

180W

Speed Control
Brake Motor
180W (□90mm)

Motor Specification

Model 9SBDG*~180F2□: Gear Type Shaft 9SBD*~180F2: D-Cut Type Shaft 9SBDK*~180F2: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty 30min.	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
9SBDGD-180F2□	180	1∅220	60	4	30min.	90-1700	8.40	0.840	10.00	1.000	6.60	0.660	8.0 / 400
9SBDGE-180F2□	180	1∅220	50	4	30min.	90-1400	6.20	0.620	10.00	1.000	6.60	0.660	8.0 / 400
		1∅240					7.10	0.710	12.00	1.200	7.50	0.750	

- 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 are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25
9SBDG□ -180F2H	9HBK□BH	1200	220	60	kgfcm N.m	24.9 2.44	29.9 2.93	49.8 4.88	74.7 7.32	93.8 9.19	112.5 11.03	135.0 13.23	136.0 13.33	170.0 16.66
			220/ 240	50	kgfcm N.m	29.9 2.93	35.9 3.51	59.8 5.86	89.6 8.78	124.5 12.20	149.4 14.64	179.3 17.57	199.2 19.52	249.0 24.40
	9HFK□BH	90	220	60	kgfcm N.m	16.4 1.61	19.7 1.93	32.9 3.22	49.3 4.83	61.9 6.06	74.3 7.28	89.1 8.73	89.8 8.80	112.2 11.00
			220/ 240	50	kgfcm N.m	18.7 1.83	22.4 2.20	37.4 3.66	56.0 5.49	70.3 6.89	84.4 8.27	101.3 9.92	102.0 10.00	127.5 12.50

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	30	36	50	60	75	90	100	120	150	180	200
9SBDG□ -180F2H	9HBK□BH	1200	220	60	kgfcm N.m	204.0 19.99	244.8 23.99	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220/ 240	50	kgfcm N.m	298.8 29.28	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
	9HFK□BH	90	220	60	kgfcm N.m	134.6 13.19	161.6 15.83	224.4 21.99	269.3 26.39	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220/ 240	50	kgfcm N.m	153.0 14.99	183.6 17.99	255.0 24.99	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9SBDG□ -180F2WH	9WHD□-030	1200	220	60	kgfcm N.m	63.0 6.17	81.0 7.94	114.0 11.17	144.0 14.11	165.0 16.17	192.0 18.82	183.7 18.00	173.5 17.00	163.3 16.00	132.7 13.00
			220/240	50	kgfcm N.m	75.6 7.41	97.2 9.53	136.8 13.41	172.8 16.93	198.0 19.40	204.1 20.00	183.7 18.00	173.5 17.00	163.3 16.00	132.7 13.00
	9WHD□-040	90	220	60	kgfcm N.m	41.6 4.07	53.5 5.24	75.2 7.37	95.0 9.31	108.9 10.67	126.7 12.42	155.8 15.26	173.5 17.00	163.3 16.00	132.7 13.00
			220/240	50	kgfcm N.m	47.3 4.63	60.8 5.95	85.5 8.38	108.0 10.58	123.8 12.13	144.0 14.11	177.0 17.35	173.5 17.00	163.3 16.00	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.
- 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.

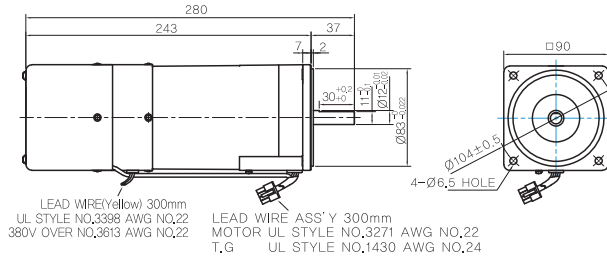
B AC Motors

S.C. Brake Motor 180W (□90mm)

Dimensions

MOTOR ONLY

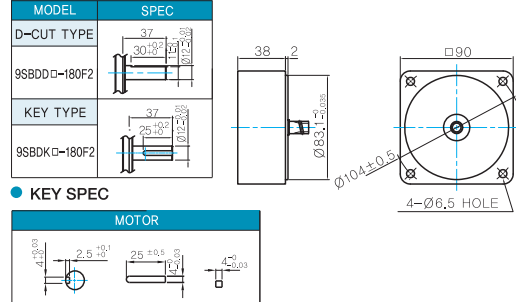
- MOTOR MODEL:
9SBDD□-180F2 (POWERFUL FAN)



INTER-DECIMAL GEARBOX

- MOTOR OUTPUT SHAFT

- MODEL: 9XD10□□



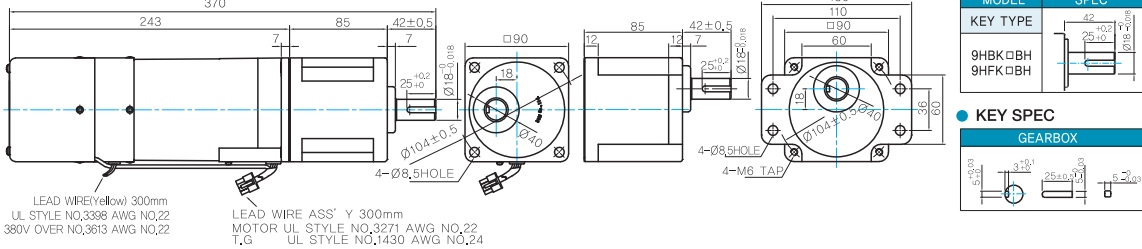
GEARED MOTOR

H TYPE GEARBOX

- MOTOR MODEL:
9SBDG□-180F2H (POWERFUL FAN)

- GEARBOX MODEL:
9HBK□BH
- GEARBOX MODEL:
9HFK□BH

- GEARBOX OUTPUT SHAFT

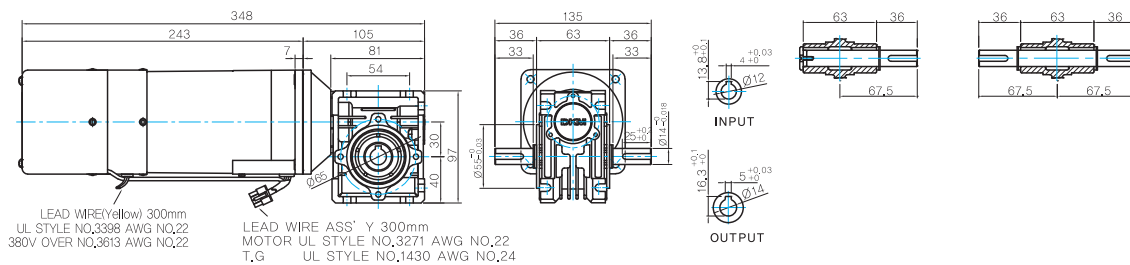


WH TYPE GEARBOX

- MOTOR MODEL:
9SBDG□-180F2WH (POWERFUL FAN)

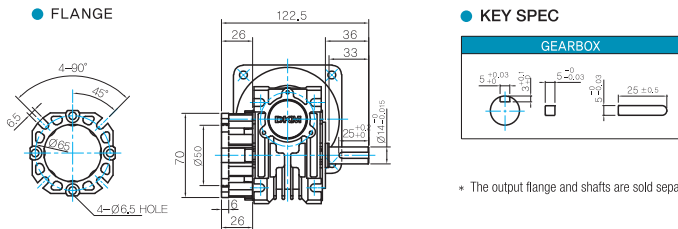
- GEARBOX MODEL:
9WHD□-030

- SHAFT (Unidirectional, Bi-directional)



- FLANGE

- KEY SPEC



* The output flange and shafts are sold separately.

● MOTOR MODEL:
9WHD□-180F2WH (POWERFUL FAN)

LEAD WIRE (yellow) 300mm
UL STYLE NO.3398 AWG NO.22
380V OVER NO.3613 AWG NO.22

LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.22
T,G UL STYLE NO.1430 AWG NO.24

● GEARBOX MODEL:
9WHD□-040

● SHAFT (Unidirectional, Bi-directional)

● FLANGE

● KEY SPEC

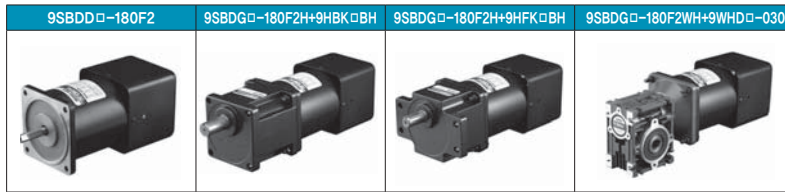
GEARBOX	

* The output flange and shafts are sold separately.

● WEIGHT

PART	WEIGHT (kg)
MOTOR	3,8
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
9WHD□-040	2,2
9XD10□	0,5

Motor Images



Connection Diagrams

FX1000A - Connector Type	FX1000A - Terminal Type
<p>Direction: Clockwise COM+CW, Counterclockwise COM+CCW Capacitor: Connect 3-9 or 6-9, according to its capacity</p>	
DSKM-Using Internal Volume	DSKM-Using External Volume
	<p>External speed setting device (20k Ω 1/4W)</p> <p>External speed setting device to NO. 2pin of the socket</p>

- 1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation. Now you can adjust the main volume to control the output speed of motor.
- 2) The direction of motor rotation is as viewed from the shaft end of the motor.
- 3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.