

Induction Motor 90W(□ 90mm)

90W Induction Motor 90W(□ 90mm)

Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load				Capacitor μF / VAC
91DG*~90F(□-T): Gear Type Shaft 91DD*~90F(-T): D-Cut Type Shaft 91DK*~90F(-T): Key Type Shaft	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
91DGA-90F□	91DGA-90F□-T	90	1∅110	60	4	Cont.	5.00	0.500	1600	1.90	6.20	0.620	20.0 / 250
91DGD-90F□	91DGD-90F□-T	90	1∅220	60	4	Cont.	5.20	0.520	1600	0.90	6.20	0.620	5.0 / 450
91DGE-90F□	91DGE-90F□-T	90	1∅220	50	4	Cont.	5.00	0.500	1300	0.70	7.40	0.740	5.0 / 450
			1∅240				6.00	0.600		0.76	8.60	0.860	
91DGG-90F□	91DGG-90F□-T	90	3∅220	50	4	Cont.	20.00	2.000	1300	0.66	7.80	0.780	-
				60			16.60	1.660		1600	0.55	5.80	
91DGK-90F□	91DGK-90F□-T	90	3∅380	50	4	Cont.	21.80	2.180	1300	0.40	7.80	0.780	-
				60			17.20	1.720		1600	0.33	5.80	
			3∅400	50	4	Cont.	24.00	2.400	1300	0.43	8.60	0.860	
				60			19.20	1.920		1600	0.36	6.20	
			3∅415	50	4	Cont.	26.00	2.600	1350	0.43	7.40	0.740	
				60			20.20	2.020		1600	0.37	6.80	
			3∅440	50	4	Cont.	29.00	2.900	1350	0.48	8.00	0.800	
				60			23.80	2.380		1650	0.37	6.00	

- 1) Enter the phase & voltage code in the place "□" and enter the model type of attaching Gearbox in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft is for attaching Gearbox and D-Cut & Key Type Shafts are for using motor only.

Max. Permissible Torque at Output Shaft of Gearbox

60Hz

Motor Model	Gearbox Model	Gear Ratio	Gear Ratio																								
			2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	
91DG□ -90FP	9PBK□BH 9PFK□BH	kgfcm	10.3	15.4	18.5	25.7	30.9	38.6	46.3	58.1	69.8	83.7	84.3	105.4	126.5	151.8	168.6	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.01	1.51	1.82	2.52	3.03	3.78	4.54	5.70	6.84	8.20	8.26	10.33	12.40	14.87	16.53	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
91DG□ -90FH	9HBK□BH 9HFK□BH	kgfcm	-	15.4	18.5	-	30.9	-	46.3	58.1	69.8	83.7	84.3	105.4	126.5	151.8	-	210.8	253.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	
		N.m	-	1.51	1.82	-	3.03	-	4.54	5.70	6.84	8.20	8.26	10.33	12.40	14.87	-	20.66	24.79	29.40	29.40	29.40	29.40	29.40	29.40	29.40	

Motor Model	Gearbox Model	Gear Ratio	Gear Ratio								Motor Model	Gearbox Model	Gear Ratio	Gear Ratio										
			10	12	15	18	25	30	36	50				60	7.5	10	15	20	25	30	40	50	60	80
91DG□ -90FW	9WD□BL/ □BR/□BRL	r/min	180	150	120	100	72	60	50	36	30	91DG□	9WHD□	r/min	240	180	120	90	72	60	45	36	30	22
		N.m	50.8	59.5	71.6	82.6	108.5	122.8	153.1	142.9	122.4	91DG□	9WHD□	kgfcm	39.1	50.2	70.7	89.3	102.3	119.0	146.3	173.5	163.3	132.7

50Hz

Motor Model	Gearbox Model	Gear Ratio	Gear Ratio																							
			2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
91DG□ -90FP	9PBK□BH 9PFK□BH	kgfcm	12.3	18.4	22.1	30.7	36.9	46.1	55.3	69.4	83.3	99.9	100.6	125.8	151.0	181.2	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.20	1.81	2.17	3.01	3.61	4.51	5.42	6.80	8.16	9.79	9.86	12.33	14.79	17.75	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
91DG□ -90FH	9HBK□BH 9HFK□BH	kgfcm	-	18.4	22.1	-	36.9	-	55.3	69.4	83.3	99.9	100.6	125.8	151.0	181.2	-	251.6	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m	-	1.81	2.17	-	3.61	-	5.42	6.80	8.16	9.79	9.86	12.33	14.79	17.75	-	24.66	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

Motor Model	Gearbox Model	Gear Ratio	Gear Ratio								Motor Model	Gearbox Model	Gear Ratio	Gear Ratio										
			10	12	15	18	25	30	36	50				60	7.5	10	15	20	25	30	40	50	60	80
91DG□ -90FW	9WD□BL/ □BR/□BRL	r/min	150	125	100	83	60	50	42	30	25	91DG□	9WHD□	r/min	200	150	100	75	60	50	38	30	25	18
		N.m	60.7	71.0	85.5	98.6	129.5	146.5	153.1	142.9	122.4	91DG□	9WHD□	kgfcm	46.6	59.9	84.4	106.6	122.1	142.1	174.6	173.5	163.3	132.7

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio. The actual speed is 2~20% less than the displayed value, depending on the size of the load.

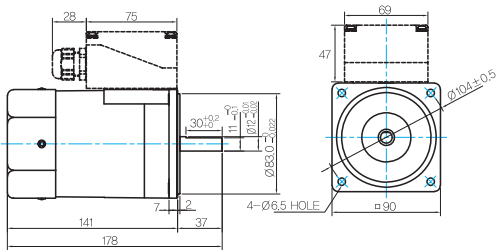
B AC Motors

Induction Motor 90W(□90mm)

Dimensions

MOTOR ONLY

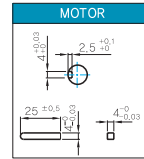
- MOTOR MODEL:
9IDD□-90F(-T) (GENERAL FAN)



- MOTOR OUTPUT SHAFT

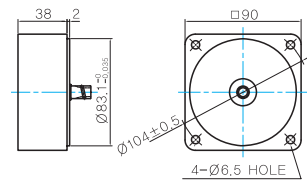
MODEL	SPEC
D-CUT TYPE	
KEY TYPE	

- KEY SPEC



INTER-DECIMAL GEARBOX

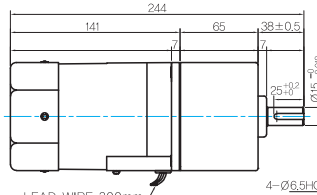
- MODEL:
9XD10□□



GEARED MOTOR

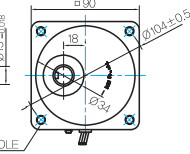
P TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FP (GENERAL FAN)

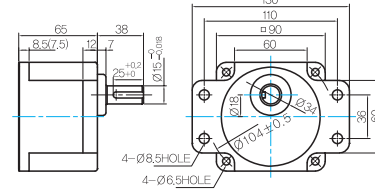


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9PBK□BH



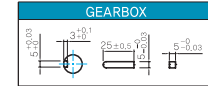
- GEARBOX MODEL:
9PFK□BH



- GEARBOX OUTPUT SHAFT

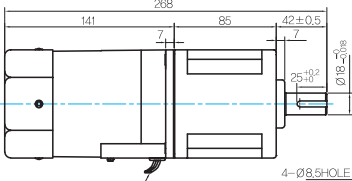
MODEL	SPEC
KEY TYPE	
9PBK□BH	
9PFK□BH	

- KEY SPEC



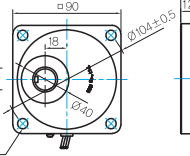
H TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FH (GENERAL FAN)

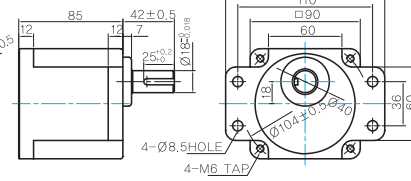


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9HBK□BH



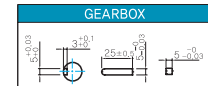
- GEARBOX MODEL:
9HFK□BH



- GEARBOX OUTPUT SHAFT

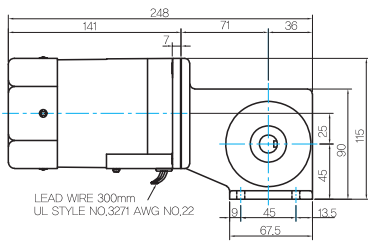
MODEL	SPEC
KEY TYPE	
9HBK□BH	
9HFK□BH	

- KEY SPEC



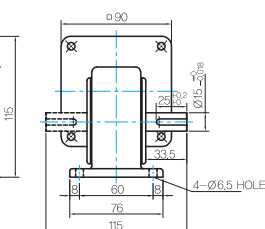
W TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FW (GENERAL FAN)

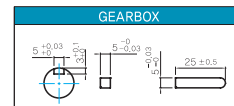


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9WD□BL/BR/BRL

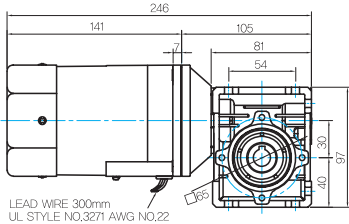


- KEY SPEC

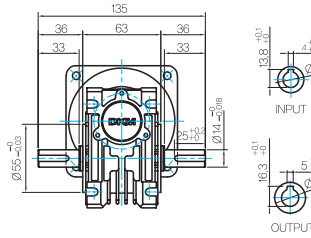


WH TYPE GEARBOX

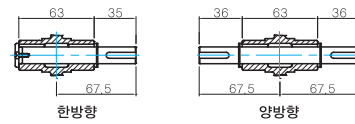
● MOTOR MODEL:
9IDG□-90FWH (GENERAL FAN)



● GEARBOX MODEL:
9WHD□-030



● SHAFT

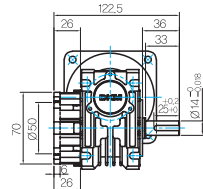
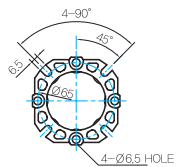


WEIGHT

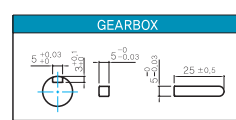
MOTOR		WEIGHT(Kg)
MOTOR		3.0
GEAR BOX	9PB(F)K2BH ~ 9PB(F)K18BH	1.3
	9PB(F)K20BH ~ 9PB(F)K200BH	1.4
	9HB(F)K3BH ~ 9HB(F)K9BH	1.45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1.5
	9HB(F)K20BH ~ 9HB(F)K60BH	1.7
	9HB(F)K75BH ~ 9HB(F)K200BH	1.8
	9WD□BL/BR/BRL	1.0
	9WHD□-030	1.13
	9XD10□	0.5

* 출력 FLANGE와 SHAFT는 별매입니다.

● FLANGE



● KEY SPEC



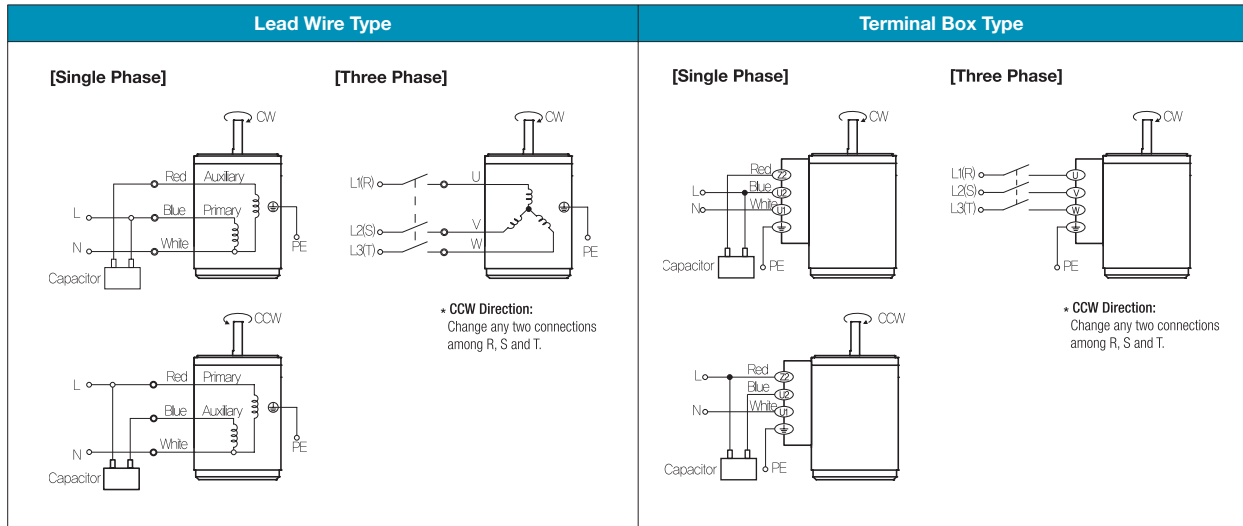
Motor Images

9IDD□-90F	9IDD□-90F-T	9IDG□-90FP+9PBK□BH	9IDG□-90FP+9PFK□BH
9IDG□-90FH+9HBK□BH	9IDG□-90FH+9HFK□BH	9IDG□-90FW+9WD□BL	9IDG□-90FWH+9WHD□-030

B AC Motors

Induction Motor 90W(□90mm)

Connection Diagrams



- 1) The direction of motor rotation is as viewed from the shaft end of the motor.
- 2) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 3) Change the direction of single phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.