B AC Motors

Clutch & Brake Motor 120W (□90mm)

120W Clutch & Brake Motor 120W(□90mm)

Motor Images

9CIDG□-120F2P+9PBK□BH	9CIDG□-120F2P+9PFK□BH
	

Motor Specification

Model 9IDG*-120F2P: Gear Type Shaft Lead Wire Type	Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque kgfcm	 N.m	Rated Load Speed r/min	 Current A	 Torque kgfcm	 N.m	Capacitor μF / VAC
9CIDG1(A)-120F2P	120	1ø110	60	4	Cont.	6.50	0.650	1600	2.00	7.40	0.740	25.0 / 250
9CIDG2(D)-120F2P	120	1ø220	60	4	Cont.	6.20	0.620	1600	1.04	7.40	0.740	6.0 / 450
9CIDGE-120F2P	120	1ø220	50	4	Cont.	6.40	0.640	1250	0.90	9.40	0.940	6.0 / 450
		1ø240				7.50	0.750		1.00	9.40	0.940	
9CIDG3(G)-120F2P	120	3ø220	50	4	Cont.	24.40	2.440	1300	0.88	9.00	0.900	-
			60			20.00	2.000	1600	0.71	7.40	0.740	
		3ø230	50	4	Cont.	27.00	2.700	1350	0.86	8.70	0.870	
			60			21.70	2.170	1600	0.76	7.40	0.740	
9CIDG4(K)-120F2P	120	3ø380	50	4	Cont.	24.30	2.430	1300	0.50	9.00	0.900	-
			60			19.90	1.990	1600	0.41	7.40	0.740	
		3ø400	50	4	Cont.	27.10	2.710	1350	0.49	8.70	0.870	
			60			21.90	2.190	1600	0.43	7.40	0.740	
9CIDG5(L)-120F2P	120	3ø415	50	4	Cont.	24.30	2.430	1300	0.47	9.00	0.900	-
			60			19.90	1.990	1600	0.37	7.40	0.740	
		3ø440	50	4	Cont.	27.50	2.750	1350	0.47	8.70	0.870	
			60			22.20	2.220	1600	0.40	7.40	0.740	

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
		r/min	900	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30
9IDG□-120FP	9PBK□BH 9PFK□BH	kgfcm	12.0	18.0	21.6	30.0	36.0	45.0	53.9	59.9	67.5	81.0	97.2	108.0	122.1	146.5	175.8	195.4	200.0	200.0
		N.m	1.17	1.76	2.11	2.94	3.52	4.41	5.29	5.87	6.62	7.94	9.53	10.59	11.97	14.36	17.23	19.15	19.60	19.60

Motor Model	Gearbox Model	Gear Ratio	75	90	100	120	150	180	200
		r/min	24	20	18	15	12	10	9
9IDG□-120FP	9PBK□BH 9PFK□BH	kgfcm	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	19.60	19.60	19.60	19.60	19.60	19.60	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
		r/min	750	500	417	300	250	200	167	150	120	100	83	75	60	50	42	37.5	30	25
9IDG□-120FP	9PBK□BH 9PFK□BH	kgfcm	14.1	21.1	25.4	35.2	42.3	52.9	63.4	70.5	79.4	95.3	114.3	127.0	143.6	172.3	200.0	200.0	200.0	200.0
		N.m	1.38	2.07	2.49	3.45	4.14	5.18	6.22	6.91	7.78	9.34	11.20	12.45	14.07	16.88	19.60	19.60	19.60	19.60

Motor Model	Gearbox Model	Gear Ratio	75	90	100	120	150	180	200
		r/min	20	17	15	12.5	10	8	7.5
9IDG□-120FP	9PBK□BH 9PFK□BH	kgfcm	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	19.60	19.60	19.60	19.60	19.60	19.60	19.60

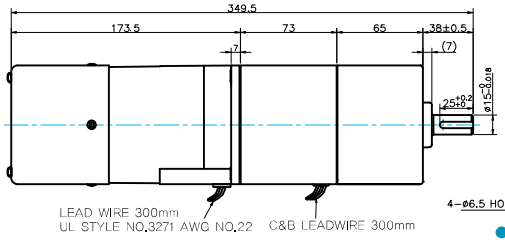
1) Enter the phase & voltage code in the place * within the motor model name. 2) Enter the gear ratio in the box (□) within the gearbox model name.
3) A colored background indicates the gear shaft rotation in the same direction as the motor shaft: a white background indicates the rotation in the opposite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

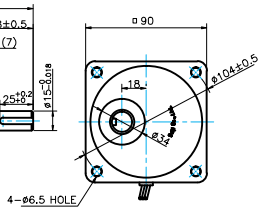
GEARED MOTOR

P TYPE GEARBOX

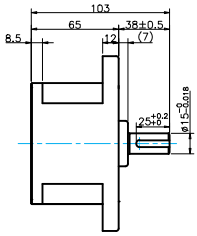
● MOTOR MODEL:
9CIDG□-120F2P

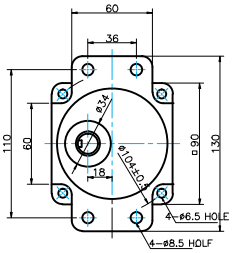


● GEARBOX MODEL:
9PBK□BH

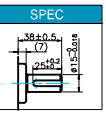


● GEARBOX MODEL:
9PFK□BH

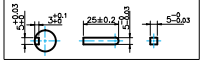




● GEARBOX OUTPUT SHAFT

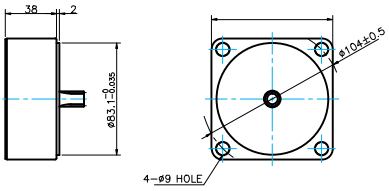
MODEL	SPEC
KEY TYPE	
9PBK□BH 9PFK□BH	

● KEY SPEC

GEARBOX


INTER-DECIMAL GEARBOX

● MODEL:
9XD10□□

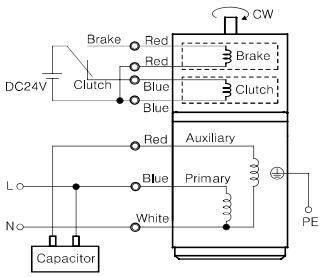


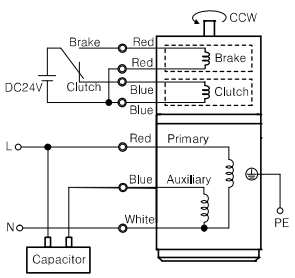
WEIGHT

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

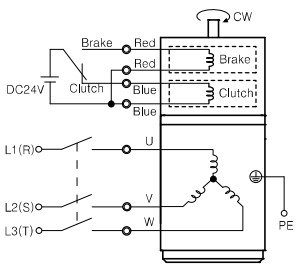
Connection Diagrams

Single Phase





Three Phase



* CCW Direction:
Change any two connections among R, S and T.

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.