	-010				Maximum Output Torque 10 N-m Drive Currency 6A
	-020				Maximum Output Torque 20 N-m Drive Currency 6A
	-040				Maximum Output Torque 40 N-m Drive Currency 20A
Basic Construction	F				With mounting base & connector box
Run-Out Accuracy	-A1				Axial & Radial run-out 5µm or less Mounting surface without plating, Diameter Ø111.9mm
	-A6				Axial & Radial run-out 5µm or less Mounting surface with plating, Diameter Ø112mm
Suffix Code(Optional)	/CN				With a set of connectors

"X" indicates unavailable combination.
DR5H00 motor supports the CE mark without suffix code(optional)"/CE".

DR1A (for UR1AG3, UR1AP3 Drive)

Model	Suffix Code	Compatibility					Descriptions
DR1A		-050	-100	-150	-200	-300	Direct Drive Motor with built-in Magnetic Encoder
Maximum Output Torque	-050						With a torque of 50 N-m
	-100						With a torque of 100 N-m
	-150						With a torque of 150 N-m
	-200						With a torque of 200 N-m
	-300						With a torque of 300 N-m
	-400						With a torque of 400 N-m
Construction	G						Standard profile
Driver Compatibility	-1						Compatible with DrvGIII and DrvPIII
Motor Operational Current	D						20A
Positioning Accuracy	4						± 30 arc second
Run-Out Accuracy	A1						Axial and Radial run-out 5µm or less [Available only with 50N-m, 100N-m or 150N-m motor]
	A2						Axial and Radial run-out 10µm or less [Available only with 50N-m, 100N-m or 150N-m motor]
	A3						Axial and Radial run-out 20µm or less [Available only with 200N-m, 300N-m or 400N-m motor]
	A4						Standard Run-Out Accuracy(Axial and Radial run-out 100µm or less)
Cable Exit Direction	G						Standard access(bottom surface)
Cable Type	2						Fixed cable
Cable Length	-005						0.5m
Connector Type(Motor Cable)	-A1						Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg
Connector Type(Encoder Cable)	B3						Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg
Suffix Code(Optional)	/CE						Support the CE mark

"X" indicates unavailable combination.

DR1E (for UR1EG3, UR1EP3 Drive)

Model	Suffix Code	Compatibility						Descriptions
DR1E		-030	-070	-100	-130	-160	-220	Direct Drive Motor with built-in Magnetic Encoder
Maximum Output Torque	-030							With a torque of 30 N-m
	-070							With a torque of 70 N-m
	-100							With a torque of 100 N-m
	-130							With a torque of 130 N-m
	-160							With a torque of 160 N-m
	-220							With a torque of 220 N-m
	-250							With a torque of 250 N-m
Construction	G							Standard profile
Driver Compatibility	-1							Compatible with DrvGIII and DrvPIII
Motor Operational Current	D							20A
Positioning Accuracy	5							± 45 arc second
Run-Out Accuracy	A1							Axial and Radial run-out 5µm or less [Available only with 30N-m, 70N-m or 100N-m motor]
	A2							Axial and Radial run-out 10µm or less [Available only with 30N-m, 70N-m or 100N-m motor]
	A3							Axial and Radial run-out 20µm or less [Available only with 130N-m, 160N-m, 220N-m or 250N-m motor]
	A4							Standard Run-Out Accuracy(Axial and Radial run-out 100µm or less)
Cable Exit Direction	G							Standard access(bottom surface)
Cable Type	2							Fixed cable
Cable Length	-005							0.5m
Connector Type(Motor Cable)	-A1							Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg
Connector Type(Encoder Cable)	B3							Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg
Suffix Code(Optional)	/CE							Support the CE mark

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

DR1B (for UR1BG3, UR1BP3 Drive)

Model	Suffix Code		Compatibility				Descriptions		
DR1B			-008	-015	-030	-045	-060	Direct Drive Motor with built-in Magnetic Encoder	
Maximum Output Torque	-008							With a torque of 8 N-m	Selectable
	-015							With a torque of 15 N-m	
	-030							With a torque of 30 N-m	
	-045							With a torque of 45 N-m	
	-060							With a torque of 60 N-m	
Construction	G							Standard profile	
Driver Compatibility	-1							Compatible with DrvGIII and DrvPIII	
Motor Operational Current	C							15A	
Positioning Accuracy	5							± 45 arc second	
Run-Out Accuracy	A1						X	Axial and Radial run-out 5μm or less [Not available for 60N-m motor]	Selectable
	A2							Axial and Radial run-out 10μm or less	
	A4							Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G							Standard access(bottom surface)	
Cable Type	2							Fixed cable	
Cable Length	-005							0.5m	
Connector Type(Motor Cable)	-A1							Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg	
Connector Type(Encoder Cable)	B3							Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg	
Suffix Code(Optional)	/CE							Support the CE mark	Optional

"X" indicates unavailable combination.

DR5A (for UR5AG3, UR5AP3 Drive)

Model	Suffix Code	Compatibility			Descriptions	
DR5A		300	400	500	High-speed Type Direct Drive Motor with built-in Magnetic Encoder	
Maximum Output Torque	-300				With a torque of 300 N-m	Selectable
	-400				With a torque of 400 N-m	
	-500				With a torque of 500 N-m	
Construction	G				Standard profile	
Driver Compatibility	-1				Compatible with DrvGIII and DrvPIII(4kW class)	
Motor Operational Current	E				50A	
Positioning Accuracy	5				± 45 arc second	
Run-Out Accuracy	A4				Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G				Standard access (bottom surface)	
Cable Type	2				Fixed cable	
Cable Length	-010				1m	
Connector Type(Motor Cable)	-08				With N/MS3101B20-4P made by JAE (relay terminal)	
Connector Type(Encoder Cable)	08				With N/MS3101B18-1P made by JAE (relay terminal)	Selectable
	B3				Standard Connector (Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg)	
Suffix Code(Optional)	/CE				Support the CE mark	Optional

"X" indicates unavailable combination.

DR5E (for UR5EG3, UR5EP3 Drive)

Model	Suffix Code		Compatibility	Descriptions	
DR5E			-100	High-speed Type Direct Drive Motor with built-in Magnetic Encoder	
Maximum Output Torque	-100			With a torque of 100 N·m	
Construction	G			Standard profile	
Driver Compatibility	-1			Compatible with DrvGIII and DrvPIII	
Motor Operational Current	D			20A	
Positioning Accuracy	7			± 90 arc second	
Run-Out Accuracy	A4			Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G			Standard access (bottom surface)	
Cable Type	2			Fixed cable	
Cable Length	-005			0.5m	
Connector Type(Motor Cable)	-A1			Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg	
Connector Type(Encoder Cable)	B3			Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg	
Suffix Code(Optional)	/CE			Support the CE mark	Optional

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

DR5B (for UR5BG3, UR5BP3 Drive)

Model	Suffix Code	Compatibility			Descriptions	
DR5B		-030	-050	-070	High-speed Type Direct Drive Motor with built-in Magnetic Encoder	
Maximum Output Torque	-030				With a torque of 30 N·m	Selectable
	-050				With a torque of 50 N·m	
	-070				With a torque of 70 N·m	
Construction	G				Standard profile	
Driver Compatibility	-1				Compatible with DrvGIII and DrvPIII	
Motor Operational Current	C				15A	
Positioning Accuracy	7				± 90 arc second	
Run-Out Accuracy	A1		X	X	Axial and Radial run-out 5μm or less [Available only with 30N·m motor]	Selectable
	A2			X	Axial and Radial run-out 10μm or less [Available only with 30N·m motor]	
	A3	X	X		Axial and Radial run-out 20μm or less [Available only with 50N·m or 70N·m motor]	
	A4				Standard accuracy (Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G				Standard access (bottom surface)	
Cable Type	2				Fixed cable	
Cable Length	-005				0.5m	
Connector Type(Motor Cable)	-A1				Housing F32MDF-06V-KXX Contact BF3M-71GF-M2.0N made by J.S.T.Mfg	
Connector Type(Encoder Cable)	B3				Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg	
Suffix Code(Optional)	/CE				Support the CE mark	Optional

"X" indicates unavailable combination.

DR5C (for UR5CG3, UR5CP3 Drive)

Model	Suffix Code	Compatibility			Descriptions	
DR5C		-005	-010	-015	High-speed Type Direct Drive Motor with built-in Magnetic Encoder	
Maximum Output Torque	-005				With a torque of 5 N·m	Selectable
	-010				With a torque of 10 N·m	
	-015				With a torque of 15 N·m	
Construction	G				Standard profile	
Driver Compatibility	-1				Compatible with DrvGIII and DrvPIII	
Motor Operational Current	B				6A	
Positioning Accuracy	9				±150 arc second	
Run-Out Accuracy	A2				Axial and Radial run-out 10μm or less	Selectable
	A4				Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G				Standard access (bottom surface)	
Cable Type	2				Fixed cable	
Cable Length	-005				0.5m	
Connector Type(Motor Cable)	-A4				Housing F32MSF-04V-KX Contact BF3M-01GF-M2.0N made by J.S.T.Mfg	
Connector Type(Encoder Cable)	B3				Housing J21DPM-12V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg	
Suffix Code(Optional)	/CE				Support the CE mark	Optional

"X" indicates unavailable combination.

DB5C (for UB5CP3 Drive)

Model	Suffix Code	Compatibility			Descriptions	
DB5C		-005	-010	-015	Direct Drive Motor with built-in Absolute Encoder	
Maximum Output Torque	-005				With a torque of 5 N·m	Selectable
	-010				With a torque of 10 N·m	
	-015				With a torque of 15 N·m	
Construction	G				Standard profile	
Driver Compatibility	-1				Compatible with DrvPIII	
Motor Operational Current	B				6A	
Positioning Accuracy	9				± 150 arc second	
Run-Out Accuracy	A2				Axial and Radial run-out 10μm or less	Selectable
	A4				Standard Run-Out Accuracy(Axial and Radial run-out 100μm or less)	
Cable Exit Direction	G				Standard access (bottom surface)	
Cable Type	2				Fixed cable	
Cable Length	-005				0.5m	
Connector Type(Motor Cable)	-A4				Housing F32MSF-04V-KX Contact BF3M-01GF-M2.0N made by J.S.T.Mfg	
Connector Type(Encoder Cable)	B5				Housing J21DPM-16V-KX Contact SJ2M-002GF-M1.0N made by J.S.T.Mfg	
Suffix Code(Optional)	/CE				Support the CE mark	Optional

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

LINEARSERV

LM130 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility			Descriptions
LM130		▽	▽	▽	Standard Model Linear Motor (Maximum Thrust 300N)
Number of sliders	-1				1 slider
	-2				2 sliders
	-3				3 sliders
	-4				4 sliders
Clamp type	N				Always N (no clamp)
Length of stroke *1	-005		X	X	5cm (50mm) [Available only when there is one slider]
	-010		X	X	10cm (100mm) [Available only when there is one slider]
	-015		X	X	15cm (150mm) [Available only when there is one slider]
	-020		X	X	20cm (200mm) [Available only for 1 or 2 sliders]
	-030		X	X	30cm (300mm) [Available only for 1 or 2 sliders]
	-040		X	X	40cm (400mm) [Available only for 1, 2 or 3 sliders]
	-050		X	X	50cm (500mm) [Available only for 1, 2 or 3 sliders]
	-060				60cm (600mm)
	-070				70cm (700mm)
	-080				80cm (800mm)
	-090				90cm (900mm)
	-100				100cm (1000mm)
	-110				110cm (1100mm)
	-120				120cm (1200mm)
Drive current	A				5A
Base structure	N				Standard profile
Scale material	-G				Glass
Guide specification	2				Standard specification
Surface treatment	N				Standard treatment
	B				Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment
	L				Mounting plate:Raydent treatment
Sensor installation position	-N				Standard (No sensor)
	-P				Inside (Omron EE-SX670 or equivalent)
	-R				Outside (Omron EE-SX670 or equivalent)
Direction of Main body connector	2				Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)
	4				Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)
	6	X	X	X	Right/left [Available only when there is two sliders]
	8	X	X	X	Left/right [Available only when there is two sliders]
Main body connector material	F				172159-1/172162-1/170363-3 made by AMP
Suffix Code(Optional)	/CE				Support the CE mark

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

LM205 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility			Descriptions
LM205		▽	▽	▽	High-stiffness Model Linear Motor (Maximum Thrust 50N)
Number of sliders	-1				1 slider
	-2				2 sliders
	-3				3 sliders
	-4				4 sliders
Clamp type	N				Always N (no clamp)
Length of stroke *1	-005		X	X	5cm (50mm) [Available only when there is one slider]
	-010		X	X	10cm (100mm) [Available only when there is one slider]
	-015		X	X	15cm (150mm) [Available only for 1 or 2 sliders]
	-020		X	X	20cm (200mm) [Available only for 1 or 2 sliders]
	-030		X	X	30cm (300mm) [Available only for 1, 2 or 3 sliders]
	-040		X	X	40cm (400mm) [Available only for 1, 2 or 3 sliders]
	-050				50cm (500mm)
	-060				60cm (600mm)
	-070				70cm (700mm)
	-080				80cm (800mm)
	-090				90cm (900mm)
	-100				100cm (1000mm)
	-110				110cm (1100mm)
	-120				120cm (1200mm)
Drive current	A				5A
Base structure	N				Standard profile
Scale material	-G				Glass
Guide specification	2				Standard specification
Surface treatment	N				Standard treatment
	B				Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment
	L				Mounting plate:Raydent treatment
Sensor installation position	-N				Standard (No sensor)
	-P				Inside (Omron EE-SX670 or equivalent)
	-R				Outside (Omron EE-SX670 or equivalent)
Direction of Main body connector	2				Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)
	4				Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)
	6	X	X	X	Right/left [Available only when there is two sliders]
	8	X	X	X	Left/right [Available only when there is two sliders]
Main body connector material	F				172159-1/172162-1/170363-3 made by AMP
Suffix Code(Optional)	/CE				Support the CE mark

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

LM210 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM210		ㄱ	ㄴ	ㄷ	ㄹ	High-stiffness Model Linear Motor (Maximum Thrust 100N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-005			×	×	5cm (50mm) [Available only when there is one slider]	Selectable
	-010			×	×	10cm (100mm) [Available only when there is one slider]	
	-015				×	15cm (150mm) [Available only for 1 or 2 sliders]	
	-020				×	20cm (200mm) [Available only for 1 or 2 sliders]	
	-030				×	30cm (300mm) [Available only for 1, 2 or 3 sliders]	
	-040				×	40cm (400mm) [Available only for 1, 2 or 3 sliders]	
	-050					50cm (500mm)	
	-060					60cm (600mm)	
	-070					70cm (700mm)	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
-120					120cm (1200mm)		
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6	×	×	×	×	Right/left [Available only when there is two sliders]	
	8	×	×	×	×	Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

LM230 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM230		ㄱ	ㄴ	ㄷ	ㄹ	High-stiffness Model Linear Motor (Maximum Thrust 300N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-005					5cm (50mm) [Available only when there is one slider]	Selectable
	-010					10cm (100mm) [Available only when there is one slider]	
	-015					15cm (150mm) [Available only when there is one slider]	
	-020					20cm (200mm) [Available only when there is one slider]	
	-030					30cm (300mm) [Available only for 1 or 2 sliders]	
	-040					40cm (400mm) [Available only for 1 or 2 sliders]	
	-050					50cm (500mm) [Available only for 1 or 2 sliders]	
	-060					60cm (600mm) [Available only for 1, 2 or 3 sliders]	
	-070					70cm (700mm) [Available only for 1, 2 or 3 sliders]	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
	-120					120cm (1200mm)	
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6					Right/left [Available only when there is two sliders]	
	8					Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

LM240 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM240		ㄱ	ㄴ	ㄷ	ㄹ	High-stiffness Model Linear Motor (Maximum Thrust 400N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-005					5cm (50mm) [Available only when there is one slider]	Selectable
	-010					10cm (100mm) [Available only when there is one slider]	
	-015					15cm (150mm) [Available only when there is one slider]	
	-020					20cm (200mm) [Available only when there is one slider]	
	-030					30cm (300mm) [Available only for 1 or 2 sliders]	
	-040					40cm (400mm) [Available only for 1 or 2 sliders]	
	-050					50cm (500mm) [Available only for 1 or 2 sliders]	
	-060					60cm (600mm) [Available only for 1, 2 or 3 sliders]	
	-070					70cm (700mm) [Available only for 1, 2 or 3 sliders]	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
-120					120cm (1200mm)		
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6					Right/left [Available only when there is two sliders]	
	8					Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

LM305 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM305		ㄱ	ㄴ	ㄷ	ㄹ	High-speed & High-stiffness Model Linear Motor (Maximum Thrust 40N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-040				⊗	40cm (400mm) [Available only for 1, 2 or 3 sliders]	Selectable
	-050					50cm (500mm)	
	-060					60cm (600mm)	
	-070					70cm (700mm)	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
	-120					120cm (1200mm)	
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6	⊗		⊗	⊗	Right/left [Available only when there is two sliders]	
	8	⊗		⊗	⊗	Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

LM310 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM310		ㄱ	ㄴ	ㄷ	ㄹ	High-speed & High-stiffness Model Linear Motor (Maximum Thrust 90N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-030				⊗	30cm (300mm) [Available only for 1, 2 or 3 sliders]	Selectable
	-040				⊗	40cm (400mm) [Available only for 1, 2 or 3 sliders]	
	-050					50cm (500mm)	
	-060					60cm (600mm)	
	-070					70cm (700mm)	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
	-120					120cm (1200mm)	
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6	⊗	⊗	⊗	⊗	Right/left [Available only when there is two sliders]	
	8	⊗	⊗	⊗	⊗	Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

LM330 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions	
LM330		ㄱ	ㄴ	ㄷ	ㄹ	High-speed & High-stiffness Model Linear Motor (Maximum Thrust 270N)	
Number of sliders	-1					1 slider	Selectable
	-2					2 sliders	
	-3					3 sliders	
	-4					4 sliders	
Clamp type	N					Always N (no clamp)	
Length of stroke *1	-040				⊗	40cm (400mm) [Available only for 1 or 2 sliders]	Selectable
	-050				⊗	50cm (500mm) [Available only for 1 or 2 sliders]	
	-060				⊗	60cm (600mm) [Available only for 1, 2 or 3 sliders]	
	-070				⊗	70cm (700mm) [Available only for 1, 2 or 3 sliders]	
	-080					80cm (800mm)	
	-090					90cm (900mm)	
	-100					100cm (1000mm)	
	-110					110cm (1100mm)	
	-120					120cm (1200mm)	
Drive current	A					5A	
Base structure	N					Standard profile	
Scale material	-G					Glass	
Guide specification	2					Standard specification	
Surface treatment	N					Standard treatment	Selectable
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment	
	L					Mounting plate:Raydent treatment	
Sensor installation position	-N					Standard (No sensor)	Selectable
	-P					Inside (Omron EE-SX670 or equivalent)	
	-R					Outside (Omron EE-SX670 or equivalent)	
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)	Selectable
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)	
	6	⊗	⊗	⊗	⊗	Right/left [Available only when there is two sliders]	
	8	⊗	⊗	⊗	⊗	Left/right [Available only when there is two sliders]	
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP	
Suffix Code(Optional)	/CE					Support the CE mark	Optional

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

LM530 (for UM1LG3, UM1LP3 Drive)

Model	Suffix Code	Compatibility				Descriptions
LM530		ㄱ	ㄴ	ㄷ	ㄹ	High-speed Model Linear Motor (Maximum Thrust 270N)
Number of sliders	-1					1 slider
	-2					2 sliders
	-3					3 sliders
	-4					4 sliders
Clamp type	N					Always N (no clamp)
Length of stroke *1	-020					20cm (200mm) [Available only for 1 or 2 sliders]
	-030					30cm (300mm) [Available only for 1 or 2 sliders]
	-040					40cm (400mm) [Available only for 1, 2 or 3 sliders]
	-050					50cm (500mm) [Available only for 1, 2 or 3 sliders]
	-060					60cm (600mm)
	-070					70cm (700mm)
	-080					80cm (800mm)
	-090					90cm (900mm)
	-100					100cm (1000mm)
	-110					110cm (1100mm)
	-120					120cm (1200mm)
Drive current	A					5A
Base structure	N					Standard profile
Scale material	-G					Glass
Guide specification	2					Standard specification
Surface treatment	N					Standard treatment
	B					Mounting plate:Raydent treatment/Aluminum unit:Black alumite treatment
	L					Mounting plate:Raydent treatment
Sensor installation position	-N					Standard (No sensor)
	-P					Inside (Omron EE-SX670 or equivalent)
	-R					Outside (Omron EE-SX670 or equivalent)
Direction of Main body connector	2					Right only (All connectors are pulled out to the right in the case of multiple sliders,as well)
	4					Left only (All connectors are pulled out to the left in the case of multiple sliders,as well)
	6					Right/left [Available only when there is two sliders]
	8					Left/right [Available only when there is two sliders]
Main body connector material	F					172159-1/172162-1/170363-3 made by AMP
Suffix Code(Optional)	/CE					Support the CE mark

*1 Stroke for single slider. For multiple sliders, stroke may shorten as other slider/s will obstruct movement.

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

Intelligent Drive DrvGIII

UD1AG3 (for DM1A Motor)

Model	Suffix Code	Compatibility				Descriptions	
UD1AG3		-050	-100	-150	-200	Intelligent Drive	
Compatible motor size	-050					With a torque of 50 N·m	Selectable
	-100					With a torque of 100 N·m	
	-150					With a torque of 150 N·m	
	-200					With a torque of 200 N·m	
Resolution	N					Standard resolution	
Basic structure	-1K					Standard (2 kW without brake)	Selectable
	-1L					2 kW built-in brake	
Motor operational current	D					20A	
Power supply voltage	-2					200 VAC system	
Interface type	M					MECHATROLINK2	Selectable
	S					Standard (With differential input, and no velocity/torque/thrust input)	
	T					With differential input and velocity/torque/thrust input	
	U					5V Open collector/high-speed 200 kHz	
Interface specification	2					MECHATROLINK2 [For Interface type M]	Selectable
	A					Contact I/O 12 to 24V [Not available for Interface type M]	
	B					Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N					Standard specification	
Suffix Code(Optional)	/CN					A set of connectors attached	Optional

"X" indicates unavailable combination.
When Considering a MECHATROLINK, please contact us.

UD1BG3 (for DM1B Motor)

Model	Suffix Code	Compatibility				Descriptions		
UD1BG3		-006	-015	-030	-045	-060	Intelligent Drive	
Compatible motor size	-006						With a torque of 6 N-m	Selectable
	-015						With a torque of 15 N-m	
	-030						With a torque of 30 N-m	
	-045						With a torque of 45 N-m	
	-060						With a torque of 60 N-m	
Resolution	N						Standard resolution	
Basic structure	-1A		X	X	X	X	Standard (500 W without brake) [Available only with 6N-m motor]	Selectable
	-1B						500 W built-in brake [Available only with 6N-m motor]	
	-1K	X	X				Standard (2 kW without brake) [Not available for 6N-m motor]	
	-1L	X	X				2 kW built-in brake [Not available for 6N-m motor]	
Motor operational current	A		X	X	X	X	5A [For 6N-m motor]	Selectable
	C		X	X			15A [Not available for 6N-m motor]	
Power supply voltage	-2						200 VAC system	
Interface type	M						MECHATROLINK2	Selectable
	S						Standard (With differential input, and no velocity/torque/thrust input)	
	T						With differential input and velocity/torque/thrust input	
	U						5V Open collector/high-speed 200 kHz	
Interface specification	2						MECHATROLINK2 [For Interface type M]	Selectable
	A						Contact I/O 12 to 24V [Not available for Interface type M]	
	B						Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N						Standard specification	
Suffix Code(Optional)	/CN						A set of connectors attached	Optional

"X" indicates unavailable combination.
When Considering a MECHATROLINK, please contact us.

UD1CG3 (for DM1C Motor)

Model	Suffix Code	Compatibility	Descriptions	
UD1CG3		-004	Intelligent Drive	
Compatible motor size	-004		With a torque of 4 N-m	
Resolution	N		Standard resolution	
Basic structure	-1A		Standard (500 W without brake)	Selectable
	-1B		500 W built-in brake	
Motor operational current	A		5A	
Power supply voltage	-2		200 VAC system	
Interface type	M		MECHATROLINK2	Selectable
	S		Standard (With differential input, and no velocity/torque/thrust input)	
	T		With differential input and velocity/torque/thrust input	
	U		5V Open collector/high-speed 200 kHz	
Interface specification	2		MECHATROLINK2 [For Interface type M]	Selectable
	A		Contact I/O 12 to 24V [Not available for Interface type M]	
	B		Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N		Standard specification	
Suffix Code(Optional)	/CN		A set of connectors attached	Optional

"X" indicates unavailable combination.
When Considering a MECHATROLINK, please contact us.

(Recommended) Model and Suffix Codes

UR5HG3 (for DR5H00 Motor)

Model	Suffix Code	Compatibility			Descriptions	
UR5HG3		-010	-020	-040	Intelligent Drive	
Compatible motor size	-010				Maximum Output Torque 10N-m	Selectable
	-020				Maximum Output Torque 20N-m	
	-040				Maximum Output Torque 40N-m	
Resolution	N				Standard resolution	
Basic structure	-1A				Standard (500 W without brake) [Not available for 40N-m motor]	Selectable
	-1B				500 W built-in brake [Not available for 40N-m motor]	
	-1K				Standard (2 kW without brake) [Available only with 40N-m motor]	
	-1L				2 kW built-in brake [Available only with 40N-m motor]	
Motor operational current	B				6A [Not available for 40N-m motor]	Selectable
	D				20A [For 40N-m motor]	
Power supply voltage	-2				200 VAC system	
Interface type	M				MECHATROLINK2	Selectable
	S				Standard (With differential input, and no velocity/torque/thrust input)	
	T				With differential input and velocity/torque/thrust input	
	U				5V Open collector/high-speed 200 kHz	
Interface specification	2				MECHATROLINK2 [For Interface type M]	Selectable
	A				Contact I/O 12 to 24V [Not available for Interface type M]	
	B				Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N				Standard specification	
Suffix Code(Optional)	/CN				A set of connectors attached	Optional

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

UR1AG3 (for DR1A Motor)

Model	Suffix Code	Compatibility						Descriptions	
UR1AG3		-050	-100	-150	-200	-300	-400	Intelligent Drive	
Compatible motor size	-050							With a torque of 50 N-m	Selectable
	-100							With a torque of 100 N-m	
	-150							With a torque of 150 N-m	
	-200							With a torque of 200 N-m	
	-300							With a torque of 300 N-m	
	-400							With a torque of 400 N-m	
Resolution	N							Standard resolution	
Basic structure	-1K							Standard (2 kW without brake)	Selectable
	-1L							2 kW built-in brake	
Motor operational current	D							20A	
Power supply voltage	-2							200 VAC system	
Interface type	M							MECHATROLINK2	Selectable
	S							Standard (With differential input, and no velocity/torque/thrust input)	
	T							With differential input and velocity/torque/thrust input	
	U							5V Open collector/high-speed 200 kHz	
Interface specification	2							MECHATROLINK2 [For Interface type M]	Selectable
	A							Contact I/O 12 to 24V [Not available for Interface type M]	
	B							Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N							Standard specification	
Suffix Code(Optional)	/CN							A set of connectors attached	Optional

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

UR1EG3 (for DR1E Motor)

Model	Suffix Code	Compatibility						Descriptions		
UR1EG3		-030	-070	-100	-130	-160	-220	-250	Intelligent Drive	
Compatible motor size	-030								With a torque of 30 N-m	Selectable
	-070								With a torque of 70 N-m	
	-100								With a torque of 100 N-m	
	-130								With a torque of 130 N-m	
	-160								With a torque of 160 N-m	
	-220								With a torque of 220 N-m	
	-250								With a torque of 250 N-m	
Resolution	N								Standard resolution	
Basic structure	-1K								Standard (2 kW without brake)	Selectable
	-1L								2 kW built-in brake	
Motor operational current	D								20A	
Power supply voltage	-2								200 VAC system	
Interface type	M								MECHATROLINK2	Selectable
	S								Standard (With differential input, and no velocity/torque/thrust input)	
	T								With differential input and velocity/torque/thrust input	
	U								5V Open collector/high-speed 200 kHz	
Interface specification	2								MECHATROLINK2 (For interface type M)	Selectable
	A								Contact I/O 12 to 24V [Not available for Interface type M]	
	B								Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N								Standard specification	
Suffix Code(Optional)	/CN								A set of connectors attached	Optional

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

(Recommended) Model and Suffix Codes

UR1BG3 (for DR1B Motor)

Model	Suffix Code	Compatibility	Descriptions
UR1BG3		-008 -015 -030 -045 -060	Intelligent Drive
Compatible motor size	-008		With a torque of 8 N-m
	-015		With a torque of 15 N-m
	-030		With a torque of 30 N-m
	-045		With a torque of 45 N-m
	-060		With a torque of 60 N-m
Resolution	N		Standard resolution
Basic structure	-1K		Standard (2 kW without brake)
	-1L		2 kW built-in brake
Motor operational current	C		15A
Power supply voltage	-2		200 VAC system
Interface type	M		MECHATROLINK2
	S		Standard (With differential input, and no velocity/torque/thrust input)
	T		With differential input and velocity/torque/thrust input
	U		5V Open collector/high-speed 200 kHz
Interface specification	2		MECHATROLINK2 [For Interface type M]
	A		Contact I/O 12 to 24V [Not available for Interface type M]
	B		Contact I/O 5V [Not available for Interface type M]
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.
When Considering a MECHATROLINK, please contact us.

UR5AG3 (for DR5A Motor)

Model	Suffix Code	Compatibility	Descriptions
UR5AG3		-300 -400 -500	Intelligent Drive
Compatible motor size	-300		With a torque of 300 N-m
	-400		With a torque of 400 N-m
	-500		With a torque of 500 N-m
Resolution	N		Standard resolution
Basic structure	-1S		Standard (4 kW without brake)
Motor operational current	E		50A
Power supply voltage	-2		200 VAC system (3 phase)
Interface type	S		Standard (With differential input, and no velocity/torque/thrust input)
	T		With differential input, and velocity/torque/thrust input
	U		5V Open collector/high-speed 200 kHz
Interface specification	A		Contact I/O 12 to 24V
	B		Contact I/O 5V
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.

UR5EG3 (for DR5E Motor)

Model	Suffix Code	Compatibility	Descriptions
UR5EG3		-100	Intelligent Drive
Compatible motor size	-100		With a torque of 100 N-m
Resolution	N		Standard resolution
Basic structure	-1K		Standard (2 kW without brake)
	-1L		2 kW built-in brake
Motor operational current	D		20A
Power supply voltage	-2		200 VAC system
Interface type	M		MECHATROLINK2
	S		Standard (With differential input, and no velocity/torque/thrust input)
	T		With differential input and velocity/torque/thrust input
	U		5V Open collector/high-speed 200 kHz
Interface specification	2		MECHATROLINK2 [For Interface type M]
	A		Contact I/O 12 to 24V [Not available for Interface type M]
	B		Contact I/O 5V [Not available for Interface type M]
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.
When Considering a MECHATROLINK, please contact us.

(Recommended) Model and Suffix Codes

UR5BG3 (for DR5B Motor)

Model	Suffix Code	Compatibility			Descriptions
UR5BG3		-030	-050	-070	Intelligent Drive
Compatible motor size	-030				With a torque of 30 N·m
	-050				With a torque of 50 N·m
	-070				With a torque of 70 N·m
Resolution	N				Standard resolution
Basic structure	-1K				Standard (2 kW without brake)
	-1L				2 kW built-in brake
Motor operational current	C				15A
Power supply voltage	-2				200 VAC system
Interface type	M				MECHATROLINK2
	S				Standard (With differential input, and no velocity/torque/thrust input)
	T				With differential input and velocity/torque/thrust input
	U				5V Open collector/high-speed 200 kHz
Interface specification	2				MECHATROLINK2 [For Interface type M]
	A				Contact I/O 12 to 24V [Not available for Interface type M]
	B				Contact I/O 5V [Not available for Interface type M]
Supported standard	-N				Standard specification
Suffix Code(Optional)	/CN				A set of connectors attached

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

UR5CG3 (for DR5C Motor)

Model	Suffix Code	Compatibility			Descriptions
UR5CG3		-005	-010	-015	Intelligent Drive
Compatible motor size	-005				With a torque of 5 N·m
	-010				With a torque of 10 N·m
	-015				With a torque of 15 N·m
Resolution	N				Standard resolution
Basic structure	-1A				Standard (500 W without brake)
	-1B				500 W built-in brake
Motor operational current	B				6A
Power supply voltage	-2				200 VAC system
Interface type	M				MECHATROLINK2
	S				Standard (With differential input, and no velocity/torque/thrust input)
	T				With differential input and velocity/torque/thrust input
	U				5V Open collector/high-speed 200 kHz
Interface specification	2				MECHATROLINK2 [For Interface type M]
	A				Contact I/O 12 to 24V [Not available for Interface type M]
	B				Contact I/O 5V [Not available for Interface type M]
Supported standard	-N				Standard specification
Suffix Code(Optional)	/CN				A set of connectors attached

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

UM1LG3 (for LM Motor)

Model	Suffix Code	Compatibility								Descriptions		
UM1LG3		-130	-205	-210	-230	-240	-305	-310	-330	-530	Intelligent Drive	
Compatible motor size	-130										Standard Model Linear Motor/Maximum Thrust 300N	Selectable
	-205										High-stiffness Model Linear Motor/Maximum Thrust 50N	
	-210										High-stiffness Model Linear Motor/Maximum Thrust 100N	
	-230										High-stiffness Model Linear Motor/Maximum Thrust 300N	
	-240										High-stiffness Model Linear Motor/Maximum Thrust 400N	
	-305										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 40N	
	-310										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 90N	
	-330										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 270N	
	-530										High-speed Model Linear Motor/Maximum Thrust 270N	
Resolution	B	X	X	X	X						Standard (0.5μm) [For LM305, LM310, LM330, or LM530 Motor]	Selectable
	C						X	X	X	X	Standard (0.25μm) [Available only with LM130, LM205, LM210, LM230 or LM240 Motor]	
	E							X	X	X	X	
Basic structure	-1A										Standard (500 W without brake)	Selectable
	-1B										500 W built-in brake	
Motor operational current	A										5A	
Power supply voltage	-2										200 VAC system	
Interface type	M										MECHATROLINK2	Selectable
	S										Standard (With differential input,and no velocity/torque/thrust input)	
	T										With differential input and velocity/torque/thrust input	
	U										5V Open collector/high-speed 200 kHz	
Interface specification	2										MECHATROLINK2 [For Interface type M]	Selectable
	A										Contact I/O 12 to 24V [Not available for Interface type M]	
	B										Contact I/O 5V [Not available for Interface type M]	
Supported standard	-N										Standard specification	
Suffix Code(Optional)	/CN										A set of connectors attached	Optional

"X" indicates unavailable combination.

When Considering a MECHATROLINK, please contact us.

(Recommended) Model and Suffix Codes

Intelligent Drive DrvPIII

UD1AP3 (for DM1A Motor)

Model	Suffix Code	Compatibility			Descriptions	
UD1AP3		-050	-100	-150	-200	Intelligent Drive
Compatible motor size	-050					With a torque of 50 N-m
	-100					With a torque of 100 N-m
	-150					With a torque of 150 N-m
	-200					With a torque of 200 N-m
Resolution	N					Standard resolution
Basic structure	-1K					Standard (2kW without brake)
	-1L					2kW built-in brake
Motor operational current	D					20A
Power supply voltage	-2					200 VAC system
Interface type	X					Standard (Contact I/O)
	C					CC-Link
Interface specification	1					CC-Link [For Interface type C]
	A					Contact I/O 12 to 24V [For Interface type X]
Supported standard	-N					Standard specification
Suffix Code(Optional)	/CN					A set of connectors attached

"X" indicates unavailable combination.

UD1BP3 (for DM1B Motor)

Model	Suffix Code	Compatibility				Descriptions	
UD1BP3		-006	-015	-030	-045	-060	Intelligent Drive
Compatible motor size	-006						With a torque of 6 N-m
	-015						With a torque of 15 N-m
	-030						With a torque of 30 N-m
	-045						With a torque of 45 N-m
	-060						With a torque of 60 N-m
Resolution	N						Standard resolution
Basic structure	-1A		X	X	X	X	Standard (500 W without brake) [Available only with 6N-m motor]
	-1B		X	X	X	X	500 W built-in brake [Available only with 6N-m motor]
	-1K		X	X	X	X	Standard (2kW without brake) [Not available for 6N-m motor]
	-1L		X	X	X	X	2kW built-in brake [Not available for 6N-m motor]
Motor operational current	A		X	X	X	X	5A [Available only with 6N-m motor]
	C		X				15A [Not available for 6N-m motor]
Power supply voltage	-2						200 VAC system
Interface type	X						Standard (Contact I/O)
	C						CC-Link
Interface specification	1						CC-Link [For Interface type C]
	A						Contact I/O 12 to 24V [For Interface type X]
Supported standard	-N						Standard specification
Suffix Code(Optional)	/CN						A set of connectors attached

"X" indicates unavailable combination.

UD1CP3 (for DM1C Motor)

Model	Suffix Code	Compatibility		Descriptions		
UD1CP3		-004		Intelligent Drive		
Compatible motor size	-004			With a torque of 4N-m		
Resolution	N			Standard resolution		
Basic structure	-1A			Standard (500W without brake)		
	-1B			500 W built-in brake		
Motor operational current	A			5A		
Power supply voltage	-2			200 VAC system		
Interface type	X			Standard (Contact I/O)		
	C			CC-Link		
Interface specification	1			CC-Link [For Interface type C]		
	A			Contact I/O 12 to 24V [For Interface type X]		
Supported standard	-N			Standard specification		
Suffix Code(Optional)	/CN			A set of connectors attached		

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

UR5HP3 (for DR5H00 Motor)

Model	Suffix Code	Compatibility			Descriptions	
UR5HP3		-010	-020	-040	Intelligent Drive	
Compatible motor size	-010				Maximum Output Torque 10N-m	Selectable
	-020				Maximum Output Torque 20N-m	
	-040				Maximum Output Torque 40N-m	
Resolution	N				Standard resolution	
Basic structure	-1A				Standard (500 W without brake) [Not available for 40N-m motor]	Selectable
	-1B				500 W built-in brake [Not available for 40N-m motor]	
	-1K				Standard (2 kW without brake) [Available only with 40N-m motor]	
	-1L				2 kW built-in brake [Available only with 40N-m motor]	
Motor operational current	B				6A [Not available for 40N-m motor]	Selectable
	D				20A [For 40N-m motor]	
Power supply voltage	-2				200 VAC system	
Interface type	X				Standard (Contact I/O)	Selectable
	C				CC-Link	
	P				PROFIBUS_DP	
Interface specification	1				CC-Link, PROFIBUS_DP [For Interface type C or P]	Selectable
	A				Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N				Standard specification	
Suffix Code(Optional)	/CN				A set of connectors attached	Optional

"X" indicates unavailable combination.

UR1AP3 (for DR1A Motor)

Model	Suffix Code	Compatibility					Descriptions		
UR1AP3		-050	-100	-150	-200	-300	-400	Intelligent Drive	
Compatible motor size	-050							With a torque of 50 N-m	Selectable
	-100							With a torque of 100 N-m	
	-150							With a torque of 150 N-m	
	-200							With a torque of 200 N-m	
	-300							With a torque of 300 N-m	
	-400							With a torque of 400 N-m	
Resolution	N							Standard resolution	
Basic structure	-1K							Standard (2kW without brake)	
	-1L							2kW built-in brake	
Motor operational current	D							20A	
Power supply voltage	-2							200 VAC system	
Interface type	X							Standard (Contact I/O)	
	C							CC-Link	
	P							PROFIBUS_DP	
Interface specification	1							CC-Link, PROFIBUS_DP [For Interface type C or P]	
	A							Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N							Standard specification	
Suffix Code(Optional)	/CN							A set of connectors attached	
									Optional

"X" indicates unavailable combination.

UR1EP3 (for DR1E Motor)

Model	Suffix Code	Compatibility						Descriptions		
UR1EP3		-030	-070	-100	-130	-160	-220	-250	Intelligent Drive	
Compatible motor size	-030								With a torque of 30 N-m	Selectable
	-070								With a torque of 70 N-m	
	-100								With a torque of 100 N-m	
	-130								With a torque of 130 N-m	
	-160								With a torque of 160 N-m	
	-220								With a torque of 220 N-m	
	-250								With a torque of 250 N-m	
Resolution	N								Standard resolution	
Basic structure	-1K								Standard (2kW without brake)	Selectable
	-1L								2kW built-in brake	
Motor operational current	D								20A	
Power supply voltage	-2								200 VAC system	
Interface type	X								Standard (Contact I/O)	Selectable
	C								CC-Link	
	P								PROFIBUS_DP	
Interface specification	1								CC-Link, PROFIBUS_DP [For Interface type C or P]	Selectable
	A								Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N								Contact I/O 12 to 24V	
Suffix Code(Optional)	/CN								A set of connectors attached	Optional

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

UR1BP3 (for DR1B Motor)

Model	Suffix Code	Compatibility	Descriptions
UR1BP3		-008 -015 -030 -045 -060	Intelligent Drive
Compatible motor size	-008		With a torque of 8 N-m
	-015		With a torque of 15 N-m
	-030		With a torque of 30 N-m
	-045		With a torque of 45 N-m
	-060		With a torque of 60 N-m
Resolution	N		Standard resolution
Basic structure	-1K		Standard (2kW without brake)
	-1L		2kW built-in brake
Motor operational current	C		15A
Power supply voltage	-2		200 VAC system
Interface type	X		Standard (Contact I/O)
	C		CC-Link
	P		PROFIBUS_DP
Interface specification	1		CC-Link, PROFIBUS_DP [For Interface type C or P]
	A		Contact I/O 12 to 24V [For Interface type X]
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.

UR5AP3 (for DR5A Motor)

Model	Suffix Code	Compatibility	Descriptions
UR5AP3		-300 -400 -500	Intelligent Drive
Compatible motor size	-300		With a torque of 300 N-m
	-400		With a torque of 400 N-m
	-500		With a torque of 500 N-m
Resolution	N		Standard resolution
Basic structure	-1S		Standard (4kW without brake)
Motor operational current	E		50A
Power supply voltage	-2		200 VAC system (3 phase)
Interface type	X		Standard (Contact I/O)
	C		CC-Link
Interface specification	1		CC-Link [For Interface type C]
	A		Contact I/O 12 to 24V [For Interface type X]
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.

UR5EP3 (for DR5E Motor)

Model	Suffix Code	Compatibility	Descriptions
UR5EP3		-100	Intelligent Drive
Compatible motor size	-100		With a torque of 100 N-m
Resolution	N		Standard resolution
Basic structure	-1K		Standard (2kW without brake)
	-1L		2kW built-in brake
Motor operational current	D		20A
Power supply voltage	-2		200 VAC system
Interface type	X		Standard (Contact I/O)
	C		CC-Link
	P		PROFIBUS_DP
Interface specification	1		CC-Link, PROFIBUS_DP [For Interface type C or P]
	A		Contact I/O 12 to 24V [For Interface type X]
Supported standard	-N		Standard specification
Suffix Code(Optional)	/CN		A set of connectors attached

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

■ UR5BP3 (for DR5B Motor)

Model	Suffix Code	Compatibility			Descriptions	
UR5BP3		-030	-050	-070	Intelligent Drive	
Compatible motor size	-030				With a torque of 30 N·m	Selectable
	-050				With a torque of 50 N·m	
	-070				With a torque of 70 N·m	
Resolution	N				Standard resolution	
Basic structure	-1K				Standard (2kW without brake)	Selectable
	-1L				2kW built-in brake	
Motor operational current	C				15A	
Power supply voltage	-2				200 VAC system	
Interface type	X				Standard (Contact I/O)	Selectable
	C				CC-Link	
	P				PROFIBUS_DP	
Interface specification	1				CC-Link, PROFIBUS_DP [For Interface type C or P]	Selectable
	A				Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N				Standard specification	
Suffix Code(Optional)	/CN				A set of connectors attached	Optional

"X" indicates unavailable combination.

■ UR5CP3 (for DR5C Motor)

Model	Suffix Code	Compatibility			Descriptions	
UR5CP3		-005	-010	-015	Intelligent Drive	
Compatible motor size	-005				With a torque of 5 N·m	Selectable
	-010				With a torque of 10 N·m	
	-015				With a torque of 15 N·m	
Resolution	N				Standard resolution	
Basic structure	-1A				Standard (500 W without brake)	Selectable
	-1B				500 W built-in brake	
Motor operational current	B				6A	
Power supply voltage	-2				200 VAC system	
Interface type	X				Standard (Contact I/O)	Selectable
	C				CC-Link	
	P				PROFIBUS_DP	
Interface specification	1				CC-Link, PROFIBUS_DP [For Interface type C or P]	Selectable
	A				Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N				Standard specification	
Suffix Code(Optional)	/CN				A set of connectors attached	Optional

"X" indicates unavailable combination.

■ UB5CP3 (for DB5C Motor)

Model	Suffix Code	Compatibility			Descriptions	
UB5CP3		-005	-010	-015	Intelligent Drive	
Compatible motor size	-005				With a torque of 5 N·m	Selectable
	-010				With a torque of 10 N·m	
	-015				With a torque of 15 N·m	
Resolution	N				Standard resolution	
Basic structure	-1A				Standard (500 W without brake)	Selectable
	-1B				500 W built-in brake	
Motor operational current	B				6A	
Power supply voltage	-2				200 VAC system	
Interface type	X				Standard (Contact I/O)	Selectable
	C				CC-Link	
	P				PROFIBUS_DP	
Interface specification	1				CC-Link, PROFIBUS_DP [For Interface type C or P]	Selectable
	A				Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N				Standard specification	
Suffix Code(Optional)	/CN				A set of connectors attached	Optional

"X" indicates unavailable combination.

(Recommended) Model and Suffix Codes

■ UM1LP3 (for LM □□□ Motor)

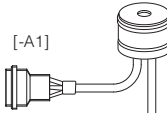
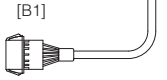
Model	Suffix Code	Compatibility								Descriptions		
UM1LP3		-130	-205	-210	-230	-240	-305	-310	-330	-530	Intelligent Drive	
Compatible motor size	-130										Standard Model Linear Motor/Maximum Thrust 300N	Selectable
	-205										High-stiffness Model Linear Motor/Maximum Thrust 50N	
	-210										High-stiffness Model Linear Motor/Maximum Thrust 100N	
	-230										High-stiffness Model Linear Motor/Maximum Thrust 300N	
	-240										High-stiffness Model Linear Motor/Maximum Thrust 400N	
	-305										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 40N	
	-310										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 90N	
	-330										High-speed & High-stiffness Model Linear Motor/Maximum Thrust 270N	
	-530										High-speed Model Linear Motor/Maximum Thrust 270N	
Resolution	B	X	X	X	X						Standard (0.5μm) [For LM305, LM310, LM330, or LM530 Motor]	Selectable
	C						X	X	X	X	Standard (0.25μm) [Available only with LM130, LM205, LM210, LM230 or LM240 Motor]	
	E							X	X	X	X	
Basic structure	-1A										Standard (500 W without brake)	Selectable
	-1B										500 W built-in brake	
Motor operational current	A										5A	
Power supply voltage	-2										200 VAC system	
Interface type	X										Standard (Contact I/O)	Selectable
	C										CC-Link	
Interface specification	1										CC-Link [For Interface type C]	Selectable
	A										Contact I/O 12 to 24V [For Interface type X]	
Supported standard	-N										Standard specification	
Suffix Code(Optional)	/CN										A set of connectors attached	Optional

"X" indicates unavailable combination.

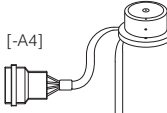
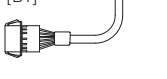
(Recommended) Model and Suffix Codes

Cables

■ Cable for DM □□ Motor (Excluding DM1B-006 and DM1C-004)

Cable				Outgoing line	
Model and Suffix Code		Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NC1-20A2 -020 (length 2m)	 Robot Cable	N1.25-M4 or N2-4 Made by J.S.T.Mfg	Housing F32FMS-06V-KXX Contact BF3F-71GF-P2.0 Made by J.S.T.Mfg	[-A1] 
	-030 (length 3m)				
	-040 (length 4m)				
	-050 (length 5m)				
	-080 (length 8m)				
Encoder Cable	C1E-EC1-79C2 -020 (length 2m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-16V-KX-L Contact SJ2F-002GF-P1.0 Made by J.S.T.Mfg	[B1] 
	-030 (length 3m)				
	-040 (length 4m)				
	-050 (length 5m)				
	-080 (length 8m)				

■ Cable for DM1B-006 and DM1C-004 Motor

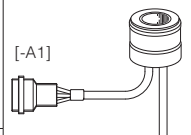
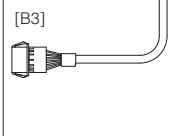
Cable				Outgoing line	
Model and Suffix Code		Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NA1-20A5 -020 (length 2m)	 Robot Cable	N1.25-M4 or N2-4 Made by J.S.T.Mfg	Housing F32FSS-04V-KX Contact BF3F-01GF-P2.0 Made by J.S.T.Mfg	[-A4] 
	-030 (length 3m)				
	-040 (length 4m)				
	-050 (length 5m)				
	-080 (length 8m)				
Encoder Cable	C1E-EA1-79C2 -020 (length 2m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-16V-KX-L Contact SJ2F-002GF-P1.0 Made by J.S.T.Mfg	[B1] 
	-030 (length 3m)				
	-040 (length 4m)				
	-050 (length 5m)				
	-080 (length 8m)				

■ Cable for DR5H00 Motor

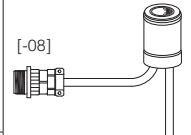
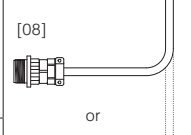
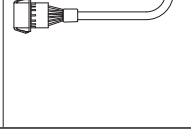
Cable				Compatible motor size	
Model and Suffix Code		Connector, drive side	Connector, motor side	Model and Suffix Code (Maximum Output Torque)	
Motor Cable	C3M-000-R020 (length 2m)	 Robot Cable	N1.25-M4 Made by J.S.T.Mfg	Connector F32FSS-04V-KX Contact BF3F-01GF-P2.0 Made by J.S.T.Mfg	[DR5H00-010] [DR5H00-020] 
	-R030 (length 3m)				
	-R040 (length 4m)				
	-R050 (length 5m)				
	-R080 (length 8m)				
Encoder Cable	C3E-00N-R020 (length 2m)	 Robot Cable	N2-4 Made by J.S.T.Mfg	Connector F32FMS-06V-KXX Contact BF3F-71GF-P2.0 Made by J.S.T.Mfg	[DR5H00-040] 
	-R030 (length 3m)				
	-R040 (length 4m)				
	-R050 (length 5m)				
	-R080 (length 8m)				

(Recommended) Model and Suffix Codes

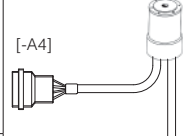
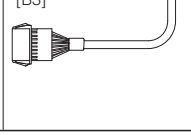
Cable for DR □□ Motor (Excluding DR5A and DR5C)

Cable				Outgoing line	
	Model and Suffix Code	Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NC1-20A2-020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	N1.25-M4 or N2-4 Made by J.S.T.Mfg	Housing F32FMS-06V-KXX Contact BF3F-71GF-P2.0 Made by J.S.T.Mfg	[-A1] 
Encoder Cable	C1E-SC1-79C4 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-12V-KX-L Contact SJ2F-21GF-P1.0 Made by J.S.T.Mfg	[B3] 

Cable for DR5A Motor

Cable				Outgoing line	
	Model and Suffix Code	Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NE1-0306 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	N5.5-4 Made by J.S.T.Mfg	Canon connector made by JAE Connector N/MS3106B20-4S Clamp N/MS3057-12A	[-08] 
Encoder Cable	C1E-SE1-7906 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Canon connector made by JAE Connector N/MS3106B18-1S Clamp N/MS3057-10A	[08] 
Encoder Cable	C1E-SE1-79C4 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-12V-KX-L Contact SJ2F-21GF-P1.0 Made by J.S.T.Mfg	[B3] 

Cable for DR5C Motor

Cable				Outgoing line	
	Model and Suffix Code	Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NA1-20A5-020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	N1.25-M4 or N2-4 Made by J.S.T.Mfg	Housing F32FSS-04V-KX Contact BF3F-01GF-P2.0 Made by J.S.T.Mfg	[-A4] 
Encoder Cable	C1E-SA1-79C4 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	 Robot Cable	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-12V-KX-L Contact SJ2F-21GF-P1.0 Made by J.S.T.Mfg	[B3] 

(Recommended) Model and Suffix Codes

Cable for DB5C Motor

Cable				Outgoing line	
	Model and Suffix Code	Connector, drive side	Connector, motor side	Suffix Code	Connector
Motor Cable	C1M-NA1-20A5-020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	N1.25-M4 or N2-4 Made by J.S.T.Mfg	Housing F32FSS-04V-KX Contact BF3F-01GF-P2.0 Made by J.S.T.Mfg	[-A4]	Housing F32MSF-04V-KX Contact BF3M-01GF-M2.0N Made by J.S.T.Mfg
	Robot Cable				
Encoder Cable	C1E-BA1-79C6 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Housing J21DF-16V-KX-L Contact SJ2F-002GF-P1.0 Made by J.S.T.Mfg	[B5]	Housing J21DPM-16V-KX Contact SJ2M-002GF-M1.0N Made by J.S.T.Mfg
	Robot Cable				

Cable for LM Motor

	Model and Suffix Code	Connector, drive side	Connector, Head Amplifier side	Connector, motor side
Motor Cable	C1M-NA1-2061 -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -080 (length 8m) -100 (length 10m)	N1.25-M4 or N2-4 Made by J.S.T.Mfg		Connector 172167-1 Contact 170366-3 Made by AMP (Japan)
	Robot Cable			
Encoder Cable	C1E-MA1-7979 -010 (length 1m) -015 (length 1.5m) -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m) -060 (length 6m) -080 (length 8m) -100 (length 10m)	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	Connector PCR-S20FS+ Cover PCR-LS20LA1 Made by Honda Tsushin Kogyo	
	Robot Cable			
Head Amplifier Cable	C1E-MA1-2262 -010 (length 1m) -015 (length 1.5m) -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m)		Connector DA-15PF-N Cover DA-C8-J10-F4-1R Made by JAE	Connector 172170-1 Contact 170365-3 Made by AMP (Japan)
	Robot Cable			

Controller Cable PLC Cable (for CN4)

	Model and Suffix Code	Connector, drive side	Controller side	Compatible Drive
PLC Cable	C1P-ENN-4202 -010 (length 1m) -020 (length 2m) -030 (length 3m) -040 (length 4m) -050 (length 5m)	Connector PCR-S36FS+ Cover PCR-LS36LA Made by Honda Tsushin Kogyo	Open leads (core wire revealed)	Interface Type DrvGIII:[S][T][U] DrvPIII:[X],
	Robot Cable			

(Recommended) Model and Suffix Codes

Accessories

■ Operation Display Pendant

Model	Overview	Compatible Drive
PC000G3		DrvGIII DrvPIII

This unit CANNOT be used with DrvGIII with MECHATROLINK-II (model code "M2") and DrvPIII with PROFIBUS-DP (model code "P1")
 In such cases, please use PC with DrvX3 Support Tool software or Operational Display Panel (PC100G3).

■ Operation Display Panel

Model	Overview	Compatible Drive
PC100G3		DrvGIII DrvPIII

■ Dedicated RS232C Cable (for CN1)

	Model and Suffix Code	Connector, drive side	Connector, PC side	Compatible Drive Support Tool
RS232C Cable	C1P-ENN-2276 -020 (length 2m)  Robot Cable	Connector DA-15PF-N Clamp DA-C8-J10-F4-1R Made by JAE	Connector DE-9SF-N Clamp DA-C8-J9-F4-1R Made by JAE	DrvGIII DrvPIII DrvX3 Support Tool

DYNASERV/LINEARSERV Selection Guide

DYNASERV		Encoder Resolution(pulse/rev)									Absolute Accuracy(arc sec)							Repeatable Accuracy			
		4,096,000	3,407,872	2,621,440	1,638,400	1,228,800	1,015,808	851,968	638,976	557,056	425,984	±15	±20	±30	±45	±80	±90	±150	±0.4	±1	±3
Maximum Output Torque(N·m)	4			DM1C									DM1C								DM1C
	5										DR5C DB5C						DR5C DB5C				
	6			DM1B									DM1B								DM1B
	8						DR1B							DR1B							DR1B
	10		DR5H00								DR5C DB5C				DR5H00		DR5C DB5C	DR5H00			
	15			DM1B			DR1B				DR5C DB5C	DM1B		DR1B			DR5C DB5C		DM1B	DR1B	
	20		DR5H00												DR5H00			DR5H00			
	30			DM1B		DR1E	DR1B			DR5B		DM1B			DR1E DR1B		DR5B		DM1B	DR1E DR1B	
	40		DR5H00													DR5H00			DR5H00		
	45			DM1B			DR1B					DM1B			DR1B					DM1B	DR1B
	50	DM1A			DR1A					DR5B		DM1A		DR1A			DR5B			DM1A	DR1A
	60			DM1B			DR1B					DM1B			DR1B					DM1B	DR1B
	70					DR1E			DR5E	DR5B					DR1E		DR5E DR5B				DR1E
	100	DM1A			DR1A	DR1E			DR5E			DM1A		DR1A	DR1E		DR5E			DM1A	DR1A DR1E
	130					DR1E									DR1E						DR1E
	150	DM1A			DR1A							DM1A		DR1A						DM1A	DR1A
	160					DR1E									DR1E						DR1E
	200	DM1A			DR1A							DM1A		DR1A						DM1A	DR1A
	220					DR1E									DR1E						DR1E
	250					DR1E									DR1E						DR1E
	300				DR1A			DR5A							DR1A	DR5A					DR1A DR5A
	400				DR1A			DR5A							DR1A	DR5A					DR1A DR5A
	500							DR5A							DR5A						DR5A

LINEARSERV		Maximum Velocity(m/s)			Encoder resolution(μm)			Repeatable accuracy(μm)			Maximum load(N)		
		0.16	0.83	2	0.05	0.25	0.5	±0.1	±0.5	±1	600	1000	2000
Maximum Thrust(N)	40			LM305			LM305			LM305	LM305		
	50	LM205	LM205		LM205	LM205		LM205	LM205		LM205		
	90			LM310			LM310			LM310	LM310		
	100	LM210	LM210		LM210	LM210		LM210	LM210		LM210		
	270			LM330 LM530			LM330 LM530			LM330 LM530		LM530	LM330
	300	LM130 LM230	LM130 LM230		LM130 LM230	LM130 LM230		LM130 LM230	LM130 LM230			LM130	LM230
	400	LM240	LM240		LM240	LM240		LM240	LM240				LM240

(arc sec)		Maximum Speed(rps) *1											Diameter(mm)									
±4	±5	6.0	5.0	4.0	3.6	2.5	2.4	2.0	1.8	1.2	1.0	0.8	264	224	205	160	158	150	145	116	107	
						DM1C														DM1C		
	DR5C DB5C	DR5C DB5C																			DR5C DB5C	
						DM1B										DM1B						
							DR1B												DR1B			
	DR5C DB5C	DR5C DB5C			DR5H00									DR5H00							DR5C DB5C	
	DR5C DB5C	DR5C DB5C					DM1B DR1B									DM1B		DR1B			DR5C DB5C	
					DR5H00									DR5H00								
	DR5B		DR5B				DM1B DR1E DR1B															
					DR5H00									DR5H00								
							DM1B DR1B									DM1B		DR1B				
	DR5B		DR5B						DR1A	DM1A			DM1A DR1A					DR5B				
							DM1B DR1B									DM1B		DR1B				
DR5E	DR5B		DR5B	DR5E			DR1E									DR1E DR5E		DR5B				
DR5E				DR5E			DR1E			DM1A DR1A			DM1A DR1A		DR1E DR5E							
										DR1E					DR1E							
										DM1A DR1A			DM1A DR1A									
										DR1E					DR1E							
										DM1A DR1A												
										DR1E					DR1E							
										DR1E					DR1E							
								DR5A			DR1A		DR1A DR5A									
								DR5A				DR1A	DR1A DR5A									
								DR5A					DR5A									

LINEARSERV		Maximum Velocity(m/s)		
		0.16	0.83	2.0
Maximum load(N)	600	LM205 LM210	LM205 LM210	LM305 LM310
	1000	LM130	LM130	LM530
	2000	LM230 LM240	LM230 LM240	LM330

*1 : 200 to 230VAC power supply

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Date : / /

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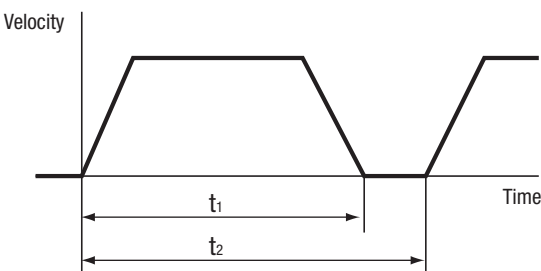
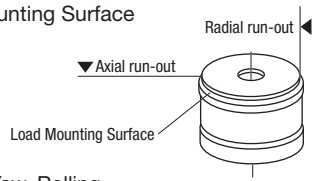
Thank you very much for your interest in our products DYNASERV / LINEARSERV.

Please fill out the form about the outline of your plans and specifications. Then send the information by E-mail or Facsimile.

You can reach us at ddm-global@cs.jp.yokogawa.com (E-mail) and +81-42-770-6924(facsimile).

If you have the configuration diagrams and the operation pattern of motors, please also send them to us.

Selection Check Sheet for DYNASERV / LINEARSERV

Company Name			
Division Name			
Address		Country :	
Name :	TEL :	Facsimile :	E-mail :
(1) Application		(2) Configuration Outline (Outline of Dimensions, Materials)	
(3) Load Inertia or Load Mass Unit : DYNASERV (rotary type) : [kg m ²] LINEARSERV (linear type) : [kg]		(If you have the subtable, work, jig etc. for the load of motor, please illustrate it and fill in the weight, material and number. Also please indicate the installing direction of the motor in the figure or instruct us.)	
(4) Operation Pattern of Motors a) Operating Time t_1 _____ [s] b) Cycle Time t_2 _____ [s] c) Operating Angle or Distance _____ [degree or mm] 		(6) Mechanical Accuracy of Load Mounting Surface DYNASERV a) Axial run-out, Radial run-out less than _____ [μm] LINEARSERV b) Straightness, Parallelism, Pitch, Yaw, Rolling less than _____ [μm] 	
(5) Positioning Accuracy a) Repeatability Accuracy _____ [arcsecond or μm] b) Absolute Accuracy _____ [arcsecond or μm]		(7) Environment	
		(8) Upper Controller	
		(9) Model of your choice and Quantity you need	
		(10) Delivery Requirements and Unit Price Range	

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Motion Control Center

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