

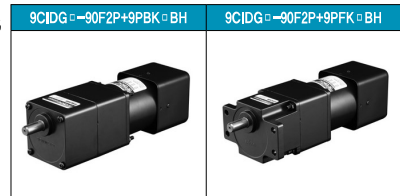
# B AC Motors

## Clutch & Brake Motor 90W (□ 90mm)

# 90W

Clutch & Brake Motor  
90W(□ 90mm)

### Motor Images



### Motor Specification

Model 9CIDG*-90F2P: Gear Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque kgfcm N.m		Rated Load			Capacitor μF / VAC											
								Speed r/min	Current A	Torque kgfcm N.m												
<b>Lead Wire Type</b>																						
9CIDG1(A)-90F2P	90	1φ110	60	4	Cont.	5.00	0.500	1600	1.80	5.50	0.550	20.0 / 250										
9CIDG2(D)-90F2P	90	1φ220	60	4	Cont.	5.00	0.500	1600	1.00	5.50	0.550	5.0 / 450										
9CIDGE-90F2P	90	1φ220	50	4	Cont.	5.30	0.530	1300	0.70	6.80	0.680	5.0 / 450										
									0.76	6.80	0.680											
									6.30	0.630												
9CIDG3(G)-90F2P	90	3φ220	50	4	Cont.	20.50	2.050	1350	0.65	6.50	0.650	-										
									16.20	1.620	1600		0.60	5.50	0.550							
									3φ230	50	4		Cont.	22.00	2.200	1350	0.68	6.50	0.650			
																				17.60	1.760	1600
									9CIDG4(K)-90F2P	90	3φ380		50	4	Cont.	20.00	2.000	1350	0.35	6.50	0.650	-
21.80	2.180	1350	0.37	6.50	0.650																	
9CIDG5(L)-90F2P	90	3φ415	50	4	Cont.	20.50	2.050	1350	0.35	5.50	0.650	-										
													3φ440	50	4	Cont.	16.20	1.620	1600	0.31	5.50	0.550
													18.10	1.810	1600	0.33	5.50	0.550				

- 1) Enter the phase & voltage code in the place \* within the motor model name.
  - 2) The phase & voltage code A, D, E, G, K, L contain a built-in thermal protector.
  - 3) For using clutch & brake motor, the gearbox has to be attached. (Output shaft of motor: Gear Type Shaft)
- \* It is not possible to use an inverter for three phase 380~440V motor. When the inverter is used, the insulation of winding coil becomes hot and may cause damage to the motor.

### Max. Permissible Torque at Output Shaft of Gearbox

#### 60Hz

Motor Model	Gearbox Model	Gear Ratio	2	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60
9CIDG*-90F2P	9PBK□BH 9PFK□BH	r/min	900	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30
		kgfcm N.m	8.9 0.87	13.4 1.31	16.0 1.57	22.3 2.18	26.7 2.62	33.4 3.27	40.1 3.93	44.6 4.37	50.2 4.92	60.2 5.90	72.3 7.08	80.3 7.87	90.8 8.89	108.9 10.67	130.7 12.81	145.2 14.23	181.5 17.79	200.0 19.60

Motor Model	Gearbox Model	Gear Ratio	75	90	100	120	150	180	200
9CIDG*-90F2P	9PBK□BH 9PFK□BH	r/min	24	20	18	15	12	10	9
		kgfcm N.m	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

#### 50Hz

Motor Model	Gearbox Model	Gear Ratio	2	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60
9CIDG*-90F2P	9PBK□BH 9PFK□BH	r/min	750	500	417	300	250	200	167	150	120	100	83	75	60	50	42	37.5	30	25
		kgfcm N.m	10.5 1.03	15.8 1.55	19.0 1.86	26.3 2.58	31.6 3.10	39.5 3.87	47.4 4.64	52.7 5.16	59.3 5.81	71.2 6.98	85.4 8.37	94.9 9.30	107.3 10.51	128.7 12.61	154.4 15.14	171.6 16.82	200.0 19.60	200.0 19.60

Motor Model	Gearbox Model	Gear Ratio	75	90	100	120	150	180	200
9CIDG*-90F2P	9PBK□BH 9PFK□BH	r/min	20	17	15	12.5	10	8	7.5
		kgfcm N.m	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

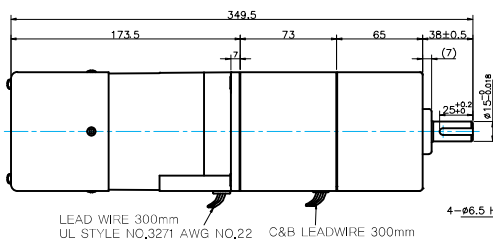
- 1) Enter the phase & voltage code in the place \* within the motor model name.
- 2) Enter the gear ratio in the box (□) within the gearbox model name.
- 3) A colored background indicates the gear shaft rotation in the same direction as the motor shaft; a white background indicates the rotation in the 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

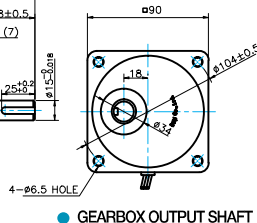
### GEARED MOTOR

#### P TYPE GEARBOX

● MOTOR MODEL:  
9CIDG□-90F2P



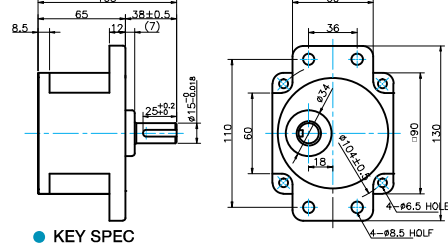
● GEARBOX MODEL:  
9PBK□BH



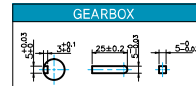
#### GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	
9PBK□BH 9PFK□BH	

● GEARBOX MODEL:  
9PFK□BH

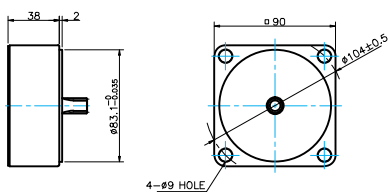


#### KEY SPEC



#### INTER-DECIMAL GEARBOX

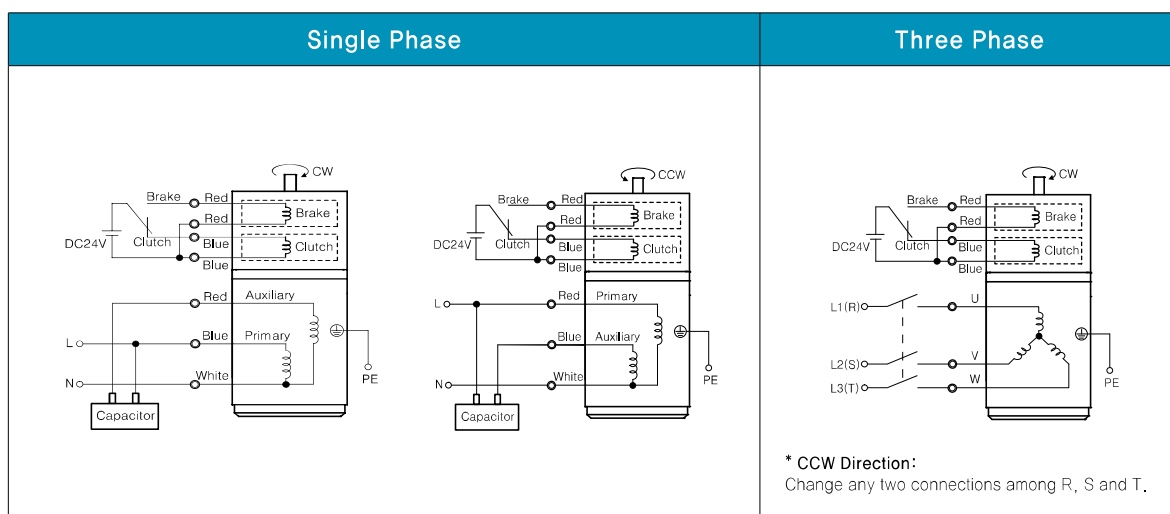
● MODEL:  
9XD10□□



#### WEIGHT

PART	WEIGHT(Kg)	
MOTOR	4,4	
GEAR BOX	9PB(F)K2BH - 9PB(F)K10BH	1,28
	9PB(F)K12.5BH - 9PB(F)K20BH	1,3
	9PB(F)K25BH - 9PB(F)K60BH	1,45
	9PB(F)K75BH - 9PB(F)K200BH	1,47
	9XD10□□	0,6

## 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.