120W Reversible Motor 120W(□90mm)

Motor Specification

Model 9RDG*-120F□(-T): Gear Type Shaft 9RDD*-120F(-T): D-Cut Type Shaft 9RDK*-120F(-T): Key Type Shaft		Output	Voltage	Frequency	Poles	Duty	Starting Torque		Rated Load				Capacitor
									Speed	Current	Torque		
Lead Wire Type	Terminal Box Type	W	V	Hz			kgfcm	N.m	r/min	A	kgfcm	N.m	μF / VAC
9RDGA-120F□	9RDGA-120F□-T	120	1ø110	60	4	30min.	7.60	0.760	1550	2.50	7.60	0.760	30.0 / 250
9RDGD-120F□	9RDGD-120F□-T	120	1ø220	60	4	30min.	6.60	0.660	1600	1.10	7.40	0.740	6.5 / 450
9RDGE-120F□	9RDGE-120F□-T	120	1ø220	50	4	30min.	6.40	0.640	1250	1.00	9.40	0.940	6.5 / 450
			1ø240				7.80	0.780		1.10	10.20	1.020	

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
		r/min	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
9RDG□ -120FP	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
9RDG□ -120FH	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	10	12	15	18	25	30	36	50	60
		r/min	180	150	120	100	72	60	50	36	30
9RDG□ -120FW	9WD□BL/ □BR/□BRL	kgfcm	60.7	71.0	85.5	98.6	129.5	146.5	153.1	142.9	122.4
		N.m	5.95	6.96	8.38	9.66	12.69	14.36	15.00	14.00	12.00

Motor Model	Gearbox Model	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
		r/min	240	180	120	90	72	60	45	36	30	22
9RDG□ -120FWH	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	4.57	5.87	8.27	10.44	11.97	13.92	17.11	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
		r/min	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
9RDG□ -120FP	9PBK□BH 9PFK□BH	kgfcm	15.6	23.4	28.1	39.0	46.8	58.5	70.2	88.1	105.8	126.9	127.8	159.8	191.8	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.53	2.29	2.75	3.82	4.59	5.73	6.88	8.64	10.36	12.44	12.53	15.66	18.79	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
9RDG□ -120FH	9HBK□BH 9HFK□BH	kgfcm	–	23.4	28.1	–	46.8	–	70.2	88.1	105.8	126.9	127.8	159.8	191.8	230.1	–	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m		2.29	2.75		4.59		6.88	8.64	10.36	12.44	12.53	15.66	18.79	22.55		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
		r/min	150	125	100	83	60	50	42	30	25
9RDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	77.1	90.2	108.6	125.2	142.9	163.3	153.1	142.9	122.4
		N.m	7.55	8.84	10.64	12.27	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
		r/min	200	150	100	75	60	50	38	30	25	18
9RDG□ -120FWH	9WHD□ -030	kgfcm	59.2	76.1	107.2	135.4	155.1	180.5	183.7	173.5	163.3	132.7
		N.m	5.80	7.46	10.50	13.27	15.20	17.69	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.

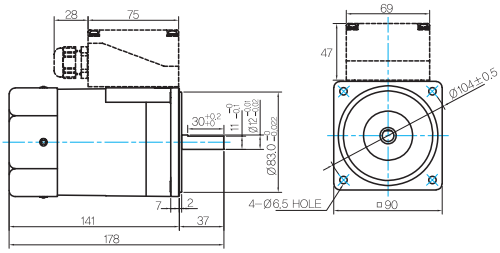
B AC Motors

Reversible Motor 120W(□90mm)

Dimensions

MOTOR ONLY

● MOTOR MODEL:
9RDD□-120F(-T) (GENERAL FAN)

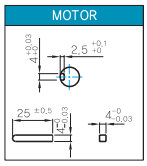


● MOTOR OUTPUT SHAFT

MODEL	SPEC
D-CUT TYPE	
9RDD□-120F	
KEY TYPE	
9RDK□-120F	

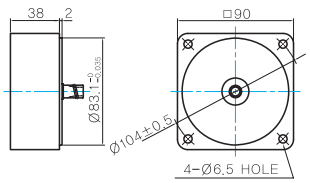
● KEY SPEC

MOTOR



INTER-DECIMAL GEARBOX

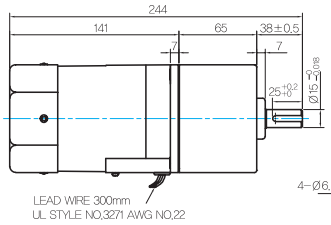
● MODEL: 9XD10□□



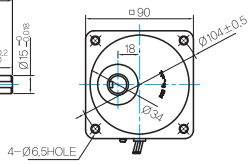
GEARED MOTOR

P TYPE GEARBOX

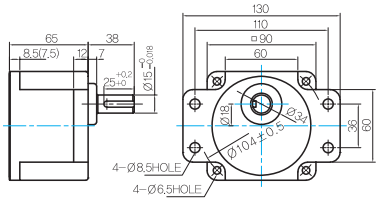
● MOTOR MODEL:
9RDG□-120FP (GENERAL FAN)



● GEARBOX MODEL:
9PBK□BH



● GEARBOX MODEL:
9PFK□BHI

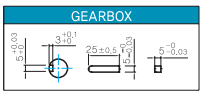


● GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	
9PBK□BH 9PFK□BH	

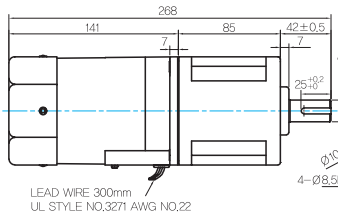
● KEY SPEC

GEARBOX

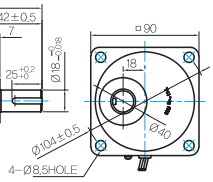


H TYPE GEARBOX

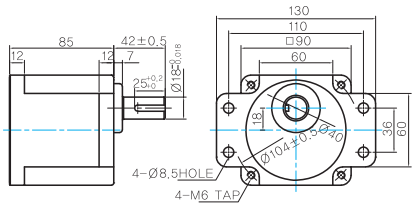
● MOTOR MODEL:
9RDG□-120FH (GENERAL FAN)



● GEARBOX MODEL:
9HBK□BH



● GEARBOX MODEL:
9HFK□BH

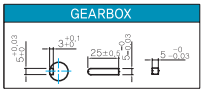


● GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	
9HBK□BH 9HFK□BH	

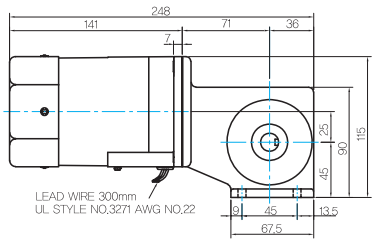
● KEY SPEC

GEARBOX

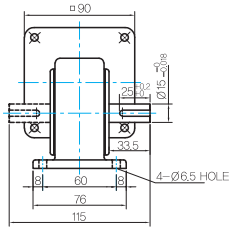


W TYPE GEARBOX

● MOTOR MODEL:
9RDG□-120FW (GENERAL FAN)

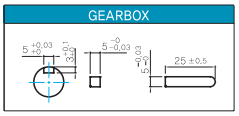


● GEARBOX MODEL:
9WD□BL/BR/BRL

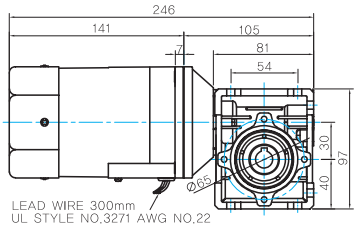


● KEY SPEC

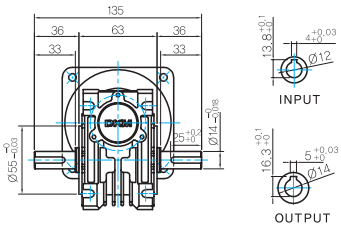
GEARBOX



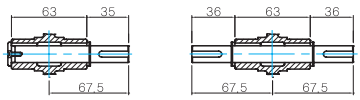
● MOTOR MODEL:
9RDG□-120FWH (GENERAL FAN)



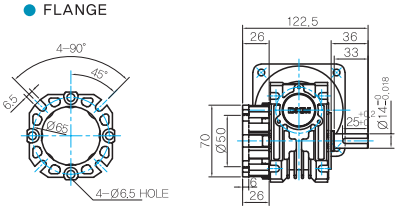
● GEARBOX MODEL:
9WHD□-030



● SHAFT(Unidirectional, Bi-directional)

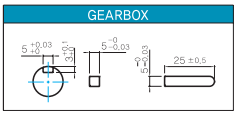


● FLANGE



● KEY SPEC

GEARBOX



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

* The output flange and shafts are sold separately.

Motor Images

9RDD□-120F	9RDD□-120F-T	9RDG□-120FP+9PBK□BH	9RDG□-120FP+9PFK□BH
9RDG□-120FH+9HBK□BH	**9RDG□-120FH+9HFK□BH**	**9RDG□-120FW+9WD□BL**	**9RDG□-120FWH+9WHD□**