

Motors with pulse generators:

There are two types of pulse generators that are featured in DME series motors : the magnetic and optical revolution sensor. (Note, the optical revolution sensor is available only in the DME34 model.) Both are incremental revolution sensor. And all the above generators can output Single Phase pulse signal only. When TWO Phase signal is required, contact our sales agent near you or directly to us. We may quote on case by case basis.



Magnetic Type



Optical Type

Magnetic Revolution Sensor :

Compared to the optical revolution sensor, the magnetic revolution sensor is more resistant to high temperatures, dust contaminations, vibrations and impact shocks. The design of the magnetic revolution sensor type motor is also more simple. In incremental type revolution sensor, pulse output signals are sent to a counter wherein the incremented value is displayed. Signal noise, here, lead to performance errors. Magnetic type revolution sensors are especially vulnerable to signal noise since the signal levels are usually very low (20mA to 30mA). Thus, make sure magnetic revolution sensor type motors are provided proper magnetic shielding, and signal lines are as short as possible (ideally within 5m).

●STANDARD SPECIFICATION OF REVOLUTION SENSOR

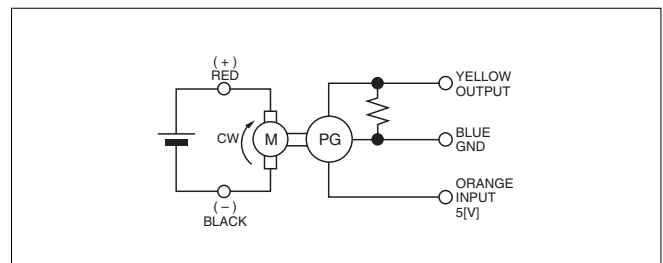
REVOLUTION SENSOR TYPE	MAGNETIC	OPTICAL
PULSE PER REVOLUTION	12P/rev.	24P/rev.
INPUT VOLTAGE	DC5V±10%	DC5V±10%
CURRENT CONSUMPTION	5mA nominal	25mA nominal
DUTY (B/A)	50±20%	50±10%

OUTPUT WAVEFORM (COMMON)

Optical Revolution Sensor:

Long-life LED is used as the light emitter, and a photo-transistor is used as the light detector. When using optical revolution sensor type motors, special considerations are needed to protect against dust and extreme temperatures. The most frequent causes of trouble in optical revolution sensors are : dust build-ups impairing proper optical properties ; and extreme leading to deterioration in light emission performance. Japan Servo can thus ensure full rated performance only in ambient temperatures between 0 to 40 degrees centigrade, and in dust-free conditions.

●CONNECTION



DC SMALL MOTORS **DME** Series

The DME Series motor is a feasible and practical DC motor that is used popularly in many applications.

According to user demands, Japan Servo combines the DME motor with a wide variation of high-performance gearboxes to further increase the application possibilities for the DME Series.

Also, in response to demands for a simple, low-cost motor that has a certain amount of controllability, Japan Servo provides DME models that feature pulse generators (magnetic or optical PG).

For certain models of the DME Series, the motor and gearboxes can be ordered separately, allowing for much greater versatility by combining various type motors with a wide range of reduction gears. Please refer to the product line-up chart to select the DME Series motor that is just right for your specific needs.






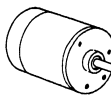
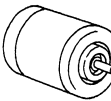
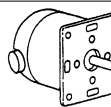
●DME SERIES MOTOR'S CONSTRUCTION AND CHARACTERISTICS.

MODEL	BRUSH HOLDING	CORE SLOTS	BEARING	MAGNET	LIFE* (hrs)	OUTPUT POWER (W)						PAGE		
						S	B	K	J	5	10		15	
DME 25	Holder	3 slots	Sintered sleeve bearing	Anisotropic	1000		○			◎3				12
DME 33	Spring plate	3 slots	Sintered sleeve bearing	Isotropic Anisotropic	1000	○				◎0.7				15
							○			◎3				
DME 34	Spring plate	3 slots	Sintered sleeve bearing	Isotropic Anisotropic	1000 (500)	○				◎1.3				21
							○			◎4.5				
DME 37	Holder	7 slots	Sintered sleeve bearing	Anisotropic	2000	○				◎4.6				29
							○			◎7.2				
								○		◎9.2				
									○			◎17.2		
DME 44	Holder	10 slots	Ball bearing	Anisotropic	2000	○				◎9.2			34	
							○				◎14.8			
DME 60	Holder	12 slots	Sint. sleeve/Ball bearing	Isotropic Anisotropic	2000	○					◎13		38	
							○					26◎		

FEATURE	BRUSH HOLDER		BEARING		MAGNET	
	Holder:Long-life (1000 hours only for DME25, due to its high-speed operation) Spring plate:Standard	2000hours 1000hours	Ball bearing	:Long-life	Anisotropic	:High output
		Sintered sleeve bearing	:Standard	Isotropic	:Standard	

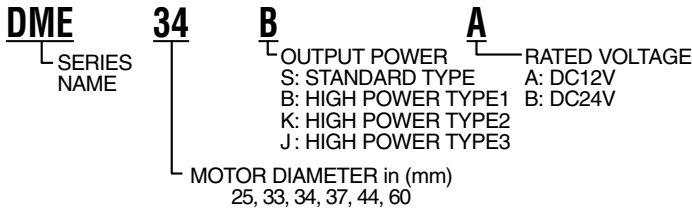
*Operated in motor alone, and single direction.

●SELECTION CHART

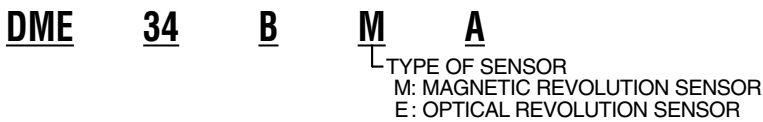
		MOTOR SPECIFICATION					MOTOR ONLY	MOTORS WITH SENSOR		GEARED MOTORS		
		OUTPUT POWER		RATED VOLTAGE		RATED CURRENT		MAGNETIC REVOLUTION SENSOR	OPTICAL REVOLUTION SENSOR	 36G	 43G	
		W	CODE	V	CODE	A						
DME25		3	B	12 24	A B	0.47 0.23	DME25BA DME25BB			DME25B36G <input type="checkbox"/> A DME25B36G <input type="checkbox"/> B	DME25B43G <input type="checkbox"/> A DME25B43G <input type="checkbox"/> B	
DME33		0.7	S	12 24	A B	0.12 0.06	DME33SA DME33SB	DME33SMA DME33SMB		DME33S36G <input type="checkbox"/> A DME33S36G <input type="checkbox"/> B	DME33S43G <input type="checkbox"/> A DME33S43G <input type="checkbox"/> B	
		3	B	12 24	A B	0.42 0.22	DME33BA DME33BB	DME33BMA DME33BMB		DME33B36G <input type="checkbox"/> A DME33B36G <input type="checkbox"/> B	DME33B43G <input type="checkbox"/> A DME33B43G <input type="checkbox"/> B	
DME34		1.3	S	12 24	A B	0.20 0.10	DME34SA DME34SB	DME34SMA DME34SMB	DME34SEA DME34SEB	DME34S36G <input type="checkbox"/> A DME34S36G <input type="checkbox"/> B	DME34S43G <input type="checkbox"/> A DME34S43G <input type="checkbox"/> B	
		4.5	B	12 24	A B	0.65 0.31	DME34BA DME34BB	DME34BMA DME34BMB	DME34BEA DME34BEB	DME34B36G <input type="checkbox"/> A DME34B36G <input type="checkbox"/> B	DME34B43G <input type="checkbox"/> A DME34B43G <input type="checkbox"/> B	
		7	K	24	B	0.41	DME34KB	DME34KMB	DME34KEB			
DME37		4.6	S	12 24	A B	0.78 0.37	DME37SA DME37SB	DME37SMA DME37SMB				
		7.2	B	12 24	A B	1.01 0.53	DME37BA DME37BB	DME37BMA DME37BMB				
		9.2	K	12 24	A B	1.20 0.60	DME37KA DME37KB	DME37KMA DME37KMB				
		17.2	J	24	B	1.07	DME37JB	DME37JMB				
DME44		9.2	S	12 24	A B	1.31 0.65	DME44SA DME44SB	DME44SMA DME44SMB				
		14.8	B	24	B	0.94	DME44BB	DME44BMB				
DME60		13	S	12 24	A B	2.07 1.00	DME60SA DME60SB					
		26	B	24	B	2.2	DME60BB					
								12	24			
							PULSES PER REVOLUTION					

●MOTOR DESIGNATIONS

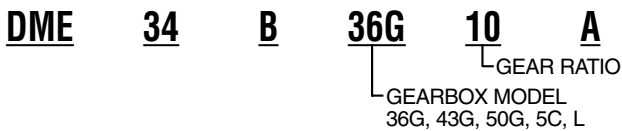
[1] MOTORS ONLY



[2] MOTORS WITH SENSOR



[3] GEARED MOTORS




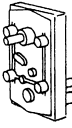
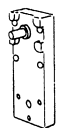


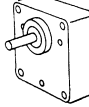
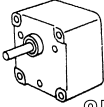
[4] MOTOR AND GEARBOX SUPPLIED SEPARATELY



PINION SHAFT	MATCHING GEARBOX
6HP	6DG
6HFP	6DGF
8HP	8DG
8HFP	8DGF



• Motors combined with gear heads are manufactured to order. The model code to be like: DME37B6DGF15B

				MOTOR AND GEARBOX SUPPLIED SEPERATELY				PAGE
 50G	 5C	 L	 6DG	 6DGF	 8DG	 8DGF		
		DME25BL <input type="checkbox"/> A DME25BL <input type="checkbox"/> B	DME25B6HPA DME25B6HPB				12~14	
	DME33S5C <input type="checkbox"/> A DME33S5C <input type="checkbox"/> B	DME33SL <input type="checkbox"/> A DME33SL <input type="checkbox"/> B	DME33S6HPA DME33S6HPB				15~20	
DME33B50G <input type="checkbox"/> A DME33B50G <input type="checkbox"/> B	DME33B5C <input type="checkbox"/> A DME33B5C <input type="checkbox"/> B	DME33BL <input type="checkbox"/> A DME33BL <input type="checkbox"/> B	DME33B6HPA DME33B6HPB					
	DME34S5C <input type="checkbox"/> A DME34S5C <input type="checkbox"/> B	DME34SL <input type="checkbox"/> A DME34SL <input type="checkbox"/> B	DME34S6HPA DME34S6HPB				21~28	
DME34B50G <input type="checkbox"/> A DME34B50G <input type="checkbox"/> B	DME34B5C <input type="checkbox"/> A DME34B5C <input type="checkbox"/> B	DME34BL <input type="checkbox"/> A DME34BL <input type="checkbox"/> B	DME34B6HPA DME34B6HPB		DME34B8HPA DME34B8HPB			
	DME34K5C <input type="checkbox"/> B	DME34KL <input type="checkbox"/> B			DME34K8HPB			
DME37S50G <input type="checkbox"/> A DME37S50G <input type="checkbox"/> B			DME37S6HPA DME37S6HPB				29~33	
DME37B50G <input type="checkbox"/> A DME37B50G <input type="checkbox"/> B			DME37B6HPA DME37B6HPB	DME37B6HFPA DME37B6HFPA	DME37B8HPA DME37B8HPB			
DME37K50G <input type="checkbox"/> A DME37K50G <input type="checkbox"/> B			DME37K6HPA DME37K6HPB	DME37K6HFPA DME37K6HFPA	DME37K8HPA DME37K8HPB			
				DME37J6HFPA	DME37J8HPB	DME37J8HFPA		
DME44S50G <input type="checkbox"/> A DME44S50G <input type="checkbox"/> B			DME44S6HPA DME44S6HPB	DME44S6HFPA DME44S6HFPA	DME44S8HPA DME44S8HPB		34~37	
				DME44B6HFPA	DME44B8HPB	DME44B8HFPA		
			DME60S6HPA DME60S6HPB	DME60S6HFPA DME60S6HFPA	DME60S8HPA DME60S8HPB	DME60S8HFPA DME60S8HFPA	38~40	
				DME60B6HFPA	DME60B8HPB	DME60B8HFPA		
NOTE: <input type="checkbox"/> DENOMINATOR OF REDUCTION RATIO			6DG <input type="checkbox"/>	6DGF <input type="checkbox"/>	8DG <input type="checkbox"/>	8DGF <input type="checkbox"/>		
MODEL NAMES OF MATCHING GEARBOX.								

● GEAR-HEAD DESIGN

GEAR RATIO (Denominator)	36G	43G	50G	5C	L	6DG	6DGF	8DG	8DGF
5			○			○	○	○	○
9									
10	○	○							
12.5						○	●	○	○
15						○	●	○	○
18	●	●	○			○	●	○	○
20	●	●		●					
25						●	●	●	●
27			●						
30	●	●		●	○	●	●	●	●
36			●			●	●	●	●
40				●					
50	○	○		●	○	●	○	●	○
54			●						
60	○	○		●		●	○	●	○
72			●			●	○	●	○
75	○	○							
80				●					
96			○						
100	○	○		●		●	○	●	○
120	●	●			○	●	○	●	○
144			○						
150	●	●		●	○	○	○	●	○
180	●	●				○	○	●	○
192			○						
200	●	●		○	○				
250	●	●		○		○		○	
255					○				
256			○						
300	●	●		○		○		○	
400	○	○		○					
450						○		○	
500	○	○		○		●		●	
600	○	○						●	
750						●		●	
900						●		●	
1800						●		●	

○ : Output shaft rotates in the same direction with motor shaft.
 ● : Output shaft rotates reversed direction to motor shaft.