

E.M. Brake Motor 200W (□90mm)

200W

Electromagnetic
Brake Motor
200W(□90mm)

Motor Specification

Model 9BDG*-200F□: Gear Type Shaft 9BDD*-200F: D-Cut Type Shaft 9BDK*-200F: Key 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	
9BDGG-200F□	200	3∅220	50	4	Cont.	38.00	3.800	1300	1.40	15.00	1.500	-
			60			30.00	3.000	1550	1.20	13.00	1.300	
9BDGK-200F□	200	3∅380	50	4	Cont.	26.00	2.600	1300	0.69	15.00	1.500	-
			60			22.00	2.200	1550	0.61	12.80	1.280	
		3∅400	50	4	Cont.	30.00	3.000	1300	0.75	15.00	1.500	
			60			25.00	2.500	1600	0.60	12.20	1.220	

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching gearhead in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft is for attaching gearhead and D-Cut & Key Type Shafts are for using motor only.

Max. Permissible Torque at Output Shaft of Gearhead

60Hz

Motor Model	Gearhead Model	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	
			r/min	600	500	300	200	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10
9BDG□ -200FH	9HBK□BH 9HFK□BH	kgfcm	32.4	38.8	64.7	97.1	121.9	146.3	175.5	176.8	221.0	265.2	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m	3.17	3.81	6.34	9.52	11.94	14.33	17.20	17.33	21.66	25.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

Motor Model	Gearhead 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
9BDG□ -200FWH	9WHD□	kgfcm	81.9	105.3	148.2	183.7	214.3	204.1	183.7	173.5	163.3	132.7
		N.m	8.03	10.32	14.52	18.00	21.00	20.00	18.00	17.00	16.00	13.00

50Hz

Motor Model	Gearhead Model	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	
			r/min	500	417	250	167	120	100	83	75	60	50	42	30	25	20	17	15	13	10	8
9BDG□ -200FH	9HBK□BH 9HFK□BH	kgfcm	37.4	44.8	74.7	112.1	140.6	168.8	202.5	204.0	255.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m	3.66	4.39	7.32	10.98	13.78	16.54	19.85	19.99	24.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

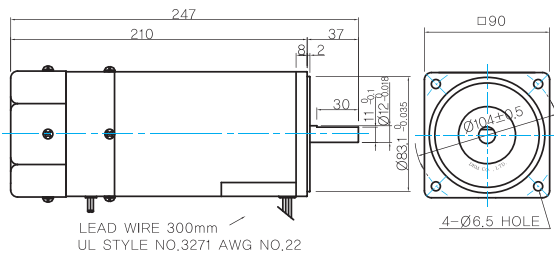
Motor Model	Gearhead Model	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
			r/min	200	150	100	75	60	50	38	30	25
9BDG□ -200FWH	9WHD□	kgfcm	94.5	121.5	171	183.7	214.3	204.1	183.7	173.5	163.3	132.7
		N.m	9.26	11.91	16.76	18.00	21.00	20.00	18.00	17.00	16.00	13.00

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the gearhead 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.

Dimensions

MOTOR ONLY

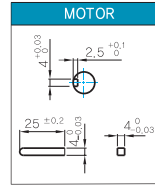
- MOTOR MODEL:
9BDD□-200F (GENERAL FAN)



MOTOR OUTPUT SHAFT

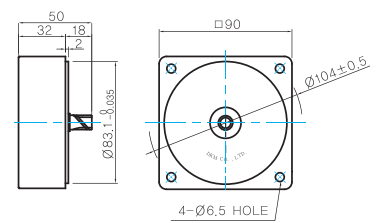
MODEL	SPEC
D-CUT TYPE	
KEY TYPE	
9BDD□-200F	
9BDK□-200F	

KEY SPEC



INTER-DECIMAL GEARHEAD

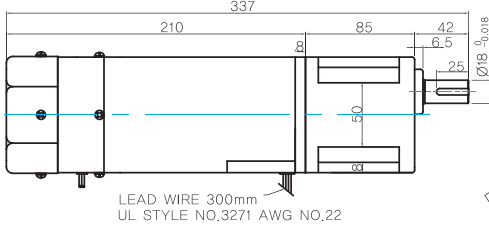
- MODEL:
9XD10M□



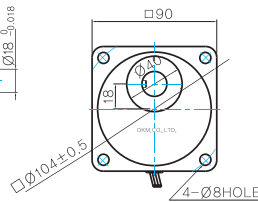
GEARED MOTOR

H TYPE GEARHEAD

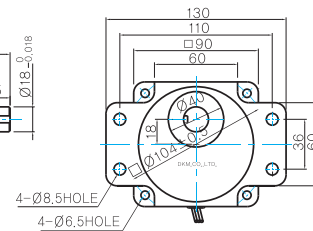
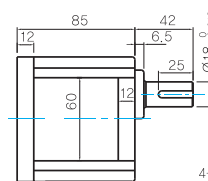
- MOTOR MODEL:
9BDG□-200FH (GENERAL FAN)



- GEARHEAD MODEL:
9HBK□BH



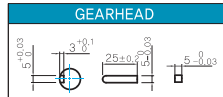
- GEARHEAD MODEL:
9HFK□BH



GEARHEAD OUTPUT SHAFT

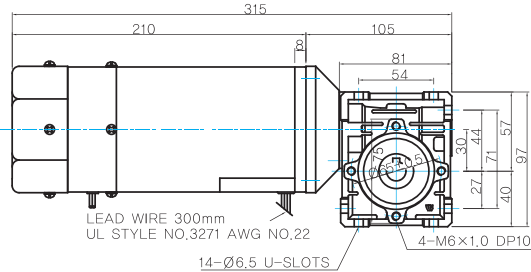
KEY SPEC

MODEL	SPEC
KEY TYPE	
9HBK□BH	
9HFK□BH	

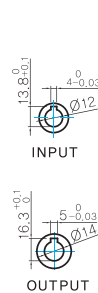
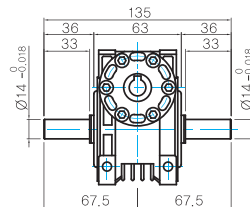


WH TYPE GEARHEAD

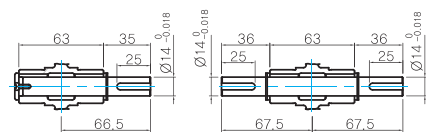
- MOTOR MODEL:
9BDG□-200FWH (GENERAL FAN)



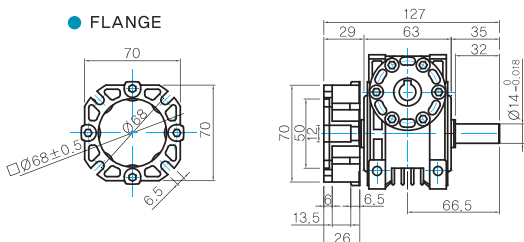
- GEARHEAD MODEL:
9WHD□



- SHAFT (Unidirectional, Bi-directional)



FLANGE



KEY SPEC

GEARHEAD

* The output flange and shafts are sold separately.

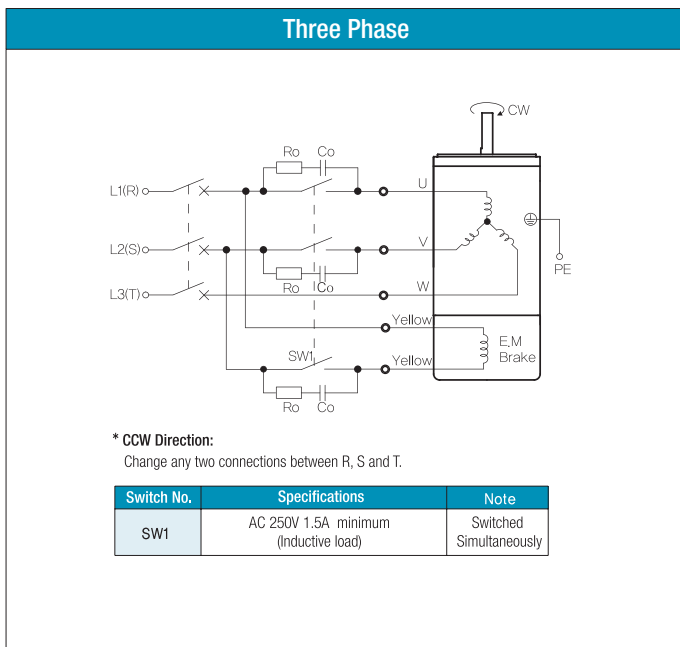
WEIGHT

PART	WEIGHT(Kg)
MOTOR	4.3
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)K180BH	1.8
9WHD□	1.13
9XD10M□	0.5

Motor Images



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) SW1 operates both motor and electromagnetic brake action.
- 4) The electromagnetic brake will be released and the motor will rotate when SW1 is switched simultaneously to ON.
When SW1 is switched simultaneously to OFF,
the motor stops immediately with the electromagnetic brake and holds the load.
- 5) If you wish to release the brake while the motor is stopped, apply voltage between the two brake lead wires (yellow).
- 6) Ro and Co indicate CR circuit for surge suppression. [Ro=5~200Ω, Co=0.1~0.2μF, 200WV (400WV)]