Ⓐ MR-E Super Amplifiers

Amplifier Selection

MR-E-□□ -KH003

Super Series

Mitsubishi E-Series general purpose AC Servo Amplifier

Symbol	Description
A	General Pulse Train Interface
AG	Analog Input Interface

Symbol	Compatible Motor	
	HF-KE□(B)W1-S100	HF-SE□(B)JW1-S100
10	13	—
20	23	—
40	43	—
70	73	52
100	—	102
200	—-	152, 202

Conforms to the following standards: EN, UL, cUL

Servo Standard Specifications

Servo Amplifier Model			MR-E-10A-KH003 / MR-E-10AG-KH003	MR-E-20A-KH003 / MR-E-20AG-KH003	MR-E-40A-KH003 / MR-E-40AG-KH003	MR-E-70A-KH003 / MR-E-70AG-KH003	MR-E-100A-KH003 / MR-E-100AG-KH003	MR-E-200A-KH003 / MR-E-200AG-KH003
Stocked Item			S	S	S	S	S	S
Power Supply	Voltage/Frequency (*1)		3-phase 200 to 230VAC 50/60Hz or 1-phase 230VAC 50/60Hz				3-phase 200 to 230VAC 50/60Hz	
	Permissible Voltage Fluctuation		For 3-phase 200 to 230VAC: 3-phase170 to 253VAC For 1-phase 230VAC: 1-phase 207 to 253VAC				3-phase 170 to 253VAC	
	Permissible Frequency Fluctuation		±5% maximum					
Control System			Sine-wave PWM control/current control system					
Dynamic Brake			Built-in					
Built-In Regenerative Resistor			None		Installed			
Safety Features			Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection					
A Type Amps	Position Control Mode	Maximum Input Pulse Frequency	1Mpps (when using differential receiver), 200 kpps (when using open collector)					
		Positioning Feedback Pulse	Resolution per encoder/servo motor rotation: 131072 p/rev					
		Command Pulse Multiple	Electronic gear A/B multiple, A: 1 to 65535, B: 1 to 65535, 1/50 < A/B < 50					
		Positioning Complete Width Setting	0 to ±10000 pulses (command pulse unit)					
		Excess Error	±2.5 rotations					
		Torque Limit	Set by parameters					
	Speed Control Mode	Speed Control Range	Internal speed command 1: 5000					
		Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%)					
		Torque Limit	Set by parameters					
AG Type Amps	Speed Control Mode	Speed Control Range	Analog speed command 1:2000, internal speed command 1: 5000					
		Analog Speed Command Input	0 to ±10VDC / rated speed					
		Speed Fluctuation Rate	±0.01% maximum (load fluctuation 0 to 100%); 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C [59°F to 95°F]), when using analog speed command					
		Torque Limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)					
	Torque Control Mode	Analog Torque Command Input	0 to ±8VDC/maximum torque (input impedance 10 to 12kΩ)					
		Speed Limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)					
Structure			Self-cooling open (IP00)					Fan cooling open (IP00)
Environment	Ambient Temperature		0 to 55°C (32 to 131°F) (non-freezing), storage: –20 to 65°C (–4 to 149°F) (non-freezing)					
	Ambient Humidity		90% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)					
	Atmosphere		Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust					
	Elevation		1000m or less above sea level					
	Vibration		5.9m/s^2 maximum					
Mass kg (lb)			0.7 (1.5)	0.7 (1.5)	1.1 (2.4)	1.7 (3.7)	1.7 (3.7)	2.0 (4.4)

Notes:

1. Rated output and rated speed of a servo motor are applicable when the servo amplifier, combined with the servo motor, is operated within the specified power supply voltage and frequency. The torque drops when the power supply voltage is less than specified.

B MR-E Super Servomotors

Servomotor Selection

HF-KE □ 3 □ □ W1-S100

- W1-S100: Super Series; Encoder Resolution 131,072 ppr (Inc)
- □ (Shaft Shape):

Symbol	Shaft Shape
None	Standard (Straight Shaft)
K	With Keyway (Note)

Note: Keyway only on 200W ~ 750W with key included.

- □ (Electromagnetic Brake):

Symbol	Electromagnetic Brake
None	Without Brake
B	With Brake

- 3: Rated Speed 3000 (r/min)
- □ (Rated Output):

Symbol	Rated Output (W)
1	100
2	200
4	400
7	750

- □: Conforms to the following standards: EN, UL, cUL

Stocked Motors

Model Number
HF-KE13W1-S100
HF-KE13BW1-S100
HF-KE23KW1-S100
HF-KE23BKW1-S100
HF-KE43KW1-S100
HF-KE43BKW1-S100
HF-KE73KW1-S100
HF-KE73BKW1-S100

HF-SE □ 2 □ J □ W1-S100

- W1-S100: Super Series; Encoder Resolution 131,072 ppr (Inc)
- □ (Shaft Shape):

Symbol	Shaft Shape
None	Standard (Straight Shaft)
K	With Keyway (Note)

Note: Key **not** included.

- J: With Oil Seal Standard
- □ (Electromagnetic Brake):

Symbol	Electromagnetic Brake
None	Without Brake
B	With Brake

- 2: Rated Speed 2000 (r/min)
- □ (Rated Output):

Symbol	Rated Output (W)
5	500
10	1000
15	1500
20	2000

- □: Conforms to the following standards: EN, UL, cUL

Stocked Motors

Model Number
HF-SE52JKW1-S100
HF-SE52BJKW1-S100
HF-SE102JKW1-S100
HF-SE102BJKW1-S100
HF-SE152JKW1-S100
HF-SE152BJKW1-S100
HF-SE202JKW1-S100
HF-SE202BJKW1-S100

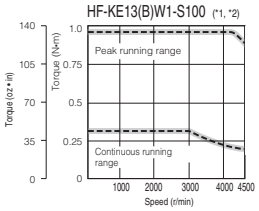
	Motor Series	Rated Speed (Max. r/min)	Rated Output Capacity (kW)	Servomotor Brake (B)	EN	UL cUL	Protective Rating	Features	Application Examples
Small Capacity	HF-KE Super Series 	3000 (4500)	4 Types 0.1, 0.2, 0.4, 0.75	Yes	Yes	Yes	IP55 Excluding the shaft-through portion and connector	Stable control from low speeds to high speeds allows compliance with a variety of applications.	Belt Drive Robots Mounters Sewing Machines X-Y Tables Food Processing Machines
Medium Capacity	HF-SE Super Series 	2000 (3000)	4 Types 0.5, 1.0, 1.5, 2.0	Yes	Yes	Yes	IP65 Excluding the shaft-through portion		Material Handling Systems Robots X-Y Tables

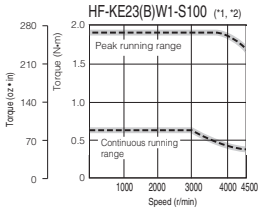
MR-E HF-KE Super 3000 r/min Series Servomotor Specifications

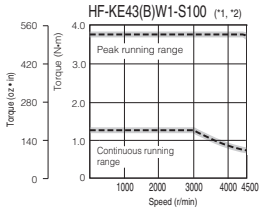
Servo Motor Model		HF-KE13W1-S100	HF-KE23W1-S100	HF-KE43W1-S100	HF-KE73W1-S100
Servomotor Model with Brake		HF-KE13BW1-S100	HF-KE23BW1-S100	HF-KE43BW1-S100	HF-KE73BW1-S100
Compatible Servo Amplifier Model		MR-E-10A-KH003	MR-E-20A-KH003	MR-E-40A-KH003	MR-E-70A-KH003
Compatible Servo Amplifier with Analog Input Interface		MR-E-10AG-KH003	MR-E-20AG-KH003	MR-E-40AG-KH003	MR-E-70AG-KH003
Power Facility Capacity (kVA) (*1)		0.3	0.5	0.9	1.3
Continuous Running Duty	Rated Output (W)	100	200	400	750
	Rated Torque (N·m [oz·in])	0.32 (45.3)	0.64 (90.6)	1.3 (184)	2.4 (340)
Maximum Torque (N·m [oz·in])		0.95 (135)	1.9 (269)	3.8 (538)	7.2 (1020)
Rated Speed (r/min)		3000			
Maximum Speed (r/min)		4500			
Permissible Instantaneous Speed (r/min)		5175			
Power Rate At Continuous Rated Torque (kW/s)		11.5	16.9	38.6	39.9
Rated Current (A)		0.8	1.4	2.7	5.2
Maximum Current (A)		2.4	4.2	8.1	15.6
Regenerative Braking Frequency (Times/Min.) (*2, *3)	With No Options	(*4)	(*4)	249	140
	MR-RB032 (30W)	(*4)	(*4)	747	210
	MR-RB12 (100W)	—	(*4)	2490	700
	MR-RB32 (300W)	—	—	—	2100
Moment Of Inertia J (x10^{-4}kg • m^2) [J (oz • in^2)]	Standard	0.088 (0.481)	0.24 (1.31)	0.42 (2.30)	1.43 (7.82)
	With Electromagnetic Brake	0.090 (0.492)	0.31 (1.69)	0.50 (2.73)	1.63 (8.91)
Recommended Load/Motor Inertia Moment Ratio		Maximum of 15 times the servo motor's inertia moment (*5)			
Speed/Position Detector		Incremental encoder (resolution per servo motor rotation: 131072 p/rev)			
Attachments		—			
Structure		Totally enclosed non ventilated (protection level: IP55) (*6)			
Environment	Ambient Temperature	0 to 40°C (32 to 104°F) (non-freezing), storage: -15 to 70°C (5 to 158°F) (non-freezing)			
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)			
	Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust			
	Elevation/Vibration (*7)	1000m or less above sea level; X: 49m/s^2 Y: 49m/s^2			
Mass kg (lb)	Standard	0.56 (1.3)	0.94 (2.1)	1.5 (3.3)	2.9 (6.4)
	With Electromagnetic Brake	0.86 (1.9)	1.6 (3.6)	2.1 (4.7)	3.9 (8.6)

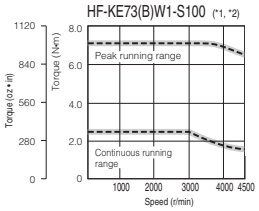
Notes:

1. The power facility capacity varies depending on the power supply's impedance.
2. The regenerative braking frequency shows the permissible frequency when the motor, without a load and the optional regeneration unit, decelerates from the rated speed to a stop. When a load is connected; however, the value will be the table value/(m+1), where m=the load inertia moment/the motor inertia moment. When the operating speed exceeds the rated speed, the regenerative braking frequency is inversely proportional to the square of (operating speed/rated speed). If the operating speed changes frequently or when the regeneration is constant (as with vertical feeds), find the regenerative heating value (W) in operation. Provisions must be made to keep this heating value below the tolerable regenerative power (W). Optimal regenerative resistor varies for each system. Refer to the section "Optional Accessories • Regenerative Brake Options" in this catalog for details on the tolerable regenerative power (W).
3. The regenerative braking frequency of the 600W or smaller servo amplifier may fluctuate due to the affect of the power voltage since the energy charged by the electrolytic capacitor in the servo amplifier is large.
4. There are no limits on regeneration frequency as long as the effective torque is within the rated torque range. However, the load/motor of inertia moment ratio must be 15 times or less.
5. Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the value in the table.
6. The shaft-through portion and connector for cable terminal are excluded.
7. The vibration direction is shown in the right-side diagram. The numeric value indicates the maximum value of the component (commonly the bracket in the opposite direction of the motor shaft). Fretting of the bearing occurs easily when the motor stops, so maintain vibration to approximately one-half of the allowable value.









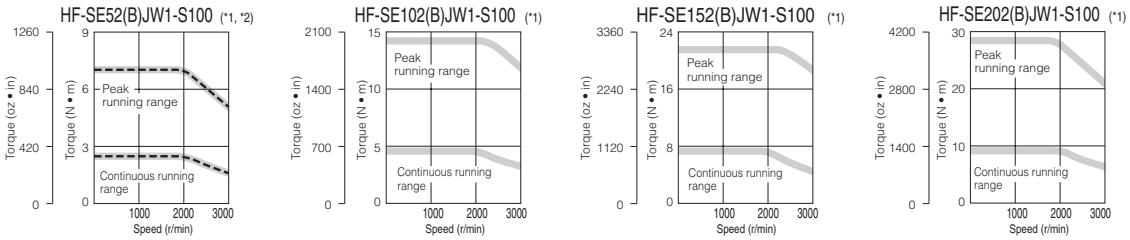
Notes:
1. : For 3-phase 200VAC.
2. : For 1-phase 230VAC.

MR-E HF-SE Super 2000 r/min Series Servomotor Specifications

Servo Motor Model		HF-SE52JW1-S100	HF-SE102JW1-S100	HF-SE152JW1-S100	HF-SE202JW1-S100
Servo Amplifier Model		HF-SE52BJW1-S100	HF-SE102BJW1-S100	HF-SE152BJW1-S100	HF-SE202BJW1-S100
Compatible Servo Amplifier Model		MR-E-70A-KH003	MR-E-100A-KH003	MR-E-200A-KH003	
Compatible Servo Amplifier with Analog Input Interface		MR-E-70AG-KH003	MR-E-100AG-KH003	MR-E-200AG-KH003	
Power Facility Capacity (kVA) (*1)		1.0	1.7	2.5	3.5
Continuous Running Duty	Rated Output (kW)	0.5	1.0	1.5	2.0
	Rated Torque (N·m [oz·in])	2.39 (338)	4.77 (675)	7.16 (1010)	9.55 (1350)
Maximum Torque (N·m [oz·in])		7.16 (1010)	14.3 (2020)	21.5 (3040)	28.6 (4050)
Rated Speed (r/min)		2000			
Maximum Speed (r/min)		3000			
Permissible Instantaneous Speed (r/min)		3450			
Power Rate At Continuous Rated Torque (kW/s)		9.34	19.2	28.8	23.8
Rated Current (A)		2.9	5.3	8.0	10
Maximum Current (A)		8.7	15.9	24	30
Regenerative Braking Frequency (Times / Min) (*2, *3)	With No Options	120	62	152	71
	MR-RB032 (30W)	180	93	—	—
	MR-RB12 (100W)	600	310	—	—
	MR-RB30 (300W)	—	—	456	213
	MR-RB32 (300W)	1800	930	—	—
	MR-RB50 (500W)	—	—	760	355
Moment Of Inertia J ($x10^{-4}$kg • m^2) [J (oz • in^2)]	Standard	6.1 (33.4)	11.9 (65.1)	17.8 (97.3)	38.3 (209)
	With Electromagnetic Brake	8.3 (45.4)	14.0 (76.5)	20.0 (109)	47.9 (262)
Recommended Load / Motor Inertia Moment Ratio		Maximum of 15 times the servo motor's inertia moment (*4)			
Speed / Position Detector		Incremental encoder (resolution per servo motor: 131072 p/rev)			
Attachments		Oil seal			
Structure		Totally enclosed non ventilated (protection level: IP65) (*5)			
Environment	Ambient Temperature	0 to 40°C (32 to 104°F) (non-freezing), storage: -15 to 70°C (5 to 158°F) (non-freezing)			
	Ambient Humidity	80% RH maximum (non-condensing), storage: 90% RH maximum (non-condensing)			
	Atmosphere	indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust			
	Elevation	1000m or less above sea level			
	Vibration (*6)	X, Y: 24.5m/s^2			X: 24.5m/s^2 • Y: 49m/s^2
Mass kg (lb)	Standard	4.8 (11)	6.5 (15)	8.3 (19)	12 (27)
	With Electromagnetic Brake	6.7 (15)	8.5 (19)	11 (25)	18 (40)

Notes:

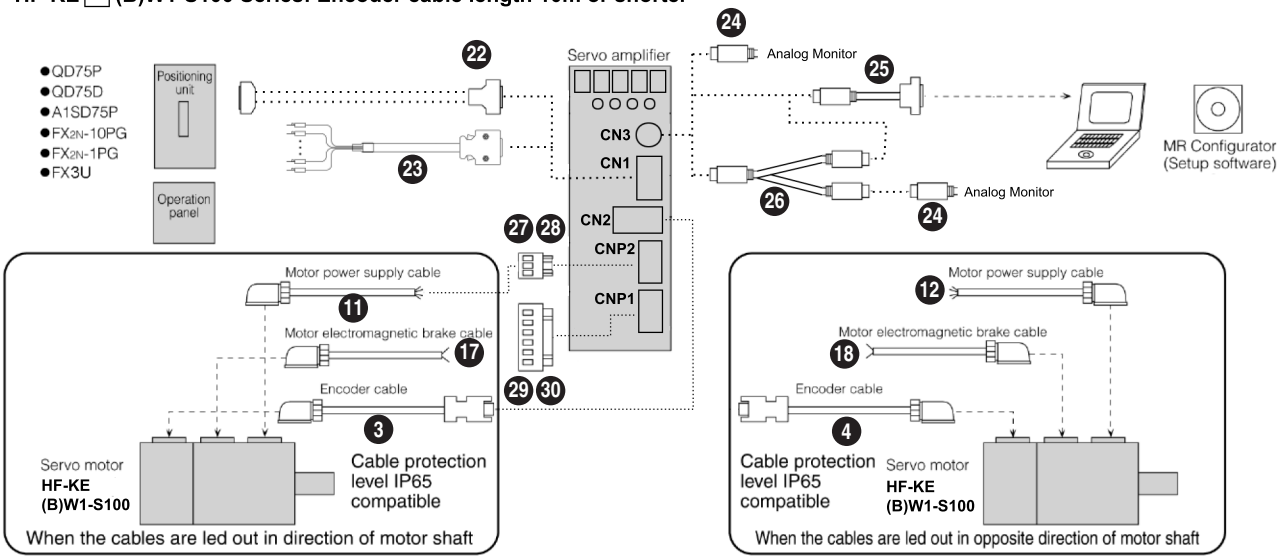
1. The power facility capacity varies depending on the power supply's impedance
2. The regenerative braking frequency shows the permissible frequency when the motor, without a load and the optional regeneration unit, decelerates from the rated speed to a stop. When a load is connected; however, the value will be the table value/(m+1), where m=the load inertia moment/the motor inertia moment. When the operating speed exceeds the rated speed, the regenerative braking frequency is inversely proportional to the square of (operating speed/rated speed). If the operating speed changes frequently or when the regeneration is constant (as with vertical feeds), find the regenerative heating value (W) in operation. Provisions must be made to keep this heating value below the tolerable regenerative power (W). Optimal regenerative resistor varies for each system. Refer to the section "Optional Accessories • Regenerative Brake Options" in this catalog for details on the tolerable regenerative power (W).
3. The regenerative braking frequency of the 600W or smaller servo amplifier may fluctuate due to the affect of the power voltage since the energy charged by the electrolytic capacitor in the servo amplifier is large
4. Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the value in the table
5. The shaft-through portion is excluded.
6. The vibration direction is shown in the right-side diagram. The numeric value indicates the maximum value of the component (commonly the bracket in the opposite direction of the motor shaft). Fretting of the bearing occurs easily when the motor stops, so maintain vibration to approximately one-half of the allowable value.



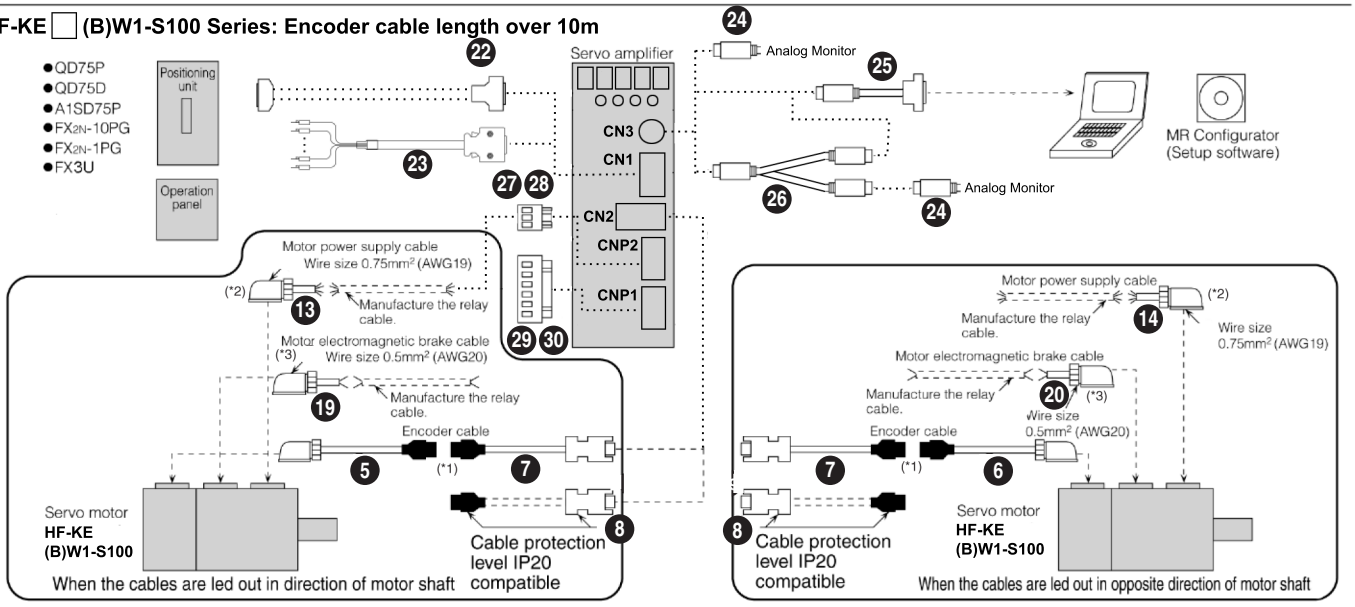
Notes:
1. ▬ : For 3-phase 200VAC.
2. - - - - : For 1-phase 230VAC.

C Cables and Connectors

HF-KE□(B)W1-S100 Series: Encoder cable length 10m or shorter

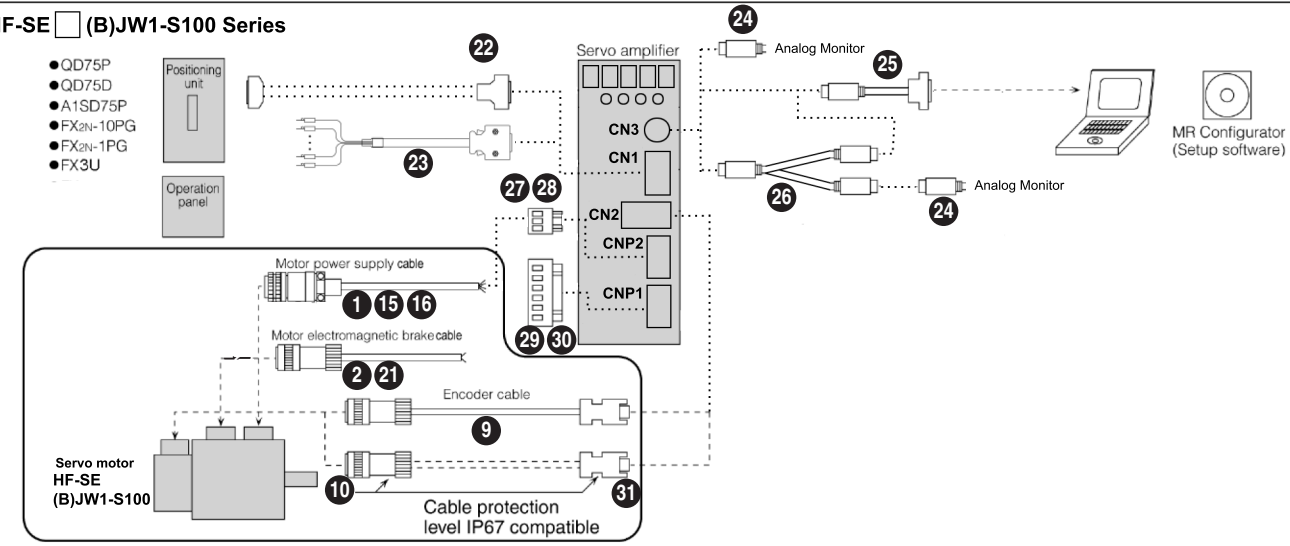


HF-KE□(B)W1-S100 Series: Encoder cable length over 10m

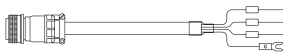
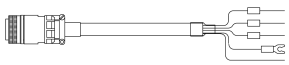
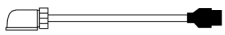


Notes: 1. This cable does not have a long bending life, please be sure to secure the cable before using.
2. If the length exceeds 10m, use the needed length extension cable (customer supplied) in junction with the MR-PWS2CBL03M-A1-L/-A2-L. This cable does not have a long bending life, please be sure to secure the cable before using.
3. If the length exceeds 10m, use the needed length extension cable (customer supplied) in junction with the MR-BKS2CBL03M-A1-L/-A2-L. This cable does not have a long bending life, please be sure to secure the cable before using.

HF-SE□(B)JW1-S100 Series



MR-E Super Cables and Connectors (refer to chart on previous page)

Item				Cable Number (□ = cable length 2, 5, 10, 15, 20, 25, 30 meter)	Stocked Lengths	Protection Level	Description
Power Cables HF-SE□(B)JW1-S100	❶	Standard-Flex, Unshielded Type Cables (Straight Type Connector Only)	HF-SE52(B)JW1-S100 (*1)	MR-J3P1-□M (*2)	2M, 5M, 10M, 20M, 30M	IP65	
			HF-SE102(B)JW1-S100 (*1)	MR-J3P2-□M (*2)			
			HF-SE152(B)JW1-S100 (*1)	MR-J3P3-□M (*2)			
			HF-SE202(B)JW1-S100 (*1)	MR-J3P4-□M (*2)			
		High-Flex, Shielded Type Cables (Straight type connector only)	HF-SE52(B)JW1-S100 (*1)	MR-J3PWS1-□M (*2)	—	IP67	
			HF-SE102(B)JW1-S100 (*1)	MR-J3PWS2-□M (*2)			
			HF-SE152(B)JW1-S100 (*1)	MR-J3PWS3-□M (*2)			
			HF-SE202(B)JW1-S100 (*1)	MR-J3PWS4-□M (*2)			
Brake Cables HF-SE□BJW1-S100	❷	Standard-Flex, Unshielded Type Cables		MR-J3BK-□M	2M, 5M, 10M, 20M, 30M	IP65	
		High-Flex, Shielded Type Cables		MR-J3BRKS1-□M	—	IP65	
Encoder Cable for CN2 Connector HF-KE□(B)W1-S100	❸	10m or Shorter (Direct Connection Type)	Lead Out In Direction Of Motor Shaft	MR-J3ENCBL□M-A1-H (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	Encoder Side / Amplifier Side 
				MR-J3ENCBL□M-A1-L (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
	❹		Lead Out In Opposite Direction Of Motor Shaft	MR-J3ENCBL□M-A2-H (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
				MR-J3ENCBL□M-A2-L (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
	❺	Exceeding 10m (Relay Type)	Lead Out In Direction Of Motor Shaft	MR-J3JCBL03M-A1-L (Cable length 0.3m) (*3)	S	IP20	Encoder Side / Junction Connector 
	❻		Lead Out In Opposite Direction Of Motor Shaft	MR-J3JCBL03M-A2-L (Cable length 0.3m) (*3)	S	IP20	
	❼		Amplifier-Side Cable	MR-EKCBL□M-H (□ = cable length 20, 30, 40, 50m) (*3)	20, 30	IP20	 Use this in combination of 5 or 6.
				MR-EKCBL□M-L (□ = cable length 20, 30m) (*3)	–	IP20	
	❽		Junction Connector, Amplifier-Side Connector (*2)	MR-ECNM	S	IP20	
Encoder Cable for CN2 Connector HF-SE□(B)JW1-S100	❾	Encoder Cable		MR-ENECBL□M-H (□ = cable length 2, 5, 10, 20, 30, 40, 50m) (*3)	2, 5, 10	IP67	
				MR-ENECBL□M-L (□ = cable length 2, 5, 10, 20, 30m) (*3)	–	IP67	
	❿	Encoder Connector Set		MR-ENECNS	S	IP67	Encoder Side / Amplifier Side
Motor Power Supply Cables For CNP2 HF-KE□(B)W1-S100	⓫	10m Or Shorter (Direct Connection Type)	Lead Out In Direction Of Motor Shaft	MR-PWS1CBL□M-A1-H (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
				MR-PWS1CBL□M-A1-L (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
	⓬		Lead Out In Opposite Direction of Motor Shaft	MR-PWS1CBL□M-A2-H (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
				MR-PWS1CBL□M-A2-L (□ = cable length 2, 5, 10m) (*3)	2, 5, 10	IP65	
	⓭	Exceeding 10m (Relay Type)	Lead Out In Direction Of Motor Shaft	MR-PWS2CBL03M-A1-L (Cable length 0.3m) (*3)	S	IP55	
	⓮		Lead Out In Opposite Direction Of Motor Shaft	MR-PWS2CBL03M-A2-L (Cable length 0.3m) (*3)	S	IP55	

Notes:
1. Must order separate brake cable for these motors.
2. Must order separate power connector ㉗ or ㉘ to connect to the power cable.
3. -H and -L indicate bending life. -H indicates a long bending life and -L indicates a standard bending life.

MR-E Super Cables and Connectors (refer to chart on previous page)

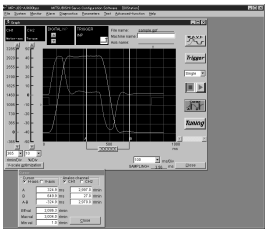
Item				Model	Stocked Lengths	Protection Level	Description
Power Supply Connectors	⑮	Motors: HF-SE52(B)JW1-S100 HF-SE102(B)JW1-S100 HF-SE152(B)JW1-S100 See ① For The Power Cable		MR-PWCNS4 (Straight type only)	S	IP67	
	⑯	Motor: HF-SE202(B)JW1-S100 See ① For The Power Cable		MR-PWCNS5 (Straight type only)	S	IP67	
Motor Brake Cables For HF-KE□BW1-S100	⑰	10m Or Shorter (Direct Connection Type)	Lead Out In Direction Of Motor Shaft	MR-BKS1CBL□M-A1-H (□ = cable length 2, 5, 10m) (*1)	2, 5, 10	IP65	
				MR-BKS1CBL□M-A1-L (□ = cable length 2, 5, 10m) (*1)	–	IP65	
	⑱		Lead Out In Opposite Direction Of Motor Shaft	MR-BKS1CBL□M-A2-H (□ = cable length 2, 5, 10m) (*1)	2, 5, 10	IP65	
				MR-BKS1CBL□M-A2-L (□ = cable length 2, 5, 10m) (*1)	–	IP65	
	⑲	Exceeding 10m (Relay Type)	Motor Lead Out In Direction Of Motor Shaft	MR-BKS2CBL03M-A1-L (Cable length 0.3m) (*1)	S	IP55	
	⑳		Lead Out In Opposite Direction Of Motor Shaft	MR-BKS2CBL03M-A2-L (Cable length 0.3m) (*1)	S	IP55	
Brake Connector Set For HF-SE□BJW1-S100	㉑	Brake Connector See ② For The Brake Cable		MR-BKCNS1 (Straight type only)	S	IP67	
Connector for CN1 on Amp	㉒	CN1 Connector (26 Pin)		MR-ECN1	S	—	
Pigtail Cable for CN1 on Amp	㉓	CN1 Pigtail Cable (26 Pin)		MR-ECN1CBL-3M	S	—	
Connector and Cable Options For CN3 Connector on Amp	㉔	Analog Monitor RS-232C Connector		MR-ECN3	S	—	
	㉕	Communication Cable		SC-Q	S	—	
	㉖	Analog Monitor RS-232C Branch Cable		MR-E3CBL15-P	S	—	
CNP2 Power to Motor Connector	㉗	MR-E10 to 100A/AG-KH003		MR-ECNP2-B	S	—	
	㉘	MR-E200A/AG-KH003 Amp Only		MR-ECNP2-B1	S	—	
CNP1 Amp Power Input Connector	㉙	MR-E10 to 100A/AG-KH003 Amps		MR-ECNP1-B	S	—	
	㉚	MR-E200A/AG-KH003 Amp Only		MR-ECNP1-B1	S	—	
CN2 Connector	㉛	CN2 Connector Only		MR-J3CN2	S	—	

Note:
1. -H and -L indicate bending life. -H indicates a long bending life and -L indicates a standard bending life.

Ⓓ Software and Manuals

MR-Configurator Setup Software

This Windows®-based software package is used to setup, program and test the amplifier. Initial setup and programming is easy and quick with the user-friendly software, which has extensive help functions and drop-downs. MR-Configurator also has many diagnostic functions such as a machine simulator to aid in mechanical design, a machine analyzer to find resonant frequencies of the load and set notch filters, an alarm monitor with history data, and the ability to assign and monitor I/O.



Features:

- Can be set up using a personal computer. Works on Windows 95/98/NT/ME/2000 Professional, XP Professional*.
- Provides numerous monitor functions. Provides graph display function that enables display of servomotor status upon input signal triggers such as command pulses, droop pulses, and r/min.
- Allows servomotors to be tested easily from a personal computer.

Description	Model Number	Stk Item
Windows Communication Software	MR-CONFIGURATOR	S
Communications Cable	SC-Q	S

* Windows is a registered trademark of the Microsoft Corporation.

Manuals

Hardware Description	Model Number	Stk Item
MR-E Super	SH(NA)030071	–
EMC Guidelines (Servo) Manual	IB(NA)67310	–

Note: Many of these manuals are available for free download from our website, www.meau.com

Ⓔ Optional Accessories

Filters

Description	Model Type	Model Number	Stocked Item
Line Noise Filter	All MR-E Models	FR-BSF01	S
Radio Noise Filter	All MR-E Models	FR-BIF	S
EMC Filter	MR-E-10 to 100	SF1252	S
EMC Filter	MR-E-200	MF-3F480-025.230	–

Regenerative Brake Options

Servo Amplifier	Model Number – Regenerative Power [W]					
	Built-In Regen. Resistor	MR-RB032 [40ohm]	MR-RB12 [40ohm]	MR-RB30 [40ohm]	MR-RB32 [40ohm]	MR-RB50 [40ohm] (Note)
Stocked Item	N/A	S	S	S	S	S
MR-E-10	—	30	—	—	—	—
MR-E-20	—	30	100	—	—	—
MR-E-40	10	30	100		—	—
MR-E-70	20	30	100	—	300	—
MR-E-100	20	30	100	—	300	—
MR-E-200	100	—	—	300	—	500

Note: Always install a cooling fan when using MR-RB50.

AC Power Improving Reactor Options

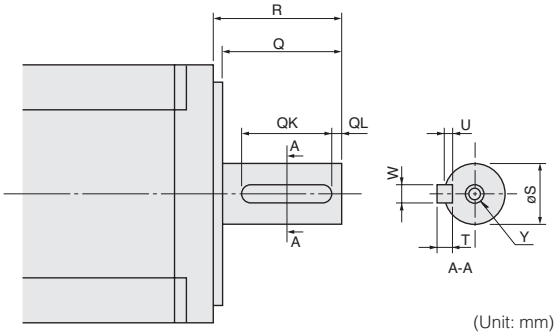
Model Type	Model Number	Stocked Item
MR-E-10 to 40	MRL-00402	S
MR-E-70	MRL-00802	S
MR-E-100	MRL-01202	S
MR-E-200	MRL-01802	S

MR-E Super Shaft Detail

HF-KE□(B)W1-S100

With key (200, 400, 750W)

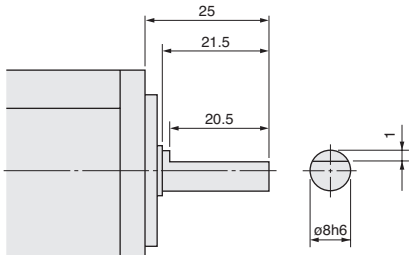
Model Number (*1)	Variable Dimensions								
	T	S	R	Q	W	QK	QL	U	Y
HF-KE23(B)KW1-S100 HF-KE43(B)KW1-S100	5	14h6	30	27	5	20	3	3	M4 screw Depth: 15mm
HF-KE73(B)KW1-S100	6	19h6	40	37	6	25	5	3.5	M5 screw Depth: 20mm



(Unit: mm)

HF-KE13(B)DW1-S100

D-cut (100W) (*1)



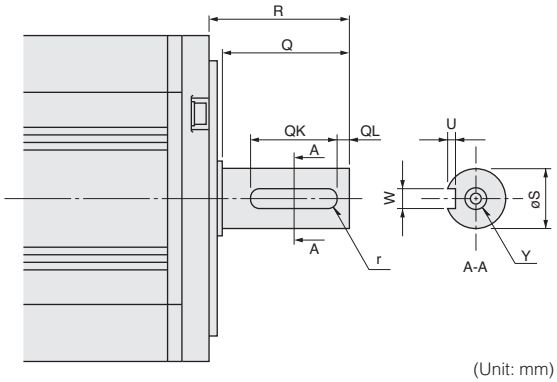
(Unit: mm)

HF-SE□(B)JW1-S100

Key way. Key not included

Model Number (*1, *2)	Variable Dimensions								
	S	R	Q	W	QK	QL	U	r	Y
HF-SE52(B)JKW1-S100 HF-SE102(B)JKW1-S100 HF-SE152(B)JKW1-S100	24h6	55	50	$8^{0}_{+0.036}$	36	5	$4^{+0.2}_{0}$	4	M8 screw Depth: 20mm
HF-SE202(B)JKW1-S100	$35^{+0.01}_{0}$	79	75	$10^{0}_{+0.036}$	55	5	$5^{+0.2}_{0}$	5	M8 screw Depth: 20mm

Notes:
1. Motors with keyway shaft (with/without key) and D-cut shaft cannot be used in frequent start/stop applications. Loose keys may damage the motor shaft.
2. A key is not supplied with the motor. The key shall be installed by the user.



(Unit: mm)

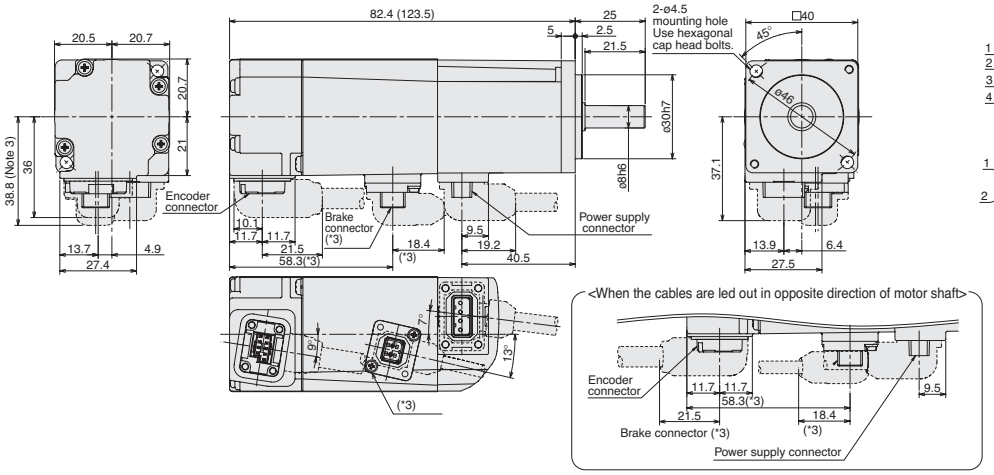
Optional Keys Available (Order Separately)

Motor Model	Model Number	Key Dimensions	Stocked item
HF-SE52~152(B)JKW1-S100	MTR KEY 8-7-28	8 x 7 x 28	S
HF-SE202(B)JKW1-S100	MTR KEY 10-8-45	10 x 8 x 45	S

HF-KE Super Series

HF-KE13(B)W1-S100

(Unit: mm)



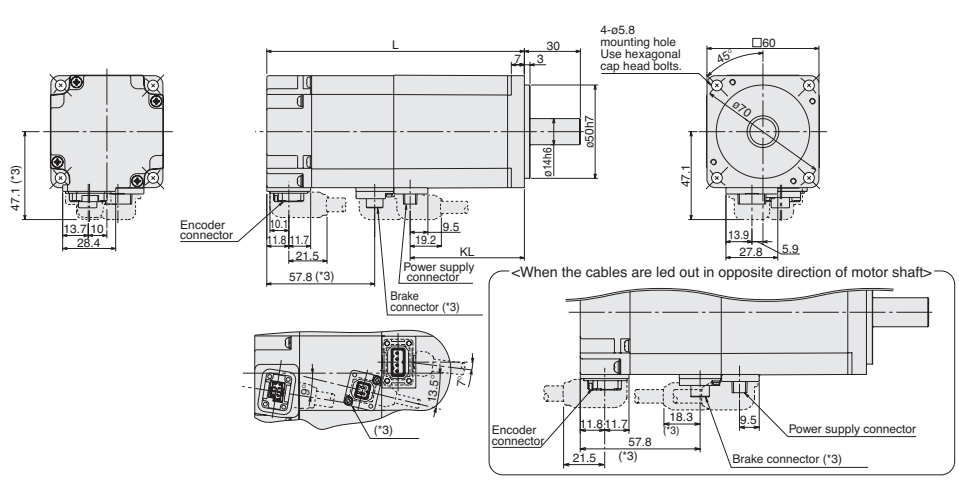
Power supply connector pin assignment

Pin No.	Signal name
1	Earth
2	U
3	V
4	W

Brake connector pin assignment (*3)

Pin No.	Signal name
1	B1
2	B2

HF-KE23(B)W1-S100, HF-KE43(B)W1-S100



Power supply connector pin assignment

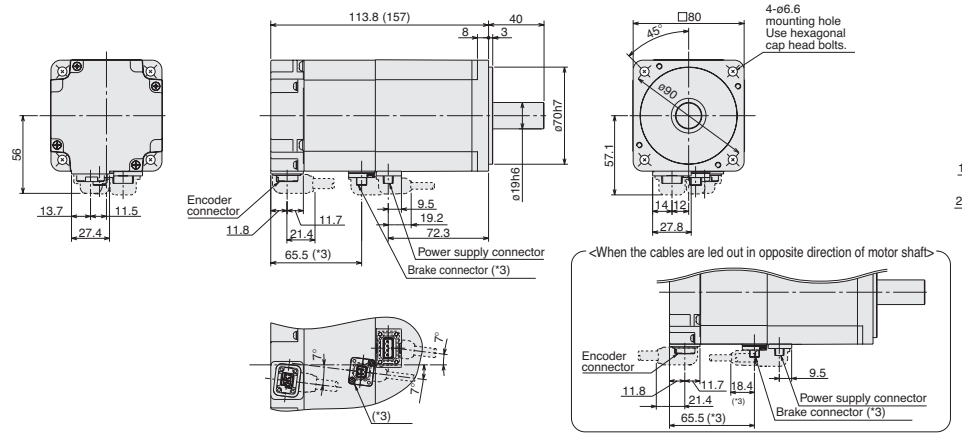
Pin No.	Signal name
1	Earth
2	U
3	V
4	W

Brake connector pin assignment (*3)

Pin No.	Signal name
1	B1
2	B2

Model	Variable dimensions	
	L	KL
HF-KE23(B)W1-S100	76.6 (116.1)	39.3
HF-KE43(B)W1-S100	98.5 (138)	61.2

HF-KE73(B)W1-S100



Power supply connector pin assignment

Pin No.	Signal name
1	Earth
2	U
3	V
4	W

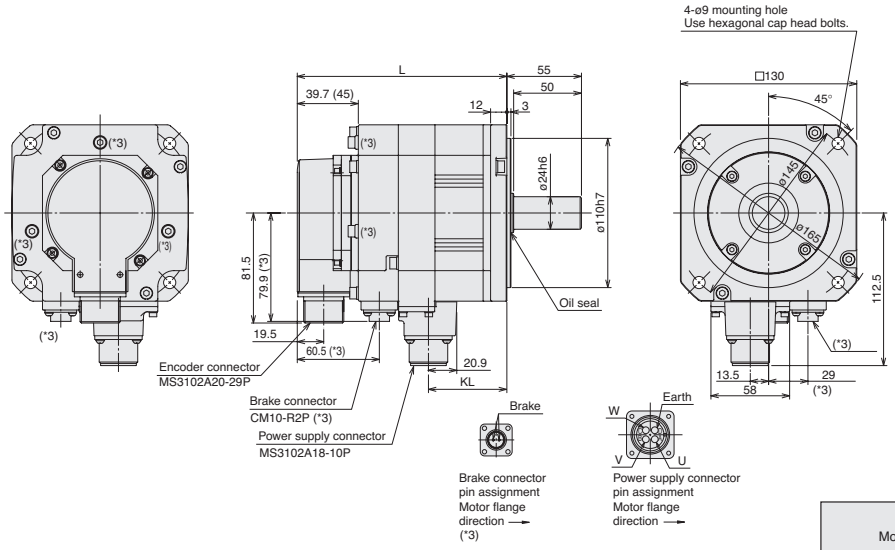
Brake connector pin assignment (*3)

Pin No.	Signal name
1	B1
2	B2

Notes:
1. Use a friction coupling to fasten a load.
2. Dimensions inside ( ) are for the models with an electromagnetic brake.
3. Only for the models with an electromagnetic brake. The electromagnetic brake terminals (B1, B2) do not have polarity.
4. For dimensions where there is no tolerance listed, use general tolerance.

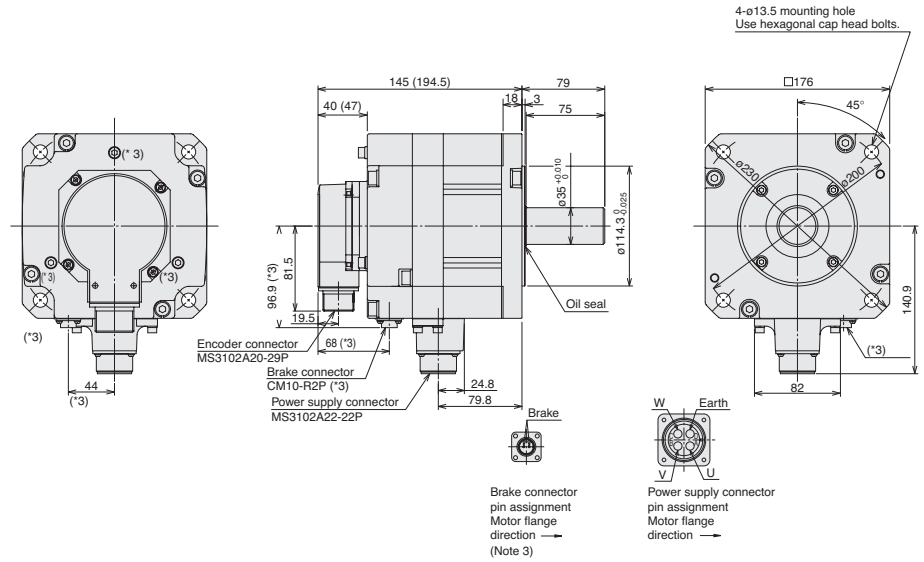
HF-SE52(B)JW1-S100, HF-SE102(B)JW1-S100, HF-SE152(B)JW1-S100

(Unit: mm)



Model	Variable dimensions	
	L	KL
HF-SE52(B)JW1-S100	120 (154.5)	57.8
HF-SE102(B)JW1-S100	142 (176.5)	79.8
HF-SE152(B)JW1-S100	164 (198.5)	101.8

HF-SE202(B)JW1-S100



Notes:
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