180W Brake Motor 180W(□90mm)

Motor 사양

Model 9BDG*-180F□(-T): Gear Type Shaft 9BDD*-180F(-T): D-Cut Type Shaft 9BDK*-180F(-T): Key Type Shaft Lead Wire Type	Output W	Voltage V	Frequency Hz	Poles	Duty	Starting Torque kgfcm	Starting Torque N.m	Rated Load Speed r/min	Rated Load Current A	Rated Load Torque kgfcm	Rated Load Torque N.m	Capacitor μF / VAC
9BDG1(A)-180F□	180	1ø110	60	4	30min.	7.40	0.740	1600	3.00	10.96	1.096	30.0 / 250
9BDG2(D)-180F□	180	1ø220	60	4	30min.	7.40	0.740	1600	1.50	10.96	1.096	8.0 / 450
9BDGE-180F□	180	1ø220	50	4	30min.	7.00	0.700	1250	1.50	14.03	1.403	8.0 / 450
		1ø240				7.80	0.780	1300	1.60	13.49	1.349	

1) 모터 모델명 * 자리에는 전압코드가, □ 안에는 부착되는 감속기의 모델 타입명이 들어갑니다.
2) 전압코드 D, E는 TP(Thermal Protector) 부착 사양입니다.
3) Gear Type Shaft는 감속기 부착용이며 D-Cut & Key Type Shaft는 모터 단독 사용시의 출력축 입니다.

감속기 부착 시 최대허용토크

60Hz

Motor Model	Gearbox Model	감속비	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
		r/min	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9
9BDG*-180FH	9HBK□BH	kgfcm	26.6	32.0	44.4	53.3	66.6	79.9	88.8	100.0	120.0	144.0	160.0	180.8	217.0	260.4	289.3	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
	9HFK□BH	N.m	2.61	3.13	4.35	5.22	6.52	7.83	8.70	9.80	11.76	14.11	15.68	17.72	21.26	25.51	28.35	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

Motor Model	Gearbox Model	Gear Ratio	5	7.5	10	15	20	25	30	40	50	60	80	100
		r/min	360	240	180	120	90	72	60	45	36	30	22	18
9BDG*-180FWH	9WHD□-030	kgfcm	38.1	55.2	71.0	99.9	126.2	144.6	168.3	183.7	173.5	163.3	132.7	–
		N.m	3.74	5.41	6.96	9.79	12.37	14.17	16.49	18.00	17.00	16.00	13.00	–
	9WHD□-040	kgfcm	–	–	–	–	–	–	–	–	267.4	299.8	295.0	270.0
		N.m	–	–	–	–	–	–	–	–	26.20	29.38	28.91	26.46

Motor Model	Gearbox Model	감속비	15	20	25	30	40	50	60	80	100	120	160	200	225	240
		r/min	120	90	72	60	45	36	30	22.5	18	15	11.3	9	8	7.5
9BDG*-180FHC	9HC□□	kgfcm	120	160	200	240	320	400	480	640	800	960	1280	1600	1800	1800
		N.m	11.8	15.7	19.6	23.5	31.4	39.2	47	62.7	78.4	94.1	125	157	176	176

50Hz

Motor Model	Gearbox Model	감속비	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
		r/min	500	417	300	250	200	167	150	120	100	83	75	60	50	42	37.5	30	25	20	17	15	12.5	10	8	7.5
9BDG*-180FH	9HBK□BH	kgfcm	32.8	39.3	54.6	65.5	81.9	98.3	109.2	123.1	147.7	177.2	196.9	222.5	267.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
	9HFK□BH	N.m	3.21	3.85	5.35	6.42	8.03	9.63	10.71	12.06	14.47	17.37	19.30	21.81	26.17	29.40	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	5	7.5	10	15	20	25	30	40	50	60	80	100
		r/min	300	200	150	100	75	60	50	38	30	25	18	15
9BDG*-180FWH	9WHD□-030	kgfcm	46.9	68.0	87.4	123.0	155.4	178.0	204.1	183.7	173.5	163.3	132.7	–
		N.m	4.60	6.66	8.56	12.05	15.23	17.45	20.00	18.00	17.00	16.00	13.00	–
	9WHD□-040	kgfcm	–	–	–	–	–	–	–	–	329.1	330.0	295.0	270.0
		N.m	–	–	–	–	–	–	–	–	32.25	32.34	28.91	26.46

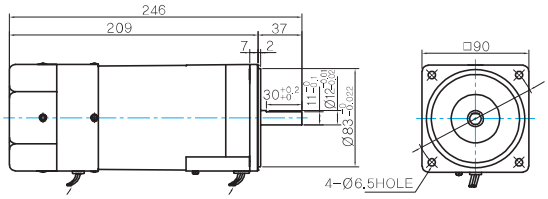
Motor Model	Gearbox Model	감속비	15	20	25	30	40	50	60	80	100	120	160	200	225	240
		r/min	100	75	60	50	37.5	30	25	18.8	15	12.5	9.4	7.5	6.7	6.3
9BDG*-180FHC	9HC□□	kgfcm	148	197	246	295	394	492	591	788	984	1181	1575	1800	1800	1800
		N.m	14.5	19.3	24.1	28.9	38.6	48.2	57.9	77.2	96.4	116	154	176	176	176

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.
흰색 바탕 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.

Dimensions

MOTOR ONLY

● MOTOR MODEL:
9BDD□-180F (GENERAL FAN)



● MOTOR OUTPUT SHAFT

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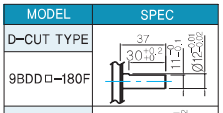
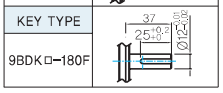
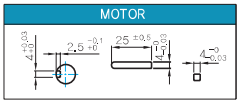
D-CUT TYPE	
9BDD□-180F	
KEY TYPE	
9BDK□-180F	

● KEY SPEC

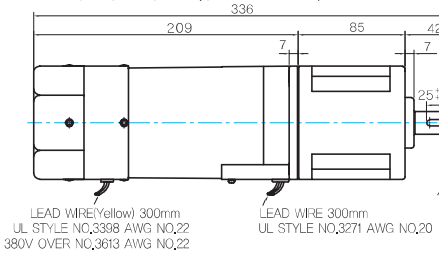
MOTOR



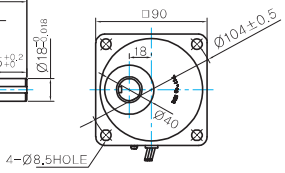
GEARED MOTOR

H TYPE GEARBOX

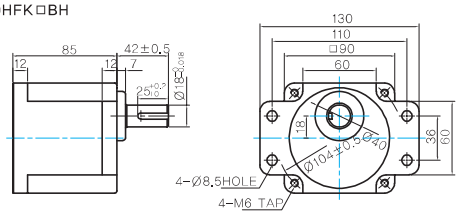
● MOTOR MODEL:
9BDG□-180FH (GENERAL FAN)



● GEARBOX MODEL:
9HBK□BH



● GEARBOX MODEL:
9HFK□BH



● GEARBOX OUTPUT SHAFT

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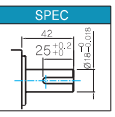
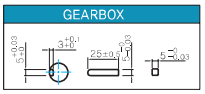
KEY TYPE	
9HBK□BH 9HFK□BH	

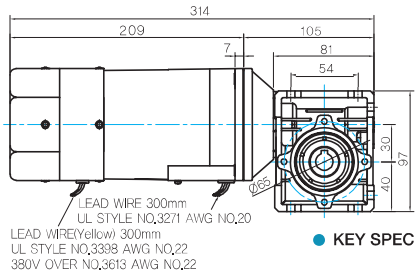
● KEY SPEC

GEARBOX



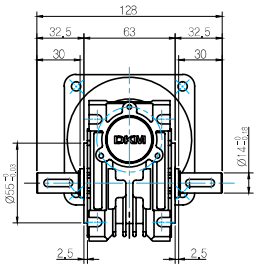
WH TYPE GEARBOX

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

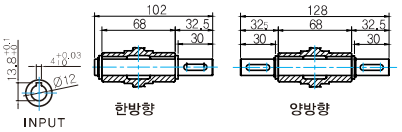


● KEY SPEC

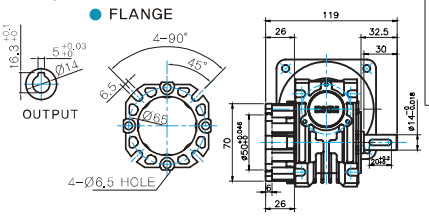
● GEARBOX MODEL:
9WHD□-030



● SHAFT

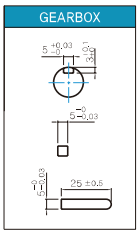


● FLANGE



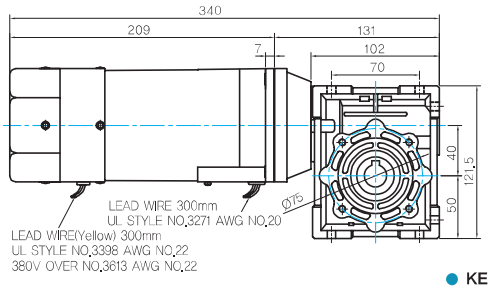
● KEY SPEC

GEARBOX

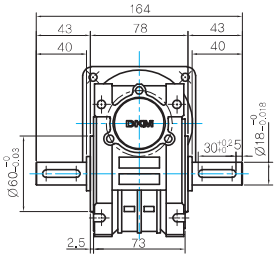


* 출력 FLANGE와 SHAFT는 별매입니다.

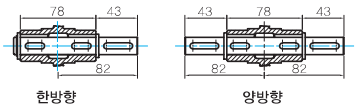
● MOTOR MODEL:
9BDG□-180FWH (GENERAL FAN)



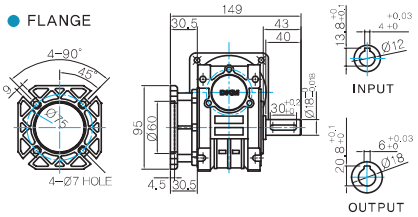
● GEARBOX MODEL:
9WHD□-040



● SHAFT

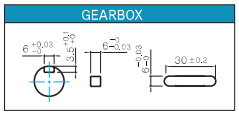


● FLANGE



● KEY SPEC

GEARBOX

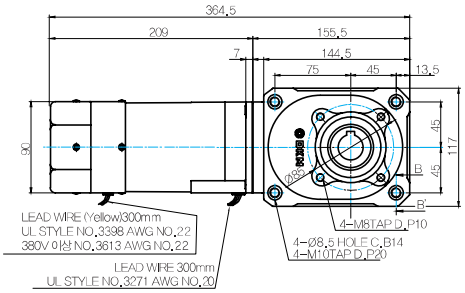


B AC Motors

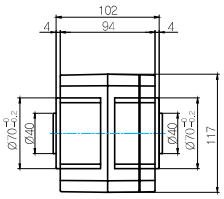
Brake Motor 180W (□90mm)

HC TYPE GEARBOX

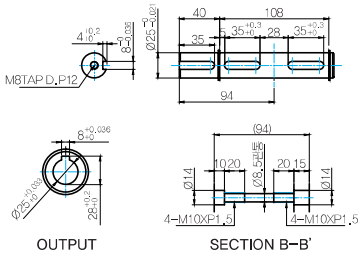
● MOTOR MODEL :
9BDG□-180FHC (GENERAL FA N)



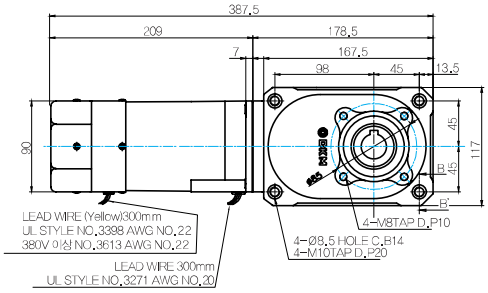
● GEARBOX MODEL:
9HC(15 ~ 60)□



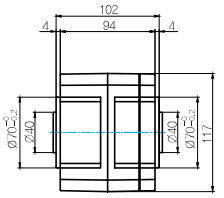
● SHAFT



● MOTOR MODEL :
9BDG□-180FHC (GENERAL FA N)

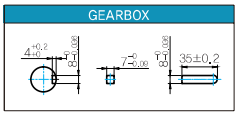


● GEARBOX MODEL :
9HC(80 ~ 240)□



● KEY SPEC

GEARBOX



WEIGHT

PART		WEIGHT(Kg)
MOTOR		4.4
GEAR BOX	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
	9WHD□-030	1.2
	9WHD□-040	2.1
	9HC15□	4.05
	9HC20□~9HC60□	4.1
	9HC80□~9HC240□	4.75
	9XD10□□	0.6

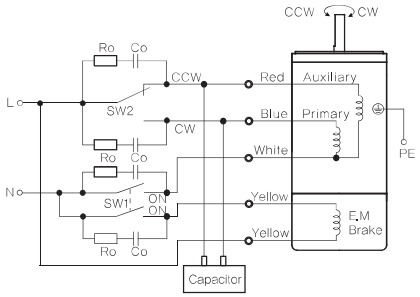
* 출력 FLANGE와 SHAFT는 별매입니다.

Motor Images

9BDD□-180F	9BDG□-180FH+9HBK□BH	9BDG□-180FH+9HFK□BH	9BDG□-180FWH+9WHD□	9BDG□-180FHC+9HC□□

결선도

단 상



* 회전방향
SW2를 CW 측으로 하면 시계방향으로 회전합니다.
SW2를 CCW 측으로 하면 반시계방향으로 회전합니다.

SW 번호	Switch 접점용량 단상 110V/115V 입력	Switch 접점용량 단상 220V/230V 입력	비고
SW1	AC 125V 3A 이상 (유도부하)	AC 250V 1.5A 이상 (유도부하)	연동일것
SW2			–

1) 회전방향은 모터 축 측에서 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)]