### HC-KFS series servo motor specifications

	Ser	vo motor series		HC-KFS serie	es (Low inertia, sr	nall capacity)		HC-KFS Ultra-high velocity series (Low inertia, small capacity)						
	Models	Servo motor model HC-KFS	053 (B)	13 (B)	23 (B)	43 (B)	73 (B)	46	410					
Spe	cifications	Servo-amp model (Note 9) MR-J2S-	10A (1)/B (1),	/CP (1)/CL (1)	20A (1)/B (1)/CP (1)/CL (1)	40A (1)/B (1)/CP (1)/CL (1)	70A/B/CP/CL(Note 10)	70A/B/CP/CL-U005	70A/B/CP/CL-U006					
	Power facility	y capacity (Note 2) (kVA)	0.3	0.3 0.3 0.5 0.9 1.3		1.3	0.9	0.9						
	Continuous	Rated output (W)	50	100	200	400	750	40	00					
	running duty	Rated torque (N·m [oz·in])	0.16 (22.7)	0.32 (45.3)	0.64 (90.6)	1.3 (184.1)	2.4 (339.8)	0.64 (90.6)	0.38 (53.8)					
	Maximum to	rque (N·m [oz·in])	0.48 (68.0)	0.95 (134.5)	1.9 (269.0)	3.8 (538.1)	7.2 (1019.5)	2.87 (406.4)	1.91 (270.5)					
	Rated speed	d (r/min)		•		6000	10000							
	Maximum sp	eed (r/min)			4500			6000	10000					
	Permissible	instantaneous speed (r/min)			6900	11500								
	Power rate at	continuous rated torque (kW/s)	4.78	12.1	15.8	36.7	37.7	6.4	3.1					
	Rated currer	nt (A)	0.83	0.71	1.1	2.3	5.8	2.9	2.9					
	Maximum cu	irrent (A)	2.5	2.2	3.4	6.9	18.6	12.9	14.5					
	Regenerative braking frequen (times/min)	With no options	(Note 5)	(Note 5)	(Note 5)	220	190	110	55					
to		ency MR-RB032 (30W)	(Note 5)	(Note 5)	(Note 5)	660	280	160	80					
motor		MR-RB12 (100W)	—	—	(Note 5)	2200	940	550	275					
Servo	(Note 3, 4)	MR-RB32 (300W)	—	—	—	—	2800	1650	825					
Se	Moment of ine J (×10 <sup>-4</sup> kg·m <sup>2</sup> )		0.053 (0.29)	0.084 (0.459)	0.260 (1.422)	0.460 (2.515)	1.51 (8.255)	0.64 (3.499)	0.47 (2.569)					
	[J (oz·in <sup>2</sup> )]	With electromagnetic brake	0.056 (0.306)	0.087 (0.476)	0.310 (1.695)	0.510 (2.788)	1.635 (8.938)	_	_					
	Recommended lo	bad/motor inertia moment ratio (Note 6)	Max. 1	5 times	Max. 15 times									
	Speed/positi	on detector	17-bit encoder (Resolution per encoder/servo motor rotation: 131072 p/rev )											
	Attachments					—								
	Structure			Totally	enclosed non ver	ntilated (protectio	n level: IP55) (No	ote 1, 7)						
		Ambient temperature	0	to 40°C (32 to 1	04°F) (non freezir	ng), storage: -15	to 70°C (5 to 158	3°F) (non freezing	)					
	Environment	Ambient humidity		80% RH maximu	m (non condensi	ng), storage: 90%	6 RH maximum (	non condensing)						
		Atmosphere		Indoors (no di	rect sunlight); no	corrosive gas, in	flammable gas, o	oil mist or dust						
		Elevation/vibration (Note 8)	1000	m (3280ft) or less	above sea level	; X: 49m/s <sup>2</sup> Y: 49	9m/s²	1000m (3280ft) or less abo	ve sea level; X, Y: 19.6m/s <sup>2</sup>					
	Mass	Standard	0.4 (0.88)	0.53 (1.17)	0.99 (2.18)	1.45 (3.19)	3.0 (6.61)	1.5 (3.30)	1.5 (3.30)					
	(kg [lb])	With electromagnetic brake	0.75 (1.65)	0.89 (1.96)	1.6 (3.53)	2.1 (4.63)	4.0 (8.81)	—	_					

Notes:1. If used in location such as actual site of machinery where oil or water may contact the product, special specifications apply, so contact Mitsubishi.

The regenerative braking frequency of the 600W or smaller serve amplifier may fluctuate with the affect of the power voltage due to the large energy ratio charged to the electrolic capacitor in the serve amplifier may fluctuate with the affect of the power voltage due to the large energy ratio charged to the electrolic capacitor in the serve amplifier may fluctuate with the affect of the power voltage due to the large energy ratio charged to the electrolic capacitor in the serve amplifier may fluctuate within the rated torque range. However, the load/motor of inertia moment ratio must be within the value in the table above

5 6. The value is a ratio of load inertia moment to motor inertia moment. Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the value in the table

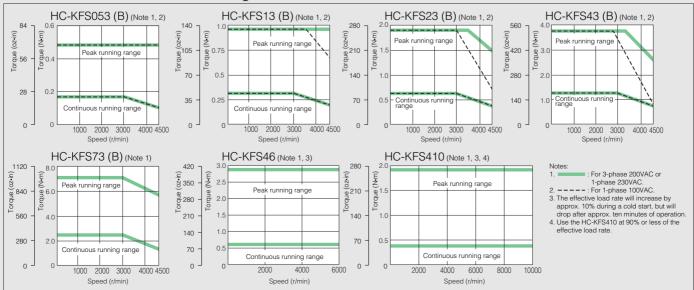
The shaft-through portion and connector for cable terminal are excluded.

8. 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). Freting of the bearing occurs easily when the motor stops, so maintain vibration to approximately one-half of the allowable value.
9. MR-J2S-\_\_CP (1)-S084 is also compatible. The compatible motor is the same as MR-J2S-\_\_CP (1).
10. The HC-KFS series 750W is compatible with the following amplifier software version.

10

A type: Version A4 or above B type: Version A3 or above

### HC-KFS series servo motor torque characteristics



#### **HC-MFS series servo motor specifications**

	Servo r	notor series		HC-MFS ser	ries (Ultra-low inertia, sr	nall capacity)								
$\sim$	Models	Servo motor model HC-MFS	053 (B)	13 (B)	23 (B)	43 (B)	73 (B)							
Sp	ecifications	Servo-amp model (Note 9) MR-J2S-	10A (1)/B (1)	/CP (1)/CL (1)	20A (1)/B (1)/CP (1)/CL (1)	40A (1)/B (1)/CP (1)/CL (1)	70A/B/CP/CL							
	Power facility capa	acity (Note 2) (kVA)	0.3	0.3	0.5	0.9	1.3							
	Continuous	Rated output (W)	50	100	200	400	750							
	running duty	Rated torque (N·m [oz·in])	0.16 (22.7)	0.32 (45.3)	0.64 (90.6)	1.3 (184.1)	2.4 (339.8)							
	Maximum torque (I	N·m [oz·in])	0.48 (68.0)	0.95 (134.5)	1.9 (269.0)	3.8 (538.1)	7.2 (1019.5)							
	Rated speed (r/mir	n)	3000											
	Maximum speed (r	r/min)			4500									
	Permissible instanta	neous speed (r/min)	5175											
	Power rate at conti	nuous rated torque (kW/s)	13.47	34.13	46.02	116.55	94.43							
	Rated current (A)		0.	85	1.5	2.8	5.1							
	Maximum current (	(A)	2	6	5.0	9.0	18							
	Regenerative braking frequency (times/min) (Note 3, 4)	With no options	(Note 5)	(Note 5)	(Note 5)	1010	400							
o		MR-RB032 (30W)	(Note 5)	(Note 5)	(Note 5)	3000	600							
mot		MR-RB12 (100W)	—	—	(Note 5)	(Note 5)	2400							
Servo motor	(11018 3, 4)	MR-RB32 (300W)	—	—	_	—	(Note 5)							
Se	Moment of inertia J (×10 <sup>-4</sup> kg·m <sup>2</sup> )	Standard	0.019 (0.104)	0.03 (0.164)	0.088 (0.481)	0.143 (0.782)	0.6 (3.28)							
	[J (oz·in <sup>2</sup> )]	With electromagnetic brake	0.022 (0.12)	0.032 (0.175)	0.136 (0.743)	0.191 (1.044)	0.725 (3.963)							
	Recommended loa	d/motor inertia moment ratio		30 times the servo	motor's inertia moment	maximum (Note 6)								
	Speed/position det	tector	17-bit encoder (Resolution per encoder/servo motor rotation: 131072 p/rev)											
	Attachments		— —											
	Structure			Totally enclosed non	ventilated (protection le	evel: IP55) (Note 1, 7)								
		Ambient temperature	0 to 40°C	C (32 to 104°F) (non fre	ezing), storage: -15 to	70°C (5 to 158°F) (non f	reezing)							
	Environment	Ambient humidity	80% RH	I maximum (non conde	ensing), storage: 90% F	H maximum (non conde	ensing)							
		Atmosphere	Indoo	ors (no direct sunlight);	no corrosive gas, infla	mmable gas, oil mist or	dust							
		Elevation/vibration (Note 8)		1000m (3280fi	t) or less above sea leve	el; X, Y: 49 m/s <sup>2</sup>								
	Mass	Standard	0.4 (0.88)	0.53 (1.17)	0.99 (2.18)	1.45 (3.19)	3.0 (6.61)							
	(kg [lb])	With electromagnetic brake	0.75 (1.65)	0.89 (1.96)	1.6 (3.53)	2.1 (4.63)	4.0 (8.81)							

Notes:1. If used in location such as actual site of machinery where oil or water may contact the product, special specifications apply, so contact Mitsubishi.

 The power facility capacity varies depending on the power supply's impedance.
 The regenerative braking frequency shows the permissible frequency when the motor without a load decelerates from the rated speed to stop. When a load is connected; however, the value will The regenerative braining inequency shows the permissible inequency when the indico without a load becelerates from the rated speed to stop, when a load is connected, however, 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 regeneration heating value (W) while operating. Provisions must be made to keep the generated heat below the tolerable regenerative power (W). Optimal regenerative resistor varies for each system. Select the most suitable regenerative resistor by using the Servo Support software. Refer to the section "Options 
Optional regeneration unit" in this catalog for details on the tolerable regenerative power (W).

4. The regenerative braking frequency of the 600W or smaller servo amplifier may fluctuate with the affect of the power voltage due to the large energy ratio charged to the electrolytic capacitor in the servo amplifier. 5. 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 30 times or less.

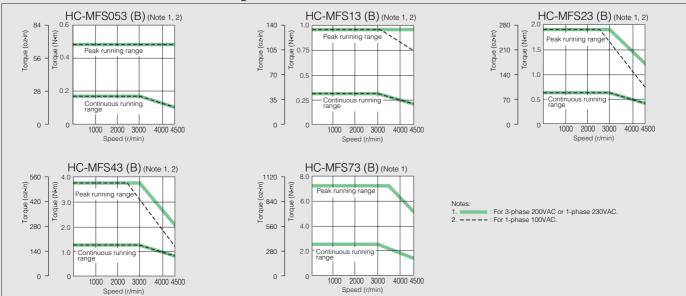
6. Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the value in the table

The shaft-through portion and connector for cable terminal are excluded.

8. 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). Freting of the bearing occurs easily when the motor stops, so maintain vibration to approximately one-half of the allowable value.
 9. MR-J2S-\_CP (1)-S084 is also compatible. The compatible motor is the same as MR-J2S-\_CP (1).

# hinto

### **HC-MFS** series servo motor torque characteristics



### MR-J2S-A (100V/200V) type

	Servo a	amplifier model MR-J2S-	10A 20A 40A	60A	70A (-U_)	100A 2	200A	350A	500A	700A	11KA	15KA	22KA	. 30KA 37k	A 10A	.1 20,	A1 40A1	
	Co	nverter unit model												MR-HP30ł	Δ	_	_	
															_	ase 100	to 120VAC	
	Control	Voltage/frequency				1-phase	e 200 to	0 230	VAC 50	)/60Hz						50/60		
	circuit power	Permissible voltage fluctuation				1-p	hase 1	170 to	253VA	C					1-ph	ase 85	to 127VAC	
	supply	Permissible frequency fluctuation					±5%	maxin	num						±5	5% ma	aximum	
		Power consumption (W)						50								50	0	
	Main	Voltage/frequency (Note 1)	3-phase 200 to 230 1-phase 230VAC 5			3-	phase	e 200 t	o 230V	/AC 50,	/60Hz	(Note 2	!)	The servo amplifier's main circu	50	1-phase 100 to 120VAC 50/60Hz (Note 2)		
	circuit power supply	Permissible voltage fluctuation	3-phase 200 to 230VA 1-phase 230VAC:					3-pha	ise 170	) to 253	BVAC			power is supplied from the converter	1-pha	1-phase 85 to 127VAC		
		Permissible frequency fluctuation		±5% maximum unit. :										±5	5% ma	aximum		
	Control s	ystem	Sine-wave PWM control/current control system															
	Dynamic	brake		l	Built-in (	(Note 3)						Exter	rnal op	ption	Bu	uilt-in (	(Note 3)	
	Safety fe	atures	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servo motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection															
		Maximum input pulse frequency	500kpps (when using differential receiver), 200 kpps (when using open collector)															
L.		Positioning feedback pulse	Resolution per encoder/servo motor rotation: 131072 p/rev Electronic gear A/B multiple, A: 1 to 65535 or 131072, B: 1 to 65535 1/50 < $A/B < 500$															
Servo amplifier	Position	Command pulse multiple	Electronic gear A/B multiple, A: 1 to 65535 or 131072, B: 1 to 65535 1/50 < A/B < 500															
amp	control	Positioning complete width setting	0 to ±10000 pulses (command pulse unit)															
02	mode	Excess error	±2.5 rotations															
Ser		Torque limit		Set	by para	meters	or exte	ernal a	inalog	input (	0 to +1	OVDC/	maxin	num torque	)			
		Speed control range	Analog speed command 1:2000, internal speed command 1:5000															
	Speed control mode	Analog speed command input	0 to ±10VDC/rated speed (Note 4)															
		Speed fluctuation rate	±0.01% maximum (load fluctuation 0 to 100%) 0% (power fluctuation ±10%) ±0.2% maximum (ambient temperature 25°C±10°C [77°F±50°F]), when using analog speed command												ıd			
		Torque limit		Set	by para	meters	or exte	ernal a	inalog	input (	0 to +1	OVDC/	maxin	num torque	)			
	Torque control	que       Analog torque command input       0 to $\pm 8$ VDC/maximum torque (input impedance 10 to $12k\Omega$ )																
	mode	Speed limit	Set by parameters or external analog input (0 to ±10VDC/rated speed)															
	Structure	)	Self-coolin	g open	(IP00)				Fa	n cooli	ng ope	en (IPO	D)		Self-o	Self-cooling open (IP00)		
		Ambient temperature	O t	o 55°C	(32 to 1	31°F) (n	on fre	ezing)	, stora	ge: –20	) to 65	°C (–4	to 149	€°F) (non fre	ezing)			
	Environ-	Ambient humidity	e e	0% RH	maxim	um (non	conde	ensing	g), stora	age: 90	)% RH	maxim	ium (r	non conden	sing)			
	ment	Atmosphere		Indoo	rs (no d	lirect su	nlight)	; no co	orrosive	e gas,	inflam	mable (	gas, o	il mist or du	ist			
		Elevation				1	000m	(3280	ft) or le	ess abo	ove se	a level						
		Vibration						5.9	)m/s² n	naximu	ım							
	Mass (	(kg [lb])	0.7 0.7 1.1 (1.5) (1.5) (2.4	) (2.4)	1.7 (3.7)	1.7 (3.7) (	2.0 (4.4)	2.0 (4.4)	4.9 (10.8)	7.2 (15.9)	15 (33)	16 (35.3)	20 (44.1)	47 47 (103.5) (103	-			
	Main circuit	Voltage/frequency (Note 1)					_							3-phase 200 to 230V/ 50/60Hz (Note 2)	кС	_	_	
÷	power supply	Permissible voltage fluctuation					_							3-phase 170 to 253VA	.C	_	_	
r un		Permissible frequency fluctuation					_							±5% max		_	-	
Converter unit	Control	Voltage/frequency					_							1-phase 200 to 230V/ 50/60Hz	.C		_	
ŏ	Control circuit power	Permissible voltage fluctuation					_							1-phase 170 to 253V/	(C	_	_	
	supply	Permissible frequency fluctuation					_							±5% max		_	-	
		Power consumption (W)					_							50		_	-	

Notes: 1. Rated output and rated speed of the servo motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
2. For torque characteristics applied when the servo amplifier is combined with a servo motor, refer to "servo motor torque characteristics" in this catalog.
3. The special specification model without a dynamic brake, MR-J2S-\_A-ED or MR-J2S-\_A1-ED, is also available.
4. The speed in 10V can be changed with the parameter No.25.

## MR-J2S-A (400V) type

	Servo a	amplifier model MR-J2S-	60A4	100A4	200A4	350A4	500A4	700A4 (-U□)	11KA4	15KA4	22KA4	30KA4	37KA4	45KA4	55KA4					
	Cc	onverter unit model					_					MR-HP55KA4								
		Voltage/frequency			24\	/DC				1-p	hase 38	80 to 480VAC 50/60Hz								
	Control circuit	Permissible voltage fluctuation			20.4 to 2	27.6VDC					1-phas	e 323 to 528VAC								
	power supply	Permissible frequency fluctuation									+5	% maxim	um							
		Power consumption (W)			2	5					<u>+0</u>	50	um							
						.0														
	Main circuit	Voltage/frequency (Note 1)			3-phase	e 380 to 4	480VAC 5	0/60Hz (	Note 2)			The servo amplifier's main circuit power is supplied from the converter unit.								
	power supply	Permissible voltage fluctuation				3-phas	e 323 to 5	528VAC												
		Permissible frequency fluctuation				±5	% maxim	um												
	Control s	system				:	Sine-wave	e PWM co	ontrol/curi	rent contr	ol systen	n								
	Dynamic	brake			Bui	lt-in				External option										
	Safety fe	eatures	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servo motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																	
		Maximum input pulse frequency			500kpps	(when us	sing differ	rential rec	ceiver), 20	0 kpps (v	when usi	ng open d	collector)							
		Positioning feedback pulse	500kpps (when using differential receiver), 200 kpps (when using open collector) Resolution per encoder/servo motor rotation: 131072 p/rev																	
lifie	Position	Command pulse multiple	Electronic gear A/B multiple, A: 1 to 65535 or 131072, B: 1 to 65535 1/50 < A/B < 500																	
Servo amplifier	control	Positioning complete width setting	0 to ±10000 pulses (command pulse unit)																	
0 a	mode	Excess error	±2.5 rotations																	
Serv		Torque limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)																	
0,		Speed control range	Analog speed command 1:2000, internal speed command 1:5000																	
		Analog speed command input	0 to ±10VDC/rated speed (Note 3)																	
	Speed control mode		±0.01% maximum (load fluctuation 0 to 100%)																	
		Speed fluctuation rate	±0.2% maximum (ambient temperature 25°C±10°C [77°F±50°F]), when using analog speed command												d					
		Torque limit	Set by parameters or external analog input (0 to +10VDC/maximum torque)																	
	Torque control	Analog torque command input	0 to ±8VDC/maximum torque (input impedance 10 to 12kΩ)																	
	mode	Speed limit			Set	by parar	meters or	external	analog in	out (0 to :	±10VDC/	rated speed)								
	Structure	Э	Self-cooling, open (IP00)				Far	n cooling	open (IP	00) (Note	e 4)									
		Ambient temperature		0 t	o 55°C (3	2 to 131°	°F) (non fr	eezing),	storage: -	-20 to 65°	°C (–4 to	149°F) (non freezing)								
		Ambient humidity		Ş	0% RH m	naximum	(non con	densing)	storage:	90% RH	maximur	m (non co	ndensin	g)						
	Environ-	Atmosphere			Indoors	(no dired	ct sunligh	t); no cor	rosive ga	s, inflamr	nable ga	s, oil mist	or dust							
	ment	Elevation					1000r	n (3280ft	) or less a	bove sea	a level									
			1000m (3280ft) or less above sea level 5.9m/s <sup>2</sup> maximum																	
		Vibration													47					
		Vibration (kg [lb])	2.1 (4.6)	2.2 (4.8)	2.2 (4.8)	5 (11)	5 (11)	7.2 (15.9)	15 (33)	16 (35.3)	20 (44.1)	36 (79.3)	47 (103.5)	47 (103.5)	(103.5					
	Mass Main								15			(79.3)	(103.5) 3-p							
tt	Mass Main circuit power	(kg [lb])							15			(79.3) 380 to	(103.5) 3-p 480VAC	(103.5) hase	Note 2)					
r unit	Mass Main circuit	(kg [lb]) Voltage/frequency (Note 1) Permissible voltage							15			(79.3) 380 to	(103.5) 3-p 480VAC	(103.5) hase 50/60Hz (	Note 2)					
arter unit	Mass Main circuit power	(kg [lb]) Voltage/frequency (Note 1) Permissible voltage fluctuation							15			(79.3) 380 to - 3-p	(103.5) 3-p 480VAC bhase 32 ±5% m	(103.5) hase 50/60Hz ( 3 to 528V	Note 2) AC					
Converter unit	Mass Main circuit power supply Control circuit	(kg [lb]) Voltage/frequency (Note 1) Permissible voltage fluctuation Permissible frequency fluctuation							15			(79.3) 380 to - 3-p 1-phas	(103.5) 3-p 480VAC bhase 32 ±5% m e 380 to	(103.5) hase 50/60Hz ( 3 to 528V aximum	Note 2) AC 50/60Hz					
Converter unit	Mass Main circuit power supply Control circuit power	(kg [lb]) Voltage/frequency (Note 1) Permissible voltage fluctuation Permissible frequency fluctuation Voltage/frequency Permissible voltage fluctuation							15			(79.3) 380 to - 3-p 1-phas	(103.5) 3-p 480VAC bhase 32 ±5% m e 380 to bhase 32	(103.5) hase 50/60Hz ( 3 to 528V aximum 480VAC 5 3 to 528V	Note 2) AC 50/60Hz					
Converter unit	Mass Main circuit power supply Control circuit	(kg [lb]) Voltage/frequency (Note 1) Permissible voltage fluctuation Permissible frequency fluctuation Voltage/frequency Permissible voltage							15			(79.3) 380 to - 3-p 1-phas	(103.5) 3-p 480VAC bhase 32 ±5% m e 380 to bhase 32 ±5% m	(103.5) hase 50/60Hz ( 3 to 528V aximum 480VAC 5	Note 2) AC					

Notes: 1. Rated output and rated speed of the servo motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
2. For torque characteristics applied when the servo amplifier is combined with a servo motor, refer to "servo motor torque characteristics" in this catalog.
3. The speed in 10V can be changed with the parameter No.25.
4. For the structure of MR-J2S-60A4, "Self-cooling, open (IP00)" is applied.

## MR-J2S-B (100V/200V) type

	Servo a	mplifier model MR-J2S-	10B	20B 4	OВ	60B	70B (-U□	) 100E	3 200E	350B	500B	700B	11KB	15KB	22KE	3 30KB 37KE	10B-	20B1	40B1	
	Conve	rter unit model							_						1	MR-HP30KA		_	·	
	Control	Voltage/frequency						1-pha	ase 200	) to 230	OVAC 5	0/60H:	Z				1-phas	e 100 to 50/60Hz		
	circuit	Permissible voltage fluctuation						1	-phase	e 170 to	o 253V	٩C						1-phase to 127		
	supply	Permissible frequency fluctuation							±59	% maxi	mum						±59	% maxir	mum	
		Power consumption (W)								50								50		
	Main	Voltage/frequency (Note 1)		se 200 to 2 se 230VA					3-pha	se 200	to 230	VAC 50	)/60Hz	(Note	2)	The servo amplifier's main circuit				
	circuit power supply	Permissible voltage fluctuation		e 200 to 23 ase 230VA						3-ph	ase 17	0 to 25	3VAC			power is supplied from the		e VAC		
<u> </u>		Permissible frequency fluctuation							±59	% maxi	mum					converter unit.	±59	±5% maximum		
lifie	Control s	ystem		Sine-wave PWM control/current control system																
amp	Dynamic	brake		Built-in (Note 3) External option									Bui	lt-in (No	ote 3)					
Servo amplifier	Safety fe	atures	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servo motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection																	
	Maximum o	command input at the position control	Approximately 10Mpps																	
	Structure	)		Self-cooling, open (IP00) Fan cooling, open (IP00)											Self-cooling, open (IPOC					
		Ambient temperature	0 to 55°C (32 to 131°F) (non freezing), storage: -20 to 65°C (-4 to 149°F) (non freezing)																	
	Environ-	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																	
	mont	Elevation							1000	m (328	Oft) or	ess ab	ove se	ea level						
		Vibration						_		5	.9m/s²	maxim	um							
	Mass (	(kg [lb])	0.7 (1.5)		.1 .4)	1.1 (2.4)	1.7 (3.7	1.7 ) (3.7	2.0 (4.4)	2.0 (4.4)	4.9 (10.8	7.2 (15.9)	15 (33)	16 (35.3)	20 (44.1	47 47 ) (103.5) (103.5	0.7 ) (1.5)	0.7 (1.5)	1.1 (2.4)	
	Main circuit	Voltage/frequency (Note 1)									3-phase 200 to 230VAC 50/60Hz (Note 2)	<sup>2</sup> _								
it	power supply	Permissible voltage fluctuation							_							3-phase 170 to 253VAC		_		
un 1		Permissible frequency fluctuation														±5% max.		_		
Converter unit	Control	Voltage/frequency														1-phase 200 to 230VAC 50/60Hz	_			
0	circuit power	Permissible voltage fluctuation							_							1-phase 170 to 253VAC	. —			
	supply	Permissible frequency fluctuation							_							±5% max.		_		
		Power consumption (W)							_							50		_		
	Mass (	(kg [lb])							—							22 (48.5)		—		

Notes: 1. Rated output and rated speed of the servo motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
2. For torque characteristics when combined with a servo motor, refer to "servo motor torque characteristics" in this catalog.
3. The special specification model without a dynamic brake, MR-J2S-\_B-ED or MR-J2S-\_B1-ED, is also available.

### MR-J2S-B (400V) type

	Servo a	amplifier model MR-J2S-	60B4	100B4	200B4	350B4	500B4	700B4 (-U□)	11KB4	15KB4	22KB4	30KB4	37KB4	45KB4	55KB4		
	Conve	rter unit model						•				MR-HP55KA4					
	Control	Voltage/frequency			24\	/DC				1-p	ohase 38	30 to 480VAC 50/60Hz					
	circuit	Permissible voltage fluctuation			20.4 to 2	27.6VDC					1-phase	e 323 to 5	28VAC				
	power supply	Permissible frequency fluctuation			_	_					±5	% maxim	um				
		Power consumption (W)			2	5						50					
	Main circuit	Voltage/frequency (Note 1)			3-phas	e 380 to -	480VAC 5	50/60Hz (	Note 2)			The se	rvo amplif	ier's mair	n circuit		
	power	Permissible voltage fluctuation				3-phas	e 323 to §	528VAC				pow	er is supp		n the		
	supply	Permissible frequency fluctuation				±5	% maxim	um					convert	er unit.			
	Control s	ystem	Sine-wave PWM control/current control system														
	Dynamic	brake			Bui	lt-in					Ex	ternal opt	ion				
Servo amplifier	Safety fe	atures	Overcurrent shutdown, regeneration overvoltage shutdown, overload shutdown (electronic thermal), servo motor overheat protection, encoder fault protection, regeneration fault protection, undervoltage/sudden power outage protection, overspeed protection, excess error protection														
Ser v	Maximum o	command input at the position control	Approximately 10Mpps														
	Structure	Self-cooling, open Fan cooling, open (IP00) (IP00)															
		Ambient temperature	0 to 55°C (32 to 131°F) (non freezing), storage: –20 to 65°C (–4 to 149°F) (non freez														
		Ambient humidity		90% RH maximum (non condensing), storage: 90% RH maximum (non condensing)													
	Environ- ment	Atmosphere			Indoors	(no dired	ct sunligh	it); no cor	rosive ga	s, inflamr	nable ga	s, oil mist	or dust				
	mont	Elevation					1000r	m (3280ft	) or less a	bove sea	a level						
		Vibration						5.9n	n/s² maxir	num							
	Mass	2.1 (4.6)	2.2 (4.8)	2.2 (4.8)	5 (11)	5 (11)	7.2 (15.9)	15 (33)	16 (35.3)	20 (44.1)	36 (79.3)	47 (103.5)	47 (103.5)	47 (103.5)			
	Main	Voltage/frequency (Note 1)					_					3-phase 3	80 to 480V	AC 50/60H	z (Note 2)		
	circuit power	Permissible voltage fluctuation					_					3-p	ohase 323	3 to 528V	AC		
Init	supply	Permissible frequency fluctuation					_						±5% ma	aximum			
Converter unit	Orintial	Voltage/frequency					_					1-phas	e 380 to 4	180VAC 5	50/60Hz		
iver	Control circuit	Permissible voltage fluctuation					_					1-p	ohase 323	3 to 528V	AC		
Con	power	Permissible frequency fluctuation											±5% ma	aximum			
	cupply -	Power consumption (W)					_					50					
	Mass	(kg [lb])					—						22 (4	18.5)			

Notes: 1. Rated output and rated speed of the servo motor used in combination with the servo amplifier are as indicated when using the power supply voltage and frequency listed. The torque drops when the power supply voltage is less than specified.
2. For torque characteristics when combined with a servo motor, refer to "servo motor torque characteristics" in this catalog.