

Reversible Motor 90W(□90mm)

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Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load			Capacitor μF / VAC	
9RDG*-90F□(-T): Gear Type Shaft 9RDD*-90F(-T): D-Cut Type Shaft 9RDK*-90F(-T): Key Type Shaft	Lead Wire Type						Terminal Box Type	kgfcm	N.m	Speed r/min	Current A		Torque kgfcm N.m
9RDGA-90F□	9RDGA-90F□-T	90	1∅110	60	4	30min.	6.60	0.660	1600	2.00	6.40	0.640	25.0 / 250
9RDGD-90F□	9RDGD-90F□-T	90	1∅220	60	4	30min.	6.00	0.600	1600	0.97	6.60	0.660	6.0 / 450
9RDGE-90F□	9RDGE-90F□-T	90	1∅220	50	4	30min.	6.40	0.640	1250	0.90	7.80	0.780	6.0 / 450
			1∅240				7.80	0.780		1.00	8.90	0.890	

- 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
9RDG□ -90FP	9PBK□BH	kgfcm	11.0	16.4	19.7	27.4	32.9	41.1	49.3	61.9	74.3	89.1	89.76	112.2	134.6	161.1	179.5	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
	9PFK□BH	N.m	1.07	1.61	1.93	2.68	3.22	4.03	4.83	6.06	7.28	8.73	8.80	11.00	13.19	15.83	17.59	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
9RDG□ -90FH	9HBK□BH	kgfcm	-	16.4	19.7	-	32.9	-	49.3	61.9	74.3	89.1	89.8	112.2	134.6	161.6	-	224.4	269.3	300.0	300.0	300.0	300.0	300.0	300.0	300.0
	9HFK□BH	N.m	-	1.61	1.93	-	3.22	-	4.83	6.06	7.28	8.73	8.80	11.00	13.19	15.83	-	21.99	26.39	29.40	29.40	29.40	29.40	29.40	29.40	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
9RDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	54.1	63.4	76.2	87.9	115.5	130.7	153.1	142.9	122.4
		N.m	5.30	6.21	7.47	8.62	11.32	12.81	15.00	14.00	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
9RDG□ -90FWH	9WHD□ -030	kgfcm	41.6	53.5	75.2	95.0	108.9	126.7	155.8	173.5	163.3	132.7
		N.m	4.07	5.24	7.37	9.31	10.67	12.42	15.26	17.00	16.00	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
9RDG□ -90FP	9PBK□BH	kgfcm	12.9	19.4	23.3	32.4	38.8	48.6	58.3	73.1	87.8	105.3	106.1	132.6	159.1	190.9	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
	9PFK□BH	N.m	1.27	1.90	2.28	3.17	3.81	4.76	5.71	7.17	8.60	10.32	10.40	12.99	15.59	18.71	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
9RDG□ -90FH	9HBK□BH	kgfcm	-	19.4	23.3	-	38.8	-	58.3	73.1	87.8	105.3	106.1	132.6	159.1	190.9	-	265.2	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
	9HFK□BH	N.m	-	1.90	2.28	-	3.81	-	5.71	7.17	8.60	10.32	10.40	12.99	15.59	18.71	-	25.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	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
9RDG□ -90FW	9WD□BL/ □BR/□BRL	kgfcm	64.0	74.9	90.1	103.9	136.5	154.4	153.1	142.9	122.4
		N.m	6.27	7.34	8.83	10.18	13.38	15.14	15.00	14.00	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
9RDG□ -90FWH	9WHD□ -030	kgfcm	49.1	63.2	88.9	112.3	128.7	149.8	183.7	173.5	163.3	132.7
		N.m	4.82	6.19	8.71	11.01	12.61	14.68	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.

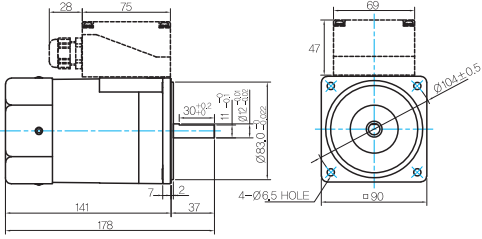
B AC Motors

Reversible Motor 90W(□90mm)

Dimensions

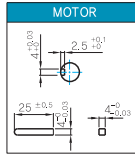
MOTOR ONLY

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



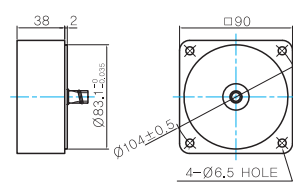
- MOTOR OUTPUT SHAFT
- KEY SPEC

MODEL	SPEC
D-CUT TYPE	37 30 ^{+0,02} 11 ^{+0,005} 11 ^{+0,005}
KEY TYPE	37 25 ^{+0,02} 11 ^{+0,005}
9RDD□-90F	
9RDK□-90F	



INTER-DECIMAL GEARBOX

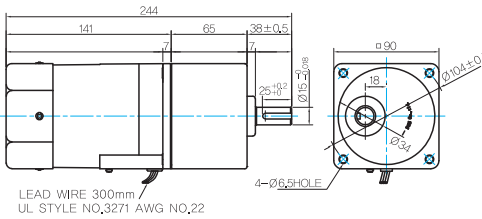
- MODEL: 9XD10□□



GEARED MOTOR

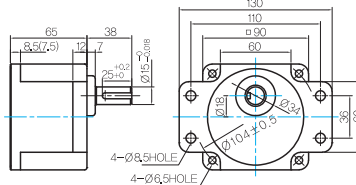
P TYPE GEARBOX

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



- GEARBOX MODEL: 9PBK□BH

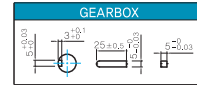
- GEARBOX MODEL: 9PFK□BH



- GEARBOX OUTPUT SHAFT

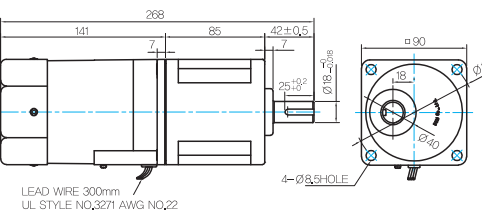
MODEL	SPEC
KEY TYPE	38 25 ^{+0,02} 11 ^{+0,005}
9PBK□BH	
9PFK□BH	

- KEY SPEC



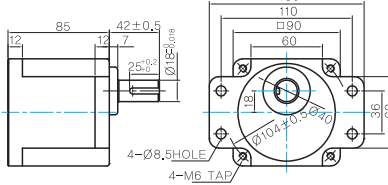
H TYPE GEARBOX

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



- GEARBOX MODEL: 9HKB□BH

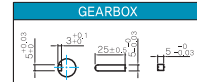
- GEARBOX MODEL: 9HFK□BH



- GEARBOX OUTPUT SHAFT

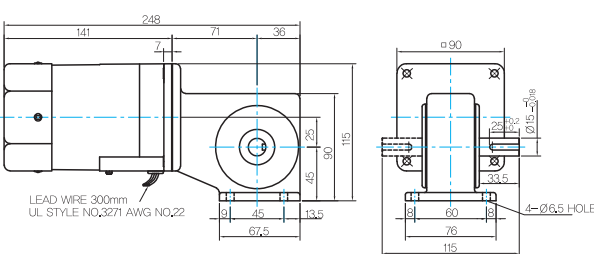
MODEL	SPEC
KEY TYPE	42 25 ^{+0,02} 11 ^{+0,005}
9HKB□BH	
9HFK□BH	

- KEY SPEC



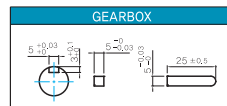
W TYPE GEARBOX

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

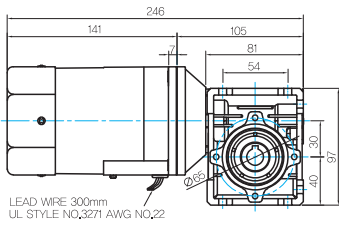


- GEARBOX MODEL: 9WD□BL/BR/BRL

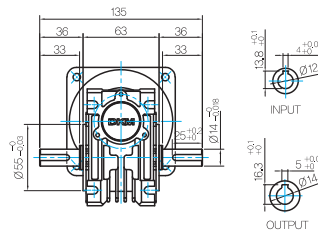
- KEY SPEC



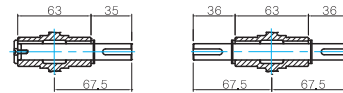
● MOTOR MODEL:
9RDG□-90FWH (GENERAL FAN)



● GEARBOX MODEL:
9WHD□-030



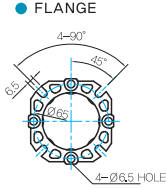
● SHAFT(Unidirectional, Bi-directional)



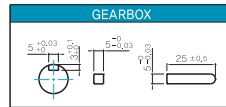
● WEIGHT

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

● FLANGE

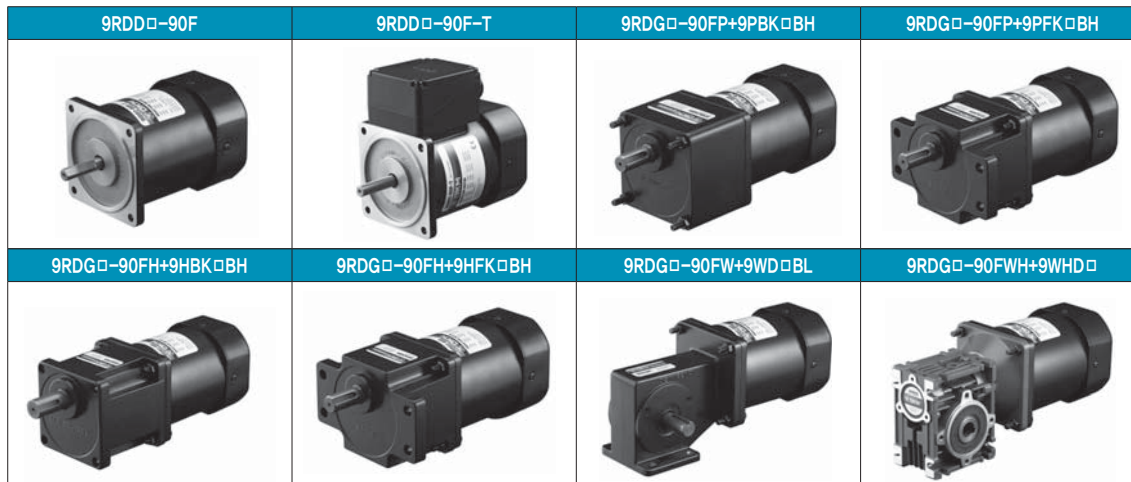


● KEY SPEC



* The output flange and shafts are sold separately.

● Motor Images



B AC Motors

Reversible Motor 90W(□90mm)

Connection Diagrams

Lead Wire Type	Terminal Box Type						
	<table border="1"> <thead> <tr> <th style="background-color: #0070C0; color: white;">Code</th> <th style="background-color: #0070C0; color: white;">Contact Capacity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">SW</td> <td>AC125V 5A min. or AC250V 5A min. (Inductive load)</td> </tr> <tr> <td style="text-align: center;">R₀, C₀</td> <td>R₀=5~200Ω C₀=0.1~0.2μF, 200W (400W)</td> </tr> </tbody> </table> <p>* Connect a CR circuit for surge suppression to protect the contact.</p>	Code	Contact Capacity	SW	AC125V 5A min. or AC250V 5A min. (Inductive load)	R₀, C₀	R ₀ =5~200Ω C ₀ =0.1~0.2μF, 200W (400W)
Code	Contact Capacity						
SW	AC125V 5A min. or AC250V 5A min. (Inductive load)						
R₀, C₀	R ₀ =5~200Ω C ₀ =0.1~0.2μF, 200W (400W)						

- 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) During operation it is available to change the rotating direction by turning the switch to CW or CCW.