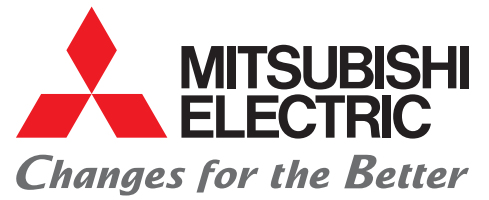




for a greener tomorrow



FACTORY AUTOMATION

MITSUBISHI GEARED MOTORS PRODUCT CATALOG

GEARED MOTOR

Premium Geared Motor Series



Geared Motor Series



Sensorless Servo Series



Excellent inverter characteristics



Mitsubishi geared motor



Mitsubishi inverter

Feature

6

Excellent characteristics of the inverter drive

A wide constant torque range achieved for standard products

The constant torque range can be expanded by combining with the Mitsubishi inverter. The advanced magnetic flux vector control has constant torque characteristics equivalent to those of constant torque motors that are dedicated to inverter drives.

Output (kW)	Constant torque range (Hz)	
	Magnetic flux vector control	V/F control
0.1 to 0.4	3 to 60	40 to 60
0.75 to 7.5	3 to 60	6 to 60

* The constant torque range of GM-D/DP Series models to be lubricated with oil is limited to 25 to 60 Hz.

Dedicated V/F control for the inverter drive
Expanded product line of constant torque motor series (0.4 kW or lower)

The product line of V/F constant torque motors has been expanded.

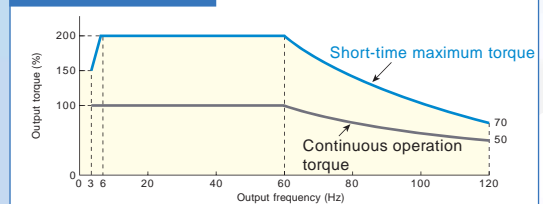
Model name		Output (kW)	Constant torque range (Hz)
Parallel shaft type	GM-SZ	0.1 to 0.4	6 to 60
	GM-DZ	0.4	
Right angle shaft type	GM-SSYZ	0.1 to 0.4	6 to 60
	GM-SHYZ		

PLG feedback control models: Feedback control has been achieved by developing a dedicated PLG. Expansion of product series that are compatible with pressure-resistant explosion-proof inverters: Combinations with the FR-B3 type, which have magnetic flux vector control, have been included as a menu.

Output torque range

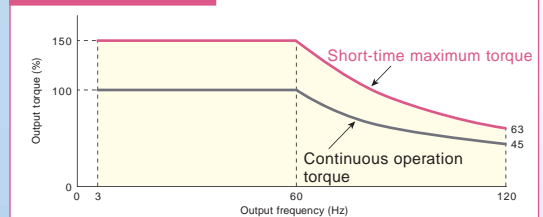
GM-S, GM-D, GM-SSY and GM-SHY Series
Advanced magnetic flux vector control system
(Combined inverters: FR-A800, A700 and E700)

For 0.1 to 0.4 kW



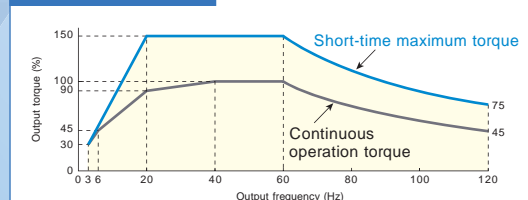
GM-SP, GM-DP, GM-SSYP and GM-SHYP Series
Advanced magnetic flux vector control system
(Combined inverters: FR-A800, A700 and E700)

For 0.75 to 7.5 kW



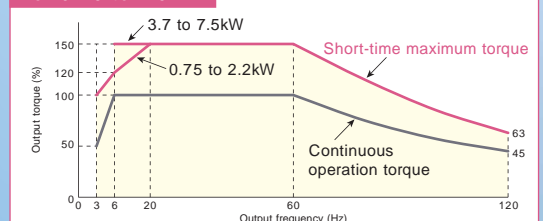
GM-S, GM-D, GM-SSY, GM-SHY and GM-DY Series
V/F control system
(Combined inverters: FR-A800, A700, E700 and D700)

For 0.1 to 0.4 kW



GM-SP, GM-DP, GM-SSYP and GM-DYP Series
V/F control system
(Combined inverters: FR-A800, A700, E700 and D700)

For 0.75 to 7.5 kW



GM-S Series

GM-SP Series



Excellent drive characteristics of the inverter

Achieves a wide constant torque range in standard models with the use of Mitsubishi inverters

Model name	Output (kW)	Constant torque range (Hz)	
		Advanced magnetic flux vector control	V/F control
GM-S	0.1 to 0.4	3 to 60	40 to 60
GM-SP	0.75 to 2.2		6 to 60

Compact and lightweight

Reduced size and weight achieved by employing structural analysis and the use of aluminum frame motors

Low noise and vibration

Achieved low noise through use of RGC finishing and special precision machining of the first and second gears

Reduced the impact noise caused by brake operation by utilizing brake covers and optimizing the brake gap

Dynamic balance processing used for the motor to reduce vibration

GM-S-SP

GM-D-P

GM-L-P

GM-J-2

GM-SSYP

GM-SSHY-P

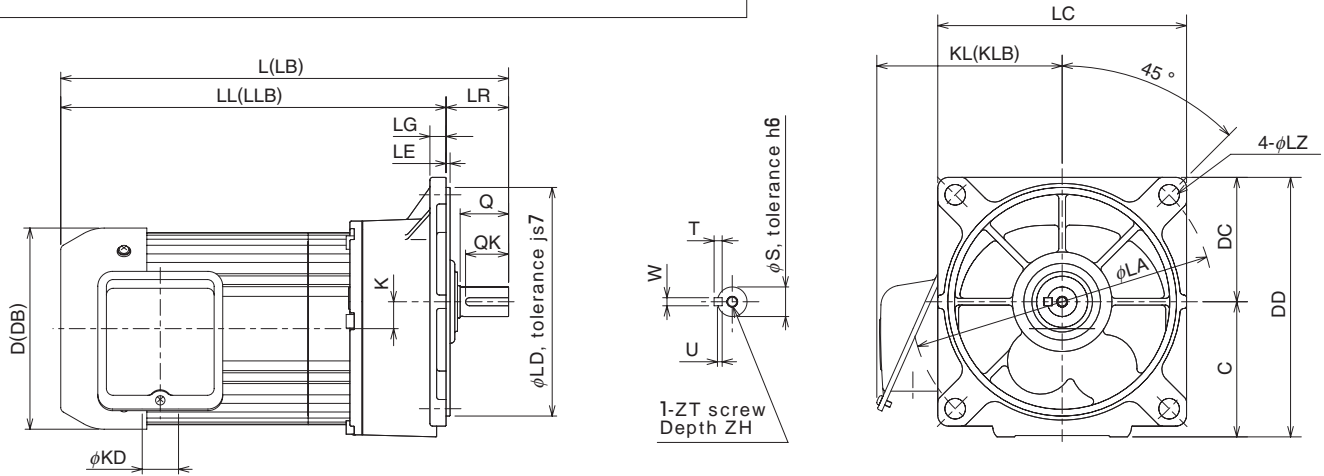
GM-DYP

Technical information

GM-S/SP Series

Dimensional outline drawing

Flange mounting 3-phase GM-SF (B)/SPF (B) Series



Output (kW)	Gear ratio	Gear size	Dimensions (mm)																				Weight (kg)									
			L	(LB)	LL	(LLB)	LR	LG	LE	Q	QK	D	(DB)	KD	K	LD	T	W	U	ZT	ZH	S	LC	KL	(KLB)	LA	LZ	DC	C	DD	Without brake	With brake
0.1	1/3 to 1/50	A	215	266	182.5	233.5	32.5	12	3	25	24	105	108	12	15	130	5	5	3	M6	10	16	145	87	92	180	10	72.5	72.5	145	5.5	6.9
	1/60 to 1/100	B	230	281	192.5	243.5	37.5	12	3	28	25	105	108	12	18	130	6	6	3.5	M6	10	19	145	87	92	180	10	72.5	80	152.5	5.9	7.3
	1/120 to 1/200	C	256	307	209.5	260.5	46.5	12	3	36	32	105	108	12	20	150	6	6	3.5	M8	12	22	160	87	92	195	10	80	85	165	7.7	9.1
	1/270 to 1/450	EM	320	371	271.5	322.5	48.5	12	3	42	36	105	108	12	1.5	170	7	8	4	M8	12	28	190	87	92	235	12	95	104.5	199.5	9.4	10.8
	1/540 to 1/900	GM	346	397	286	337	60	16	4	50	45	105	108	12	5.5	210	8	10	5	M8	12	32	225	87	92	280	15	112.5	125.5	238	21.8	23.2
	1/1200	GM	346	397	286	337	60	16	4	50	45	105	108	12	1	210	8	10	5	M8	12	32	225	87	92	280	15	112.5	125.5	238	21.8	23.2
0.2	1/3 to 1/30	A	240	288	207.5	255.5	32.5	12	3	25	24	108	108	12	15	130	5	5	3	M6	10	16	145	87	92	180	10	72.5	72.5	145	6.7	8.1
	1/40, 1/50	B	255	303	217.5	265.5	37.5	12	3	28	25	108	108	12	18	130	6	6	3.5	M6	10	19	145	87	92	180	10	72.5	80	152.5	7.1	8.5
	1/60 to 1/100	C	281	329	234.5	282.5	46.5	12	3	36	32	108	108	12	20	150	6	6	3.5	M8	12	22	160	87	92	195	10	80	85	165	8.9	10.3
	1/120 to 1/200	E	296	344	247.5	295.5	48.5	12	3	42	36	108	108	12	26	170	7	8	4	M8	12	28	190	87	92	235	12	95	104.5	199.5	10.6	12
	1/270 to 1/450	GM	404	452	344	392	60	16	4	50	45	108	108	12	5.5	210	8	10	5	M8	12	32	225	87	92	280	15	112.5	125.5	238	23	24.4
	1/540 to 1/900	JM	430	478	355.5	403.5	74.5	18	4	60	55	108	108	12	7.5	260	8	12	5	M8	12	40	280	87	92	340	19	140	146	286	36.5	37.9
	1/1200	JM	430	478	355.5	403.5	74.5	18	4	60	55	108	108	12	1	260	8	12	5	M8	12	40	280	87	92	340	19	140	146	286	36.5	37.9
0.4	1/3 to 1/30	B	277	329	239.5	291.5	37.5	12	3	28	25	120	120	12	18	130	6	6	3.5	M6	10	19	145	93	98	180	10	72.5	80	152.5	8.6	10.1
	1/40, 1/50	C	302	354	255.5	307.5	46.5	12	3	36	32	120	120	12	20	150	6	6	3.5	M8	12	22	160	93	98	195	10	80	85	165	10.4	11.9
	1/60 to 1/100	E	317	369	268.5	320.5	48.5	12	3	42	36	120	120	12	26	170	7	8	4	M8	12	28	190	93	98	235	12	95	104.5	199.5	12.1	13.6
	1/120 to 1/200	G	343	395	283	335	60	16	4	50	45	120	120	12	30	210	8	10	5	M8	12	32	225	93	98	280	15	112.5	125.5	238	24.5	26
	1/270 to 1/450	JM	449	501	374.5	426.5	74.5	18	4	60	55	120	120	12	1.5	260	8	12	5	M8	12	40	280	93	98	340	19	140	146	286	38	39.5
	1/540 to 1/900	LM	475	527	388.5	440.5	86.5	20	4	75	70	120	120	12	9.5	290	9	14	5.5	M8	12	48	315	93	98	380	24	157.5	172	329.5	52	53.5
	1/1200	LM	475	527	388.5	440.5	86.5	20	4	75	70	120	120	12	1.5	290	9	14	5.5	M8	12	48	315	93	98	380	24	157.5	172	329.5	52	53.5

Output (kW)	Gear ratio	Gear size	Dimensions (mm)																				Weight (kg)									
			L	(LB)	LL	(LLB)	LR	LG	LE	Q	QK	D	(DB)	KD	K	LD	T	W	U	ZT	ZH	S	LC	KL	(KLB)	LA	LZ	DC	C	DD	Without brake	With brake
0.75	1/3 to 1/30	D	356	419	309.5	372.5	46.5	12	3	36	32	150	150	27	20	170	6	6	3.5	M8	12	22	185	138	138	225	12	92.5	100.5	193	15.2	18.8
	1/40, 1/50	E	382	445	333.5	396.5	48.5	12	3	42	36	150	150	27	26	170	7	8	4	M8	12	28	190	138	138	235	12	95	104.5	199.5	16.8	20.4
	1/60 to 1/100	G	403	466	343	406	60	16	4	50	45	150	150	27	30	210	8	10	5	M8	12	32	225	138	138	280	15	112.5	125.5	238	29.2	32.8
	1/120 to 1/200	J	436	499	361.5	424.5	74.5	18	4	60	55	150	150	27	32	260	8	12	5	M8	12	40	280	138	138	340	19	140	146	286	42.7	46.3
	1/270 to 1/450	LM	541	604	454.5	517.5	86.5	20	4	75	70	150	150	27	2	290	9	14	5.5	M8	12	48	315	138	138	380	24	157.5	172	329.5	56.7	60.3
1.5	1/3 to 1/30	F	428	500	364	436	64	16	4	50	45	175	175	27	30	180	8	10	5	M8	12	32	205	148	148	250	15	102.5	119	221.5	34.1	37.7
	1/40, 1/50	G	446	518	386	458	60	16	4	50	45	175	175	27	30	210	8	10	5	M8	12	32	225	148	148	280	15	112.5	125.5	238	34.1	37.7
	1/60 to 1/100	J	472	544	397.5	469.5	74.5	18	4	60	55	175	175	27	32	260	8	12	5	M8	12	40	280	148	148	340	19	140	146	286	47.6	51.2
	1/120 to 1/200	L	499	571	412.5	484.5	86.5	20	4	75	70	175	175	27	40	290	9	14	5.5	M8	12	48	315	148	148	380	24	157.5	172	329.5	61.6	65.2
2.2	1/3 to 1/30	H	473	540	410	477	63	18	4	50	45	206	206	27	30	235	8	10	5	M8	12	32	255	160	160	315	19	127.5	141	268.5	49.4	54.1
	1/40, 1/50	J	511	578	436.5	503.5	74.5	18	4	60	55	206	206	27	32	260	8	12	5	M8	12	40	280	160	160	340	19	140	146	286	55.9	60.6
	1/60 to 1/100	L	537	604	450.5	517.5	86.5	20	4	75	70	206	206	27	40	290	9	14	5.5	M8	12	48	315	160	160	380	24	157.5	172	329.5	69.9	74.6

(Notes) The dimensions in parentheses are for the models with brakes.
 The terminal boxes of 0.1- to 0.4-kW models are made of plastics and differ in shape.
 The dimensions and weight are subject to change without notice.
 For more information, see Mitsubishi Electric FA website (www.mitsubishielectric.co.jp/fa/).
 CAD data (DXF format) and PDF data are available.