

INDUCTION MOTOR 180W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model		Output	Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor			
Lead Wire Type	Terminal Box Type					HP	W	VAC	Hz	A	gfcM		mN.m	oz-in	gfcM	mN.m
9IDG□-180FP(H) : Pinion Shaft Type 9IDD□-180F : D-Cut Shaft Type																
(TP) 9IDG(D)C-180FP(H)	9IDG(D)C-180FP(H)-T	1/4	180	Single Phase 220	50	1.40	7000	700	99	13500	1350	191	1300	6.5	400	
(TP) 9IDG(D)D-180FP(H)	9IDG(D)D-180FP(H)-T			Single Phase 220	60					11300	1130	108	1550			
(TP) 9IDG(D)E-180FP(H)	9IDG(D)E-180FP(H)-T			Single Phase 230	50					13500	1350	191	1300			
(TP) 9IDG(D)F-180FP(H)	9IDG(D)F-180FP(H)-T			Single Phase 230	60					11300	1130	108	1550			

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (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	
Motor/Gearhead	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	
9IDG2-180FP	9PBK□BH	kgf cm	22	27	32	45	54	67	80	100	120	152	171	189	200	200	200	200	200	200	200	200	200	200	200
	9PFK□BH	N.m	2.2	2.7	3.2	4.5	5.4	6.7	8.0	10	12	15	17	19	20	20	20	20	20	20	20	20	20	20	20
9IDG2-180FH	9HBK□BH	kgf cm	-	28	34	-	57	-	84	105	126	160	-	210	227	273	-	300	300	300	300	300	300	300	300
		N.m	-	2.8	3.4	-	5.7	-	8.4	11	13	16	-	21	23	27	-	30	30	30	30	30	30	30	30
		lb-in	19	24	29	39	48	60	71	88	106	134	151	167	177	177	177	177	177	177	177	177	177	177	177
		lb-in	-	2.8	3.4	-	5.7	-	8.4	11	13	16	-	21	23	27	-	30	30	30	30	30	30	30	30
		lb-in	-	25	30	-	50	-	74	93	111	141	-	185	200	241	-	265	265	265	265	265	265	265	265

50Hz

Model	speed RPM (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	
Motor/Gearhead	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	
9IDGC-180FP	9PBK□BH	kgf cm	25	32	39	54	65	81	97	122	145	200	200	200	200	200	200	200	200	200	200	200	200	200	200
	9PFK□BH	N.m	2.5	3.2	3.9	5.4	6.5	8.1	9.7	12	15	19	20	20	20	20	20	20	20	20	20	20	20	20	20
9IDGC-180FH	9HBK□BH	kgf cm	-	34	41	-	68	-	105	128	153	200	-	230	287	300	-	300	300	300	300	300	300	300	300
		N.m	-	3.4	4.1	-	6.8	-	10.5	13	15	20	-	23	28	30	-	30	30	30	30	30	30	30	30
		lb-in	-	30	36	-	60	-	90	113	135	177	-	203	245	265	-	265	265	265	265	265	265	265	265

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

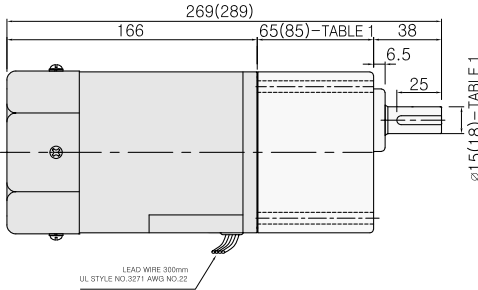
* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 200kgfcm (P type) / 300kgfcm (H type).

Dimension

LEAD WIRE TYPE

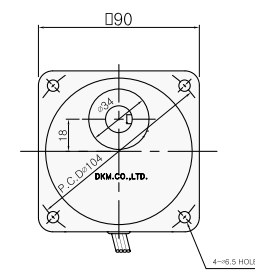
GEARED MOTOR

* MOTOR MODEL : 9IDG □ -180FP(H)(GENERAL FAN)



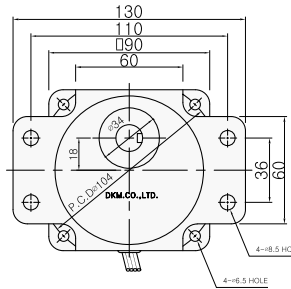
* GEARHEAD MODEL :

9PB □ 3BH - 9PB □ 180BH



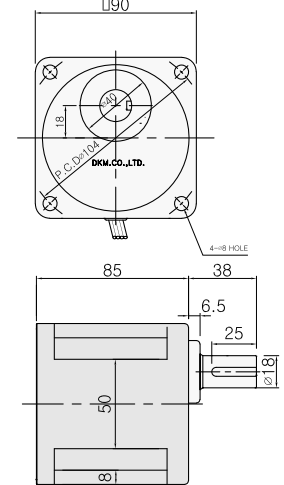
* GEARHEAD MODEL :

9PF □ 3BH - 9PF □ 180BH



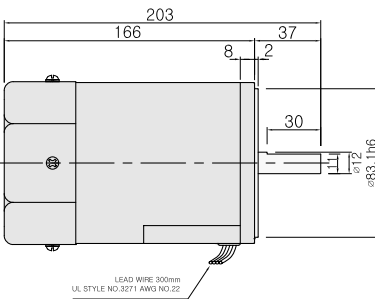
* GEARHEAD MODEL :

9HB □ 3BH - 9HB □ 180BH

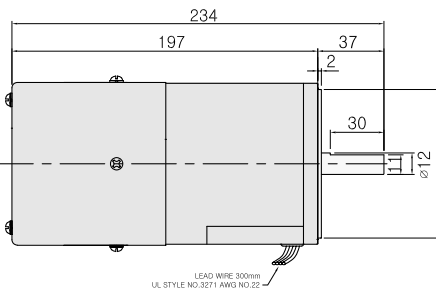


MOTOR ONLY

* MOTOR MODEL : 9ID □ □ -180F (GENERAL FAN)

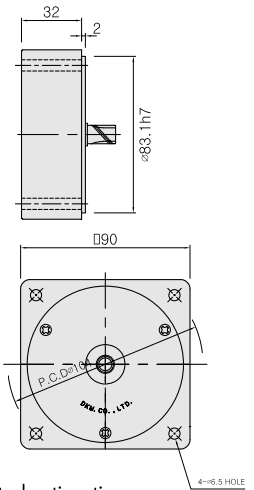


* MOTOR MODEL : 9ID □ □ -180F2 (POWERFUL FAN)



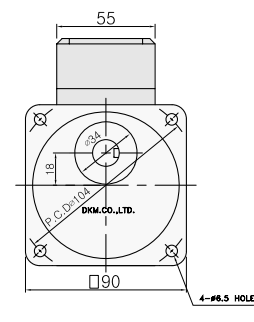
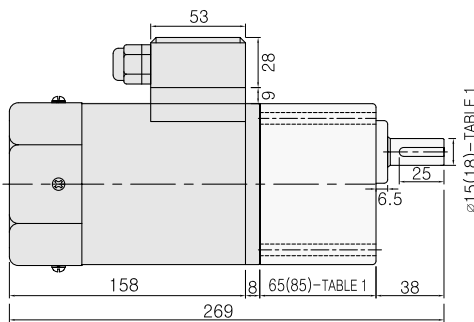
INTER-DECIMAL GEARHEAD

* MODEL : 9XD10M □



TERMINAL BOX TYPE

* MOTOR MODEL :
9IDG □ -180FP(H)-T (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

65(85)-TABLE 1

SIZE(mm)	GEARHEAD TYPE
65 - φ15	P TYPE GEARHEAD
85 - φ18	H TYPE GEARHEAD

KEY SPEC

MOTOR	GEARHEAD

WEIGHT

PART	WEIGHT(Kg)		
MOTOR	3.8		
DECIMAL GEARHEAD	0.5		
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H) □ □ 3BH - 9P(H) □ □ 9BH	1.3	1.45
	9P(H) □ □ 12.5BH - 9P(H) □ □ 18BH	1.3	1.5
	9P(H) □ □ 25BH - 9P(H) □ □ 60BH	1.4	1.7
	9P(H) □ □ 90BH - 9P(H) □ □ 180BH	1.4	1.8

GEARHEAD OUTPUT

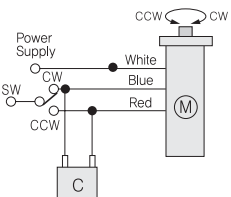
MODEL	P TYPE	H TYPE
ROUND TYPE		
9P(H) □ S3BH ~9P(H) □ S180BH		
D-CUT TYPE		
9P(H) □ D3BH ~9P(H) □ D180BH		
KEY TYPE		
9P(H) □ K3BH ~9P(H) □ K180BH		

MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	18.5(22)
9IDG □ -180 □ P(H)	
ROUND TYPE	
9IDS □ -180 □	
D-CUT TYPE	
9IDD □ -180 □	
KEY TYPE	
9IDK □ -180 □	

* Note : Above table indicates output shaft dimension made by user's request and ★ indicates the basic dimension in factory shipping.

■ Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
 <p>CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.</p>	<p>Not Available</p>

- The direction of motor rotation is as viewed from the shaft end of the motor.
- CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Connection diagrams are also valid for the equivalent round shaft type.
- 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.