



SPEED CONTROL INDUCTION MOTORS

Frame size 90mm sq. (3.54 in. sq.)

40W (1/18.5 HP)

Single-Phase

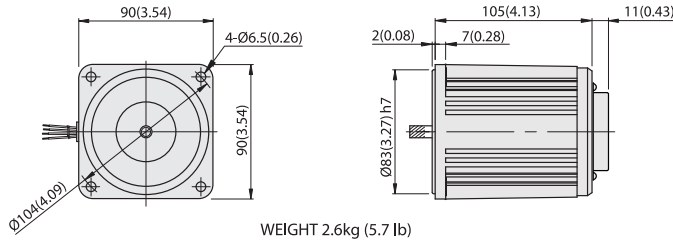
LEAD WIRE TYPE

DIMENSIONS

SPEED-TORQUE CURVE

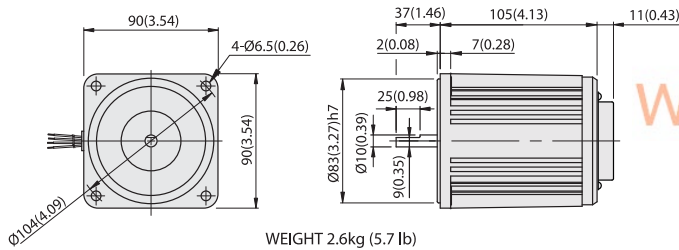
Unit : mm(inch)

E9140P□LT



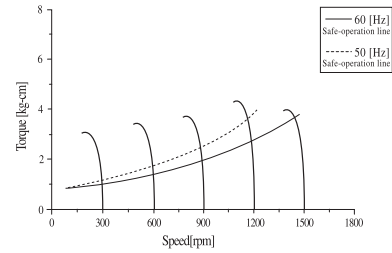
WEIGHT 2.6kg (5.7 lb)

E9140D□LT



WEIGHT 2.6kg (5.7 lb)

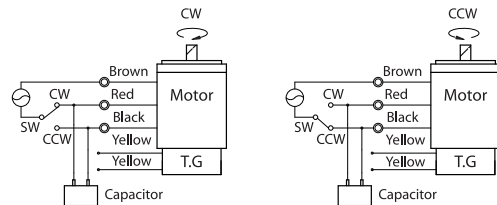
Single phase E9140□□LT



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CONNECTION DIAGRAMS

Standard or with T.P



The direction of rotation is seen from the end of motor shaft.



SPECIFICATIONS

CONTINUOUS DUTY, INSULATION CLASS A or E, 4POLES

Model	Maximum Output		Voltage (V)	Frequency (Hz)	Input (W)	Max. Current (A)	Permissible Torque						Speed Range (rpm)	Starting Torque			Capacitor (µF)
	(HP)	(W)					1200(rpm)			90(rpm)				(kg-cm)	(N-m)	(oz-in)	
E9140□CLT	1/18.5	40	1Ø100	50	90	1.10	2.7	0.265	37.49	0.8	0.078	11.11	90~1400	2	0.196	27.77	10
60				90	1.10	2.1	0.206	29.16	0.8	0.078	11.11	90~1700	2	0.196	27.77		
E9140□DLT	1/18.5	40	1Ø200	50	90	.052	2.7	0.265	37.49	0.8	0.078	11.11	90~1400	2.4	0.235	33.33	3
60				90	.052	2.1	0.206	29.16	0.8	0.078	11.11	90~1700	2.4	0.235	33.33		
E9140□BLT	1/18.5	40	1Ø220	60	95	0.5	2.7	0.265	37.49	1	0.098	13.89	90~1700	2.4	0.235	33.33	2.5
E9140□ELT	1/18.5	40	1Ø115	60	90	1.10	2.5	0.245	34.72	0.8	0.078	11.11	90~1700	2	0.196	27.77	8
E9140□XLT	1/18.5	40	1Ø220~240	50	100	0.58	2.8	0.274	38.88	1	0.098	13.89	90~1400	2.7	0.265	37.49	2.5

*Model in grey screen represents the motors with THERMALLY PROTECTED according to UL regulation.

*Model in dark grey screen represents the motors with THERMALLY PROTECTED according to CE regulation.

GEARHEADS

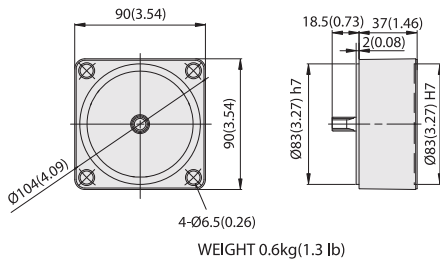
Frame size 90mm sq. (3.54 in. sq.)

METAL TYPE & BALL BEARING TYPE

DIMENSIONS

DECIMAL GEARHEAD

E9G10D



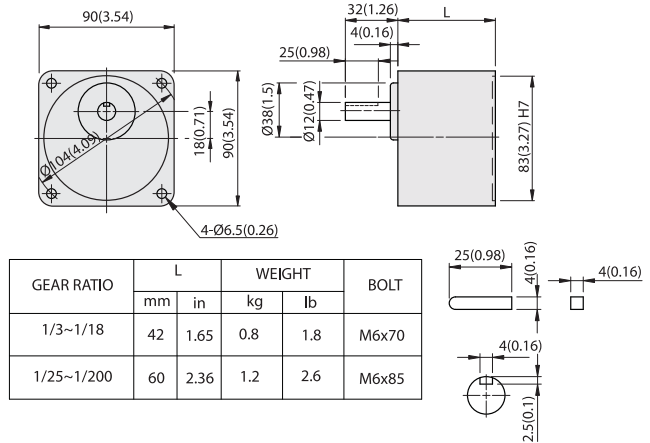
WEIGHT 0.6kg(1.3 lb)



GEARHEAD

Unit : mm(inch)

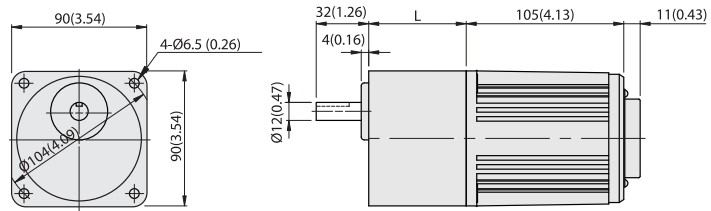
E9HK□M(B)



KEY SIZE

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E9HK□M(B) + E9I40P□LT



RATED TORQUE OF GEARHEAD

MODEL	Speed(rpm)		500	300	200	120	100	60	50	30	20	15	10	6	5	3	2	1	
	Ratio	Speed	50Hz	3	5	7.5	12.5	15	25	30	50	75	100	150	250	300	500	750	1500
			60Hz	3.6	6	9	15	18	30	36	60	90	120	180	300	360	600	900	1800
E9HK□M E9HK□B E9G10D(DECIMAL)	High	kg-cm	6.6	10.9	16.4	27.3	32.8	49.3	59.1	89.1	100	100	100	100	100	100	100	100	100
			Low	1.9	3.2	4.9	8.1	9.7	14.6	17.5	26.4	39.6	52.8	79.2	100	100	100	100	100
	High	N-m	0.64	1.07	1.61	2.68	3.21	4.83	5.79	8.73	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80
			Low	0.19	0.32	0.48	0.79	0.95	1.43	1.72	2.59	3.88	5.17	7.76	9.80	9.80	9.80	9.80	9.80
	High	oz-in	91	152	228	380	456	684	821	1237	1389	1389	1389	1389	1389	1389	1389	1389	1389
			Low	27	45	67	112	135	203	243	367	550	733	1100	1389	1389	1389	1389	1389

- * The normal torque is that the motor and gearhead are directly coupled.
- * Insert the denominator of reduction ratio in □ of gearhead model name.
- * Actual rotation speed is 2~15% less than synchronous speed.
- * ■ Color indicates that the rotation of gearhead shaft is in opposite direction as output shaft of motor.

With Decimal Gearhead

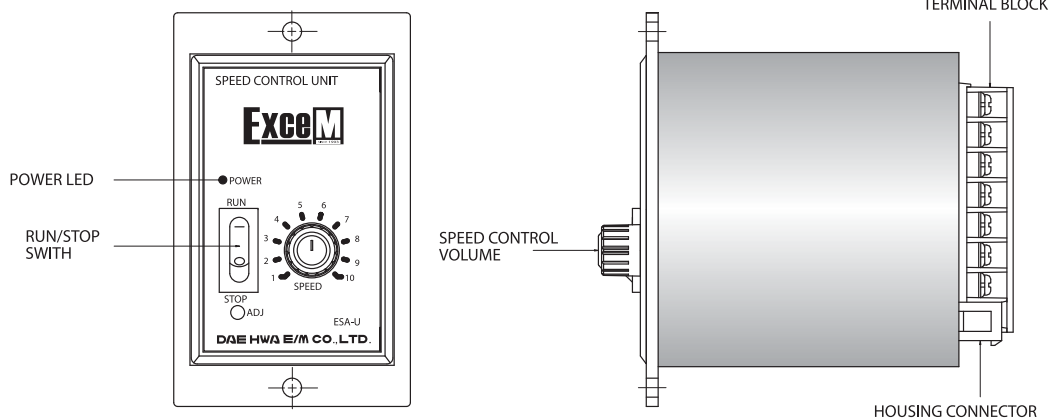

Features

- Speed Controller with Tacho generator
- Digital Type : PI Automatic Control by MICOM
- One-touch connection by 8 pin housing connector (extension cord 3[m] long max, optional)
- Built-in speed setting

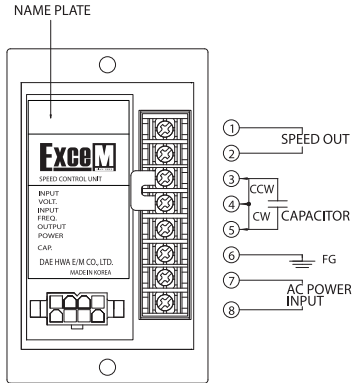
Operation

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1. Turn on the main circuit breaker.
 2. Turn on the RUN/STOP switch.
 3. Turn "Speed Control Knob" slowly, clockwise, to increase speed.
 4. Turn "Speed Control Knob" slowly, counter clockwise, to decrease speed.
 5. Turn off the RUN/STOP switch to stop the motor
- * No.1 and No.2 of TERMINAL BLOCK can use as remote s/w



Changing the motor's rotation "CW"(set at the factory) to "CCW"



* CW
④ and ⑤ connection(short)

* CCW
③ and ④ connection(short)

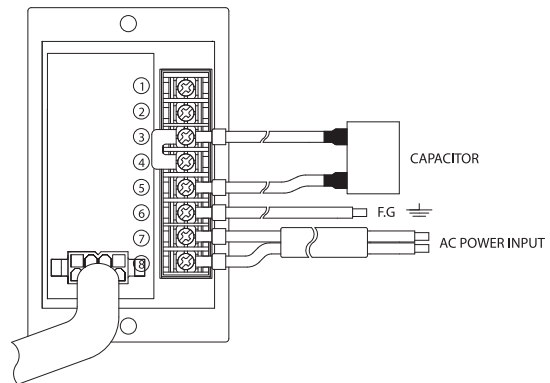
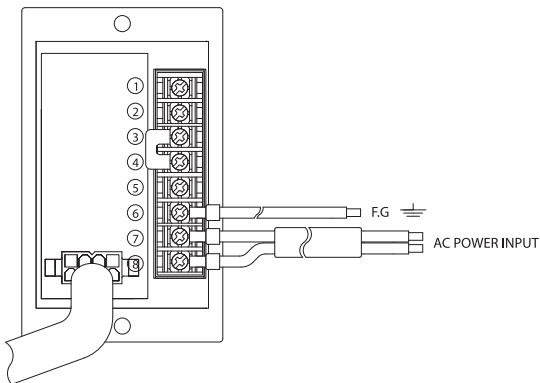
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Connection

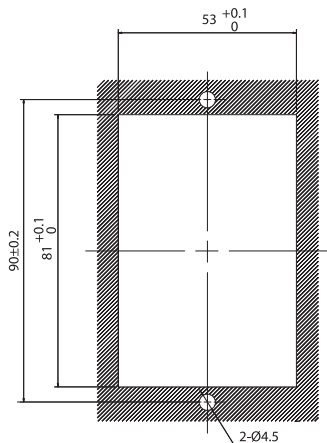
Motor & Controller Connection

Internal Capacitor type

External Capacitor type



Installation

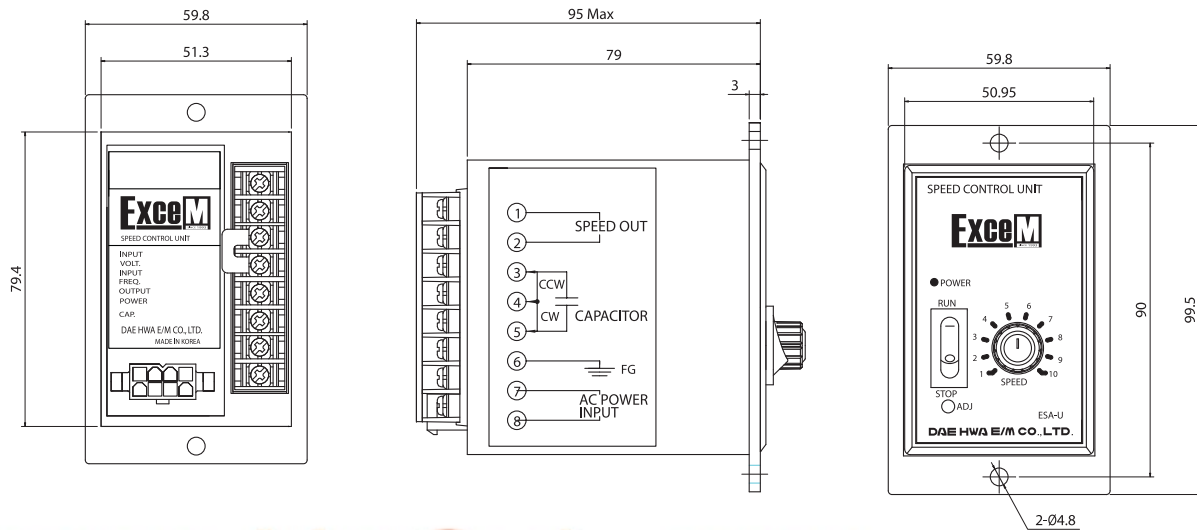


- ▶ Cut a hole in the mounting plate as indicated in the diagram to the left.
- ▶ Insert the control unit from the front of the mounting plate and fasten with screws and nuts.

Mounting screw(M4 × 10)2
Nuts2
Washers2

Dimensions

Unit : mm(inch)

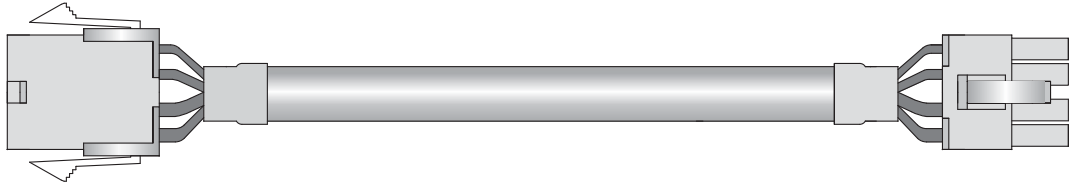


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Performance Data

Item		Model				
		ESA-U □□				
1	Input voltage	1 Ph. 100V	1 Ph. 200V	1 Ph. 115V	1 Ph. 220V	1 Ph. 220V~240V
2	Input voltage Threshold	Rated voltage $\pm 10\%$				
3	Input Frequency	50/60 Hz				
4	Speed Range	50Hz : 90~1400 rpm, 60Hz : 90~1700rpm				
5	Permissible Current	MAX. 5A				
6	Motor output	6W ~ 180 W				
7	Control method	TRIAC AC PHASE CONTROL				
8	Speed Control method	PI Automatic Control by MICOM				
9	Sensor Type	AC Tacho Generator(T.G)				
10	Speed set method	Volume type				
11	Power switch	Tumbler switch				
12	Display Red LED	Input Power ON : light, Input Power OFF : off				
13	Weight	About 170g(Except for Internal Capacitor)				
14	Operating Temp.	-5° ~ +40°				
15	Operating Humidity	Max 85% (No condensation)				
16	FUSE	Inside control unit				
17	Insulation Resistance	100M Ω or more when 500VDC is applied between the windings and the frame				
18	Dielectric Strength	Sufficient to withstand 1.5kV at 50/60Hz applied between the windings and the frame for 1 minute				
19	EMC	Please contact us				

Extension Cord



- ※ Extension cord(optional) is conveniently used when motor is located more than 300[mm] apart from control unit
- ※ Standard length is 0.5[m]
(option : max 3[m])

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