

Three Phase Induction Motor

三相感應馬達
삼상 인덕션 모터

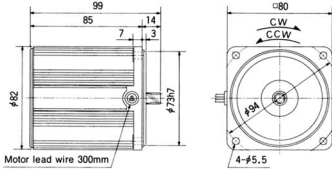
Motor

M8MA25G4Y 4P 25W 200-220V

Scale 1/4 Unit mm

80
mmSQ₂
25W

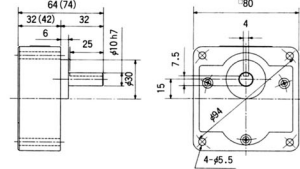
Weight 1.5kg
helical gear
module 0.6
number of teeth 11



Gear Head

Scale 1/4 Unit mm

M8GA□M (metal bearing type) weight 0.68kg
M8GA□B (ball bearing type)

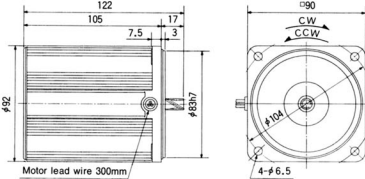


Note: The value in "()" is for gear ratio of 1/20 or larger.

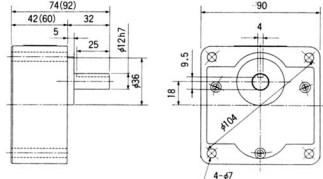
M9MA40G4Y 4P 40W 200-220V

90
mmSQ₂
40W

Weight 2.4kg
helical gear
module 0.6
number of teeth 11

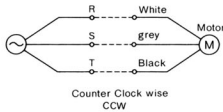


M9GA□M (metal bearing type) weight 1.2kg
M9GA□B (ball bearing type)



Note: The value in "()" is for gear ratio of 1/20 or larger.

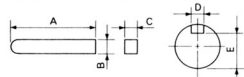
Connecting Diagram



As for CW rotation, change the 2 leads among R. S. T. shown above.

Key and Key Slot

M8GA□M(B)
M9GA□M(B)



Type	A	B	C	D	E
M8GA□M(B)	25	4 ⁰ _{-0.030}	4 ⁰ _{-0.030}	4 ^{+0.060} _{+0.010}	7.5 ⁰ _{-0.15}
M9GA□M(B)	25	4 ⁰ _{-0.030}	4 ⁰ _{-0.030}	4 ^{+0.060} _{+0.010}	9.5 ⁰ _{-0.15}

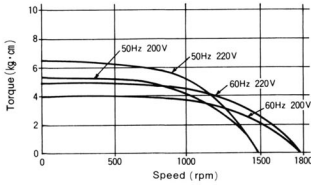
Specifications

Size mmsq.	Type	poles	Output (W)	Voltage (V)	Frequency (Hz)	Duty	Rated load				Starting Current (A)	Starting Torque (kg·cm)	Capacitor Capacitor μF (V)	Applied gearhead type		
							Input (W)	Current (A)	Speed (rpm)	Torque (kg·cm)				Metal	Ball	Decimal
80	M8MA25G4Y	4	25	200	50	CONT.	46	0.20	1325	1.8	0.53	5.3	—	M8GA□M	M8GA□B	M8GA10XM
					60	CONT.	43	0.18	1600	1.5	0.52	4.1				
		4	25	220	50	CONT.	46	0.22	1375	1.8	0.58	6.6				
					60	CONT.	45	0.19	1650	1.5	0.54	5.0				
90	M9MA40G4Y	4	40	200	50	CONT.	66	0.30	1375	2.9	1.0	7.4	—	M9GA□M	M9GA□B	M9GA10XM
					60	CONT.	62	0.27	1650	2.4	0.90	5.4				
		4	40	220	50	CONT.	66	0.31	1400	2.8	1.1	9.0				
					60	CONT.	62	0.27	1675	2.31	0.98	6.5				

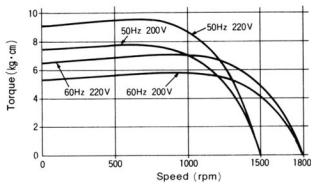


Speed-Torque Curve

M8MA25G4Y



M9MA40G4Y



■ Geared motor maximum permissible torque table [kg·cm]

Note : rpm figures are based on synchronous speed. The actual output rpm, under rated torque conditions, is about 2~20% less than synchronous speed. A grey background indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. A white background indicates rotation in the opposite direction.

■ 齒輪馬達最大承受扭力對照表

rpm表示數字乃根據馬達同步運轉之轉速，但在額定扭力負載情況下實際輸出轉速為同步運轉轉速的80~98%。灰色欄乃輸出軸運轉方向與馬達相同時的數據資料，白色欄乃輸出軸運轉方向與馬達相反時的數據資料。

■ GEAR HEAD를 직렬했을 때의 許容軸토크크

★回転数は 同期速度の 中間値に減速比の値(減)を 表示하고 있습니다。一般 回転数は負荷の 크기에 따라 表示値보다 2%~20% 적은(減)을 표시합니다.

★回転方向은 □ 이 모터와 同方向 他는 逆方向입니다.

Speed(rpm)	With decimal gearhead																						
	500	300	200	180	150	120	100	90	75	60	50	30	20	15	10	9	7.5	6	5	3	2	1.5	1
Gear reduction ratio	3	5	7.5	—	10	12.5	15	—	20	25	30	50	75	100	150	—	200	250	300	500	750	1000	1500
60Hz	3.6	6	9	10	—	15	18	20	—	30	36	60	90	120	180	200	—	300	360	600	900	1200	1800
Maximum permissible torque (kg·cm)	4.0	6.7	10	11	13	16	20	21	26	32	39	65	80	80	80	80	80	80	80	80	80	80	80
Maximum permissible torque (kg·cm)	6.7	11	16	18	23	28	33	36	45	54	65	100	100	100	100	100	100	100	100	100	100	100	100

Note : The box (□) represents the desired gear reduction ratio, which thereby becomes part of the code for geared motor.



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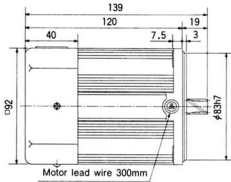
Motor

M9MC60G4Y 4P 60W 200/220V

Scale 1/4 Unit mm

90
mmSQ,
60W

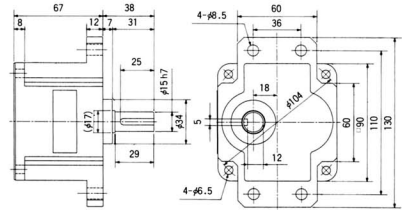
Weight 2.7kg
helical gear
module 0.8
number of teeth 11



Gear Head

M9GC□B (ball bearing type) 1.5kg

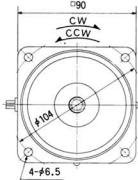
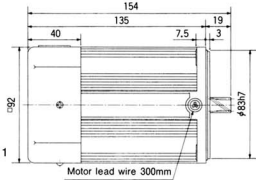
Scale 1/4 Unit mm



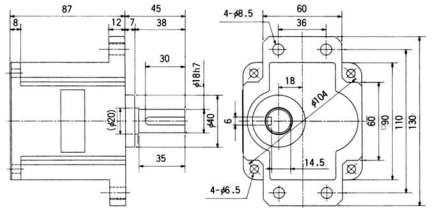
M9MC90G4Y 4P 90W 200/220V

90
mmSQ,
90W

Weight 2.9kg
helical gear
module 0.8
number of teeth 11

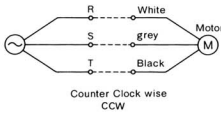


M9GS□B (ball bearing type) 1.9kg



C type 200kg·cm / max. permissible torque
S type 300kg·cm / max. permissible torque

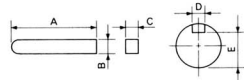
Connecting Diagram



As for CW rotation, change the 2 leads among R, S, T, shown above.

Key and Key Slot

M9GC□B
M9GS□B



Type	A	B	C	D	E
M9GC□B	25	5 _{-0.030}	5 _{-0.030}	5 _{+0.050} 0	12 _{-0.15}
M9GS□B	30	6 _{-0.030}	6 _{-0.030}	6 _{+0.050} 0	14.5 _{-0.15}

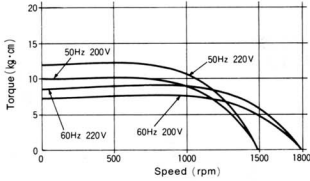
Specifications

Size mmsq	Type	poles	Output (W)	Voltage (V)	Frequency (Hz)	Duty	Rated load				Starting Current (A)	Starting Torque (kg·cm)	Capacitor µF(V)	Applied gearhead type		
							Input (W)	Current (A)	Speed (rpm)	Torque (kg·cm)				Metal	Ball	Decimal
90	M9MC60G4Y	4	60	200	50	CONT	101	0.44	1350	4.3	1.4	10	—	—	M9GS□B	M9GC10XB
					60		97	0.40	1625	3.6	1.2	7.2				
		4	60	220	50	CONT	101	0.46	1400	4.2	1.5	12	M9GC□B	—	—	—
					60		97	0.40	1675	3.5	1.4	8.6				
90	M9MC90G4Y	4	90	200	50	CONT	141	0.62	1375	6.4	2.0	17	—	—	M9GS□B	M9GC10XB
					60		139	0.57	1625	5.4	1.9	12				
		4	90	220	50	CONT	144	0.65	1400	6.3	2.3	21	M9GC□B	—	—	—
					60		138	0.56	1675	5.3	2.1	15				

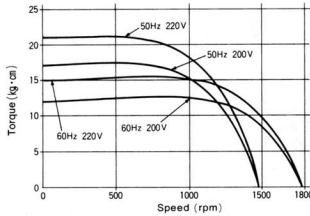


Speed-Torque Curve

M9MC60G4Y



M9MC90G4Y



■ Geared motor maximum permissible torque table [kg·cm]

Note : rpm figures are based on synchronous speed. The actual output rpm, under rated torque conditions, is about 2~20% less than synchronous speed. A grey background indicates that the output shaft of the geared motor rotates in the same direction as the output shaft of the motor. A white background indicates rotation in the opposite direction.

■ 齒輪馬達最大承受扭力對照表

rpm表列數字乃根據馬達同步運轉之轉速，但在額定扭力負載情況下實際輸出轉速為同步運轉轉速的80~98%。灰色欄乃輸出軸運轉方向與馬達相同時的數據資料。白色欄乃輸出軸運轉方向與馬達相反時的數據資料。

■ GEAR HEAD를 直結했을 때의 許容軸토크

★ 回転数は 周波速度の 中間ギアヘッド値(公)를 表示하고 있습니다. 一般 回転数は負荷의 크기에 따라 表示値보다 2%~20% 작은(値)를 표시합니다.
 ★ 回転方向은 □ 이 모터와 同方向 他는 逆方向입니다.

		With decimal gearhead																									
Speed (rpm)		500	300	200	180	150	120	100	90	75	60	50	30	20	15	10	9	7.5	6	5	3	2	1.5	1	0.9	0.75	
Gear reduction ratio	50Hz	3	5	7.5	—	10	12.5	15	—	20	25	30	50	75	100	150	—	200	250	300	500	750	1000	1500	—	2000	
	60Hz	3.6	6	9	10	—	15	18	20	—	30	36	60	90	120	180	200	—	300	300	360	600	900	1200	1800	2000	—
Maximum permissible torque (kg·cm)	Grey	10	16	24	27	32	40	48	54	64	77	93	155	200	200	200	200	200	200	200	200	200	200	200	200	200	200
	White	—	—	—	—	—	—	—	—	—	—	—	155	226	300	300	300	300	—	—	300	300	300	300	300	300	300
Maximum permissible torque (kg·cm)	Grey	14	23	35	38	46	58	69	77	92	111	133	200	200	200	200	300	300	200	200	200	200	200	200	200	200	200
	White	—	—	—	—	—	—	—	—	—	—	—	216	300	300	300	300	300	—	—	300	300	300	300	300	300	300

Note : The box (□) represents the desired gear reduction ratio, which thereby becomes part of the code for geared motor.

