

B AC Motors

Induction Motor 180W(□90mm)

180W

Induction Motor
180W(□90mm)

Motor Specification

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque		Rated Load			Capacitor μF / VAC	
Lead Wire Type	Terminal Box Type						kgfcm	N.m	Speed r/min	Current A	Torque kgfcm N.m		
9IDG*–180F□(-T): Gear Type Shaft 9IDD*–180F(-T): D-Cut Type Shaft 9IDK*–180F(-T): Key Type Shaft		180	1∅220	60	4	Cont.	6.60	0.660	1600	1.20	11.00	1.100	6.5 / 450
9IDG□–180F□	9IDGD–180F□–T	180	1∅220	50	4	Cont.	7.00	0.700	1250	1.50	14.00	1.400	8.0 / 450
9IDGE–180F□	9IDGE–180F□–T		1∅240				7.80	0.780		1.60	14.80	1.480	

- 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	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200
			600	500	300	200	144	120	100	90	72	60	50	36	30	24	20	18	15	12	10	9
9IDG□–180FH	9HBK□BH 9HFK□BH	kgfcm	27.4	32.9	54.8	82.2	103.1	123.8	148.5	149.6	187.0	224.4	269.3	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m	2.68	3.22	5.37	8.05	10.11	12.13	14.55	14.66	18.33	21.99	26.39	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

Motor Model	Gearbox Model	Gear Ratio r/min	7.5	10	15	20	25	30	40	50	60	80	100
			240	180	120	90	72	60	45	36	30	22.5	18
9IDG□–180FWH	9WHD□–030	kgfcm	69.3	89.1	125.4	158.4	181.5	204.1	183.7	173.5	163.3	132.7	–
		N.m	6.79	8.73	12.29	15.52	17.79	20.00	18.00	17.00	16.00	13.00	–
	9WHD□–040	kgfcm	–	–	–	–	–	–	–	265.0	300.0	295.0	270.0
		N.m	–	–	–	–	–	–	–	25.98	29.41	28.92	26.47

50Hz

Motor Model	Gearbox Model	Gear Ratio r/min	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200
			500	417	250	167	120	100	83	75	60	50	42	30	25	20	17	15	13	10	8	7.5
9IDG□–180FH	9HBK□BH 9HFK□BH	kgfcm	34.9	41.8	69.7	104.6	131.3	157.5	189.0	190.4	238.0	285.6	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
		N.m	3.42	4.10	6.83	10.25	12.86	15.44	18.52	18.66	23.32	27.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

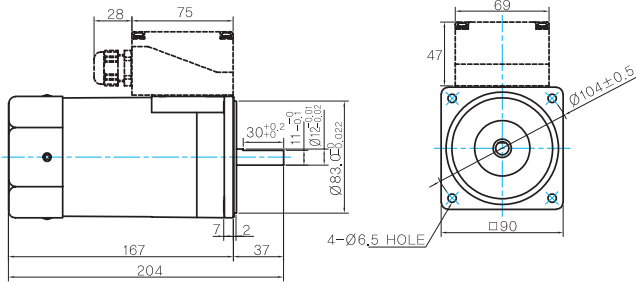
Motor Model	Gearbox Model	Gear Ratio r/min	7.5	10	15	20	25	30	40	50	60	80	100
			200	150	100	75	60	50	37.5	30	25	18.75	15
9IDG□–180FWH	9WHD□–030	kgfcm	88.2	113.4	159.6	183.7	214.3	204.1	183.7	173.5	163.3	132.7	–
		N.m	6.98	8.97	12.62	15.95	18.28	20.00	18.00	17.00	16.00	13.00	–
	9WHD□–040	kgfcm	–	–	–	–	–	–	–	340.0	330.0	295.0	270.0
		N.m	–	–	–	–	–	–	–	33.33	32.35	28.92	26.47

- 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.

Dimensions

MOTOR ONLY

- MOTOR MODEL:
9IDD□-180F(-T) (GENERAL FAN)



MOTOR OUTPUT SHAFT

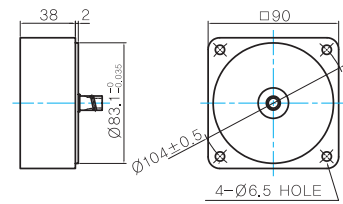
MODEL	SPEC
D-CUT TYPE	
9IDD□-180F	
KEY TYPE	
9IDK□-180F	

KEY SPEC

MOTOR	

INTER-DECIMAL GEARBOX

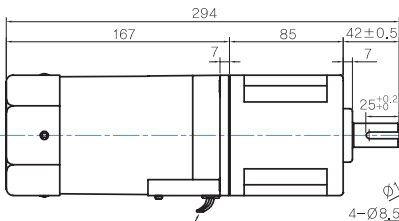
- MODEL:
9XD10□□



GEARED MOTOR

H TYPE GEARBOX

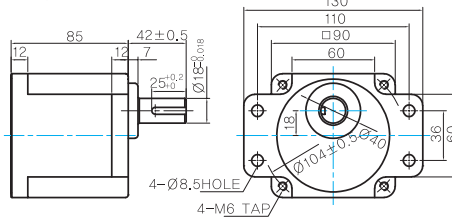
- MOTOR MODEL:
9IDG□-180FH (GENERAL FAN)



LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

- GEARBOX MODEL:
9HBK□BH

- GEARBOX MODEL:
9HFK□BH



GEARBOX OUTPUT SHAFT

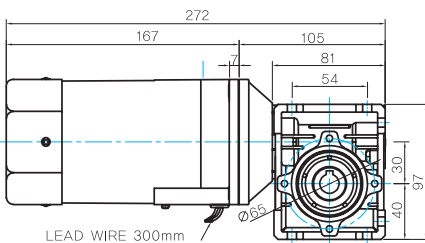
MODEL	SPEC
KEY TYPE	
9HBK□BH 9HFK□BH	

KEY SPEC

GEARBOX	

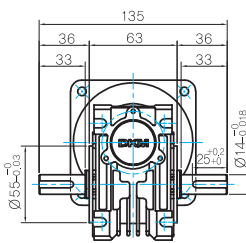
WH TYPE GEARBOX

- MOTOR MODEL:
9IDG□-180FWH (GENERAL FAN)

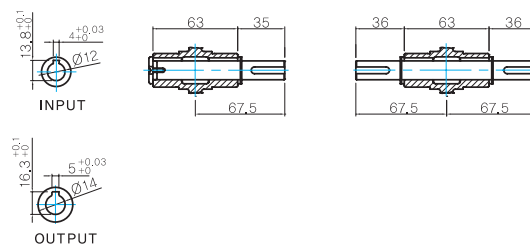


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

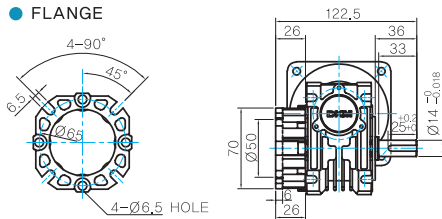
- GEARBOX MODEL:
9WHD□-030



- SHAFT(Unidirectional, Bi-directional)



FLANGE



KEY SPEC

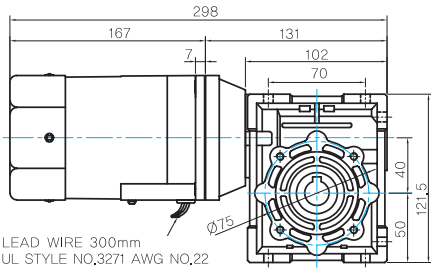
GEARBOX	

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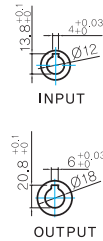
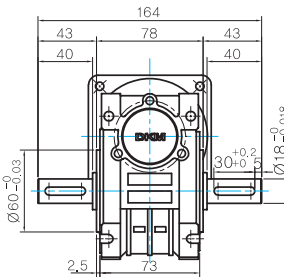
Dimensions

● MOTOR MODEL:
9IDG□-180FWH (GENERAL FAN)

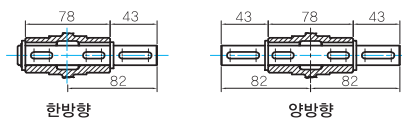


LEAD WIRE 300mm
UL STYLE NO.3271 AWG NO.22

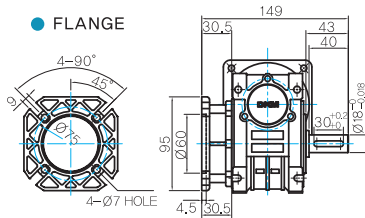
● GEARBOX MODEL:
9WHD□-040



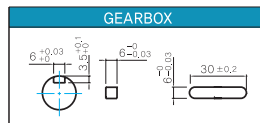
● SHAFT



● FLANGE



● KEY SPEC



WEIGHT

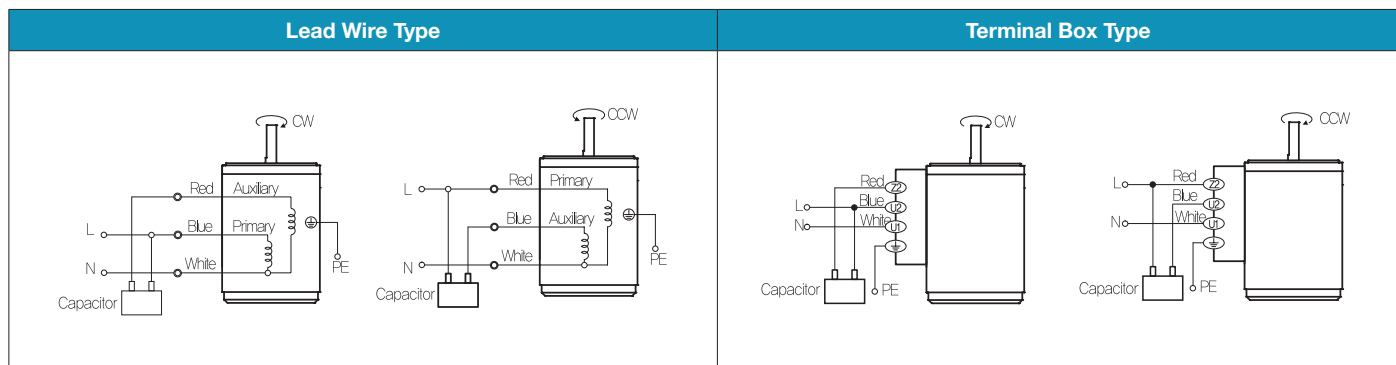
PART		WEIGHT(Kg)
MOTOR		3.0
GEAR BOX	9HB(F)K3BH ~ 9HB(F)K9BH	1.45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1.5
	9HB(F)K20BH ~ 9HB(F)K60BH	1.7
	9HB(F)K75BH ~ 9HB(F)K200BH	1.8
	9WHD□-030	1.13
9WHD□-040		2.2
9XD10□□		0.5

* 출력 FLANGE와 SHAFT는 별매입니다.

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) 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.