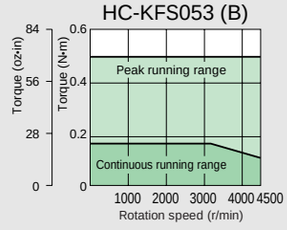
Specifications and Characteristics

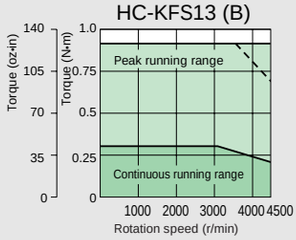
HC-KFS series servomotor specifications

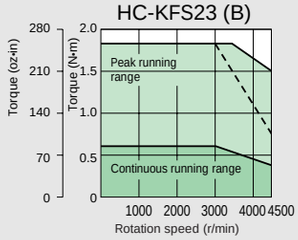
Servomotor series			HC-KFS series (small capacity, low inertia)				
Models / Specifications		Servomotor model HC-	KFS053 (B)	KFS13 (B)	KFS23 (B)	KFS43 (B)	KFS73 (B) (Note 8)
		Servo-amp model MR-	J2S-10A/A1/B/B1		J2S-20A/A1/B/B1	J2S-40A/A1/B/B1	J2S-70A/B
Servomotor (Note 1)	Power facility capacity (kVA) (Note 2)		0.3	0.3	0.5	0.9	1.3
	Continuous running duty	Rated output (W)	50	100	200	400	750
		Rated torque (N·m [oz·in])	0.16 (22.7)	0.32 (45.3)	0.64 (90.6)	1.3 (184.1)	—
	Maximum torque (N·m [oz·in])		0.48 (68.0)	0.95 (134.5)	1.9 (269.0)	3.8 (538.1)	—
	Rated rotation speed (r/min)		3000				
	Maximum rotation speed (r/min)		4500				
	Permissible instantaneous rotation speed (r/min)		5175				
	Power rate at continuous rated torque (kW/s)		4.78	12.1	9.65	24.2	—
	Rated current (A)		0.83	0.71	1.1	2.3	—
	Maximum current (A)		2.5	2.2	3.4	6.9	—
	Regeneration braking frequency (times/min) (Note 3)	With no options	(Note 4)	(Note 4)	(Note 4)	220	—
		MR-RB032 (30W)	(Note 4)	(Note 4)	(Note 4)	660	—
		MR-RB12 (100W)	–	–	(Note 4)	2200	—
	Moment of inertia J ($\times 10^{-4}$ kg·m^2) [J (oz·in^2)]	Standard	0.053 (0.29)	0.084 (0.459)	0.42 (2.296)	0.67 (3.663)	—
		With electromagnetic brake	0.056 (0.306)	0.087 (0.476)	0.47 (2.57)	0.72 (3.937)	—
	Recommended load/motor inertia moment ratio		Less than 15-times the servomotor's inertia moment (Note 5)				
	Speed/position detector		Resolution per encoder/servomotor rotation: 131072 p/rev				
	Attachments		17 bit encoder				
	Structure		Totally enclosed non ventilated (protection degree: IP55) (Note 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 max. (non condensing), storage: 90% RH max. (non condensing)				
		Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust				
		Elevation/vibration (Note 7)	1000 meters or less above sea level; X: 49m/s^2 Y: 49m/s^2				
	Weight kg (lb)	Standard	0.4 (0.88)	0.53 (1.17)	0.99 (2.18)	1.45 (3.20)	3.0 (6.61)
		With electromagnetic brake	0.75 (1.65)	0.89 (1.96)	1.6 (3.53)	2.1 (4.63)	4.0 (8.82)

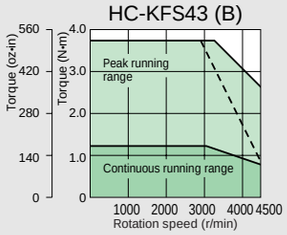
Notes: 1. If used in location such as actual site of machinery where oil or water may contact the product, special specifications apply, contact Mitsubishi Electric.
2. The power facility capacity varies depending on the power supply's impedance.
3. The regenerative brake frequency shown is the permissible frequency for decelerating a stand-alone motor from rated rpm to a stop. When under load, however, the value becomes the table value divided by (m+1) where m is the load inertia moment divided by the motor inertia moment. When the rated rpm is exceeded, the regenerative brake frequency is inversely proportional to the square of (Operating speed/rated speed). When the operating rpm varies with the frequency or when regeneration is constant (as with vertical feeds), find the regeneration heat generated (W) while operating and do not exceed the permissible value.
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 ratio must be 15 times or less.
5 Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the figure 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 on the anti-load side). Fretting of the bearing occurs easily when the motor stops, so please maintain vibration to approximately one-half the allowable value.
8. Consult Mitsubishi for availability.

HC-KFS series servomotor torque characteristics









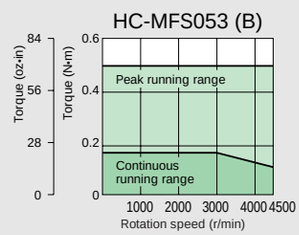
∗Remarks:
1. Solid lines show torque characteristics for 3-phase 200-230V operation.
2. Torque characteristics are same for single-phase 230V operation.
3. For single-phase 100V operation, torque characteristics that are different from above-mentioned 1 and 2, are shown in broken lines.

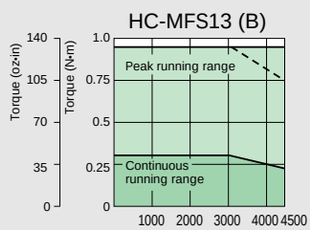
HC-MFS series servomotor specifications

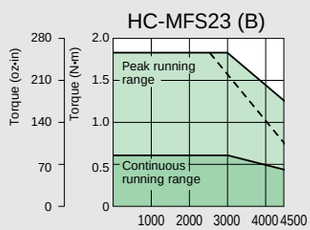
Servomotor series			HC-MFS series (small capacity, ultra-low inertia)				
Specifications \ Models		Servomotor model HC-	MFS053 (B)	MFS13 (B)	MFS23 (B)	MFS43 (B)	MFS73 (B)
		Servo-amp model MR-	J2S-10A/A1/B/B1		J2S-20A/A1/B/B1	J2S-40A/A1/B/B1	J2S-70A/B
Servomotor (Note 1)	Power facility capacity (kVA) (Note 2)		0.3	0.3	0.5	0.9	1.3
	Continuous running duty	Rated output (W)	50	100	200	400	750
		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 (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 rotation speed (r/min)		3000				
	Maximum rotation speed (r/min)		4500				
	Permissible instantaneous rotation speed (r/min)		5175				
	Power rate at continuous rated torque (kW/s)		13.47	34.13	46.02	116.55	94.43
	Rated current (A)		0.85	0.85	1.5	2.8	5.1
	Maximum current (A)		2.6	2.6	5.0	9.0	18
	Regeneration braking frequency (times/min) (Note 3)	With no options	(Note 4)	(Note 4)	(Note 4)	1010	400
		MR-RB032 (30W)	(Note 4)	(Note 4)	(Note 4)	3000	600
		MR-RB12 (100W)	–	–	(Note 4)	(Note 4)	2400
	Moment of inertia J ($\times 10^{-4}$ kg·m^2) [J (oz·in^2)]	Standard	0.019 (0.104)	0.03 (0.164)	0.088 (0.481)	0.143 (0.782)	0.6 (3.28)
		With electromagnetic brake	0.022 (0.12)	0.032 (0.175)	0.136 (0.744)	0.191 (1.044)	0.725 (3.964)
	Recommended load/motor inertia moment ratio		Less than 30-times the servomotor's inertia moment (Note 5)				
	Speed/position detector		Resolution per encoder/servomotor rotation: 131072 p/rev				
	Attachments		17 bit encoder				
	Structure		Totally enclosed non ventilated (protection degree: IP55) (Note 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 max. (non condensing), storage: 90% RH max. (non condensing)				
		Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust				
		Elevation/vibration (Note 7)	1000 meters or less above sea level; X, Y: 49 m/s^2				
	Weight kg (lb)	Standard	0.4 (0.88)	0.53 (1.17)	0.99 (2.18)	1.45 (3.20)	3.0 (6.61)
		With electromagnetic brake	0.75 (1.65)	0.89 (1.96)	1.6 (3.53)	2.1 (4.63)	4.0 (8.82)

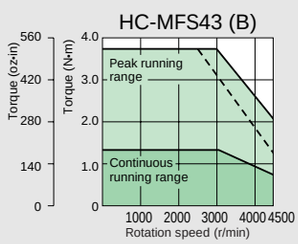
Notes: 1. If used in location such as actual site of machinery where oil or water may contact the product, special specifications apply, contact Mitsubishi Electric.
2. The power facility capacity varies depending on the power supply's impedance.
3. The regenerative brake frequency shown is the permissible frequency for decelerating a stand-alone motor from rated rpm to a stop. When under load, however, the value becomes the table value divided by (m+1) where m is the load inertia moment divided by the motor inertia moment. When the rated rpm is exceeded, the regenerative brake frequency is inversely proportional to the square of (Operating speed/rated speed). When the operating rpm varies with the frequency or when regeneration is constant (as with vertical feeds), find the regeneration heat generated (W) while operating and do not exceed the permissible value.
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 ratio must be 30 times or less.
5 Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the figure 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 on the anti-load side). Fretting of the bearing occurs easily when the motor stops, so please maintain vibration to approximately one-half the allowable value.

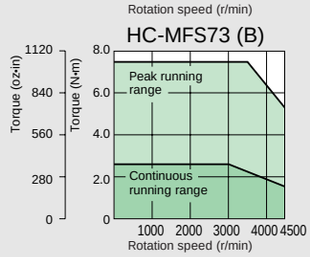
HC-MFS series servomotor torque characteristics











∗Remarks:
1. Solid lines show torque characteristics for 3-phase 200-230V operation.
2. Torque characteristics are same for single-phase 230V operation.
3. For single-phase 100V operation, torque characteristics that are different from above-mentioned 1 and 2, are shown in broken lines.

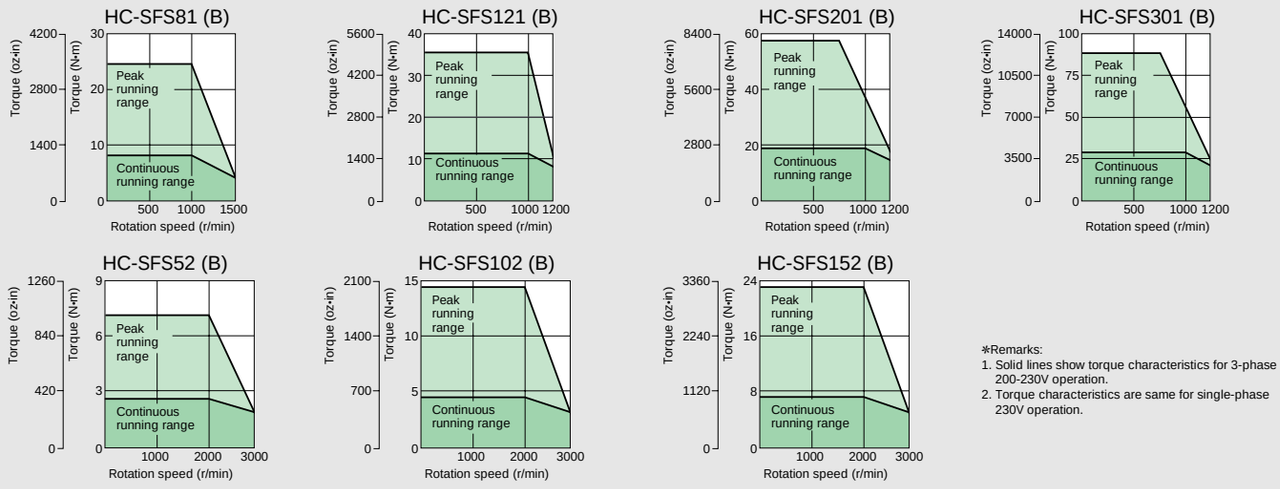
Specifications and Characteristics

HC-SFS series servomotor specifications

Servomotor series			HC-SFS1000 r/min series (medium capacity, medium inertia)				HC-SFS2000 r/min series			
Models / Specifications		Servomotor model HC-	SFS81 (B)	SFS121 (B)	SFS201 (B)	SFS301 (B)	SFS52 (B)	SFS102 (B)	SFS152 (B)	
		Servo-amp model MR-	J2S-100A/B	J2S-200A/B		J2S-350A/B	J2S-60A/B	J2S-100A/B	J2S-200A/B	
Servomotor	Power facility capacity (kVA) (Note 1)		1.5	2.1	3.5	4.8	1.0	1.7	2.5	
	Continuous running duty	Rated output (kW)	0.85	1.2	2.0	3.0	0.5	1.0	1.5	
		Rated torque (N·m [oz·in])	8.12 (1149.8)	11.5 (1628.4)	19.1 (2704.5)	28.6 (4049.4)	2.39 (338.4)	4.78 (676.8)	7.16 (1013.8)	
	Maximum torque (N·m [oz·in])		24.4 (3455.0)	34.4 (4871.0)	57.3 (8113.5)	85.9 (12163.2)	7.16 (1013.8)	14.4 (2039.0)	21.6 (3058.5)	
	Rated rotation speed (r/min)		1000				2000			
	Maximum rotation speed (r/min)		1500	1200			3000			
	Permissible instantaneous rotation speed (r/min)		1725	1380			3450			
	Power rate at continuous rated torque (kW/s)		32.9	30.9	44.5	81.3	8.7	16.7	25.6	
	Rated current (A)		5.1	7.1	9.6	16	3.2	6	9	
	Maximum current (A)		15.3	21.3	28.8	48	9.6	18	27	
	Regeneration braking frequency (times/min) (Note 2)	With no options	140	240	100	84	56	54	136	
		MR-RB032 (30W)	220	—	—	—	165	80	—	
		MR-RB12 (100W)	740	—	—	—	560	270	—	
		MR-RB32 (300W)	2220	—	—	—	—	810	—	
		MR-RB30 (300W)	—	730	330	250	—	—	408	
		MR-RB50 (500W)	—	1216	550	430	—	—	680	
	Moment of inertia J ($\times 10^{-4}$kg · m^2) [J (oz · in^2)]	Standard	20.0 (109.0)	42.5 (232)	82.0 (448)	101 (552)	6.6 (36.1)	13.7 (74.9)	20.0 (109)	
		With electromagnetic brake	22.0 (120.0)	52.5 (287)	92.0 (503)	111 (607)	8.6 (47.0)	15.7 (85.8)	22.0 (120)	
	Recommended load/motor of inertia moment ratio		Less than 15-times the servomotor's inertia moment. (Note 3)							
	Speed/position encoder		Resolution per encoder/servomotor rotation : 131072 p/rev							
	Attachments		17 bit encoder, oil seal							
	Structure		Totally enclosed non ventilated (protection degree: IP65)							
	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 max. (non condensing), storage: 90% RH max. (non condensing)							
		Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust							
		Elevation	1000 meters or less above sea level							
		Vibration (Note 4)	X, Y 24.5m/s^2	X: 24.5m/s^2 Y: 49m/s^2		X: 24.5m/s^2 Y: 29.4m/s^2	X, Y: 24.5m/s^2			
	Weight kg (lb)	Standard	9 (19.8)	12 (26.5)	19 (41.9)	23 (50.7)	5 (11.0)	7 (15.4)	9 (19.8)	
		With electromagnetic brake	11 (24.3)	18 (39.7)	25 (55.1)	29 (63.9)	7 (15.4)	9 (19.8)	11 (24.3)	

Notes: 1. The power facility capacity varies depending on the power supply's impedance.
2. The regenerative brake frequency shown is the permissible frequency for decelerating a stand-alone motor from rated rpm to a stop. When under load, however, the value becomes the table value divided by (m+1) where m is the load inertia moment divided by the motor inertia moment. When the rated rpm is exceeded, the regenerative brake frequency is inversely proportional to the square of (Operating speed/rated speed). When the operating rpm varies with the frequency or when regeneration is constant (as with vertical feeds), find the regeneration heat generated (W) while operating and do not exceed the permissible value.

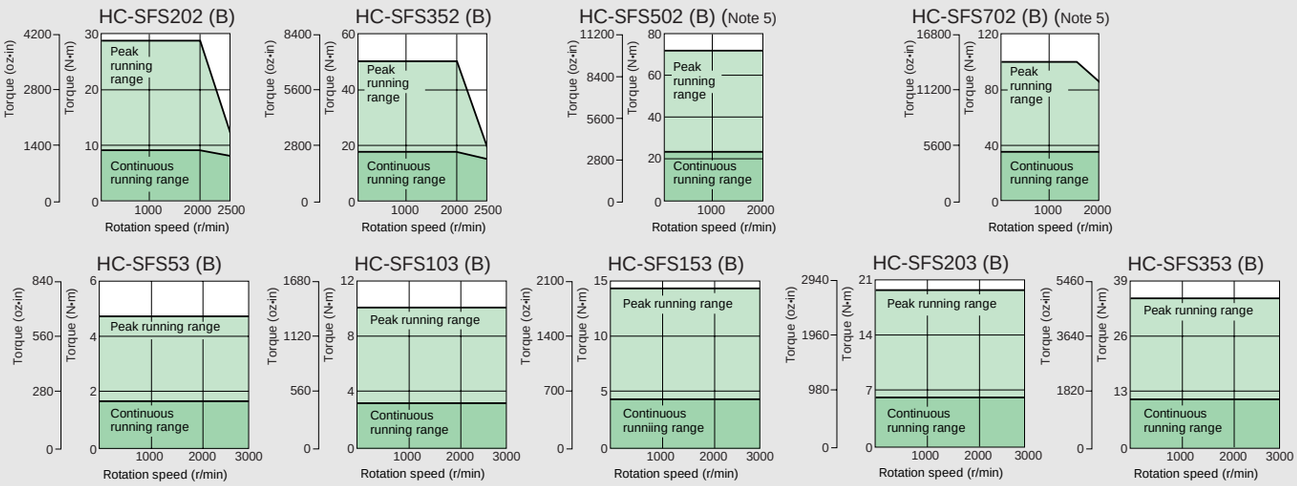
HC-SFS series servomotor torque characteristics



*Remarks:
1. Solid lines show torque characteristics for 3-phase 200-230V operation.
2. Torque characteristics are same for single-phase 230V operation.

	(medium capacity, medium inertia)				HC-SFS3000 r/min series (medium capacity, medium inertia)				
	SFS202 (B)	SFS352 (B)	SFS502 (B) (Note 5)	SFS702 (B) (Note 5)	SFS53 (B)	SFS103 (B)	SFS153 (B)	SFS203 (B)	SFS353 (B)
	J2S-200A/B	J2S-350A/B	J2S-500A/B	J2S-700A/B	J2S-60A/B	J2S-100A/B	J2S-200A/B		J2S-350A/B
	3.5	5.5	7.5	10.0	1.0	1.7	2.5	3.5	5.5
	2.0	3.5	5.0	7.0	0.5	1.0	1.5	2.0	3.5
	9.55 (1352.3)	16.7 (2364.7)	23.9 (3384.5)	33.4 (4729.9)	1.59 (225.1)	3.18 (450.3)	4.78 (676.8)	6.37 (901.9)	11.1 (1571.6)
	28.5 (4035.5)	50.1 (7094.0)	71.6 (10139.4)	100 (14161.2)	4.77 (675.4)	9.55 (1352.3)	14.3 (2024.8)	19.1 (2704.5)	33.4 (4729.3)
	2000				3000				
	2500		2000		3000				
	2850		2300		3450				
	21.5	34.1	56.5	69.7	3.8	7.4	11.4	9.5	15.1
	11	17	28	35	3.2	5.3	8.6	10.4	16.4
	33	51	84	105	9.6	15.9	25.8	31.2	49.2
	64	31	(Note 5)		25	24	82	24	14
	—	—			73	36	—	—	—
	—	—			250	120	—	—	—
	—	—			750	360	—	—	—
	192	95			—	—	250	70	42
	320	150			—	—	410	110	70
	42.5 (232)	82.0 (448)	101 (552)	160 (875)	6.6 (36.1)	13.7 (74.9)	20.0 (109)	42.5 (232)	82.0 (448)
	52.5 (287)	92.0 (503)	111 (607)	170 (929)	8.6 (47.0)	15.7 (85.8)	22.0 (120)	52.5 (287)	92.0 (503)
	Less than 15-times the servomotor's inertia moment (Note 3)								
	Resolution per encoder/servomotor rotation : 131072 p/rev								
	17 bit encoder, oil seal								
	Totally enclosed non ventilated (protection degree: IP65)				Totally enclosed non ventilated (protection degree: IP65)				
	0 to 40°C (32 to 104°F) (non freezing), storage: -15 to 70°C (5 to 158°F) (non freezing)								
	80% RH max. (non condensing), storage: 90% RH max. (non condensing)								
	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust								
	1000 meters or less above sea level								
	X: 24.5m/s^2 Y: 49m/s^2		X: 24.5m/s^2 Y: 29.4m/s^2		X, Y: 24.5m/s^2			X: 24.5m/s^2 Y: 49m/s^2	
	12 (26.5)	19 (41.9)	23 (50.7)	32 (70.5)	5 (11)	7 (15.4)	9 (19.8)	12 (26.5)	19 (41.9)
	18 (39.7)	25 (55.1)	29 (63.9)	38 (83.8)	7 (15.4)	9 (19.8)	11 (24.3)	18 (39.7)	25 (55.1)

3. Contact Mitsubishi if the load/motor of inertia moment ratio exceeds the figure in the table.
4. The vibration direction is shown in the right-side diagram. The numeric value indicates the maximum value of the component (commonly the bracket on the anti-load side). Fretting of the bearing occurs easily when the motor stops, so please maintain vibration to approximately one-half the allowable value.
5. Consult Mitsubishi for availability.



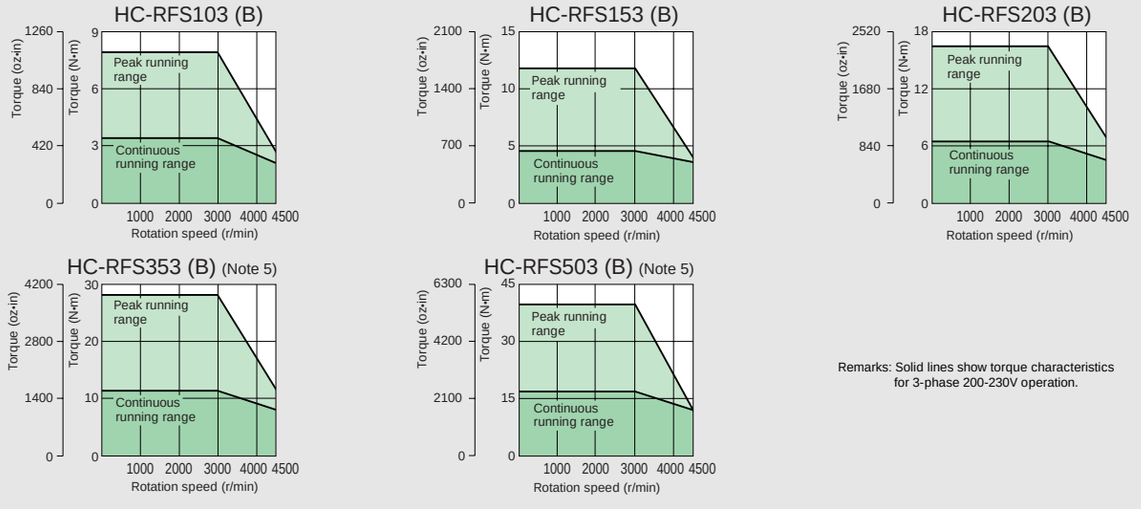
Specifications and Characteristics

HC-RFS series servomotor specifications

Servomotor series			HC-RFS series (low inertia)				
Specifications \ Models		Servomotor model HC-	RFS103 (B)	RFS153 (B)	RFS203 (B)	RFS353 (B) (Note 5)	RFS503 (B) (Note 5)
		Servo-amp model MR-	J2S-200A/B		J2S-350A/B	J2S-500A/B	
Servomotor	Power facility capacity (kVA) (Note 1)		1.7	2.5	3.5	5.5	7.5
	Continuous running duty	Rated output (kW)	1.0	1.5	2.0	3.5	5.0
		Rated torque (N·m [oz·in])	3.18 (450.3)	4.78 (676.8)	6.37 (902.1)	11.1 (1571.9)	15.9 (2251.6)
	Maximum torque (N·m [oz·in])		7.95 (1125.7)	11.9 (1685.0)	15.9 (2251.4)	27.9 (3951.0)	39.7 (5622.0)
	Rated rotation speed (r/min)		3000				
	Maximum rotation speed (r/min)		4500				
	Permissible instantaneous rotation speed (r/min)		5175				
	Power rate at continuous rated torque (kW/s)		67.4	120	176	150	211
	Rated current (A)		6.1	8.8	14	23	28
	Maximum current (A)		18.4	23.4	37	58	70
	Regeneration braking frequency (times/min) (Note 2)	With no options	1090	860	710	(Note 5)	
		MR-RB30 (300W)	3270	2580	2130		
		MR-RB50 (500W)	5450	4300	3550		
	Moment of inertia J ($\times 10^{-4}$ kg·m^2) [J (oz·in^2)]	Standard	1.5 (8.20)	1.9 (10.4)	2.3 (12.6)	8.6 (47.0)	12.0 (65.6)
		With electromagnetic brake	1.85 (10.1)	2.25 (12.3)	2.65 (14.5)	11.8 (64.5)	15.5 (84.7)
	Recommended load/moment of inertia moment ratio		Less than 5-times the servomotor's inertia moment (Note 3)				
	Speed/position encoder		Resolution per encoder/servomotor rotation: 131072 p/rev				
	Attachments		17 bit encoder, oil seal				
	Structure		Totally enclosed non ventilated (protection degree: IP65)				
	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 max. (non condensing), storage: 90% RH max. (non condensing)				
		Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust				
		Elevation/vibration (Note 4)	1000 meters or less above sea level; X: 24.5 m/s^2, Y: 24.5 m/s^2				
	Weight kg (lb)	Standard	3.9 (8.6)	5.0 (11.0)	6.2 (13.7)	12 (26.5)	17 (37.5)
		With electromagnetic brake	6.0 (13.2)	7.0 (15.4)	8.3 (18.3)	15 (33.1)	21 (46.3)

Notes: 1. The power facility capacity varies depending on the power supply's impedance.
2. The regenerative brake frequency shown is the permissible frequency for decelerating a stand-alone motor from rated rpm to a stop. When under load, however, the value becomes the table value divided by (m+1) where m is the load inertia moment divided by the motor inertia moment. When the rated rpm is exceeded, the regenerative brake frequency is inversely proportional to the square of (Operating speed/rated speed). When the operating rpm varies with the frequency or when regeneration is constant (as with vertical feeds), find the regeneration heat generated (W) while operating and do not exceed the permissible value.
3. Contact Mitsubishi if the load/motor of inertia ratio exceeds the figure in the table.
4. The vibration direction is shown in the right-side diagram. The numeric value indicates the maximum value of the component (commonly the bracket on the anti-load side).Fretting of the bearing occurs easily when the motor stops, so please maintain vibration to approximately one-half the allowable value.
5. Consult Mitsubishi for availability.

HC-RFS series servomotor torque characteristics



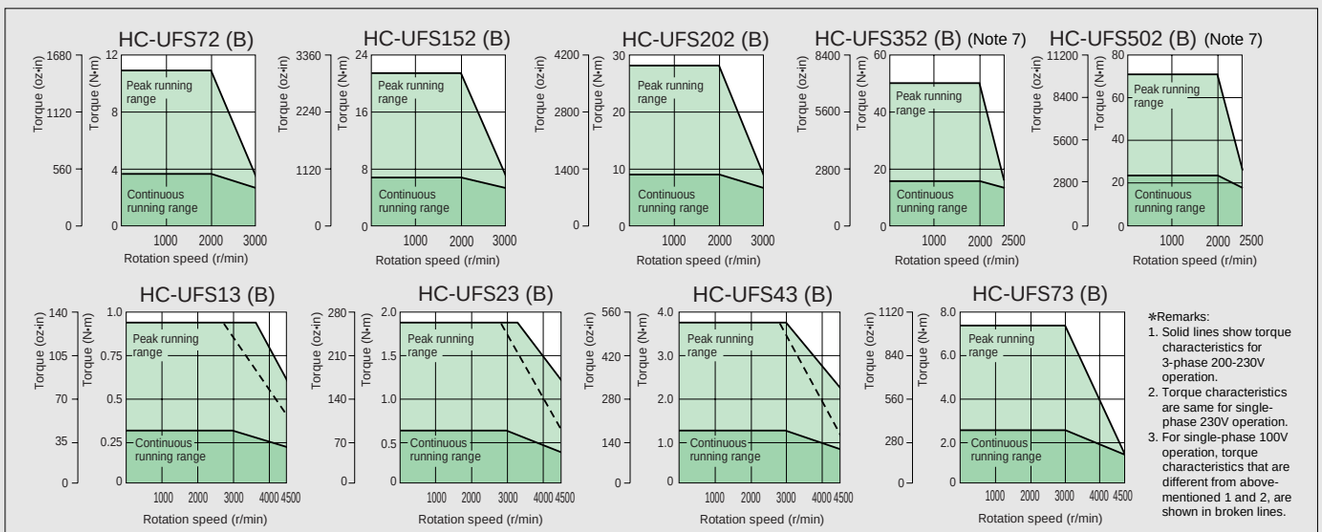
Remarks: Solid lines show torque characteristics for 3-phase 200-230V operation.

HC-UFS series servomotor specifications

Servomotor series			HC-UFS 2000 r/min series (flat model, medium capacity)					HC-UFS 3000 r/min series (flat model, small capacity)			
Specifications \ Models		Servomotor model HC-UFS	72 (B)	152 (B)	202 (B)	352 (B) (Note 7)	502 (B) (Note 7)	13 (B)	23 (B)	43 (B)	73 (B)
		Servo-amp model MR-J2S	70A/B	200A/B	350A/B	500A/B	500A/B	10A/A1/B/B1	20A/A1/B/B1	40A/A1/B/B1	70A/B
Servomotor	Power facility capacity (kVA) (Note 1)		1.3	2.5	3.5	5.5	7.5	0.3	0.5	0.9	1.3
	Continuous running duty	Rated output (kW)	0.75	1.5	2.0	3.5	5.0	0.1	0.2	0.4	0.75
		Rated torque (N·m [oz·in])	3.58 (506.9)	7.16 (1013.8)	9.55 (1352.3)	16.7 (2364.9)	23.9 (3384.5)	0.32 (45.3)	0.64 (90.6)	1.3 (184.1)	2.4 (339.8)
	Maximum torque (N·m [oz·in])		10.7 (1515.1)	21.6 (3058.5)	28.5 (4035.5)	50.1 (7094.8)	71.6 (10139.4)	0.95 (134.5)	1.9 (269.0)	3.8 (538.1)	7.2 (1019.5)
	Rated rotation speed (r/min)		2000					3000			
	Maximum rotation speed (r/min)		3000			2500		4500			
	Permissible instantaneous rotation speed (r/min)		3450			2875		5175			
	Power rate at continuous rated torque (kW/s)		12.3	23.2	23.9	36.5	49.6	15.5	19.2	47.7	9.66
	Rated current (A)		5.4	9.7	14	23	28	0.76	1.5	2.8	4.3
	Maximum current (A)		16.2	29.1	42	69	84	2.5	4.95	9.24	12.9
	Regeneration braking frequency (times/min) (Note 2)	With no options	73	160	89	(Note 7)		(Note 3)	(Note 3)	410	41
		MR-RB032 (30 W)	109	—	—			—	—	1230	62
		MR-RB12 (100 W)	365	—	—			—	—	4100	206
		MR-RB32 (300 W)	1090	—	—			—	—	—	—
		MR-RB30 (300 W)	—	479	260			—	—	—	—
		MR-RB50 (500 W)	—	799	440			—	—	—	—
	Moment of inertia J (×10^{-4} kg·m^2) [J (oz·in^2)]	Standard	10.4 (56.9)	22.1 (120.8)	38.2 (208.9)	76.5 (418.3)	115 (628.8)	0.066 (0.361)	0.241 (1.315)	0.365 (1.994)	5.90 (32.2)
		With electromagnetic brake	12.4 (67.8)	24.1 (131.8)	46.8 (255.9)	85.1 (465.3)	123.6 (675.8)	0.074 (0.404)	0.323 (1.762)	0.447 (2.445)	6.10 (33.3)
	Recommended load/motor of inertia moment ratio		Less than 15-times the servomotor's inertia moment (Note 4)								
	Speed/position encoder		Resolution per encoder/ servomotor rotation : 131072 p/rev								
	Attachments		17 bit encoder, oil seal								
	Structure		Totally enclosed non ventilated (protection degree: IP65)					Totally enclosed non ventilated (protection degree: IP65) (Note 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 max. (non condensing), storage: 90% RH max. (non condensing)								
		Atmosphere	Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist, or dust								
		Elevation	1000 meters or less above sea level								
		Vibration (Note 6)	X, Y: 24.5m/s^2		X: 24.5m/s^2 Y: 49m/s^2			X, Y: 49m/s^2			
	Weight kg (lb)	Standard	8 (17.6)	11 (24.3)	16 (35.3)	20 (44.1)	24 (52.9)	0.8 (1.76)	1.5 (3.31)	1.7 (3.75)	5.0 (11.02)
		With electromagnetic brake	10 (22.0)	13 (28.7)	22 (48.5)	26 (57.3)	30 (66.1)	1.2 (2.65)	2.2 (4.85)	2.4 (5.29)	6.2 (13.67)

Notes: 1. The power facility capacity varies depending on the power supply's impedance.
2. The regenerative brake frequency shown is the permissible frequency for decelerating a stand-alone motor from rated rpm to a stop. When under load, however, the value becomes the table value divided by (m+1) where m is the load inertia moment divided by the motor inertia moment. When the rated rpm is exceeded, the regenerative brake frequency is inversely proportional to the square of (Operating speed/rated speed). When the operating rpm varies with the frequency or when regeneration is constant (as with vertical feeds), find the regeneration heat generated (W) whle operating and do not exceed the permissible value.
3. There are no limits on regeneration frequency as long as the effective torque is within the rated torque range.
4. Contact Mitsubishi if the load/ motor of inertia moment ratio exceeds the figure in the table.
5. Connector for cable terminal are excluded. However, IP65-compliant products (HC-UFS□-S1) including connector components have been prepared.
6. The vibration direction is shown in the right-side diagram. The numeric value indicates the maximum value of the component (commonly the bracket on the anti-load side). Fretting of the bearing occurs easily when the motor stops, so please maintain vibration to approximately one-half the allowable value.
7. Consult Mitsubishi for availability.

HC-UFS series servomotor torque characteristics



*Remarks:
1. Solid lines show torque characteristics for 3-phase 200-230V operation.
2. Torque characteristics are same for single-phase 230V operation.
3. For single-phase 100V operation, torque characteristics that are different from above-mentioned 1 and 2, are shown in broken lines.