

Servo Motors

Accessories

Accessories

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Cables

1 Connection Cable Sets (RoHS) Flexible Connection Cable Sets (RoHS)

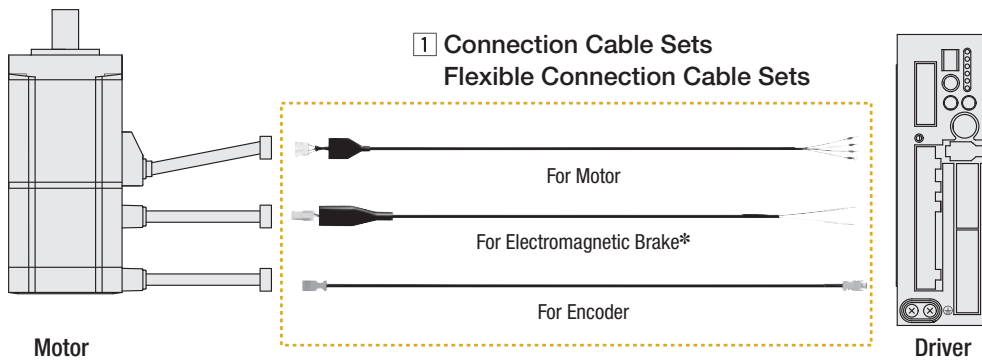
2 Extension Cable Sets (RoHS) Flexible Extension Cable Sets (RoHS)

The **NX** Series comes with cables of 1 m, 2 m or 3 m for the connection between the motor and driver.
When the distance between the motor and driver is extended to 3 m or longer, a connection cable set or extension cable set must be used.
Use a flexible extension cable if the cable will be bent repeatedly.

Cable System Configuration

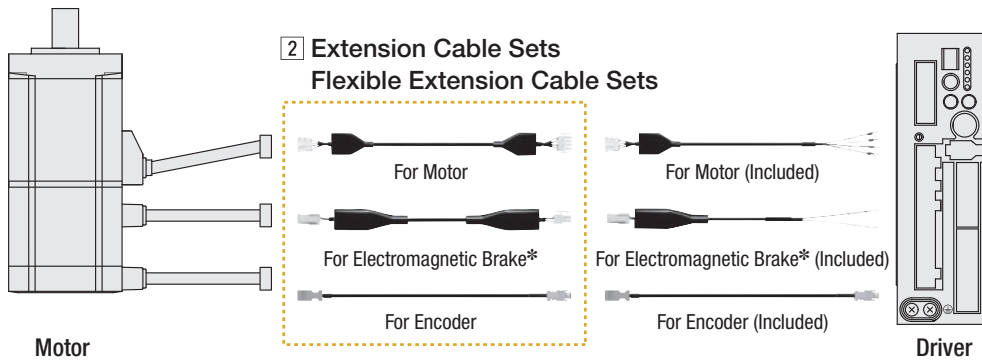
When Connecting the Motor and Driver without Using the Included Cables

Use a connection cable set.
Use a flexible connection cable set if the cables will be bent.



When Extending the Distance between the Motor and the Driver Using Included Cables

Use an extension cable set and connect it to the included cables.
Use a flexible extension cable set added if the cables will be bent.



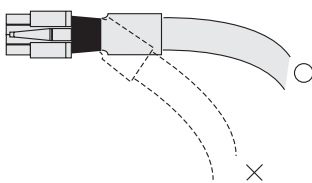
*Cables for electromagnetic brake are for use when using electromagnetic brake type motors.

Note

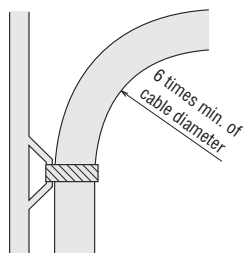
● Keep the overall cable length 20 m max. when using an extension cable set or a flexible extension cable set to connect with cables included with the **NX** Series.

Note on Use of Flexible Cables

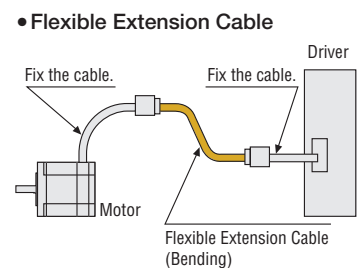
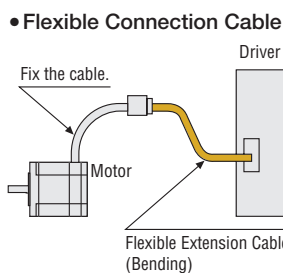
① Do not allow the cable to bend at the cable connector.



② For the bending radius, use at 6 times min. of the cable diameter.



③ The cable from the motor and the included cable are not for bending. If the motor cable is to be bent, bend it at the flexible cable.

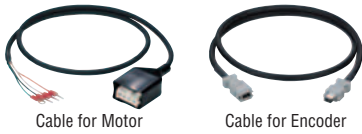


1 Connection Cable Sets (RoHS) Flexible Connection Cable Sets (RoHS)

Product Line

● Connection Cable Sets

◇ For Standard Type Motor



Product Name	Length L (m)
CC050VNF	5
CC070VNF	7
CC100VNF	10
CC150VNF	15
CC200VNF	20

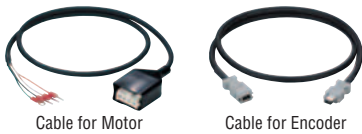
◇ For Electromagnetic Brake Type Motor



Product Name	Length L (m)
CC050VNFb	5
CC070VNFb	7
CC100VNFb	10
CC150VNFb	15
CC200VNFb	20

● Flexible Connection Cable Sets

◇ For Standard Type Motor



Product Name	Length L (m)
CC010VNR	1
CC020VNR	2
CC030VNR	3
CC050VNR	5
CC070VNR	7
CC100VNR	10
CC150VNR	15
CC200VNR	20

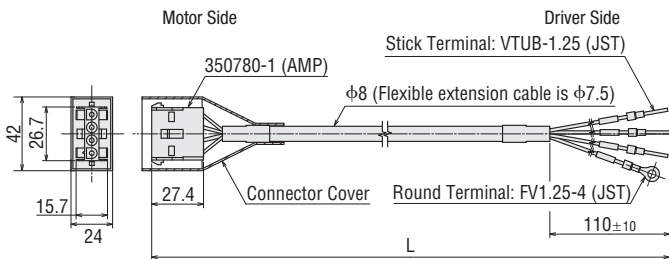
◇ For Electromagnetic Brake Type Motor



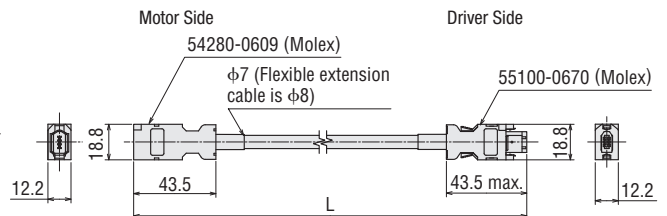
Product Name	Length L (m)
CC010VNRb	1
CC020VNRb	2
CC030VNRb	3
CC050VNRb	5
CC070VNRb	7
CC100VNRb	10
CC150VNRb	15
CC200VNRb	20

Dimensions (Unit = mm)

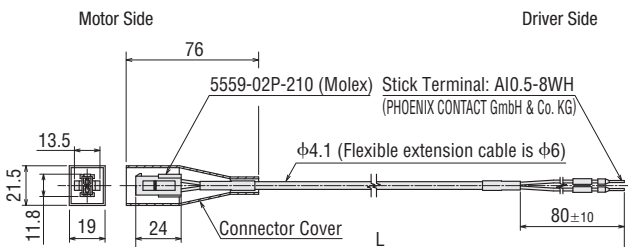
◇ Cable for Motor



◇ Cable for Encoder



◇ Cable for Electromagnetic Brake



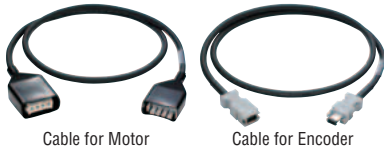
2 Extension Cable Sets (RoHS)

Flexible Extension Cable Sets (RoHS)

Product Line

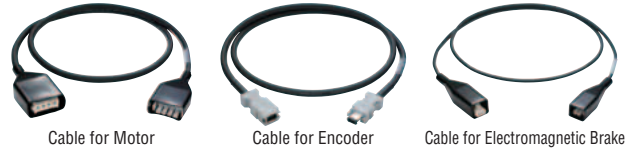
Extension Cable Sets

◇ For Standard Type Motor



Product Name	Length L (m)
CC010VNFT	1
CC020VNFT	2
CC030VNFT	3
CC050VNFT	5
CC070VNFT	7
CC100VNFT	10
CC150VNFT	15

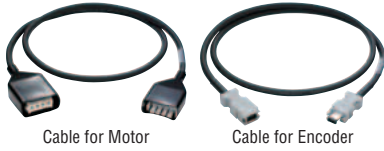
◇ For Electromagnetic Brake Type Motor



Product Name	Length L (m)
CC010VNFBT	1
CC020VNFBT	2
CC030VNFBT	3
CC050VNFBT	5
CC070VNFBT	7
CC100VNFBT	10
CC150VNFBT	15

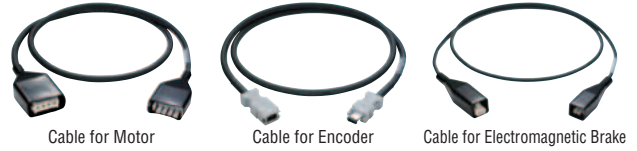
Flexible Extension Cable Sets

◇ For Standard Type Motor



Product Name	Length L (m)
CC010VNRT	1
CC020VNRT	2
CC030VNRT	3
CC050VNRT	5
CC070VNRT	7
CC100VNRT	10
CC150VNRT	15

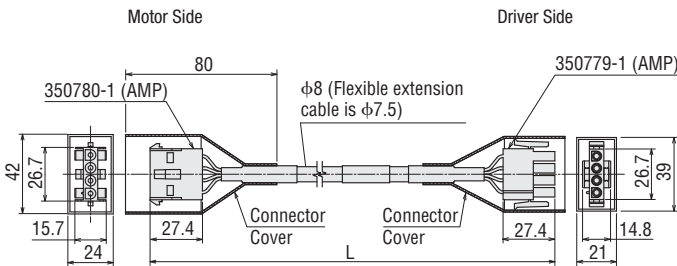
◇ For Electromagnetic Brake Type Motor



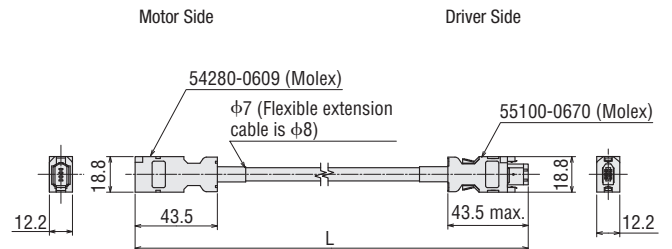
Product Name	Length L (m)
CC010VNRBT	1
CC020VNRBT	2
CC030VNRBT	3
CC050VNRBT	5
CC070VNRBT	7
CC100VNRBT	10
CC150VNRBT	15

Dimensions (Unit = mm)

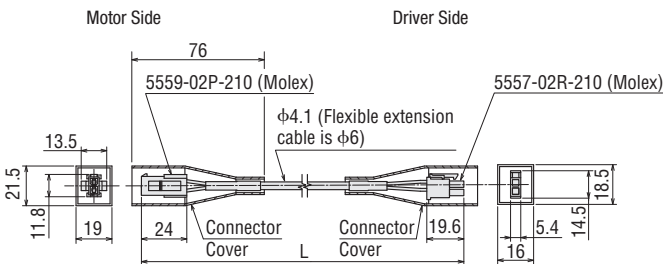
◇ Cable for Motor



◇ Cable for Encoder



◇ Cable for Electromagnetic Brake



General-Purpose Cables RoHS



These shielded cables have a half-pitch connector at one end of the cable for easy connecting to the driver.

Note

- Note that as the length of the pulse line between the driver and controller increases, the maximum frequency decreases.
- Install a connector that matches the controller you are using to the other end of the cable.

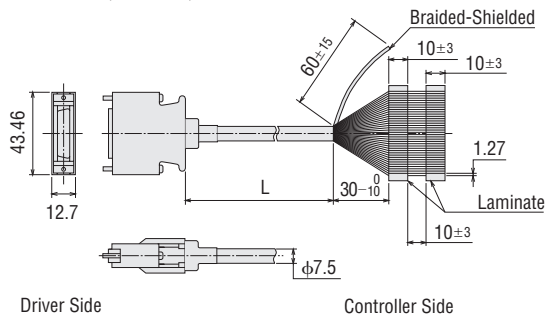
Product Line

Product Name	Applicable	Length L (m)
CC36D1-1	For CN7 (36 pins)	1
CC36D2-1		2
CC20D1-1	For CN6 (20 pins)	1
CC20D2-1		2

Dimensions (Unit = mm)

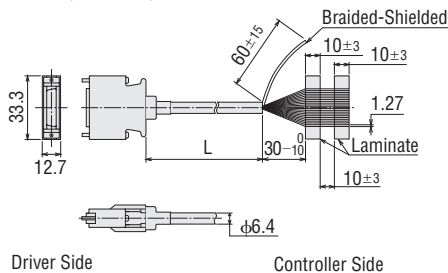
CC36D1-1, CC36D2-1

Conductor: AWG28 (0.08 mm²)



CC20D1-1, CC20D2-1

Conductor: AWG28 (0.08 mm²)



Connector - Terminal Block Conversion Units RoHS

These are conversion units that connect a driver to a programmable controller using a terminal block.

- Include a signal name plate for easy, one-glance identification of driver signal names
- DIN rail installable
- Cable length: 1 m



CC36T1



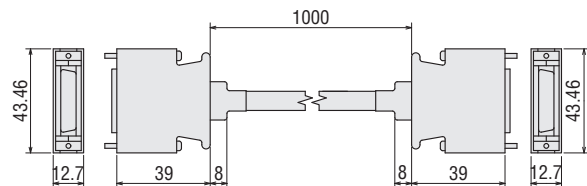
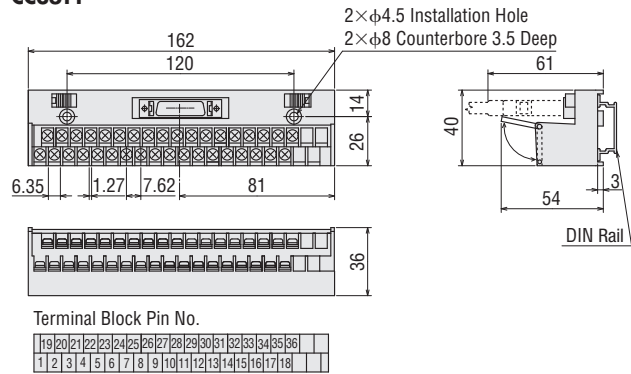
CC20T1

Product Line

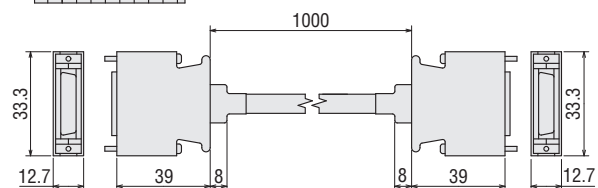
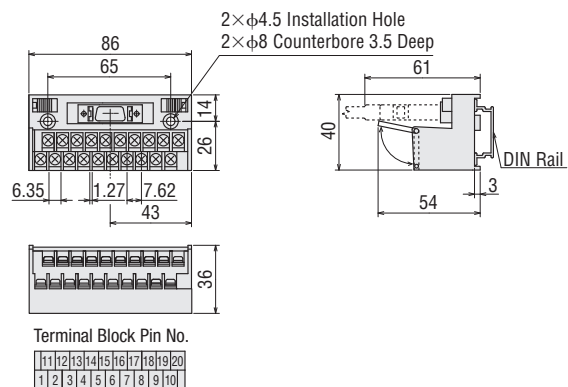
Product Name	Applicable	Length L (m)
CC36T1	For CN7 (36 pins)	1
CC20T1	For CN6 (20 pins)	

Dimensions (Unit = mm)

CC36T1



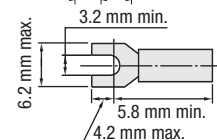
CC20T1



- Applicable Crimp Terminal
- Terminal screw size: M3
- Tightening torque: 1.2 N·m
- Applicable min. lead wire: AWG22 (0.3 mm²)

Note

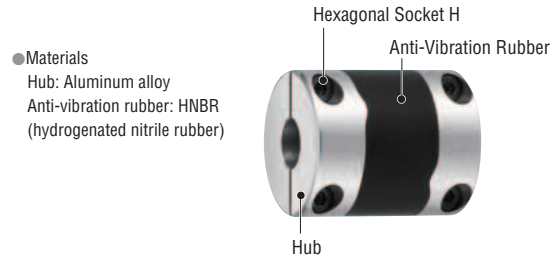
- Round terminals cannot be used.



Flexible Couplings

MCV Couplings RoHS

A flexible coupling ideal for your servo motor is available. Once you have decided on a servo motor type and/or motor applications, you can easily select a coupling of the recommended size.



Features

- Absorbs vibration
- High response
- Zero backlash
- Same characteristics for CW and CCW rotations
- RoHS Directive-compliant

Product Line

Product Name	Applicable Product
MCV19□□	NX45
MCV25□□	NX410
MCV30□□	NX620
MCV34□□	NX640
MCV39□□	NX975

● A number indicating the coupling inner diameter is entered where the box □ is located within the product name.

Product Number Code

MCV 30 08 14

- ① ② ③ ④

①	MCV Coupling	
②	Outer Diameter Dimension of Coupling	19 : φ19 mm to 39 : φ39 mm
③	Inner Diameter d1 (Smaller inner diameter)	03 : φ3 mm to 16 : φ16 mm
④	Inner Diameter d2 (Larger inner diameter)	04 : φ4 mm to 16 : φ16 mm

Shaft Hole Lineup

Product Name	Shaft Diameter d1 [mm]	Shaft Diameter d2 [mm] (Dimensional tolerance H8)					
		4	5	6	8	10	12
MCV19	5		●	●	●		
	6			●	●		
	8				●		
MCV25	5			●	●		
	6				●	●	
	6.35				●	●	
	8				●	●	●
10					●	●	

Product Name	Shaft Diameter d1 [mm]	Shaft Diameter d2 [mm] (Dimensional tolerance H8)					
		8	10	12	14	15	16
MCV30	8	●	●	●	●	●	
	10		●	●	●	●	
	12				●		
	14				●	●	
MCV34	8				●		
	10				●		
	12				●		
MCV39	14				●	●	●
	10				●		●
	12				●		●
	14				●	●	●
15					●	●	
16						●	

● The recommended dimensional tolerance of the applied shaft hole is h6 or h7.

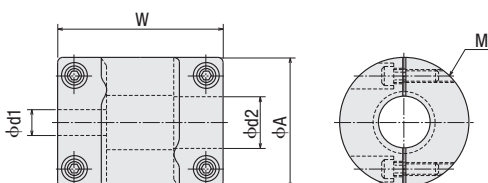
Specifications

Product Name	Normal Torque N·m	Maximum Torque N·m	Maximum Number of Rotations r/min	Inertia kg·m ²	Static Torsion Spring Constant N·m/rad	Permissible Eccentricity mm	Permissible Declination deg.	Permissible End Play mm	Mass g
MCV19	2.1	4.2	33000	8.4×10 ⁻⁷	88	0.15	1.5	±0.2	14
MCV25	4.0	8.0	25000	30×10 ⁻⁷	170	0.15		±0.2	28
MCV30	6.3	12.6	21000	69×10 ⁻⁷	220	0.20		±0.3	45
MCV34	8.0	16.0	18000	130×10 ⁻⁷	390	0.20		±0.3	65
MCV39	13.5	27.0	16000	270×10 ⁻⁷	520	0.20		±0.3	98

- If the operating ambient temperature exceeds 30°C, correct the normal torque and the maximum torque with the temperature correction coefficient shown in the table.
- The inertia is the value with the max. shaft hole diameter.

Operating Ambient Temperature (°C)	-20~+30	+30~+40	+40~+50
Temperature Correction Coefficient	1.00	0.80	0.70

Dimensions (Unit = mm)



Product Name	Dimensions [mm]		
	Outer Diameter φA	Length W	Screw Used M
MCV19	19	26	M2
MCV25	25	32	M2.5
MCV30	30	36	M3
MCV34	34	38	M3
MCV39	39	48	M4

Control Module RoHS

Allows you to use the **NX** Series extended functions. Makes it possible for you to change parameters, add functions, etc.

Product Line

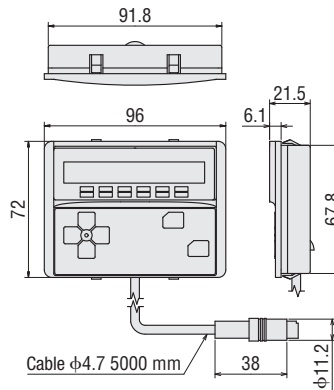
Product Name
OPX-2A



Dimensions (Unit = mm)

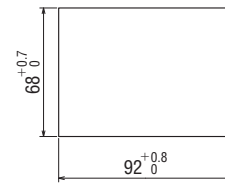
Control Module

Mass: 0.25 kg



Panel Cut-Out for Control Module

(Installation plate thickness 1 to 3 mm)



Data Setting Software RoHS

Allows you to use the **NX** Series extended functions. Allows you to change parameters, add functions, use waveform monitoring to confirm the operation etc. with a computer.

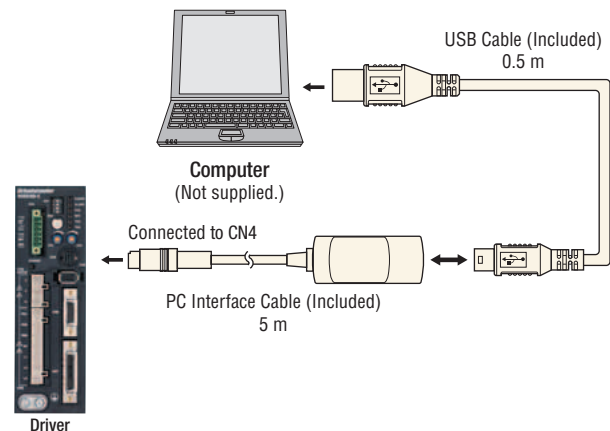
Product Line

Product Name
MEXE02

(5 m PC interface cable, 0.5 m USB cable included)



Connection between Computer and Driver



Operating Systems	The OS supports 32-bit (x86) and 64-bit (x64) versions only. Windows 2000 Professional Service Pack 4 or later*1 Windows XP Home Edition Service Pack 3 or later Windows XP Professional Service Pack 2 Windows XP Professional Service Pack 3*2 or later Windows Vista Home Basic Service Pack 2 or later Windows Vista Home Premium Service Pack 2 or later Windows Vista Business Service Pack 2 or later Windows Vista Ultimate Service Pack 2 or later Windows Vista Enterprise Service Pack 2 or later Windows 7 Starter Service Pack 1 or later Windows 7 Home Premium Service Pack 1 or later Windows 7 Professional Service Pack 1 or later Windows 7 Ultimate Service Pack 1 or later Windows 7 Enterprise Service Pack 1 or later
CPU*3	Intel Core Processor 2 GHz or more (The OS must be supported.)
Memory*3	32-bit (x86) version: 1 GB or more 64-bit (x64) version: 2 GB or more
Hard Disk*4	Available disk space of 30 MB or more
Disk Device	CD-ROM drive
Serial Interface	USB 1.1 1 port

*1 Rollup 1 must be applied.

*2 Service Pack 3 supports 32-bit (x86) version only

*3 The OS operating conditions must be satisfied.

*4 Microsoft NET Framework 2.0 Service Pack 2 is required to use **MEXE02**. If it is not already installed, it will be installed automatically, in which case up to 500 MB in additional space is required.

● Windows and Windows Vista are registered trademark of Microsoft Corporation in the United States and other countries. Pentium is a trademark of Intel Corporation.

Accessory Sets RoHS

When using analog I/O, please purchase an accessory set.

Product Line

Product Name	Applicable
AS-SV2	20-Pin Connector for CN6×1 Set, External Potentiometers×2 Sets (Potentiometer×2, Scale plate×2, Insulation sheet×2, Knob×2, Shielded cable×2)
AS-SD1	20-Pin Connector for CN6×1 set



Regeneration Units RoHS

Sometimes the regenerative power generated by the motor exceeds the driver's regenerative power absorption capacity. In such a case, a regeneration unit is connected to the driver to release the regenerative power.

<Conditions under which a regeneration unit may be required>

- When using for vertical operation
- During acceleration and deceleration time when an inertial load is installed



Product Line

Product Name	Applicable Driver Product Names
RGB100	NXD20-A, NXD20-C
RGB200	NXD75-S

Specifications

Product Name	RGB100	RGB200
Continuous Regenerative Power	100 W*1	200 W
Resistance Value	150 Ω	50 Ω
Thermal Protector Operating Temperature	Open: 150±7°C Reset: 145±12°C (Normally closed)	Open: 175±5°C Reset: 115±15°C (Normally closed)
Thermal Protector Rated Electricity	120 VAC 4 A 30 VDC 4 A (Min. current 5 mA)	227 VAC 8 A 115 VAC 22 A

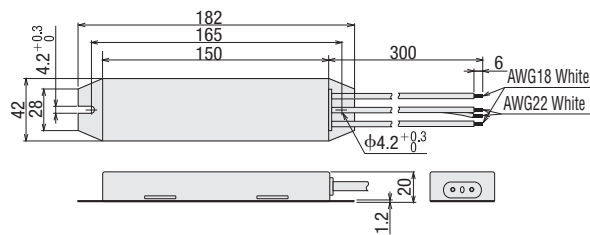
*1 For **NX** Series, 50 W.

● Install the regeneration unit in a location that has the same heat radiation capability as the heat sink (Material: aluminum, 350×350 mm, 3 mm thick).

Dimensions (Unit = mm)

● For NXD20-A, NXD20-C

Mass: 0.25 kg



● For NXD75-S

Mass: 1.1 kg

