

MR-CV Power Regeneration Converter Unit Specifications (200 V)

B B-RJ

Power regeneration converter unit model MR-CV_	11K	18K	30K	37K	45K	55K	
Output	Rated voltage	270 V DC to 324 V DC					
	Rated current [A]	41	76	144	164	198	238
Main circuit power supply input	Voltage/frequency ^(Note 1)	3-phase 200 V AC to 240 V AC, 50 Hz/60 Hz					
	Rated current [A]	35	65	107	121	148	200
	Permissible voltage fluctuation	3-phase 170 V AC to 264 V AC					
	Permissible frequency fluctuation	±3% maximum					
Control circuit power supply input	Voltage/frequency	1-phase 200 V AC to 240 V AC, 50 Hz/60 Hz					
	Rated current [A]	0.2					
	Permissible voltage fluctuation	1-phase 170 V AC to 264 V AC					
	Permissible frequency fluctuation	±3% maximum					
Interface power supply	24 V DC ± 10% (required current capacity: 0.35 A)						
Capacity [kW]	11	18	30	37	45	55	
Protective functions	Undervoltage protection, regenerative error protection, regenerative overvoltage shut-off, MC drive circuit error protection, open-phase detection, inrush current suppression circuit error protection, main circuit device overheat error protection, cooling fan error protection, overload shut-off (electronic thermal)						
Continuous rating [kW]	7.5	11	20	22	22	37	
Instantaneous maximum rating [kW]	39	60	92	101	125	175	
Compliance with global standards	Refer to "Compliance with Global Standards and Regulations" on p. 55 in this catalog.						
Structure (IP rating)	Force cooling, open (IP20) ^(Note 2)						
Environment	Ambient temperature	Operation: 0 °C to 55 °C (non-freezing), storage: -20 °C to 65 °C (non-freezing)					
	Ambient humidity	Operation/storage: 5 %RH to 90 %RH (non-condensing)					
	Ambience	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust					
	Altitude	2000 m or less above sea level ^(Note 3)					
Vibration resistance	5.9 m/s ² at 10 Hz to 55 Hz (directions of X, Y and Z axes)						
Mass [kg]	6.1	6.1	12.1	12.1	12.1	25.0	

Notes: 1. Rated output and speed of a rotary servo motor, and continuous thrust and maximum speed of a linear servo motor are applicable when the power regeneration converter unit is operated within the specified power supply voltage and frequency.

2. Terminal blocks are excluded.

3. Refer to "MR-CV_ MR-CR55K_ MR-J4-DU_B_(-RJ) MR-J4-DU_A_(-RJ) Instruction Manual" for the restrictions when using the power regeneration converter units at altitude exceeding 1000 m and up to 2000 m above sea level.

Servo Amplifiers

Rotary Servo Motors

Linear Servo Motors

Direct Drive Motors

Options/Peripheral Equipment

LVS/Wires

Product List

Cautions

MR-CV Power Regeneration Converter Unit Specifications (400 V)

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Power regeneration converter unit model MR-CV_		11K4	18K4	30K4	37K4	45K4	55K4	75K4
Output	Rated voltage	513 V DC to 648 V DC						
	Rated current [A]	21	38	72	82	99	119	150
Main circuit power supply input	Voltage/frequency ^(Note 1)	3-phase 380 V AC to 480 V AC, 50 Hz/60 Hz						
	Rated current [A]	18	35	61	70	85	106	130
	Permissible voltage fluctuation	3-phase 323 V AC to 528 V AC						
	Permissible frequency fluctuation	±3% maximum						
Control circuit power supply input	Voltage/frequency	1-phase 380 V AC to 480 V AC, 50 Hz/60 Hz						
	Rated current [A]	0.1						
	Permissible voltage fluctuation	1-phase 323 V AC to 528 V AC						
	Permissible frequency fluctuation	±3% maximum						
	Power consumption [W]	30						
Interface power supply		24 V DC ± 10% (required current capacity: 0.35 A)						
Capacity	[kW]	11	18	30	37	45	55	75
Protective functions		Undervoltage protection, regenerative error protection, regenerative overvoltage shut-off, MC drive circuit error protection, open-phase detection, inrush current suppression circuit error protection, main circuit device overheat error protection, cooling fan error protection, overload shut-off (electronic thermal)						
Continuous rating	[kW]	7.5	11	20	25	25	55	55
Instantaneous maximum rating	[kW]	39	60	92	101	125	175	180
Compliance with global standards		Refer to "Compliance with Global Standards and Regulations" on p. 55 in this catalog.						
Structure (IP rating)		Force cooling, open (IP20) ^(Note 2)						
Environment	Ambient temperature	Operation: 0 °C to 55 °C (non-freezing), storage: -20 °C to 65 °C (non-freezing)						
	Ambient humidity	Operation/storage: 5 %RH to 90 %RH (non-condensing)						
	Ambience	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust						
	Altitude	2000 m or less above sea level ^(Note 3)						
	Vibration resistance	5.9 m/s ² at 10 Hz to 55 Hz (directions of X, Y and Z axes)						
Mass	[kg]	6.1	6.1	12.1	12.1	12.1	25.0	25.0

Notes: 1. Rated output and speed of a rotary servo motor, and continuous thrust and maximum speed of a linear servo motor are applicable when the power regeneration converter unit is operated within the specified power supply voltage and frequency.

2. Terminal blocks are excluded.

3. Refer to "MR-CV_ MR-CR55K_ MR-J4-DU_B_(-RJ) MR-J4-DU_A_(-RJ) Instruction Manual" for the restrictions when using the power regeneration converter units at altitude exceeding 1000 m and up to 2000 m above sea level.

MR-CR Resistance Regeneration Converter Unit Specifications

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(200 V/400 V)

Resistance regeneration converter unit model MR-CR_		55K	55K4
Output	Rated voltage	270 V DC to 324 V DC	
	Rated current [A]	215.9	113.8
Main circuit power supply input	Voltage/frequency ^(Note 1)	3-phase 200 V AC to 240 V AC, 50 Hz/60 Hz	3-phase 380 V AC to 480 V AC, 50 Hz/60 Hz
	Rated current [A]	191.3	100.7
	Permissible voltage fluctuation	3-phase 170 V AC to 264 V AC	3-phase 323 V AC to 528 V AC
	Permissible frequency fluctuation	±5% maximum	
Control circuit power supply input	Voltage/frequency	1-phase 200 V AC to 240 V AC, 50 Hz/60 Hz	1-phase 380 V AC to 480 V AC, 50 Hz/60 Hz
	Rated current [A]	0.3	0.2
	Permissible voltage fluctuation	1-phase 170 V AC to 264 V AC	1-phase 323 V AC to 528 V AC
	Permissible frequency fluctuation	±5% maximum	
	Power consumption [W]	45	
Interface power supply		24 V DC ± 10% (required current capacity: 0.15 A)	
Capacity [kW]		55	
Regenerative power (when regenerative option is used)		1300 W (one unit of MR-RB139) 3900 W (three units of MR-RB137)	1300 W (one unit of MR-RB137-4) 3900 W (three units of MR-RB13V-4)
Protective functions		Regenerative overvoltage shut-off, overload shut-off (electronic thermal), regenerative error protection, undervoltage protection, instantaneous power failure protection	
Continuous rating [kW]		55	
Compliance with global standards		Refer to "Compliance with Global Standards and Regulations" on p. 55 in this catalog.	
Structure (IP rating)		Force cooling, open (IP20) ^(Note 2)	
Environment	Ambient temperature	Operation: 0 °C to 55 °C (non-freezing), storage: -20 °C to 65 °C (non-freezing)	
	Ambient humidity	Operation/storage: 5 %RH to 90 %RH (non-condensing)	
	Ambience	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust	
	Altitude	2000 m or less above sea level ^(Note 3)	
	Vibration resistance	5.9 m/s ² at 10 Hz to 55 Hz (directions of X, Y, and Z axes)	
Mass [kg]		22	22

Notes: 1. Rated output and speed of a rotary servo motor are applicable when the resistance regeneration converter unit is operated within the specified power supply voltage and frequency.

2. Terminal blocks are excluded.

3. Refer to "MR-CV_ MR-CR55K_ MR-J4-DU_B_(-RJ) MR-J4-DU_A_(-RJ) Instruction Manual" for the restrictions when using the resistance regeneration converter unit at altitude exceeding 1000 m and up to 2000 m above sea level.

Servo Amplifiers

Rotary Servo Motors

Linear Servo Motors

Direct Drive Motors

Options/Peripheral Equipment

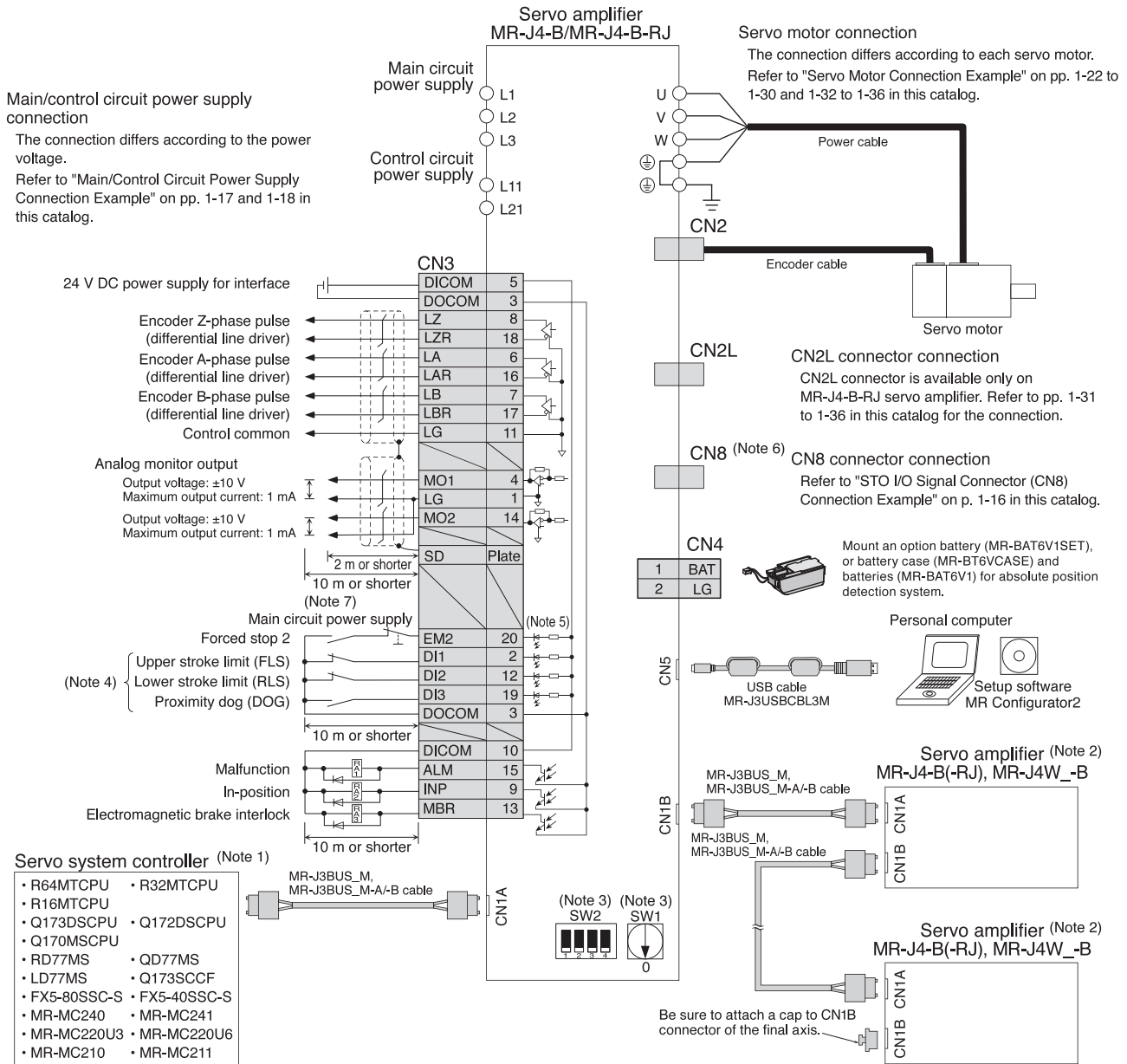
LVS/Wires

Product List

Cautions

MR-J4-B/MR-J4-B-RJ Standard Wiring Diagram Example (Note 8)

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- Notes: 1. For details such as setting the servo system controllers, refer to the programming or user's manual of each controller.
2. Connections for the second and following axes are omitted.
3. Up to 64 axes are set with a combination of an axis selection rotary switch (SW1) and auxiliary axis number setting switches (SW2-3 and SW2-4). Note that the number of the connectable axes depends on the controller specifications.
4. Devices can be assigned for DI1, DI2 and DI3 with controller setting. Refer to the controller instruction manuals for details on setting.
5. This is for sink wiring. Source wiring is also possible.
6. Be sure to attach a short-circuit connector supplied with the servo amplifier when the STO function is not used.
7. To prevent an unexpected restart of the servo amplifier, create a circuit to turn off EM2 (Forced stop 2) when the main circuit power is turned off.
8. This standard wiring diagram is common for 200 V AC, 100 V AC and 400 V AC type servo amplifiers.

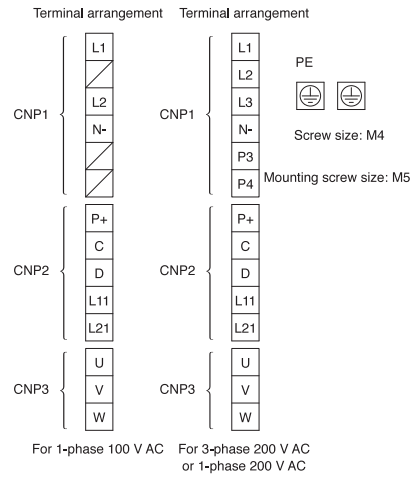
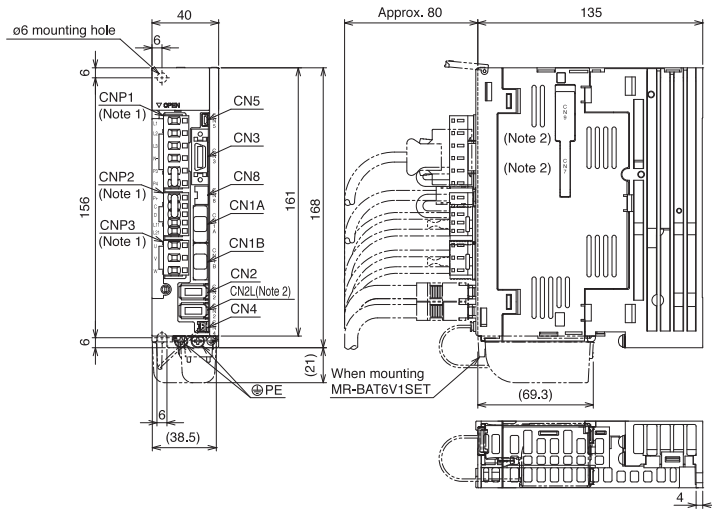


Be sure to read through Instruction Manual for the actual wiring and use. Use the equipment after you have a full knowledge of the equipment, safety information and instructions.

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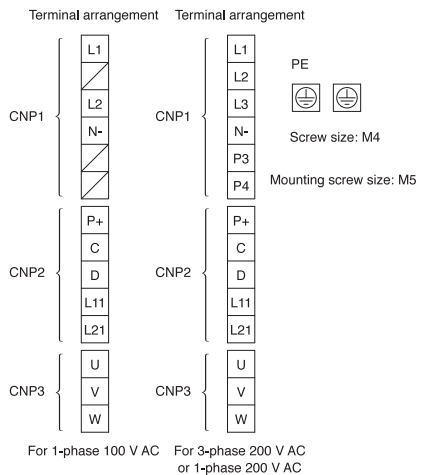
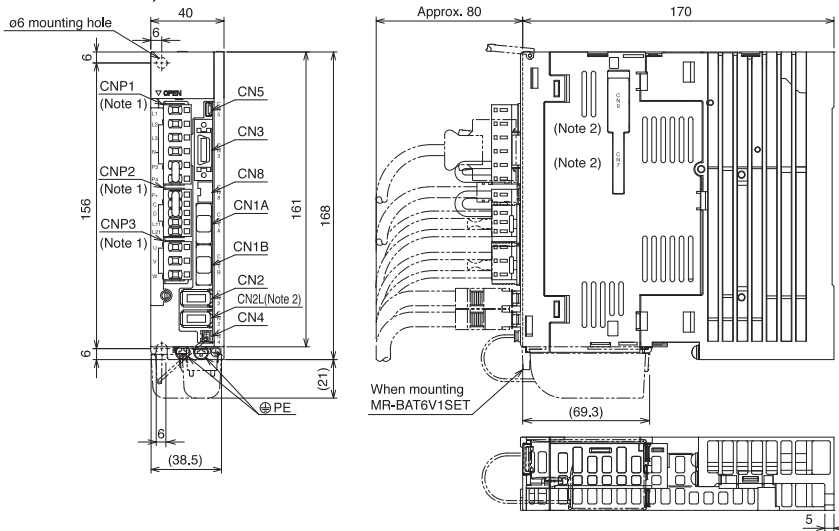
MR-J4-B/MR-J4-B-RJ Dimensions

- MR-J4-10B, MR-J4-10B-RJ, MR-J4-10B1, MR-J4-10B1-RJ
- MR-J4-20B, MR-J4-20B-RJ, MR-J4-20B1, MR-J4-20B1-RJ



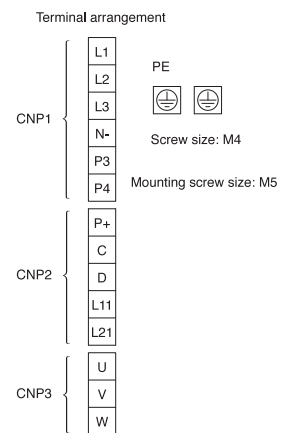
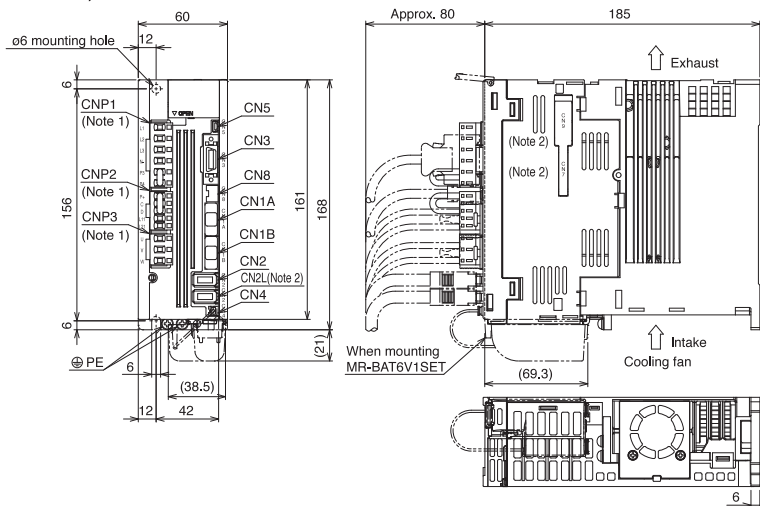
[Unit: mm]

- MR-J4-40B, MR-J4-40B-RJ, MR-J4-40B1, MR-J4-40B1-RJ
- MR-J4-60B, MR-J4-60B-RJ



[Unit: mm]

- MR-J4-70B, MR-J4-70B-RJ
- MR-J4-100B, MR-J4-100B-RJ



[Unit: mm]

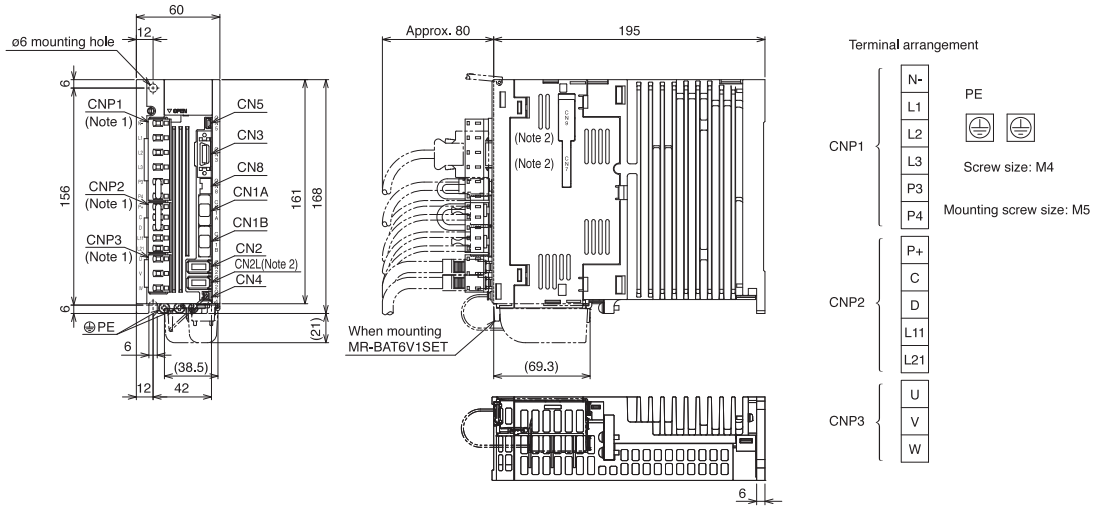
Notes: 1. CNP1, CNP2 and CNP3 connectors (insertion type) are supplied with the servo amplifier.
2. CN2L, CN7, and CN9 connectors are not available for MR-J4-B servo amplifier.

Servo Amplifiers

MR-J4-B/MR-J4-B-RJ Dimensions

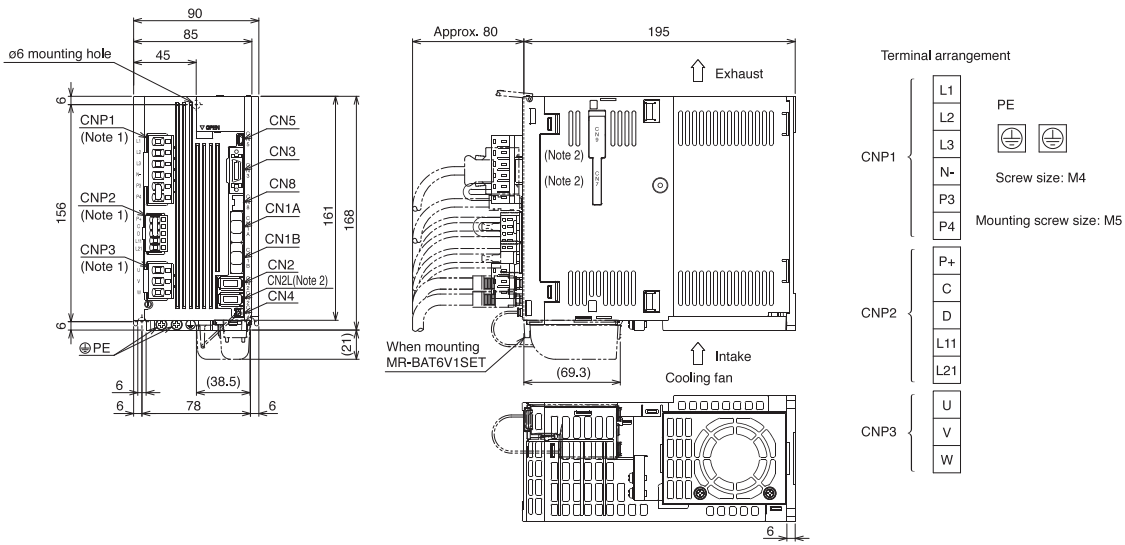
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- MR-J4-60B4, MR-J4-60B4-RJ
- MR-J4-100B4, MR-J4-100B4-RJ



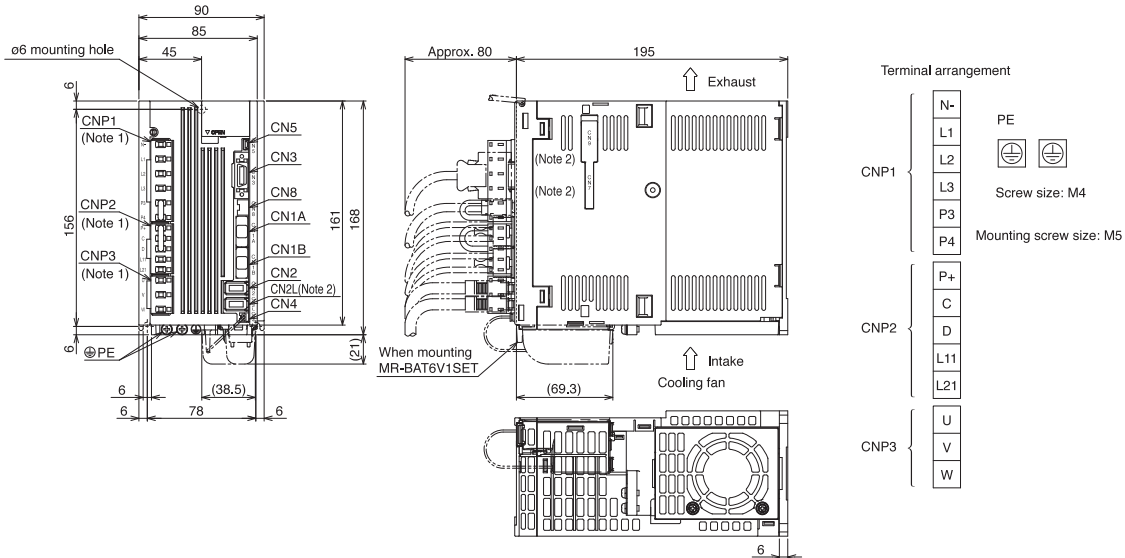
[Unit: mm]

- MR-J4-200B, MR-J4-200B-RJ



[Unit: mm]

- MR-J4-200B4, MR-J4-200B4-RJ



[Unit: mm]

Notes: 1. CNP1, CNP2 and CNP3 connectors (insertion type) are supplied with the servo amplifier.
 2. CN2L, CN7, and CN9 connectors are not available for MR-J4-B servo amplifier.