

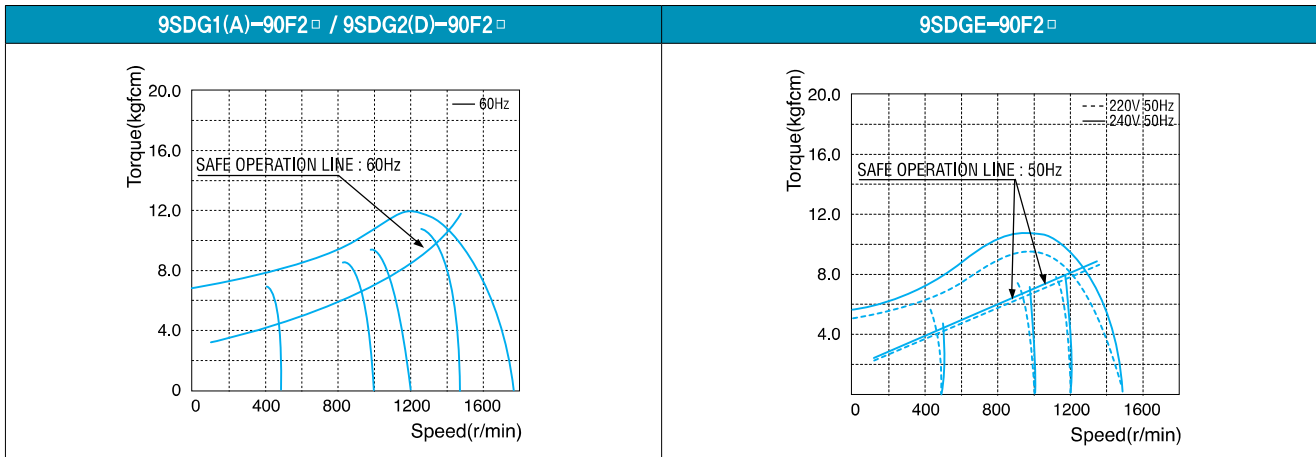
# 90W Speed Control Induction Motor 90W(□ 90mm)

## Motor 사양

Model		Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
9SDG*-90F2□-C(L): Gear Type Shaft 9SDD*-90F2-C(L): D-Cut Type Shaft 9SDK*-60F2-C(L): Key Type Shaft	Connector Type							Lead Wire Type	1200r/min	90r/min	kgfcm	N.m	kgfcm	
9SD◇1(A)-90F2□-C	9SD◇1(A)-90F2□-L	90	1φ110	60	4	Cont.	90-1700	4.50	0.450	6.30	0.630	2.30	0.230	20.0 / 250
9SD◇B-90F2□-C	9SD◇B-90F2□-L	90	1φ100	50	4	Cont.	90-1400	4.70	0.470	5.80	0.580	2.20	0.220	25.0 / 250
				60			90-1700	4.50	0.450	6.30	0.630	2.30	0.230	
9SD◇C-90F2□-C	9SD◇C-90F2□-L	90	1φ200	50	4	Cont.	90-1400	4.70	0.470	5.80	0.580	2.20	0.220	6.0 / 450
				60			90-1700	4.50	0.450	6.30	0.630	2.30	0.230	
9SD◇2(D)-90F2□-C	9SD◇2(D)-90F2□-L	90	1φ220	60	4	Cont.	90-1700	4.50	0.450	6.30	0.630	2.30	0.230	6.0 / 450
9SD◇E-90F2□-C	9SD◇E-90F2□-L	90	1φ220	50	4	Cont.	90-1400	4.50	0.450	5.40	0.540	2.20	0.220	6.0 / 450
			1φ240					5.00	0.500	6.10	0.610	2.30	0.230	

1) 모터 모델명 \* 자리에는 전압코드가 들어갑니다. 2) 모터 모델명 ◇ 자리에는 모터 출력축 타입명이 들어갑니다. (G: Gear Type / D: D-Cut Type / K: Key Type) Gear Type Shaft는 감속기 부착용이며 D-Cut 및 Key Type Shaft는 모터 단독 사용 시의 출력축입니다. 3) 모터 출력축 타입이 Gear Type일 경우, □ 안에는 부착되는 감속기의 모델 타입명이 들어갑니다. 4) 전압코드 A, B, C, D, E는 TPI(Termal Protector) 부착 사양입니다.

## 회전속도-토크 특성



## 감속기 부착 시 최대허용토크

Motor Model	Gear box Model	회전 속도 r/min	전압 V	주파수 Hz	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		
9SDG*-90F2P	9PBK □ BH	1200	220 / 240	50	kgfcm	10.2	15.3	18.4	25.5	30.6	38.3	45.9	51.0	57.5	69.0	82.8	92.0	104.0	124.7	149.7	166.3	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	
					N.m	1.00	1.50	1.80	2.50	3.00	3.75	4.50	5.00	5.63	6.76	8.11	9.01	10.19	12.22	14.67	16.30	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		kgfcm		8.7	13.1	15.7	21.9	26.2	32.8	39.4	43.7	49.3	59.1	71.0	78.8	89.1	106.9	128.3	142.6	178.2	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m		0.86	1.29	1.54	2.14	2.57	3.21	3.86	4.29	4.83	5.79	6.95	7.73	8.73	10.48	12.57	13.97	17.46	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		kgfcm		3.7	5.6	6.7	9.3	11.2	14.0	16.8	18.6	21.0	25.2	30.2	33.6	38.0	45.5	54.6	60.7	75.9	91.1	101.8	122.1	135.7	162.8	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m		0.37	0.55	0.66	0.91	1.10	1.37	1.64	1.83	2.06	2.47	2.96	3.29	3.72	4.46	5.36	5.95	7.44	8.93	9.97	11.97	13.30	15.96	19.60	19.60	19.60	19.60	19.60	19.60	19.60
	kgfcm	3.7	5.6	6.7	9.3	11.2	14.0	16.8	18.6	21.0	25.2	30.2	33.6	38.0	45.5	54.6	60.7	75.9	91.1	101.8	122.1	135.7	162.8	200.0	200.0	200.0	200.0	200.0	200.0	200.0		
	N.m	0.37	0.55	0.66	0.91	1.10	1.37	1.64	1.83	2.06	2.47	2.96	3.29	3.72	4.46	5.36	5.95	7.44	8.93	9.97	11.97	13.30	15.96	19.60	19.60	19.60	19.60	19.60	19.60	19.60		
	kgfcm	3.6	5.3	6.4	8.9	10.7	13.4	16.0	17.8	20.1	24.1	28.9	32.1	36.3	43.6	52.3	58.1	72.6	87.1	97.4	116.8	129.8	155.8	194.7	200.0	200.0	200.0	200.0	200.0	200.0		
	N.m	0.35	0.52	0.63	0.87	1.05	1.31	1.57	1.75	1.97	2.36	2.83	3.15	3.56	4.27	5.12	5.69	7.11	8.54	9.54	11.45	12.72	15.26	19.08	19.60	19.60	19.60	19.60	19.60	19.60		

1) 모터 모델명 \* 자리에는 전압코드가 들어갑니다. 2) 감속기 모델명 □ 안에는 감속비, ◇ 안에는 출력축 재질이 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.

## S.C. Induction Motor 90W (□ 90mm)

Motor Model	Gear box Model	회전속도 r/min	전압 V	주파수 Hz	감속비	3	3.6	5	6	7.5	9	10	12.5	15	18	20	25
9SDG*~90F2H	9HBK □ BH 9HFK □ BH	1200	110	60	kgfcm N.m	15.3 1.50	18.4 1.80	25.5 2.50	30.6 3.00	38.3 3.75	45.9 4.50	51.0 5.00	57.5 5.63	69.0 6.76	82.8 8.11	92.0 9.01	104.0 10.19
			220	60	kgfcm N.m	15.3 1.50	18.4 1.80	25.5 2.50	30.6 3.00	38.3 3.75	45.9 4.50	51.0 5.00	57.5 5.63	69.0 6.76	82.8 8.11	92.0 9.01	104.0 10.19
			220/240	50	kgfcm N.m	13.1 1.29	15.7 1.54	21.9 2.14	26.2 2.57	32.8 3.21	39.4 3.86	43.7 4.29	49.3 4.83	59.1 5.79	71.0 6.95	78.8 7.73	89.1 8.73
		90	110	60	kgfcm N.m	5.6 0.55	6.7 0.66	9.3 0.91	11.2 1.10	14.0 1.37	16.8 1.64	18.6 1.83	21.0 2.06	25.2 2.47	30.2 2.96	33.6 3.29	38.0 3.72
			220	60	kgfcm N.m	5.6 0.55	6.7 0.66	9.3 0.91	11.2 1.10	14.0 1.37	16.8 1.64	18.6 1.83	21.0 2.06	25.2 2.47	30.2 2.96	33.6 3.29	38.0 3.72
			220/240	50	kgfcm N.m	5.3 0.52	6.4 0.63	8.9 0.87	10.7 1.05	13.4 1.31	16.0 1.57	17.8 1.75	20.1 1.97	24.1 2.36	28.9 2.83	32.1 3.15	36.3 3.56

Motor Model	Gear box Model	회전속도 r/min	전압 V	주파수 Hz	감속비	30	36	40	50	60	75	90	100	120	150	180	200		
9SDG*~90F2H	9HBK □ BH 9HFK □ BH	1200	110	60	kgfcm N.m	124.7 12.22	149.7 14.67	166.3 16.30	207.9 20.37	249.5 24.45	278.8 27.32	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	
			220	60	kgfcm N.m	124.7 12.22	149.7 14.67	166.3 16.30	207.9 20.37	249.5 24.45	278.8 27.32	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220/240	50	kgfcm N.m	106.9 10.48	128.3 12.57	142.6 13.97	178.2 17.46	213.8 20.96	239.0 23.42	286.7 28.10	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
		90	110	60	kgfcm N.m	45.5 4.46	54.6 5.36	60.7 5.95	75.9 7.44	91.1 8.93	101.8 9.97	122.1 11.97	135.7 13.30	162.8 15.96	203.6 19.95	244.3 23.94	271.4 26.60		
			220	60	kgfcm N.m	45.5 4.46	54.6 5.36	60.7 5.95	75.9 7.44	91.1 8.93	101.8 9.97	122.1 11.97	135.7 13.30	162.8 15.96	203.6 19.95	244.3 23.94	271.4 26.60		
			220/240	50	kgfcm N.m	43.6 4.27	52.3 5.12	58.1 5.69	72.6 7.11	87.1 8.54	97.4 9.54	116.8 11.45	129.8 12.72	155.8 15.26	194.7 19.08	233.6 22.90	259.6 25.44		

Motor Model	Gearbox Model	회전속도 r/min	전압 V	주파수 Hz	감속비	10	12	15	18	25	30	36	50	60
9SDG*~90F2W	9WD □ BL/ □ BR/ □ BRL	1200	110	60	kgfcm N.m	51.7 5.06	60.5 5.93	72.8 7.13	83.9 8.22	110.3 10.80	124.7 12.22	145.2 14.22	142.9 14.00	122.4 12.00
			220	60	kgfcm N.m	51.7 5.06	60.5 5.93	72.8 7.13	83.9 8.22	110.3 10.80	124.7 12.22	145.2 14.22	142.9 14.00	122.4 12.00
			220/240	50	kgfcm N.m	50.0 4.90	58.6 5.74	70.5 6.90	81.3 7.96	106.8 10.46	120.8 11.84	140.5 13.77	142.9 14.00	122.4 12.00
		90	110	60	kgfcm N.m	18.9 1.85	22.1 2.16	26.6 2.60	30.6 3.00	40.3 3.94	45.5 4.46	53.0 5.19	69.0 6.76	75.9 7.44
			220	60	kgfcm N.m	18.9 1.85	22.1 2.16	26.6 2.60	30.6 3.00	40.3 3.94	45.5 4.46	53.0 5.19	69.0 6.76	75.9 7.44
			220/240	50	kgfcm N.m	18.9 1.85	22.1 2.16	26.6 2.60	30.6 3.00	40.3 3.94	45.5 4.46	53.0 5.19	69.0 6.76	75.9 7.44

Motor Model	Gearbox Model	회전속도 r/min	전압 V	주파수 Hz	감속비	5	7.5	10	15	20	25	30	40	50	60	80
9SDG*~90F2WH	9WHD □ -030	1200	110	60	kgfcm N.m	21.9 2.15	31.8 3.11	40.8 4.00	57.5 5.63	72.6 7.11	83.2 8.15	96.8 9.48	118.9 11.66	136.1 13.34	151.2 14.82	132.7 13.00
			220	60	kgfcm N.m	21.9 2.15	31.8 3.11	40.8 4.00	57.5 5.63	72.6 7.11	83.2 8.15	96.8 9.48	118.9 11.66	136.1 13.34	151.2 14.82	132.7 13.00
			220/240	50	kgfcm N.m	21.2 2.08	30.7 3.01	39.5 3.87	55.6 5.45	70.3 6.89	80.5 7.89	93.7 9.18	115.2 11.29	131.8 12.91	146.4 14.35	132.7 13.00
		90	110	60	kgfcm N.m	8.0 0.78	11.6 1.14	14.9 1.46	21.0 2.06	26.5 2.60	30.4 2.98	35.3 3.46	43.4 4.26	49.7 4.87	55.2 5.41	64.8 6.35
			220	60	kgfcm N.m	8.0 0.78	11.6 1.14	14.9 1.46	21.0 2.06	26.5 2.60	30.4 2.98	35.3 3.46	43.4 4.26	49.7 4.87	55.2 5.41	64.8 6.35
			220/240	50	kgfcm N.m	8.0 0.78	11.6 1.14	14.9 1.46	21.0 2.06	26.5 2.60	30.4 2.98	35.3 3.46	43.4 4.26	49.7 4.87	55.2 5.41	64.8 6.35

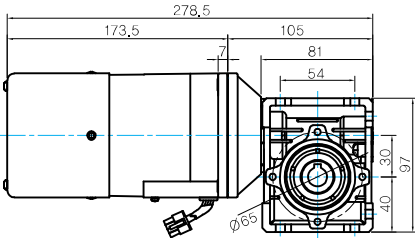
Motor Model	Gearbox Model	회전속도 r/min	전압 V	주파수 Hz	감속비	15	20	25	30	40	50	60	80	100	120	160	200	225	240
9SDG*~90F2HC	9HC □ -◇	1200	110	60	kgfcm N.m	69.0 6.76	92.0 9.02	115.0 11.30	138.0 13.50	184.0 18.00	230.0 22.50	276.0 27.00	368.0 36.10	460.0 45.10	552.0 54.10	736.0 72.10	920.0 90.20	1035.0 101.00	1104.0 108.00
			220	60	kgfcm N.m	69.0 6.76	92.0 9.02	115.0 11.30	138.0 13.50	184.0 18.00	230.0 22.50	276.0 27.00	368.0 36.10	460.0 45.10	552.0 54.10	736.0 72.10	920.0 90.20	1035.0 101.00	1104.0 108.00
			220/240	50	kgfcm N.m	59.1 5.79	78.8 7.72	98.6 9.66	118.0 11.60	158.0 15.50	197.0 19.30	237.0 23.20	315.0 30.90	394.0 38.60	473.0 46.40	631.0 61.80	788.0 77.10	887.0 86.90	946.0 92.70
		90	110	60	kgfcm N.m	25.2 2.47	33.6 3.29	42.0 4.12	50.4 4.94	67.2 6.59	84.0 8.23	101.0 9.90	134.0 13.10	168.0 16.50	201.0 19.70	269.0 26.40	336.0 32.90	378.0 37.00	403.0 39.50
			220	60	kgfcm N.m	25.2 2.47	33.6 3.29	42.0 4.12	50.4 4.94	67.2 6.59	84.0 8.23	101.0 9.90	134.0 13.10	168.0 16.50	201.0 19.70	269.0 26.40	336.0 32.90	378.0 37.00	403.0 39.50
			220/240	50	kgfcm N.m	24.1 2.36	32.1 3.15	40.2 3.94	48.2 4.72	64.2 6.29	80.3 7.87	96.4 9.45	128.0 12.50	161.0 15.80	193.0 18.90	257.0 25.20	321.0 31.50	361.0 35.40	385.0 37.70



# S.C. Induction Motor 90W (□ 90mm)

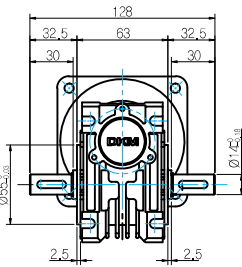
## WH TYPE GEARBOX

● MOTOR MODEL :  
9SDG□-90F2WH (POWERFUL FAN)

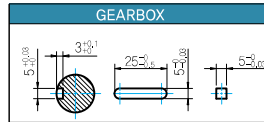


LEAD WIRE ASS'Y 300mm  
MOTOR UL STYLE NO.3271 AWG NO.20  
T,G UL STYLE NO.1007 AWG No.22

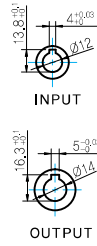
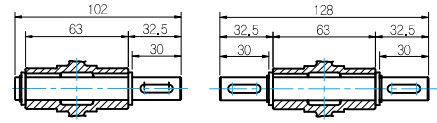
● GEARBOX MODEL :  
9WHD□-030



● KEY SPEC



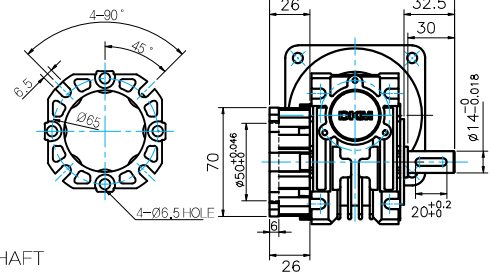
● SHAFT



한방향

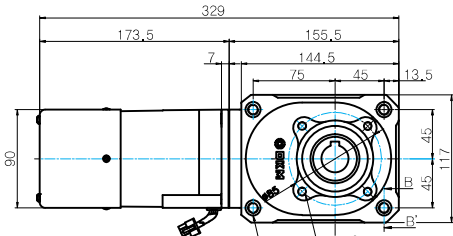
양방향

● FLANGE



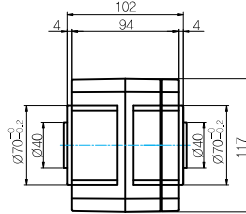
## HC TYPE GEARBOX

● MOTOR MODEL :  
9SDG□-90F2HC□ (POWERFUL FAN)

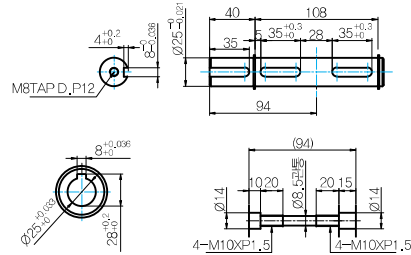


LEAD WIRE ASS'Y 300mm  
MOTOR UL STYLE NO.3271 AWG NO.20  
T,G UL STYLE NO.1007 AWG No.22

● GEARBOX MODEL :  
9HC(15 ~ 60)□



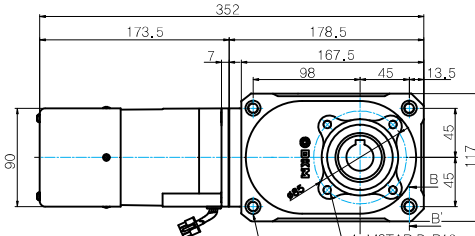
● SHAFT



OUTPUT

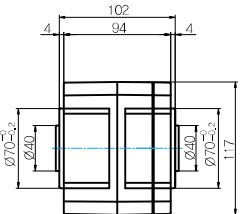
SECTION B-B'

● MOTOR MODEL :  
9SDG□-90F2HC□ (POWERFUL FAN)

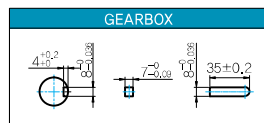


LEAD WIRE ASS'Y 300mm  
MOTOR UL STYLE NO.3271 AWG NO.20  
T,G UL STYLE NO.1007 AWG No.22

● GEARBOX MODEL :  
9HC(80 ~ 240)□



● KEY SPEC



## WEIGHT

PART	WEIGHT(kg)
MOTOR	3.50
9PB(F)K2BH - 9PB(F)K10BH	1.28
9PB(F)K12.5BH - 9PB(F)K20BH	1.30
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	1.00
9WHD□-030	1.20
9HC15-◇	4.05
9HC20-◇ - 9HC60-◇	4.10
9HC80-◇ - 9HC240-◇	4.75
9XD10□□	0.60

\*출력 FLANGE와 SHAFT는 별매입니다.

## Motor Images

