

B AC Motors

Induction Motor 40W(□ 90mm)

40W

Induction Motor
40W(□ 90mm)

Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load			Capacitor μF / VAC	
Lead Wire Type	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
9IDG* <input type="checkbox"/> -40(-T)	9IDGA-40□-T	40	1∅110	60	4	Cont.	2.60	0.260	1600	0.80	2.80	0.280	10.0 / 250
9IDD* <input type="checkbox"/> -40(-T)	9IDGD-40□-T	40	1∅220	60	4	Cont.	2.60	0.260	1600	0.39	2.80	0.280	2.5 / 450
9IDK* <input type="checkbox"/> -40(-T)	9IDGE-40□-T	40	1∅220	50	4	Cont.	1.80	0.180	1300	0.33	3.00	0.300	2.0 / 450
			1∅240				2.20	0.220		0.36	3.60	0.360	
9IDG□-40	9IDGG-40□-T	40	3∅220	50	4	Cont.	9.00	0.900	1300	0.31	3.20	0.320	-
				60			7.40	0.740	1600	0.27	2.45	0.245	
9IDG□-40	9IDGK-40□-T	40	3∅380	50	4	Cont.	9.00	0.900	1300	0.20	3.20	0.320	-
				60			7.20	0.720	1550	0.18	2.80	0.280	
			3∅400	50	4	Cont.	10.00	1.000	1300	0.20	3.40	0.340	
				60			7.80	0.780	1550	0.18	3.00	0.300	
			3∅415	50	4	Cont.	11.00	1.100	1350	0.20	3.00	0.300	
				60			8.60	0.860	1600	0.18	2.80	0.280	
			3∅440	50	4	Cont.	12.00	1.200	1350	0.21	3.40	0.340	
				60			9.80	0.980	1600	0.19	3.00	0.300	

- 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 r/min	2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	200
			kgfcm	0.46	7.0	0.68	8.4	11.6	13.9	17.4	20.9	23.2	29.1	34.9	37.8	52.5	63.0	68.5	76.2	95.2	100.0	100.0	100.0	100.0	100.0	100.0
9IDG□-40G	9GBK□ BMH		0.55	0.83	1.00	1.38	1.66	2.07	2.49	2.77	3.46	4.15	4.50	6.25	7.50	8.16	9.06	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80

Motor Model	Gearbox Model	Gear Ratio r/min	10	12	15	18	25	30	36	50	60
			kgfcm	23.0	26.9	32.3	37.3	49.0	55.4	64.5	84.0
9IDG□-40W	9WD□BL/□BR/ □BRL		2.25	2.63	3.17	3.66	4.80	5.43	6.32	8.23	9.06

50Hz

Motor Model	Gearbox Model	Gear Ratio r/min	2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	200
			kgfcm	5.6	8.5	10.2	14.1	16.9	21.2	25.4	28.2	35.3	42.3	45.9	63.8	76.5	83.2	92.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
9IDG□-40G	9GBK□ BMH		0.55	0.83	1.00	1.38	1.66	2.07	2.49	2.77	3.46	4.15	4.50	6.25	7.50	8.16	9.06	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80

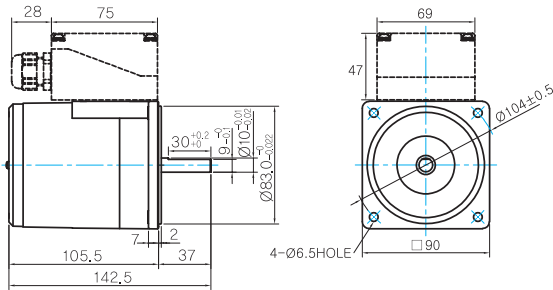
Motor Model	Gearbox Model	Gear Ratio r/min	10	12	15	18	25	30	36	50	60
			kgfcm	27.9	32.6	39.3	45.3	59.5	67.3	78.3	102.0
9IDG□-40W	9WD□BL/□BR/ □BRL		2.73	3.20	3.85	4.44	5.83	6.60	7.68	10.00	11.00

- 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.

Dimensions

MOTOR ONLY

- MOTOR MODEL: 9IDD□-40(-T) (NO FAN)

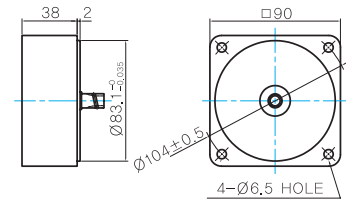


MOTOR OUTPUT SHAFT

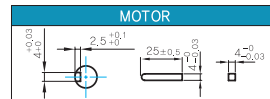
MODEL	SPEC
D-CUT TYPE	
9IDD□-40	
KEY TYPE	
9IDK□-40	

INTER-DECIMAL GEARBOX

- MODEL: 9XD10□□



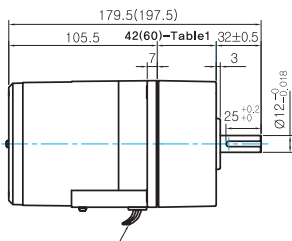
KEY SPEC



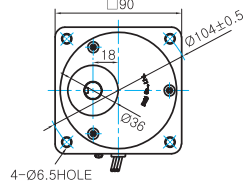
GEARED MOTOR

G TYPE GEARBOX

- MOTOR MODEL: 9IDG□-40G (NO FAN)



- GEARBOX MODEL: 9GBK□BMH



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

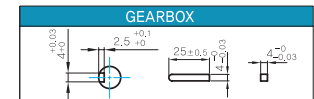
GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	

- 42(60)-Table1

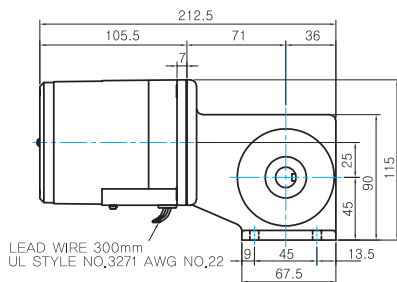
SIZE(mm)	GEAR RATIO
42	9GBK2BMH ~ 9GBK18BMH
60	9GBK25BMH ~ 9GBK200BMH

- Key Spec

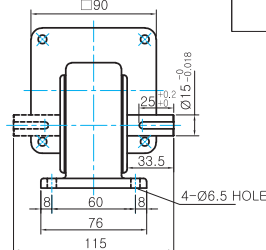


W TYPE GEARBOX

- MOTOR MODEL: 9IDG□-40W (NO FAN)

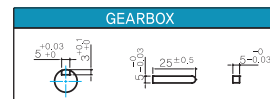


- GEARBOX MODEL: 9WD□BL/BR/BRL



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

KEY SPEC



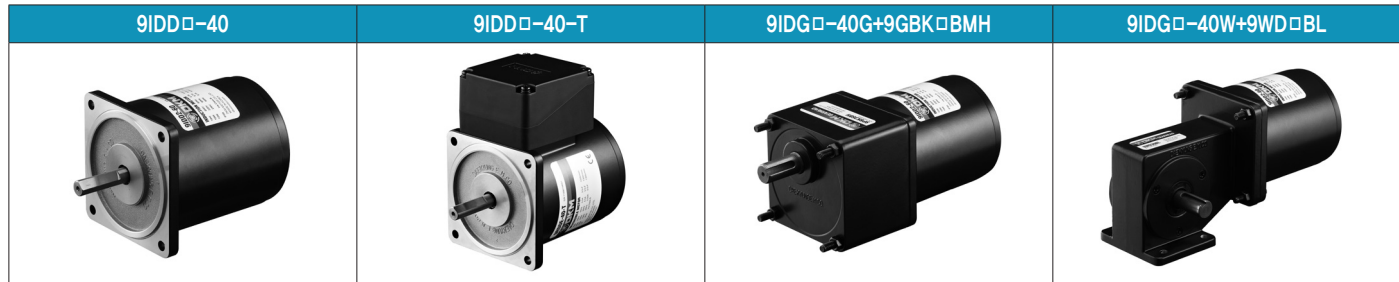
WEIGHT

PART	WEIGHT(Kg)	
MOTOR	2.4	
GEAR BOX	9GBK2BMH ~ 9GBK15BMH	0.67
	9GBK18BMH ~ 9GBK30BMH	0.96
	9GBK36BMH ~ 9GBK200BMH	1.07
	9WD□BL/BR/BRL	1.0
	9XD10□□	0.5

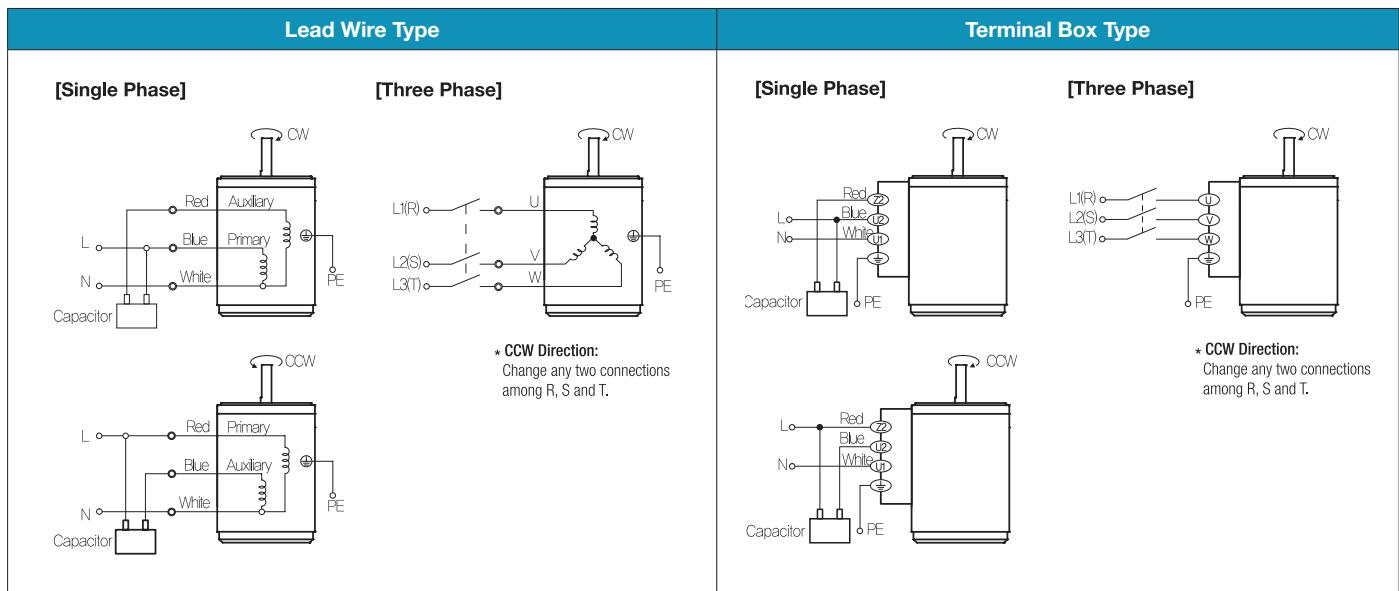
B AC Motors

Induction Motor 40W(□90mm)

Motor Images



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.

Induction Motor 60W(□ 90mm)

60W Induction Motor 60W(□ 90mm)

Induction Motor 60W(□ 90mm)

Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load			Capacitor μF / VAC	
Lead Wire Type	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
9IDG* <input type="checkbox"/> -60F <input type="checkbox"/> (-T)	9IDGA-60F <input type="checkbox"/> -T	60	1∅110	60	4	Cont.	3.40	0.340	1600	1.40	4.60	0.460	16.0 / 250
9IDD* <input type="checkbox"/> -60F <input type="checkbox"/> (-T)	9IDGD-60F <input type="checkbox"/> -T	60	1∅220	60	4	Cont.	4.20	0.420	1600	0.63	4.60	0.460	4.0 / 450
9IDK* <input type="checkbox"/> -60F <input type="checkbox"/> (-T)	9IDGE-60F <input type="checkbox"/> -T	60	1∅220 1∅240	50	4	Cont.	3.40 4.00	0.340 0.400	1300	0.48 0.54	4.80 5.40	0.480 0.540	3.5 / 450
9IDGG-60F <input type="checkbox"/>	9IDGG-60F <input type="checkbox"/> -T	60	3∅220	50 60	4	Cont.	15.00 12.80	1.500 1.280	1350 1600	0.59 0.49	4.60 4.20	0.460 0.420	-
9IDGK-60F <input type="checkbox"/>	9IDGK-60F <input type="checkbox"/> -T	60	3∅380 3∅400 3∅415 3∅440	50 60 50 60	4	Cont.	17.00 13.80 18.60 15.20	1.700 1.380 1.860 1.520	1350 1600	0.33 0.29 0.36 0.30	4.80 4.60 5.20 5.00	0.480 0.460 0.520 0.500	-
				50 60	4	Cont.	20.00 16.20	2.000 1.620	1350 1600	0.40 0.33	5.60 5.20	0.560 0.520	
				50 60	4	Cont.	22.00 18.20	2.200 1.820	1350 1600	0.44 0.36	6.00 5.80	0.600 0.580	

- 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 r/min	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
			900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
9IDG <input type="checkbox"/> -60FP	9PBK <input type="checkbox"/> BH 9PFB <input type="checkbox"/> BH	kgfcm N.m	7.0 0.68	10.5 1.02	12.5 1.23	17.4 1.71	20.9 2.05	26.1 2.56	31.4 3.07	39.4 3.86	47.3 4.63	56.7 5.56	57.1 5.60	71.4 7.00	85.7 8.40	102.8 10.08	114.2 11.20	142.8 13.99	171.4 16.79	192.2 18.83	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	
9IDG <input type="checkbox"/> -60FH	9HBK <input type="checkbox"/> BH 9HFB <input type="checkbox"/> BH	kgfcm N.m	- 1.02	10.5 1.23	12.5 1.23	- 1.71	20.9 2.05	- 2.56	31.4 3.07	39.4 3.86	47.3 4.63	56.7 5.56	57.1 5.60	71.4 7.00	85.7 8.40	102.8 10.08	- 11.20	142.8 13.99	171.4 16.79	192.2 18.83	230.6 22.60	256.2 25.11	300.0 29.40	300.0 29.40	300.0 29.40	

Motor Model	Gearbox Model	Gear Ratio r/min	10	12	15	18	25	30	36	50	60
			180	150	120	100	72	60	50	36	30
9IDG <input type="checkbox"/> -60FW	9WD <input type="checkbox"/> BL/ □BR/□BRL	kgfcm N.m	34.4 3.38	40.3 3.95	48.5 4.75	55.9 5.48	73.5 7.20	83.2 8.15	96.8 9.48	126.0 12.35	122.4 12.00

Motor Model	Gearbox Model	Gear Ratio r/min	7.5	10	15	20	25	30	40	50	60	80
			240	180	120	90	72	60	45	36	30	22
9IDG <input type="checkbox"/> -60FWH	9WHD <input type="checkbox"/> -030	kgfcm N.m	26.5 2.59	34.0 3.33	47.9 4.69	60.5 5.93	69.3 6.79	80.6 7.90	99.1 9.71	113.4 11.11	126.0 12.35	132.7 13.00

50Hz

Motor Model	Gearbox Model	Gear Ratio r/min	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
			750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8	7.5
9IDG <input type="checkbox"/> -60FP	9PBK <input type="checkbox"/> BH 9PFB <input type="checkbox"/> BH	kgfcm N.m	8.6 0.85	12.9 1.27	15.5 1.52	21.6 2.11	25.9 2.54	32.4 3.17	38.8 3.81	48.8 4.78	58.5 5.73	70.2 6.88	70.7 6.93	88.4 8.66	106.1 10.40	127.3 12.48	141.4 13.86	176.8 17.33	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	200.0 19.60	
9IDG <input type="checkbox"/> -60FH	9HBK <input type="checkbox"/> BH 9HFB <input type="checkbox"/> BH	kgfcm N.m	- 1.27	12.9 1.52	15.5 1.52	- 2.11	25.9 2.54	- 3.17	38.8 3.81	48.8 4.78	58.5 5.73	70.2 6.88	70.7 6.93	88.4 8.66	106.1 10.40	127.3 12.48	- 13.86	176.8 17.33	212.2 20.79	237.9 23.31	285.5 27.98	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	

Motor Model	Gearbox Model	Gear Ratio r/min	10	12	15	18	25	30	36	50	60
			150	125	100	83	60	50	42	30	25
9IDG <input type="checkbox"/> -60FW	9WD <input type="checkbox"/> BL/ □BR/□BRL	kgfcm N.m	42.6 4.18	49.9 4.89	60.1 5.89	69.3 6.79	91.0 8.92	103.0 10.09	119.8 11.74	142.9 14.00	122.4 12.00

Motor Model	Gearbox Model	Gear Ratio r/min	7.5	10	15	20	25	30	40	50	60	80
			200	150	100	75	60	50	38	30	25	18
9IDG <input type="checkbox"/> -60FWH	9WHD <input type="checkbox"/> -030	kgfcm N.m	32.8 3.21	42.1 4.13	59.3 5.81	74.9 7.34	85.8 8.41	99.8 9.78	122.7 12.03	140.4 13.76	156.0 15.29	132.7 13.00

- 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.
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- 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.

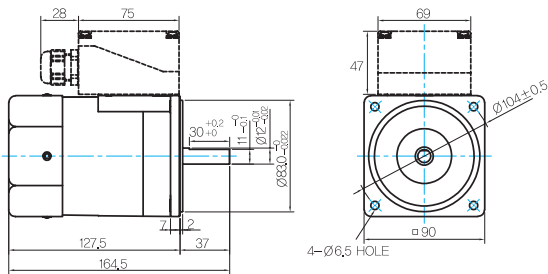
B AC Motors

Induction Motor 60W(□90mm)

Dimensions

MOTOR ONLY

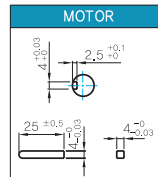
- MOTOR MODEL:
9IDD□-60F(-T) (GENERAL FAN)



MOTOR OUTPUT SHAFT

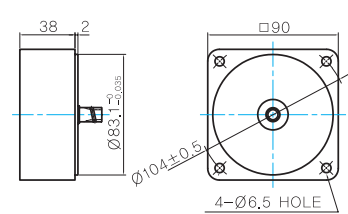
MODEL	SPEC
D-CUT TYPE	
9IDD□-60F	
KEY TYPE	
9IDK□-60F	

KEY SPEC



INTER-DECIMAL GEARBOX

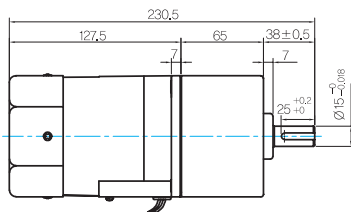
- MODEL:
9XD10□□



GEARED MOTOR

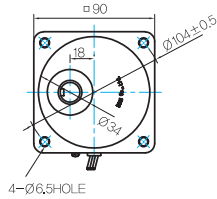
P TYPE GEARBOX

- MOTOR MODEL:
9IDG□-60FP (GENERAL FAN)

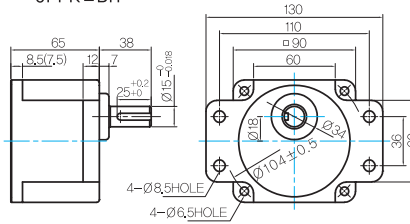


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9PBK□BH



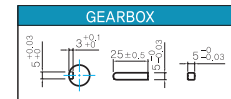
- GEARBOX MODEL:
9PFK□BH



GEARBOX OUTPUT SHAFT

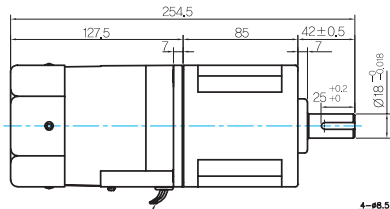
MODEL	SPEC
KEY TYPE	
9PBK□BH	
9PFK□BH	

KEY SPEC



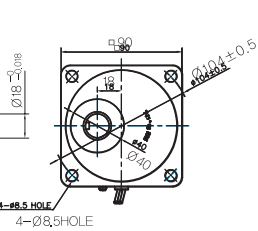
H TYPE GEARBOX

- MOTOR MODEL:
9IDG□-60FH (GENERAL FAN)

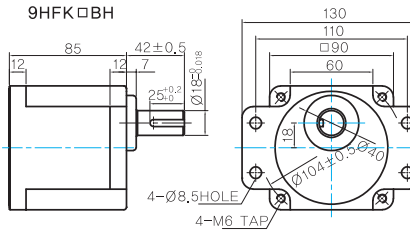


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9HBK□BH



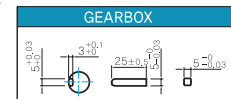
- GEARBOX MODEL:
9HFK□BH



GEARBOX OUTPUT SHAFT

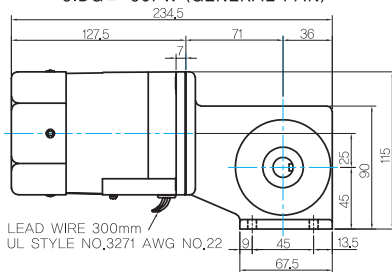
MODEL	SPEC
KEY TYPE	
9HBK□BH	
9HFK□BH	

KEY SPEC



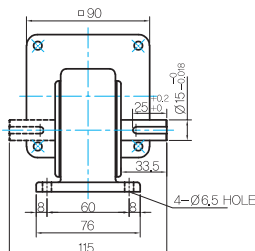
W TYPE GEARBOX

- MOTOR MODEL:
9IDG□-60FW (GENERAL FAN)

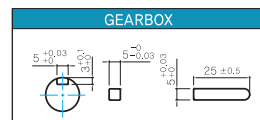


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9WD□BL/BR/BRL

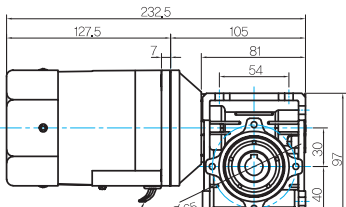


KEY SPEC

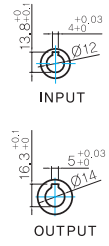
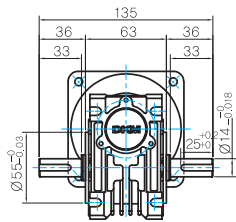


WH TYPE GEARBOX

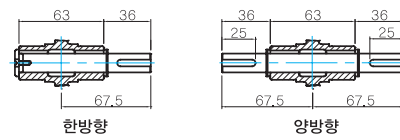
- MOTOR MODEL:
9IDG□-60FWH (GENERAL FAN)



- GEARBOX MODEL:
9WHD□-030



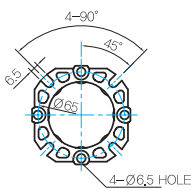
- SHAF


WEIGHT

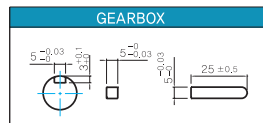
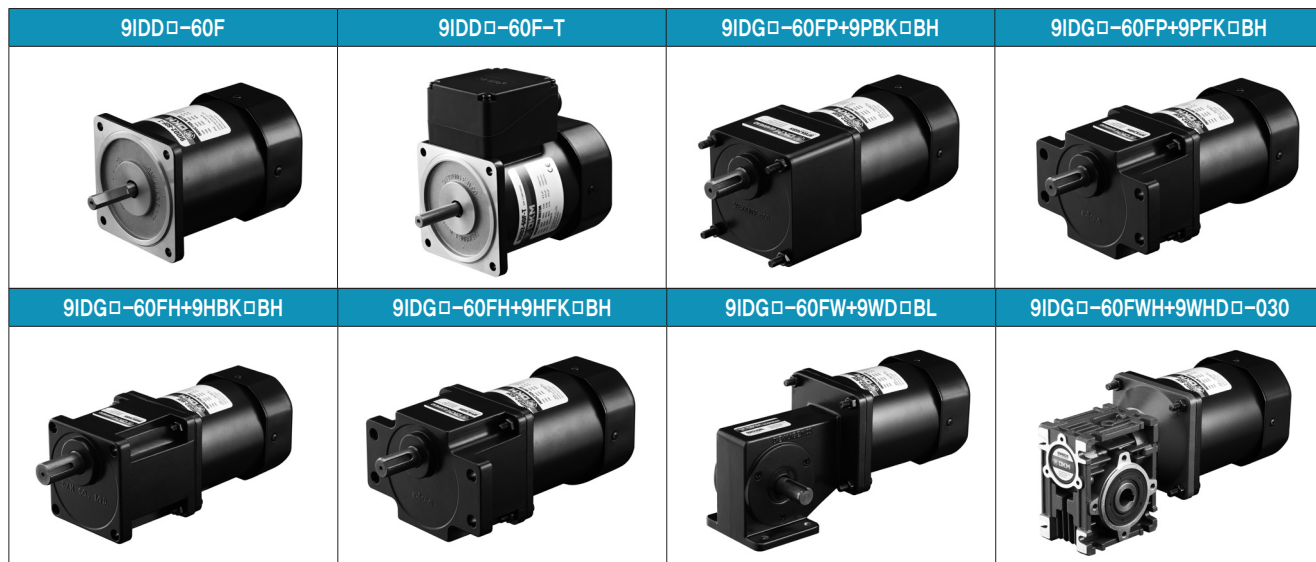
	PART	WEIGHT(Kg)
GEAR BOX	MOTOR	3,0
	9PB(F)K2BH ~ 9PB(F)K18BH	1,3
	9PB(F)K20BH ~ 9PB(F)K200BH	1,4
	9HB(F)K3BH ~ 9HB(F)K9BH	1,45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1,5
	9HB(F)K20BH ~ 9HB(F)K60BH	1,7
	9HB(F)K75BH ~ 9HB(F)K200BH	1,8
	9WD□BL/BR/BRL	1,0
	9WHD□-030	1,13
	9XD10□□	0,5

* 출력 FLANGE와 SHAFT는 별매입니다.

- FLANGE



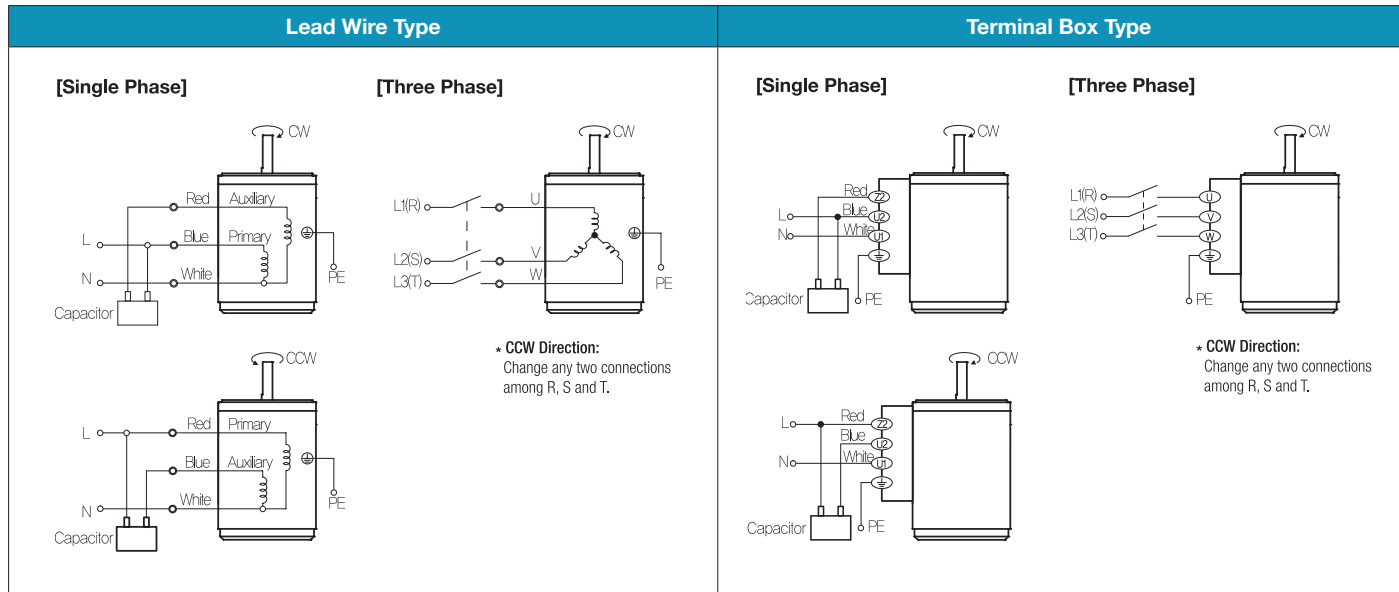
- KEY SPEC


Motor Images


B AC Motors

Induction Motor 60W(□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.

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	
Lead Wire Type	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
9IDG*~90F□(-T): Gear Type Shaft 9IDD*~90F(-T): D-Cut Type Shaft 9IDK*~90F(-T): Key Type Shaft													
9IDGA-90F□	9IDGA-90F□-T	90	1∅110	60	4	Cont.	5.00	0.500	1600	1.90	6.20	0.620	20.0 / 250
9IDGD-90F□	9IDGD-90F□-T	90	1∅220	60	4	Cont.	5.20	0.520	1600	0.90	6.20	0.620	5.0 / 450
9IDGE-90F□	9IDGE-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	
9IDGG-90F□	9IDGG-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	0.580	
9IDGK-90F□	9IDGK-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	0.580	
			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	0.620	
			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	0.680	
			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	0.600	

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		
9IDG□ -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	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	19.60
9IDG□ -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	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	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
9IDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	50.8	59.5	71.6	82.6	108.5	122.8	153.1	142.9	122.4	9IDG□ -90FWH	9WHD□ -030	kgfcm	39.1	50.2	70.7	89.3	102.3	119.0	146.3	173.5	163.3	132.7
		N.m	4.98	5.83	7.02	8.08	10.63	12.03	15.00	14.00	12.00			N.m	3.83	4.92	6.93	8.75	10.03	11.67	14.34	17.00	16.00	13.00

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	
9IDG□ -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	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	19.60
9IDG□ -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
9IDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	60.7	71.0	85.5	98.6	129.5	146.5	153.1	142.9	122.4	9IDG□ -90FWH	9WHD□ -030	kgfcm	46.6	59.9	84.4	106.6	122.1	142.1	174.6	173.5	163.3	132.7
		N.m	5.95	6.96	8.38	9.66	12.69	14.36	15.00	14.00	12.00			N.m	4.57	5.87	8.27	10.44	11.97	13.92	17.11	17.00	16.00	13.00

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.

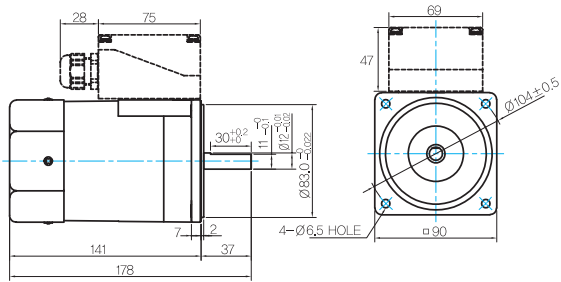
B AC Motors

Induction Motor 90W(□90mm)

Dimensions

MOTOR ONLY

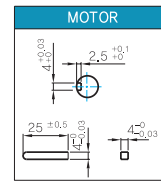
- MOTOR MODEL:
9IDD□-90F(-T) (GENERAL FAN)



- MOTOR OUTPUT SHAFT

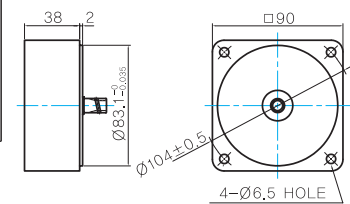
MODEL	SPEC
D-CUT TYPE	37 30 ^{+0.2} 18 ^{+0.08}
9IDD□-90F	
KEY TYPE	37 25 ^{+0.2} 17 ^{+0.08}
9IDK□-90F	

- KEY SPEC



INTER-DECIMAL GEARBOX

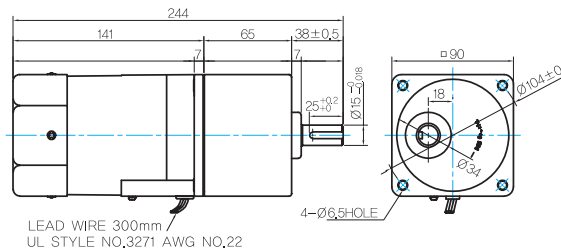
- MODEL:
9XD10□□



GEARED MOTOR

P TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FP (GENERAL FAN)
- GEARBOX MODEL:
9PBK□BH
- GEARBOX MODEL:
9PFK□BH

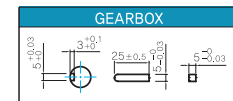


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX OUTPUT SHAFT

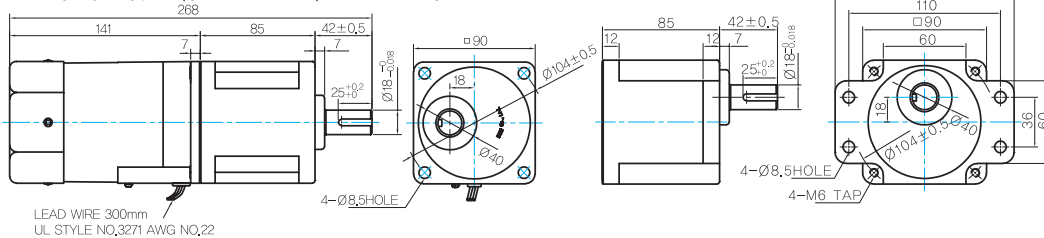
MODEL	SPEC
KEY TYPE	38 25 ^{+0.2} 17 ^{+0.08}
9PBK□BH	
9PFK□BH	

- KEY SPEC



H TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FH (GENERAL FAN)
- GEARBOX MODEL:
9HBK□BH
- GEARBOX MODEL:
9HFK□BH

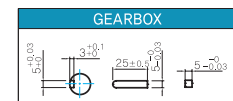


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX OUTPUT SHAFT

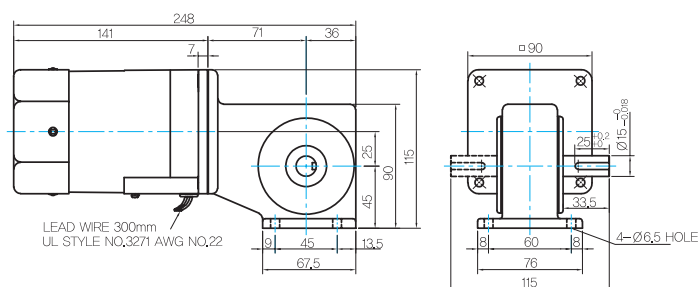
MODEL	SPEC
KEY TYPE	42 25 ^{+0.2} 17 ^{+0.08}
9HBK□BH	
9HFK□BH	

- KEY SPEC

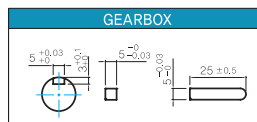


W TYPE GEARBOX

- MOTOR MODEL:
9IDG□-90FW (GENERAL FAN)
- GEARBOX MODEL:
9WD□BL/BR/BRL
- KEY SPEC

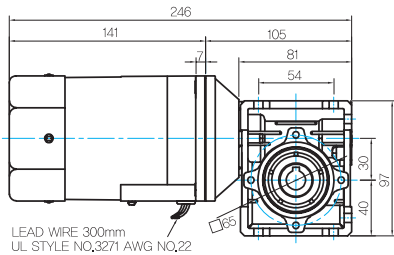


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

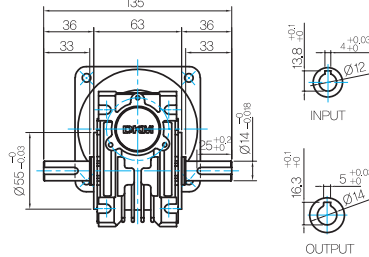


WH TYPE GEARBOX

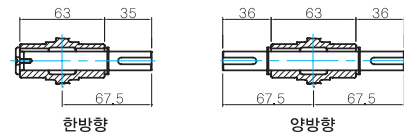
● MOTOR MODEL:
9IDG□-90FWH (GENERAL FAN)



● GEARBOX MODEL:
9WHD□-030



● SHAFT

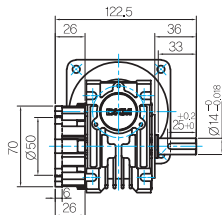
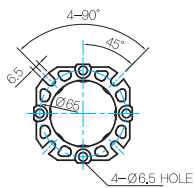


WEIGHT

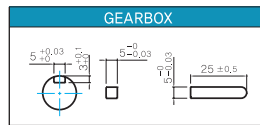
PART	WEIGHT(kg)	
MOTOR	3.0	
GEAR BOX	9PB(F)K2BH ~ 9PB(F)K18BH	1.3
	9PB(F)K20BH ~ 9PB(F)K200BH	1.4
	9HB(F)K3BH ~ 9HB(F)K9BH	1.45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1.5
	9HB(F)K20BH ~ 9HB(F)K60BH	1.7
	9HB(F)K75BH ~ 9HB(F)K200BH	1.8
	9WD□BL/BR/BRL	1.0
	9WHD□-030	1.13
9XD10□	0.5	

* 출력 FLANGE와 SHAFT는 별매입니다.

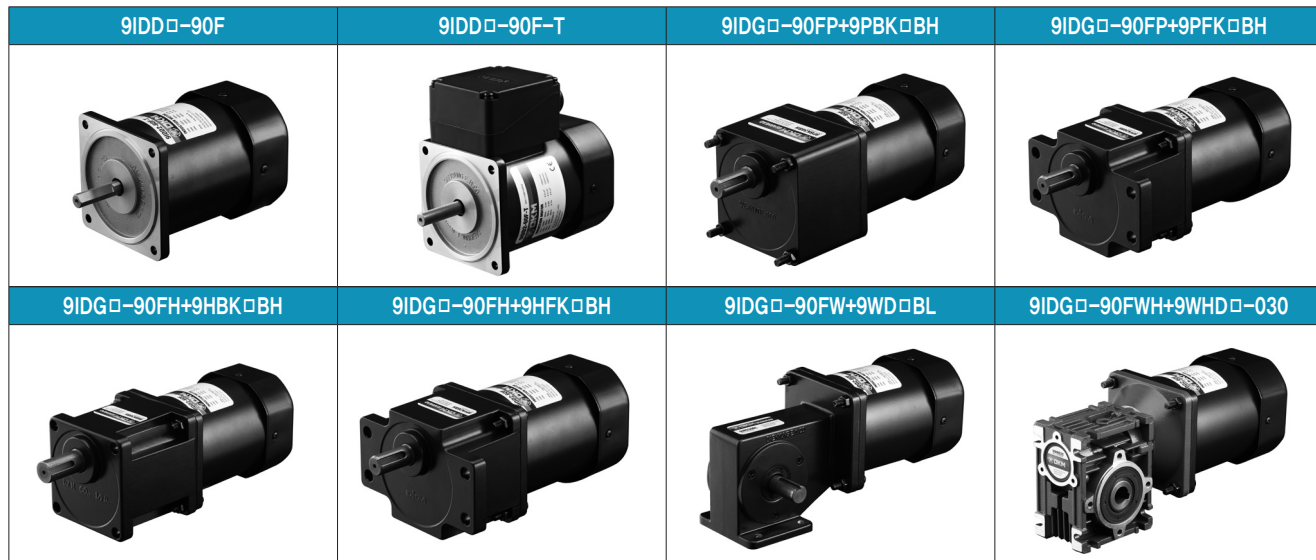
● FLANGE



● KEY SPEC



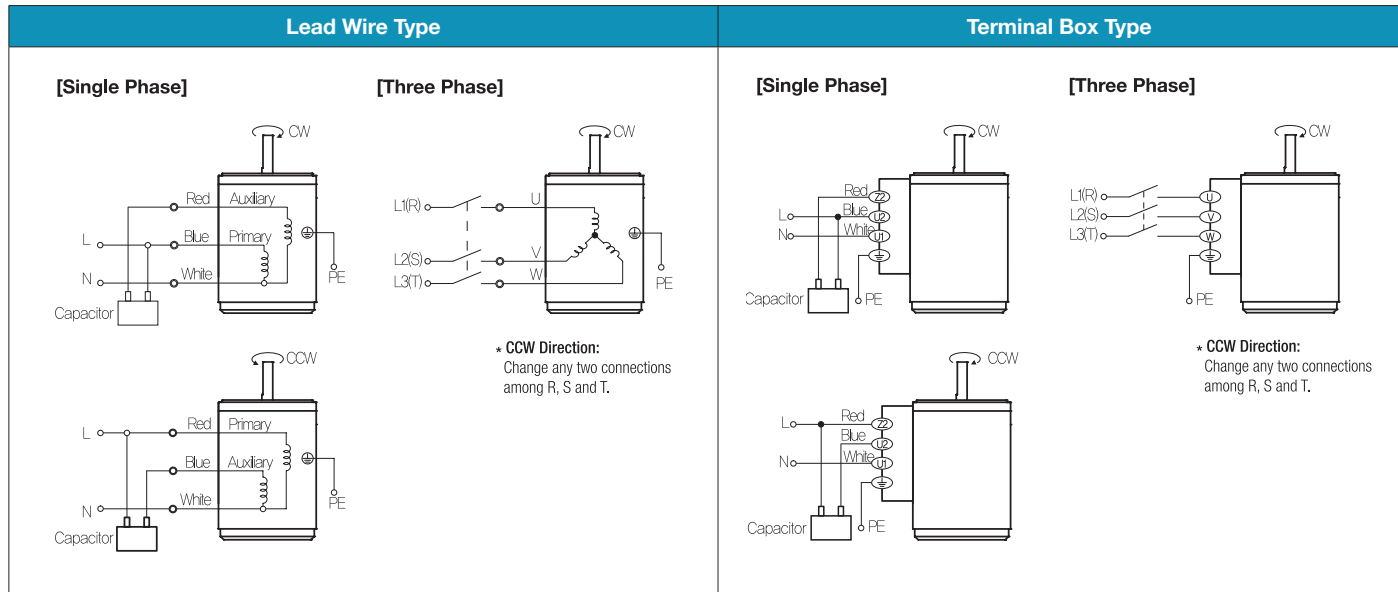
Motor Images



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.

Induction Motor 120W(□90mm)

120W

Induction Motor
120W(□90mm)

Induction Motor 120W(□90mm)

Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load			Capacitor μF / VAC	
Lead Wire Type	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
9IDG*-120F□(-T): Gear Type Shaft 9IDD*-120F(-T): D-Cut Type Shaft 9IDK*-120F(-T): Key Type Shaft													
9IDGA-120F□	9IDGA-120F□-T	120	1∅110	60	4	Cont.	6.60	0.660	1600	2.00	7.40	0.740	25.0 / 250
9IDGD-120F□	9IDGD-120F□-T	120	1∅220	60	4	Cont.	6.00	0.600	1600	1.00	7.60	0.760	6.0 / 450
9IDGE-120F□	9IDGE-120F□-T	120	1∅220	50	4	Cont.	6.60	0.660	1250	0.90	9.40	0.940	6.5 / 450
			1∅240				8.00	0.800		1.00	10.20	1.020	
9IDGG-120F□	9IDGG-120F□-T	120	3∅220	50	4	Cont.	22.00	2.200	1300	0.82	9.20	0.920	-
				60			20.00	2.000	1550	0.78	7.80	0.780	
9IDGK-120F□	9IDGK-120F□-T	120	3∅380	50	4	Cont.	25.00	2.500	1300	0.48	9.00	0.900	-
				60			20.00	2.000	1550	0.43	8.00	0.800	
			3∅400	50	4	Cont.	27.40	2.740	1300	0.53	9.80	0.980	
				60			21.80	2.180	1550	0.45	8.60	0.860	
			3∅415	50	4	Cont.	29.80	2.980	1300	0.57	10.00	1.000	
				60			23.80	2.380	1600	0.44	7.80	0.780	
			3∅440	50	4	Cont.	32.00	3.200	1350	0.64	8.80	0.880	
				60			26.80	2.680	1600	0.48	8.60	0.860	

- 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	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	
9IDG□ -120FP	9PBK□BH 9PFK□BH	kgfcm	12.6	18.9	22.7	31.5	37.8	47.3	56.8	71.3	85.5	102.6	103.4	129.2	155.0	186.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.24	1.85	2.23	3.09	3.71	4.64	5.56	6.98	8.38	10.05	10.13	12.66	15.19	18.23	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
9IDG□ -120FH	9HBK□BH 9HFK□BH	kgfcm	18.9	22.7	37.8	56.8	71.3	85.5	102.6	103.4	129.2	155.0	186.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.85	2.23	3.71	5.56	6.98	8.38	10.05	10.13	12.66	15.19	18.23	25.32	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

Motor Model	Gearbox Model	Gear Ratio	10	12	15	18	25	30	36	50	60
9IDG□ -120FW	9WD□BL/ □BR/□BRL	kgfcm	62.3	73.0	87.8	101.2	133.0	150.5	153.1	142.9	122.4
		N.m	6.11	7.15	8.60	9.92	13.03	14.75	15.00	14.00	12.00

Motor Model	Gearbox Model	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9IDG□ -120FWH	9WHD□ -030	kgfcm	47.9	61.6	86.6	109.4	125.4	145.9	179.4	173.5	163.3	132.7
		N.m	4.69	6.03	8.49	10.73	12.29	14.30	17.58	17.00	16.00	13.00

50Hz

Motor Model	Gearbox Model	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
9IDG□ -120FP	9PBK□BH 9PFK□BH	kgfcm	16.3	24.4	29.3	40.7	48.8	61.0	73.2	101.7	122.0	146.4	162.7	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.59	2.39	2.87	3.99	4.78	5.98	7.17	9.96	11.96	14.35	15.94	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
9IDG□ -120FH	9HBK□BH 9HFK□BH	kgfcm	24.4	29.3	48.8	73.2	91.9	110.3	132.3	133.3	166.6	199.9	239.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9	293.9
		N.m	2.39	2.87	4.78	7.17	9.00	10.80	12.97	13.06	16.33	19.59	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51	23.51

Motor Model	Gearbox Model	Gear Ratio	10	12	15	18	25	30	36	50	60
9IDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	80.4	94.1	113.2	130.5	142.9	163.3	153.1	142.9	122.4
		N.m	7.88	9.22	11.09	12.79	14.00	16.00	15.00	14.00	12.00

Motor Model	Gearbox Model	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9IDG□ -120FWH	9WHD□ -030	kgfcm	61.7	79.4	111.7	141.1	161.7	188.2	183.7	173.5	163.3	132.7
		N.m	6.05	7.78	10.95	13.83	15.85	18.44	18.00	17.00	16.00	13.00

- 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.