

## Brake Motor 60W (□ 90mm)

# 60W Brake Motor 60W(□ 90mm)

### Motor 사양

Model 9BDG*-60F(-T): Gear Type Shaft 9BDD*-60F(-T): D-Cut Type Shaft 9BDK*-60F(-T): 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			
<b>Lead Wire Type</b>												
9BDG1(A)-60F □	60	1φ 110	60	4	30min.	5.20	0.520	1600	1.60	3.65	0.365	20.0 / 250
9BDG2(D)-60F □	60	1φ 220	60	4	30min.	5.19	0.519	1600	0.75	3.65	0.365	5.0 / 450
9BDGE-60F □	60	1φ 220	50	4	30min.	5.52	0.552	1300	0.59	4.50	0.450	5.0 / 450
		1φ 240				6.52	0.652		0.64	4.50	0.450	
9BDG3(G)-60F □	60	3φ 220	50	4	Cont.	17.20	1.720	1350	0.59	4.33	0.433	-
			60			13.80	1.380		1600	0.53	3.65	
		3φ 230	50	4	Cont.	18.80	1.880	1350	0.62	4.33	0.433	
			60			15.00	1.500		1600	0.56	3.65	
9BDG4(K)-60F □	60	3φ 380	50	4	Cont.	16.70	1.670	1350	0.31	4.33	0.433	-
			60			13.40	1.340		1600	0.28	3.65	
		3φ 400	50	4	Cont.	18.30	1.830	1350	0.34	4.33	0.433	
			60			14.70	1.470		1600	0.30	3.65	
9BDG5(L)-60F □	60	3φ 415	50	4	Cont.	16.70	1.670	1350	0.29	4.33	0.433	-
			60			13.40	1.340		1600	0.26	3.65	
		3φ 440	50	4	Cont.	18.50	1.850	1350	0.31	4.33	0.433	
			60			15.00	1.500		1600	0.28	3.65	

- 1) 모터 모델명 \* 자리에는 전압코드가, □ 안에는 부착되는 감속기의 모델 타입명이 들어갑니다.
- 2) 전압코드 A, D, E, G, K, L은 TP(Thermal Protector) 부착 사양입니다.
- 3) Gear Type Shaft는 감속기 부착용이며 D-Cut Type Shaft는 모터 단독 사용시의 출력축입니다.
- 4) 삼상 380V~440V 모터에서는 인버터 사용을 할 수 없습니다. 인버터 사용시 권선의 절연이 열화되어 모터가 파손될 수 있습니다.

### 감속기 부착 시 최대허용토크

#### 60Hz

Motor Model	Gearbox Model	감속비	2	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	
9BDG*-60FP	9PBK □ BH	kgfcm	5.9	8.9	10.7	14.8	17.8	22.2	26.6	29.6	33.3	40.0	48.0	53.3	60.3	72.3	86.8	96.4	120.5	144.6	161.6	193.9	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	0.58	0.87	1.04	1.45	1.74	2.17	2.61	2.90	3.27	3.92	4.70	5.23	5.91	7.09	8.50	9.45	11.81	14.17	15.84	19.01	19.60	19.60	19.60	19.60	19.60	19.60
9BDG*-60FH	9HBK □ BH	kgfcm	-	8.9	10.7	14.8	17.8	22.2	26.6	29.6	33.3	40.0	48.0	53.3	60.3	72.3	86.8	96.4	120.5	144.6	161.6	193.9	215.5	258.6	300.0	300.0	300.0	300.0
		N.m	-	0.87	1.04	1.45	1.74	2.17	2.61	2.90	3.27	3.92	4.70	5.23	5.91	7.09	8.50	9.45	11.81	14.17	15.84	19.01	21.12	25.34	29.40	29.40	29.40	29.40

Motor Model	Gearbox Model	감속비	10	12	15	18	25	30	36	50	60	Motor Model	Gearbox Model	감속비	5	7.5	10	15	20	25	30	40	50	60	80
9BDG*-60FW	9WD □ BL/ □ BR/ □ BRL	kgfcm	30.0	35.1	42.2	48.7	63.9	72.3	84.2	109.6	120.5	9BDG*-60FWH	9WHD □ -030	kgfcm	12.7	18.4	23.7	33.3	42.1	48.2	56.1	68.0	78.9	87.7	102.9
		N.m	2.94	3.44	4.13	4.77	6.26	7.09	8.25	10.74	11.81			N.m	1.25	1.80	2.32	3.26	4.12	4.72	5.50	6.76	7.73	8.58	10.08

#### 50Hz

Motor Model	Gearbox Model	감속비	2	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200	
9BDG*-60FP	9PBK □ BH	kgfcm	7.0	10.5	12.6	17.5	21.0	26.3	31.6	35.1	39.5	47.4	56.9	63.2	71.4	85.7	102.9	114.3	142.9	171.4	191.6	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	0.69	1.03	1.24	1.72	2.06	2.58	3.09	3.44	3.87	4.65	5.57	6.19	7.00	8.40	10.08	11.20	14.00	16.80	18.77	19.60	19.60	19.60	19.60	19.60	19.60	
9BDG*-60FH	9HBK □ BH	kgfcm	-	10.5	12.6	17.5	21.0	26.3	31.6	35.1	39.5	47.4	56.9	63.2	71.4	85.7	102.9	114.3	142.9	171.4	191.6	229.9	255.4	300.0	300.0	300.0	300.0	
		N.m	-	1.03	1.24	1.72	2.06	2.58	3.09	3.44	3.87	4.65	5.57	6.19	7.00	8.40	10.08	11.20	14.00	16.80	18.77	22.53	25.03	29.40	29.40	29.40	29.40	

Motor Model	Gearbox Model	감속비	10	12	15	18	25	30	36	50	60	Motor Model	Gearbox Model	감속비	5	7.5	10	15	20	25	30	40	50	60	80
9BDG*-60FW	9WD □ BL/ □ BR/ □ BRL	kgfcm	35.5	41.6	50.0	57.7	75.8	85.7	99.7	129.9	122.4	9BDG*-60FWH	9WHD □ -030	kgfcm	15.1	21.8	28.1	39.5	49.9	57.1	66.5	81.7	93.5	103.9	121.9
		N.m	3.48	4.07	4.90	5.65	7.42	8.40	9.77	12.73	12.00			N.m	1.48	2.14	2.75	3.87	4.89	5.60	6.52	8.01	9.16	10.18	11.95

- 1) 모터 모델명 □ 안에는 전압코드가 들어갑니다. 2) 감속기 모델명 □ 안에는 감속비가 들어갑니다.
- 3) 위의 표에서 색칠된 범위의 감속비를 선택했을 때 감속기의 출력축은 모터의 출력축과 같은 방향으로 회전합니다. 환형 비방 범위의 감속비에서는 감속기 출력축은 모터 출력축의 회전방향과 반대방향으로 회전합니다.
- 4) 회전속도(r/min)는 모터의 동기회전속도(50Hz:1500r/min, 60Hz:1800r/min)를 감속비로 나누어 계산합니다. 실제 회전속도는 부하의 크기에 따라 표시보다 2~20% 정도 느립니다.

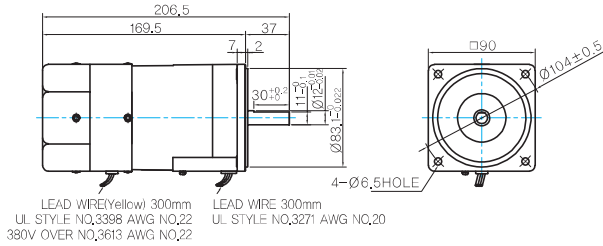
# B AC Motors

## Brake Motor 60W (□90mm)

### Dimensions

#### MOTOR ONLY

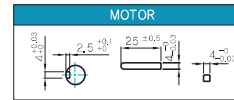
- MOTOR MODEL:  
9BDD□-60F (GENERAL FAN)



#### MOTOR OUTPUT SHAFT

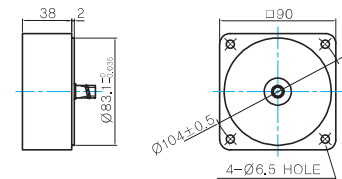
MODEL	SPEC
D-CUT TYPE	
9BDD□-60F	
KEY TYPE	
9BDK□-60F	

#### KEY SPEC



#### 중간감속기

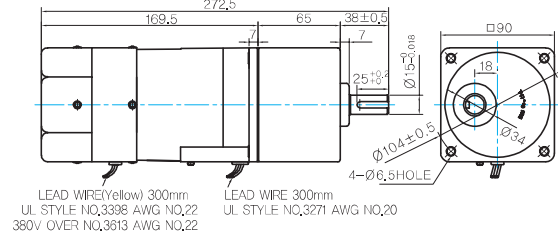
- MODEL:  
9XD10□□



#### GEARED MOTOR

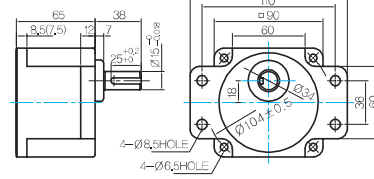
##### P TYPE GEARBOX

- MOTOR MODEL:  
9BDG□-60FP (GENERAL FAN)



- GEARBOX MODEL:  
9PBK□BH

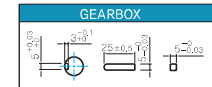
- GEARBOX MODEL:  
9PFFK□BH



#### GEARBOX OUTPUT SHAFT

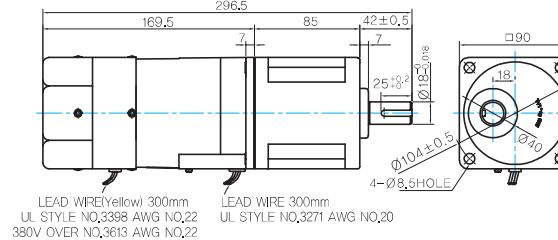
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KEY TYPE	
9PBK□BH	
9PFFK□BH	

#### KEY SPEC



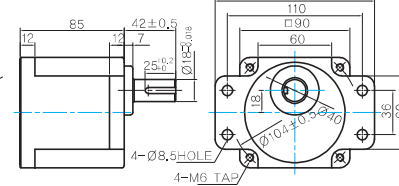
##### H TYPE GEARBOX

- MOTOR MODEL:  
9BDG□-60FH (GENERAL FAN)



- GEARBOX MODEL:  
9HBK□BH

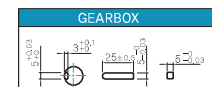
- GEARBOX MODEL:  
9HFK□BH



#### GEARBOX OUTPUT SHAFT

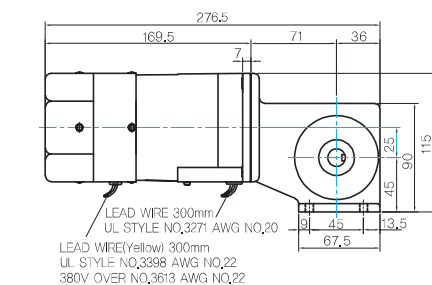
MODEL	SPEC
KEY TYPE	
9HBK□BH	
9HFK□BH	

#### KEY SPEC

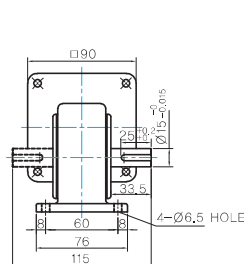


##### W TYPE GEARBOX

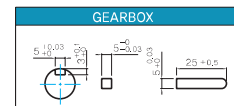
- MOTOR MODEL:  
9BDG□-60FW (GENERAL FAN)



- GEARBOX MODEL:  
9WD□BL/BR/BRL



#### KEY SPEC

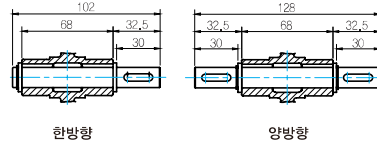
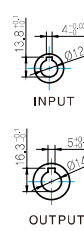
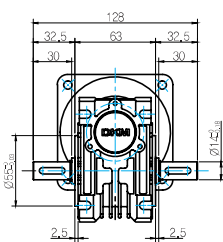
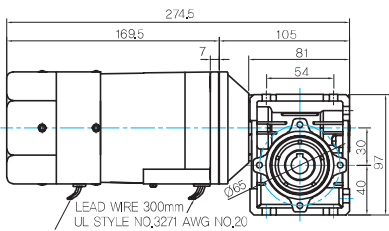


**WH TYPE GEARBOX**

 ● MOTOR MODEL:  
9BDG□-60FWH (GENERAL FAN)

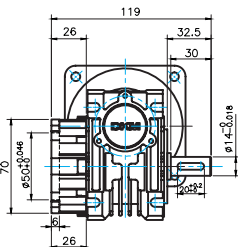
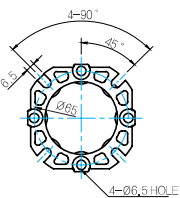
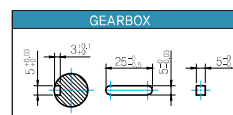
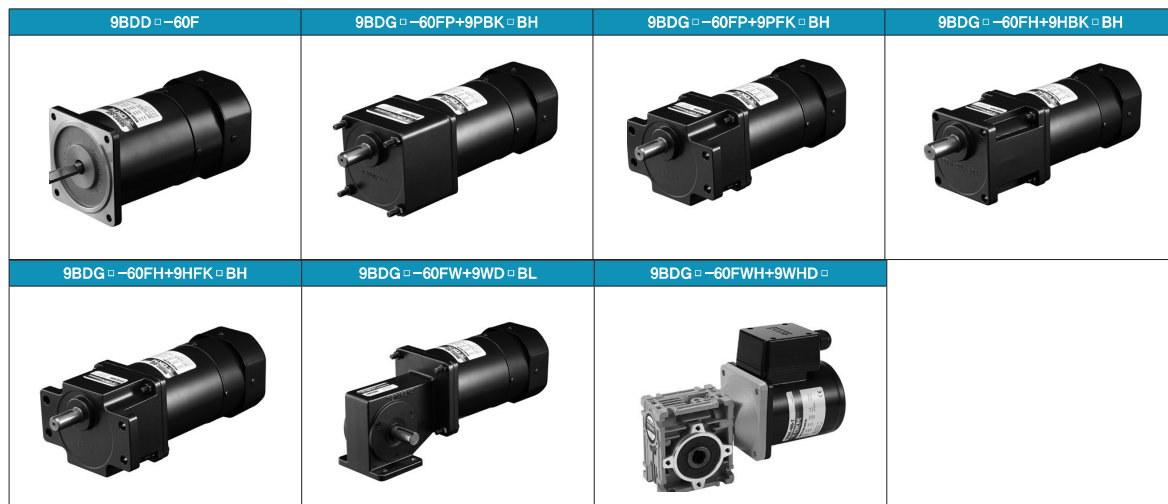
 ● GEARBOX MODEL:  
9WHD□-030

● SHAFT


**WEIGHT**

PART		WEIGHT(Kg)
MOTOR		3.3
GEAR BOX	9PB(F)K2BH - 9PB(F)K10BH	1.28
	9PB(F)K12.5BH - 9PB(F)K20BH	1.3
	9PB(F)K25BH - 9PB(F)K60BH	1.45
	9PB(F)K75BH - 9PB(F)K200BH	1.47
	9HB(F)K3BH - 9HB(F)K10BH	1.62
	9HB(F)K12.5BH - 9HB(F)K20BH	1.68
	9HB(F)K25BH - 9HB(F)K60BH	1.73
	9HB(F)K75BH - 9HB(F)K200BH	1.78
	9WD□BL/BR/BRL	1.0
	9WHD□-030	1.2
9XD10□□	0.6	

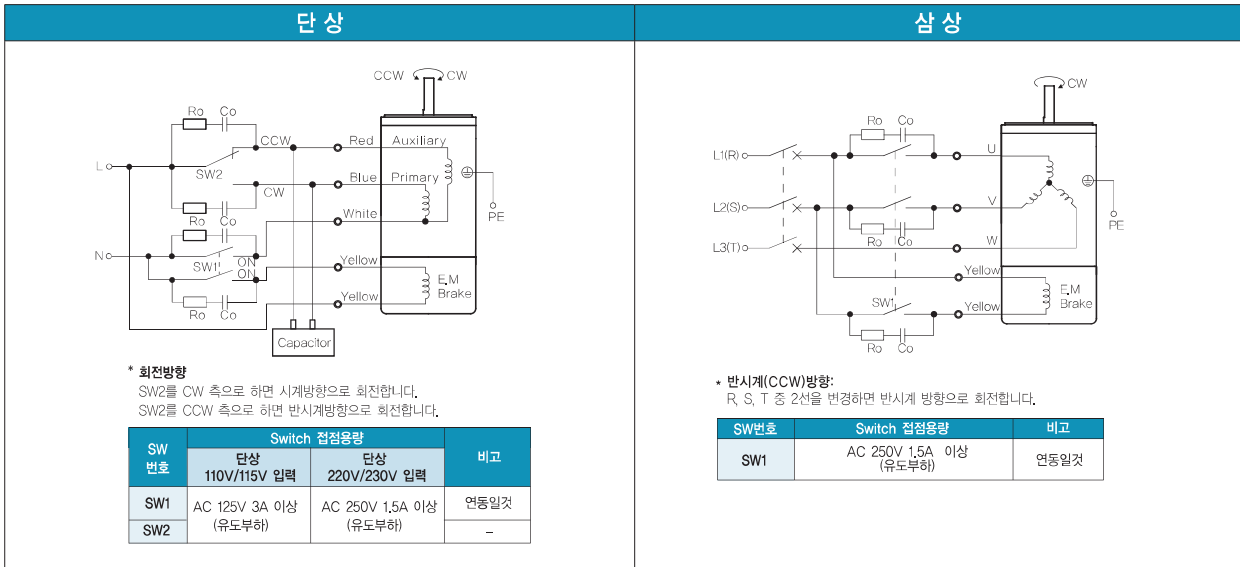
\* 출력 FLANGE와 SHAFT는 별매입니다.

**FLANGE**

**KEY SPEC**

**Motor Images**


# B AC Motors

## Brake Motor 60W (□ 90mm)

### 결선도



- 1) 회전방향은 모터 축 축에서 본 방향을 나타냅니다.
- 2) CW는 시계방향, CCW는 반시계방향입니다.
- 3) SW1은 모터의 운전/정지와 전자브레이크 조작용입니다. (연동)
- 4) SW1을 ON으로 하면 브레이크는 해제되고 모터가 회전하며, OFF로 할 경우 모터는 정지하며 브레이크가 작동합니다.
- 5) 모터가 정지한 상태에서 브레이크를 해제할 때에는 SW1을 비연동으로 하고 노란색 리드선 측 스위치만 ON으로 합니다.
- 6) Ro, Co는 Surge 전압 흡수용 CR회로입니다. [Ro=5~200Ω, Co=0.1~0.2μF, 200WV (400WV)]