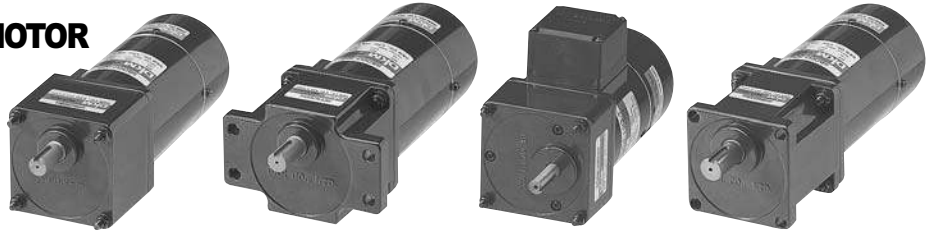


ELECTROMAGNETIC BRAKE MOTOR
(Power off activated type)

180W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR LEAD WIRE TYPE MOTOR TERMINAL BOX TYPE MOTOR LEAD WIRE TYPE MOTOR

Motor Specification - 30min. Rating (Continuous : F2 fan)



Model		Starting Time	Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
9BDG□-180P(H) : Pinion Shaft Type	9BDD□-180 : D-Cut Shaft Type		HP	W	VAC	Hz	A	gfcm	mN.m	oz-in	gfcm	mN.m	oz-in	r/min	μF	VAC
TP 9BDG(D)C-180P(H)	9BDG(D)C-180P(H)-T	30min	1/4	180	Single Phase 220	50	1.6	7000	700	99	13560	1356	192	1300	8	400
TP 9BDG(D)D-180P(H)	9BDG(D)D-180P(H)-T				Single Phase 220	60					11300	1130	160	1550		
TP 9BDG(D)E-180P(H)	9BDG(D)E-180P(H)-T				Single Phase 230	50					13560	1356	192	1300		
TP 9BDG(D)F-180P(H)	9BDG(D)F-180P(H)-T				Single Phase 230	60					11300	1130	160	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. By attaching F2 FAN additionally, temperature reducing of over 10℃ could be available.

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
9BDG□-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
	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
9BDG□-180FH	9HBK□BH	kgf cm	-	28	34	-	54	-	84	105	126	160	-	210	227	273	-	240	300	300	300	300	300	300
		N.m	-	2.8	3.4	-	5.7	-	8.4	11	13	16	-	21	23	27	-	24	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
		lb-in	-	25	30	-	50	-	74	93	111	141	-	185	200	241	-	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
9BDG□-180FP	9PBK□BH	kgf cm	25	32	39	54	65	81	97	122	145	190	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
9BDGC-180FH	9HBK□BH	kgf cm	-	34	41	-	68	-	102	128	153	200	-	230	278	300	-	300	300	300	300	300	300	300
		N.m	-	3.4	4.1	-	6.8	-	10.2	13	15	20	-	23	28	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

* 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.

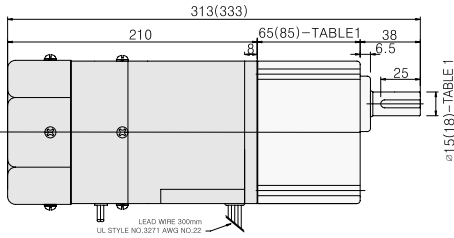
* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 200kgfcm (P type) / 300kgfcm (H type).

Dimension

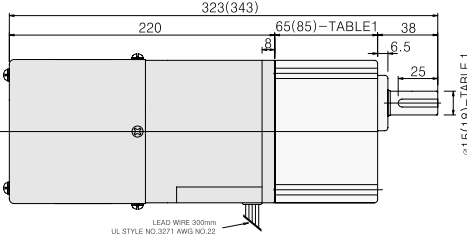
LEAD WIRE TYPE

GEARED MOTOR

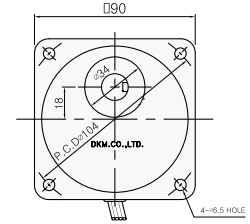
* MOTOR MODEL : 9BDG□-180FP(H) (GENERAL FAN)
 * GEARHEAD MODEL : 9PB□3BH - 9PB□180BH



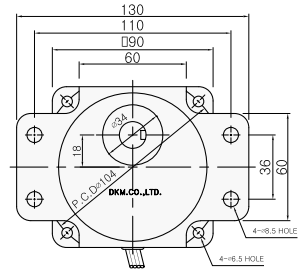
* MOTOR MODEL : 9BDG□-180F2P(H) (POWERFUL FAN)
 * GEARHEAD MODEL : 9PB□3BH - 9PB□180BH



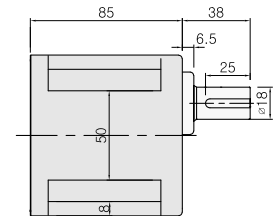
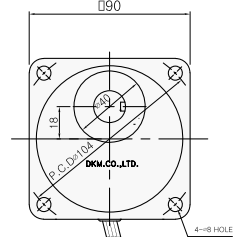
* GEARHEAD MODEL : 9PB□3BH - 9PB□180BH



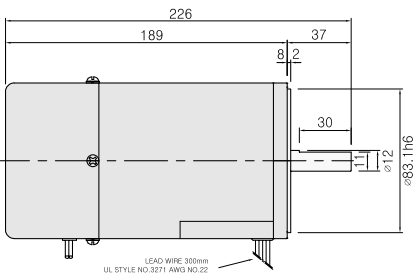
* GEARHEAD MODEL : 9PF□3BH - 9PF□180BH



* GEARHEAD MODEL : 9HB□3BH - 9HB□180BH

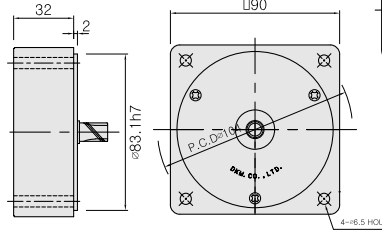
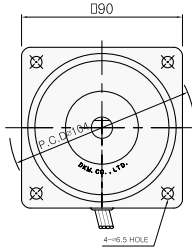


MOTOR ONLY * MOTOR MODEL : 9BD□□-180 (NO FAN)



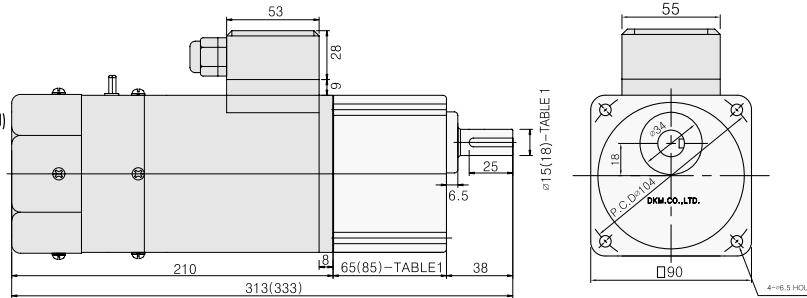
INTER-DECIMAL GEARHEAD

* MODEL : 9XD10M□



TERMINAL BOX TYPE

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



* Note : There are 3 kinds of fan type (No Fan / General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

65(85)-TABLE1

SIZE(mm)	GEARHEAD TYPE
65 - ø15	P TYPE GEARHEAD
85 - ø18	H TYPE GEARHEAD

KEY SPEC

MOTOR	GEARHEAD

WEIGHT

PART	WEIGHT(Kg)		
MOTOR	4.3		
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	
9BDG□-180□P(H)	* 18.5 : P TYPE 22 : H TYPE
ROUND TYPE	
9BDS□-180□	
D-CUT TYPE	
9BDD□-180□	
KEY TYPE	
9BDK□-180□	

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

Connection Diagrams Please refer to page 99.