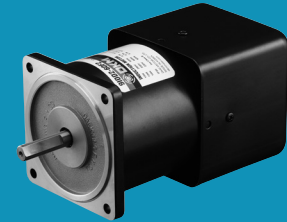


Speed Control Induction Motor



Index

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B AC Motors

S.C. Induction Motor 6W (□60mm)

6W

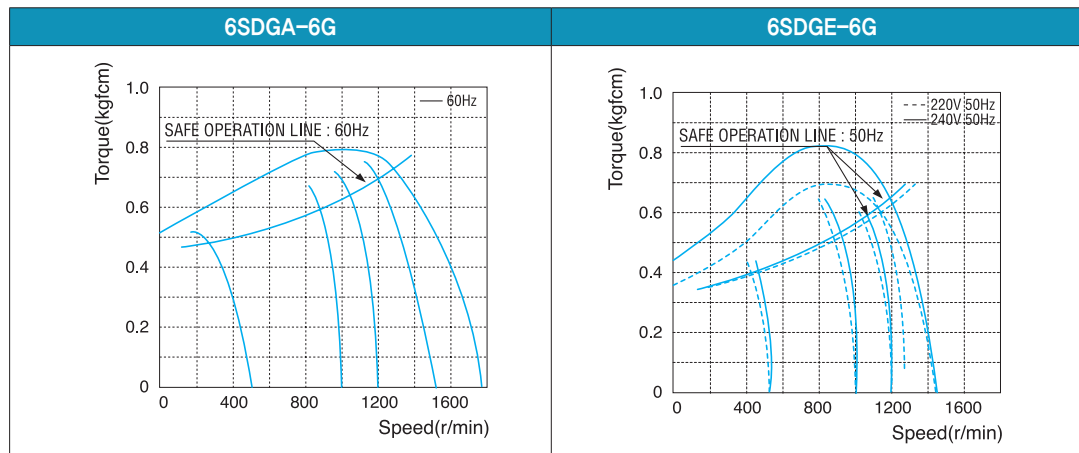
Speed Control Induction Motor
6W(□60mm)

Motor Specification

Model 6SDG□-6G: Gear Type Shaft 6SDD□-6: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
Lead Wire Type							kgfcm	N.m	kgfcm	N.m	kgfcm	N.m	
6SDGA-6G	6	1∅110	60	4	Cont.	90-1700	0.35	0.035	0.53	0.053	0.35	0.035	2.5 / 250
6SDGD-6G	6	1∅220	60	4	Cont.	90-1700	0.39	0.039	0.55	0.055	0.40	0.040	0.7 / 450
6SDGE-6G	6	1∅220	50	4	Cont.	90-1400	0.30	0.030	0.45	0.045	0.30	0.030	0.6 / 450
		0.35					0.035	0.50	0.050	0.30	0.030		

- 1) Enter the phase & voltage code in the in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



Motor Images



Max. Permissible Torque at Output Shaft of Gearbox

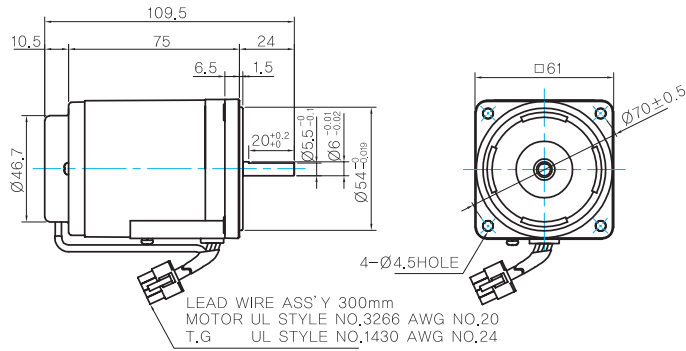
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	
6SDG□-6G	6GBK□BMH	1200	110	60	kgfcm	1.4	1.7	2.9	3.6	4.3	6.0	7.2	8.7	10.9	13.1	14.2	19.7	23.7	29.6	35.5	39.4	47.3	50.0	50.0	
					N.m	0.14	0.17	0.28	0.35	0.42	0.59	0.71	0.85	1.07	1.28	1.39	1.93	2.32	2.90	3.48	3.87	4.64	4.90	4.90	4.90
			220/240	50	kgfcm	1.1	1.3	2.2	2.8	3.4	4.7	5.6	6.7	8.4	10.1	11.0	15.3	18.4	23.0	27.5	30.6	36.7	45.9	50.0	50.0
		N.m	0.11	0.13	0.22	0.27	0.33	0.46	0.55	0.66	0.83	0.99	1.08	1.50	1.80	2.25	2.70	3.00	3.60	4.50	4.90	4.90	4.90		
		90	60	kgfcm	1.1	1.3	2.1	2.7	3.2	4.5	5.4	6.4	8.1	9.7	10.5	14.6	17.5	21.9	26.3	29.2	35.1	43.9	50.0	50.0	50.0
				N.m	0.10	0.13	0.21	0.26	0.31	0.44	0.52	0.63	0.79	0.95	1.03	1.43	1.72	2.15	2.58	2.87	3.44	4.30	4.90	4.90	4.90
	220/240		50	kgfcm	1.0	1.3	2.1	2.6	3.1	4.4	5.2	6.3	7.9	9.5	10.3	14.3	17.1	21.4	25.7	28.6	34.3	42.8	50.0	50.0	
	N.m	0.10	0.12	0.20	0.26	0.31	0.43	0.51	0.61	0.77	0.93	1.01	1.40	1.68	2.10	2.52	2.80	3.36	4.20	4.90	4.90	4.90	4.90		
	kgfcm	0.5	0.7	1.1	1.4	1.6	2.3	2.7	3.3	4.1	5.0	5.4	7.5	9.0	11.2	13.5	15.0	18.0	22.4	26.9	2.20	2.64	2.64		
	N.m	0.05	0.06	0.11	0.13	0.16	0.22	0.27	0.32	0.40	0.49	0.53	0.73	0.88	1.10	1.32	1.47	1.76	2.20	2.64	2.64	2.64	2.64		

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

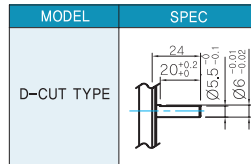
Dimensions

MOTOR ONLY

- MOTOR MODEL: 6SDD□-6 (NO FAN)



- MOTOR OUTPUT SHAFT

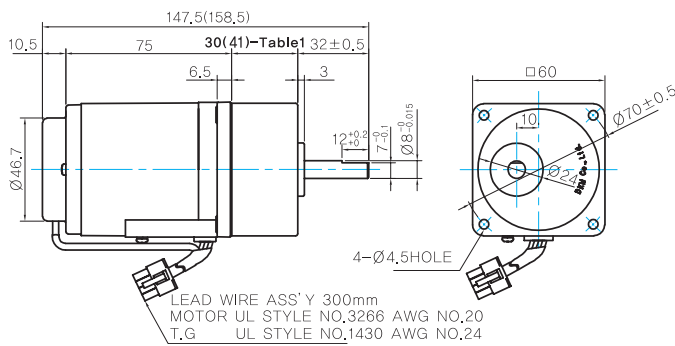


GEARED MOTOR

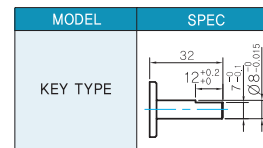
G TYPE GEARBOX

- MOTOR MODEL: 6SDG□-6G (NO FAN)

- GEARBOX MODEL: 6GBD□MH (NO FAN)



- GEARBOX OUTPUT SHAFT



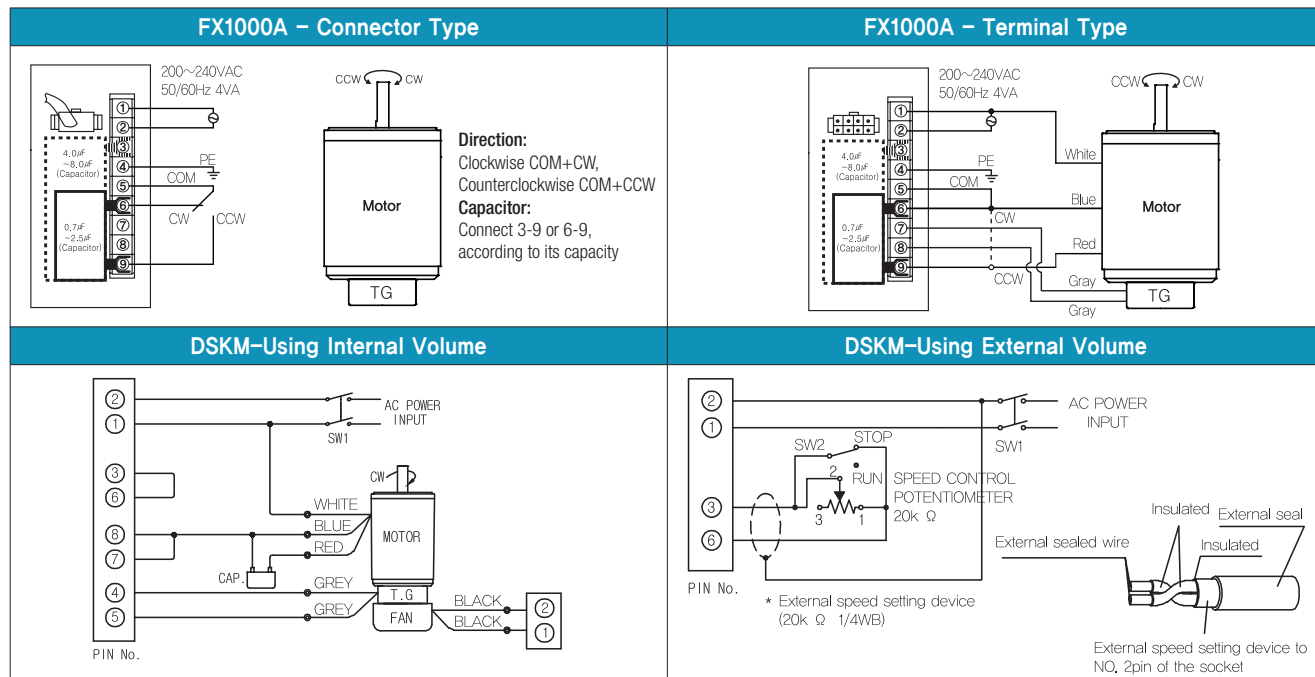
WEIGHT

PART	WEIGHT(Kg)
MOTOR	0.75
GEAR BOX	
6GBD3MH ~ 6GBD18MH	0.3
6GBD20MH ~ 6GBD40MH	0.32
6GBD50MH ~ 6GBD250MH	0.34

- 30(41)-Table1

SIZE(mm)	GEAR RATIO
30	6GBD3MH - 6GBD18MH
41	6GBD25MH - 6GBD180MH

Connection Diagrams



B AC Motors

S.C. Induction Motor 6W (□70mm)

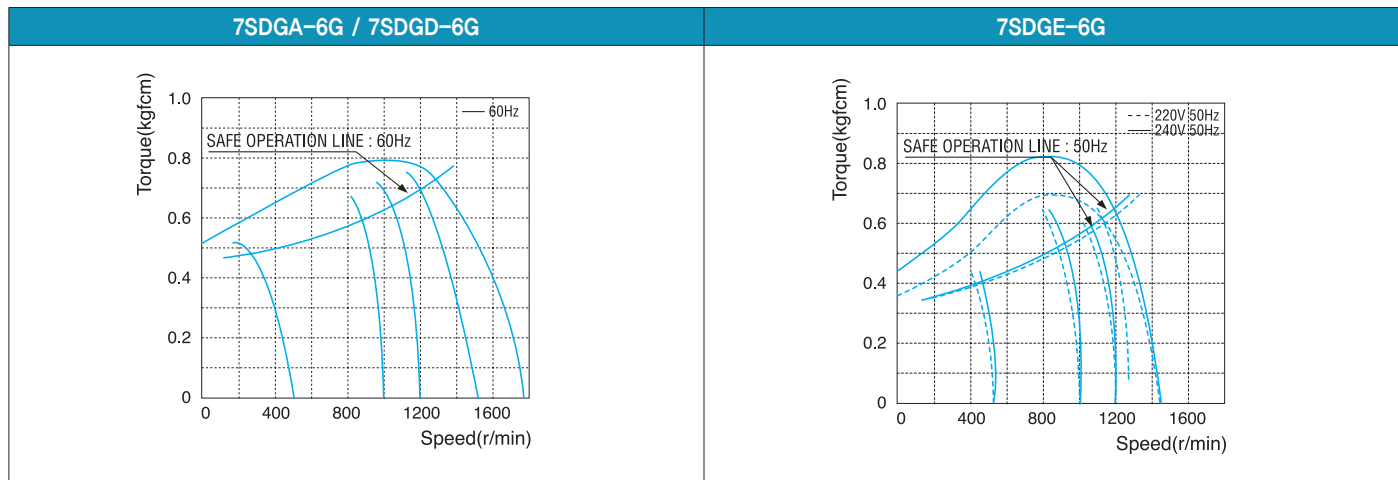
6W Speed Control Induction Motor 6W(□70mm)

Motor Specification

Model 7SDG□-6G: Gear Type Shaft 7SDD□-6: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
Lead Wire Type									kgfcm	N.m	kgfcm	N.m	
7SDGA-6G	6	1∅ 110	60	4	Cont.	90-1700	0.50	0.050	0.58	0.058	0.43	0.043	2.5 / 250
7SDGD-6G	6	1∅ 220	60	4	Cont.	90-1700	0.51	0.051	0.56	0.056	0.42	0.042	0.7 / 450
7SDGE-6G	6	1∅ 220	50	4	Cont.	90-1400	0.35	0.035	0.35	0.035	0.22	0.022	0.7 / 450
		0.42					0.042	0.45	0.045	0.22	0.022		

- 1) Enter the phase & voltage code in the in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



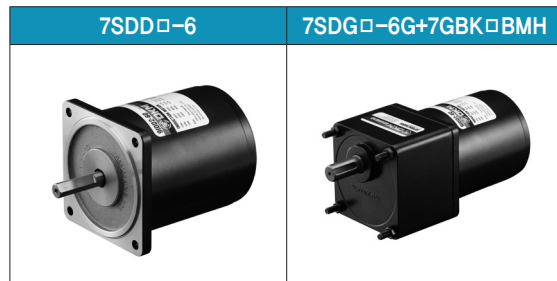
Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	7.5	9	12.5	15	18	25	30
7SDG□-6G	7GBK□BMH	1200	110	60	kgfcm	1.4	1.7	2.9	3.6	4.3	6.0	7.2	8.7	10.9	13.1
					N.m	0.14	0.17	0.28	0.35	0.42	0.59	0.71	0.85	1.07	1.28
			220	60	kgfcm	1.4	1.7	2.8	3.5	4.2	5.8	7.0	8.4	10.5	12.6
				N.m	0.14	0.16	0.27	0.34	0.41	0.57	0.68	0.82	1.03	1.23	
		220/240	50	kgfcm	1.1	1.3	2.2	2.8	3.4	4.7	5.6	6.7	8.4	10.1	
				N.m	0.11	0.13	0.22	0.27	0.33	0.46	0.55	0.66	0.83	0.99	
90		110	60	kgfcm	1.1	1.3	2.1	2.7	3.2	4.5	5.4	6.4	8.1	9.7	
					N.m	0.10	0.13	0.21	0.26	0.31	0.44	0.52	0.63	0.79	0.95
		220	60	kgfcm	1.0	1.3	2.1	2.6	3.1	4.4	5.2	6.3	7.9	9.5	
		N.m	0.10	0.12	0.20	0.26	0.31	0.43	0.51	0.61	0.77	0.93			
220/240	50	kgfcm	0.5	0.7	1.1	1.4	1.6	2.3	2.7	3.3	4.1	5.0			
		N.m	0.05	0.06	0.11	0.13	0.16	0.22	0.27	0.32	0.40	0.49			

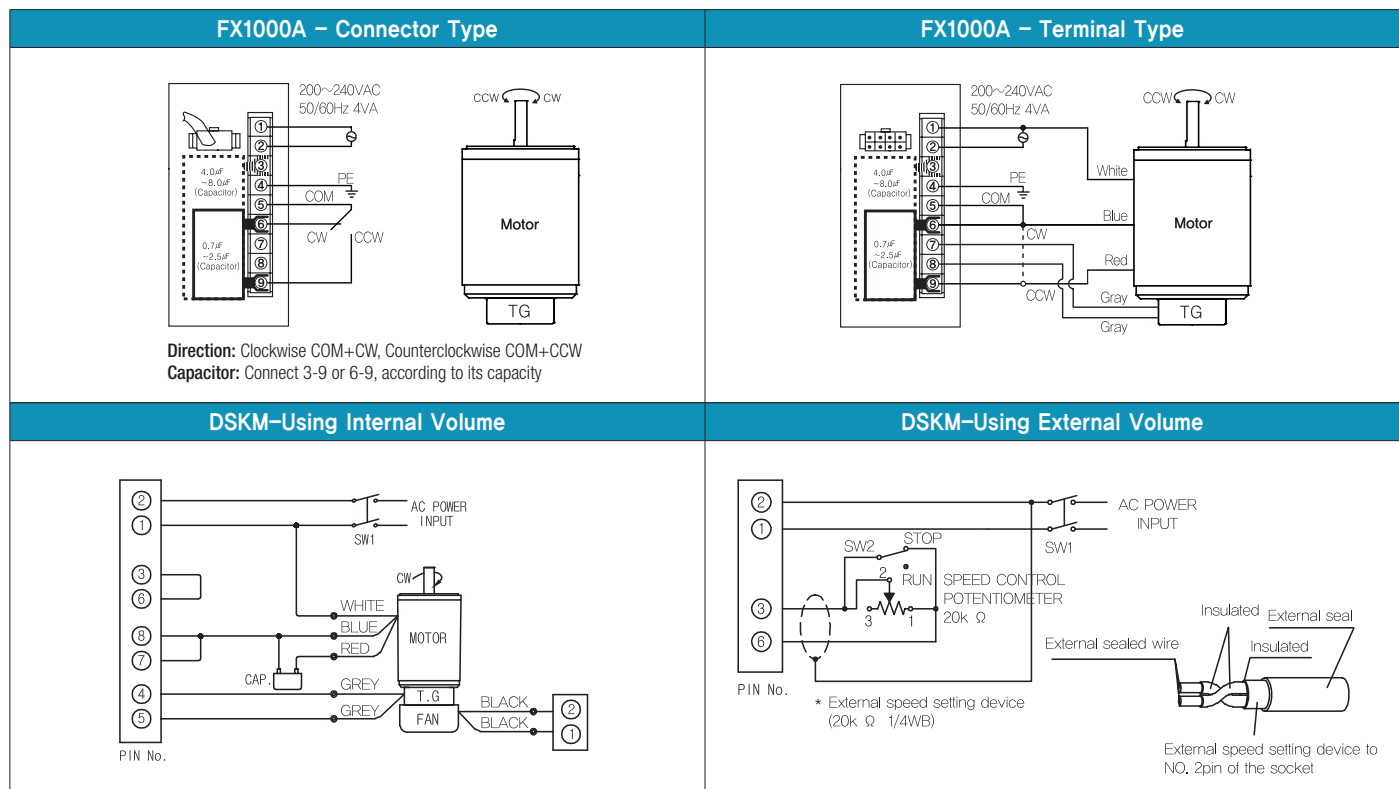
B AC Motors

S.C. Induction Motor 6W (□70mm)

Motor Images



Connection Diagrams



- 1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.
Now you can adjust the main volume to control the output speed of motor.
- 2) The direction of motor rotation is as viewed from the shaft end of the motor.
- 3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

10W

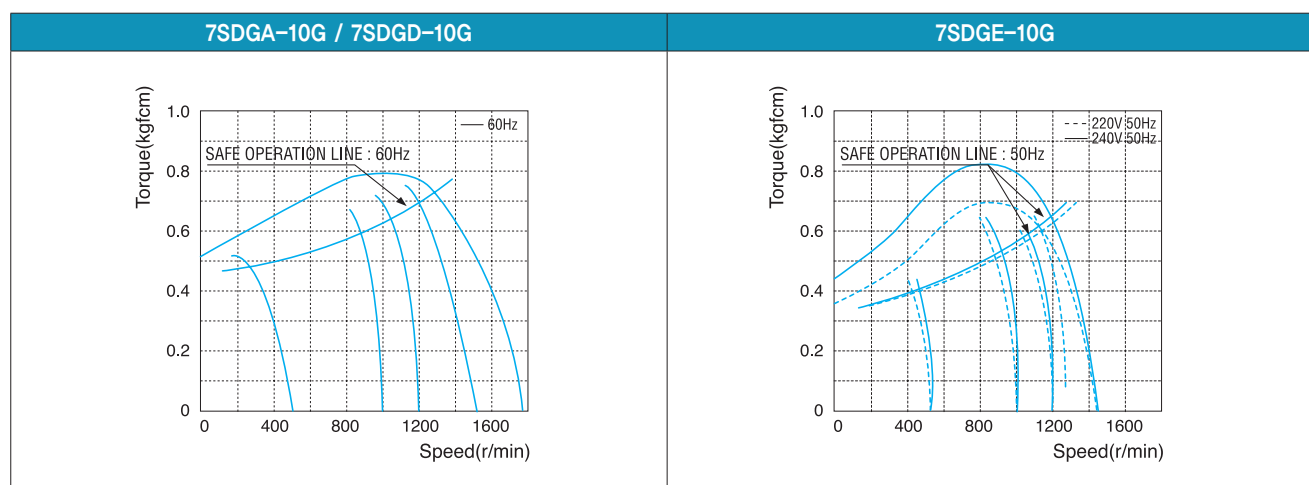
Speed Control Induction Motor 10W(□70mm)

Motor Specification

Model 7SDG□-10G: Gear Type Shaft 7SDD□-10: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
7SDGA-10G	10	1∅110	60	4	Cont.	90-1700	0.60	0.060	0.82	0.082	0.50	0.050	3.0 / 250
7SDGD-10G	10	1∅220	60	4	Cont.	90-1700	0.80	0.080	0.82	0.082	0.50	0.050	1.0 / 450
7SDGE-10G	10	1∅220	50	4	Cont.	90-1400	0.58	0.058	0.70	0.070	0.35	0.035	0.8 / 450
		0.70					0.070	0.75	0.075	0.40	0.040		

- 1) Enter the phase & voltage code in the in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	7.5	9	12.5	15	18	25	30
7SDG□-10G	7GBK□BMH	1200	110	60	kgfcm	2.0	2.5	4.1	5.1	6.1	8.5	10.2	12.3	15.4	18.5
					N.m	0.20	0.24	0.40	0.50	0.60	0.83	1.00	1.20	1.51	1.81
			220	60	kgfcm	2.0	2.5	4.1	5.1	6.1	8.5	10.2	12.3	15.4	18.5
		220/240	50	N.m	0.20	0.24	0.40	0.50	0.60	0.83	1.00	1.20	1.51	1.81	
		90	110	60	kgfcm	1.2	1.5	2.5	3.1	3.7	5.2	6.2	7.5	9.4	11.3
					N.m	0.12	0.15	0.24	0.31	0.37	0.51	0.61	0.73	0.92	1.10
220	60		kgfcm	1.2	1.5	2.5	3.1	3.7	5.2	6.2	7.5	9.4	11.3		
220/240	50	N.m	1.0	1.2	2.0	2.5	3.0	4.2	5.0	6.0	8.3	10.0			
					N.m	0.10	0.12	0.20	0.24	0.29	0.41	0.49	0.59	0.81	0.98

B AC Motors

S.C. Induction Motor 10W (□70mm)

Max. Permissible Torque at Output Shaft of Gearbox

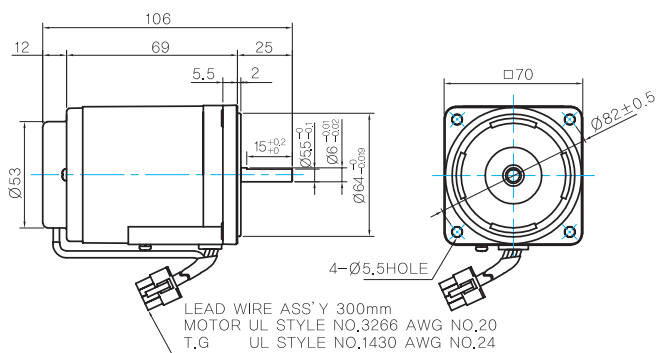
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	36	50	60	75	90	100	120	150	180	
7SDG□-10G	7GBK□BMH	1200	110	60	kgfcm	20.1	27.9	33.5	41.8	50.0	50.0	50.0	50.0	50.0	
					N.m	1.97	2.73	3.28	4.10	4.90	4.90	4.90	4.90	4.90	
			220	60	kgfcm	20.1	27.9	33.5	41.8	50.0	50.0	50.0	50.0	50.0	50.0
		220/240	50	kgfcm	18.4	25.5	30.6	38.3	45.9	50.0	50.0	50.0	50.0	50.0	50.0
		90	110	60	kgfcm	12.2	17.0	20.4	25.5	30.6	34.0	40.8	50.0	50.0	50.0
					N.m	1.20	1.67	2.00	2.50	3.00	3.33	4.00	4.90	4.90	
			220	60	kgfcm	12.2	17.0	20.4	25.5	30.6	34.0	40.8	50.0	50.0	50.0
			220/240	50	kgfcm	12.0	16.6	19.9	24.9	29.9	33.2	39.8	49.8	50.0	50.0
						N.m	1.17	1.63	1.95	2.44	2.93	3.25	3.90	4.88	4.90

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimensions

MOTOR ONLY

- MOTOR MODEL: 7SD□-10 (NO FAN)



MOTOR OUTPUT SHAFT

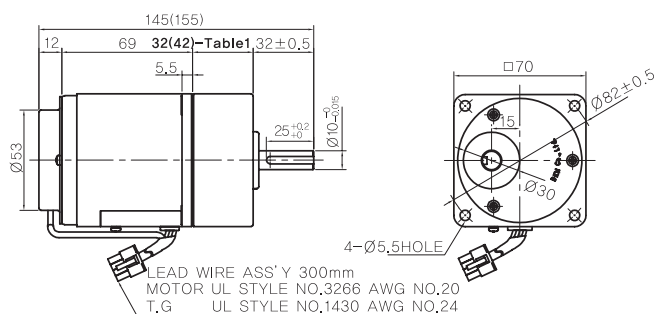
MODEL	SPEC
D-CUT TYPE	

GEARED MOTOR

G TYPE GEARBOX

- MOTOR MODEL: 7SD□-10G (NO FAN)

- GEARBOX MODEL: 7GBK□BMH



GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	

KEY SPEC

GEARBOX	

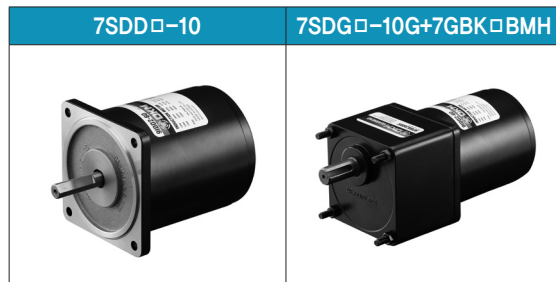
WEIGHT

	PART	WEIGHT(Kg)
GEAR BOX	MOTOR	0,93
	7GBK3BMH - 7GBK18BMH	0,36
	7GBK25BMH - 7GBK30BMH	0,44
	7GBK36BMH - 7GBK180BMH	0,5

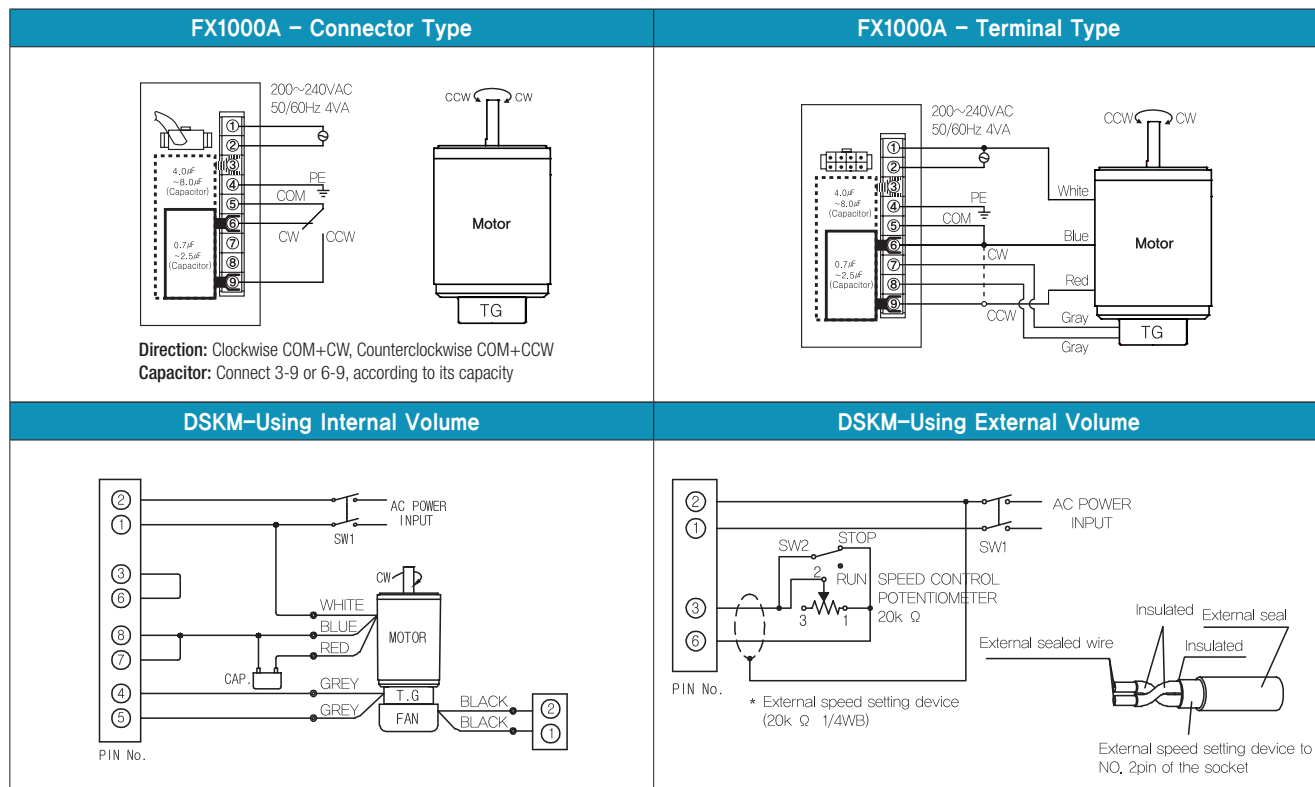
32(42)-Table1

SIZE(mm)	GEAR RATIO
32	7GBK3BMH - 7GBK18BMH
42	7GBK25BMH - 7GBK180BMH

Motor Images



Connection Diagrams



- 1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation. Now you can adjust the main volume to control the output speed of motor.
- 2) The direction of motor rotation is as viewed from the shaft end of the motor.
- 3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 15W (□70mm)

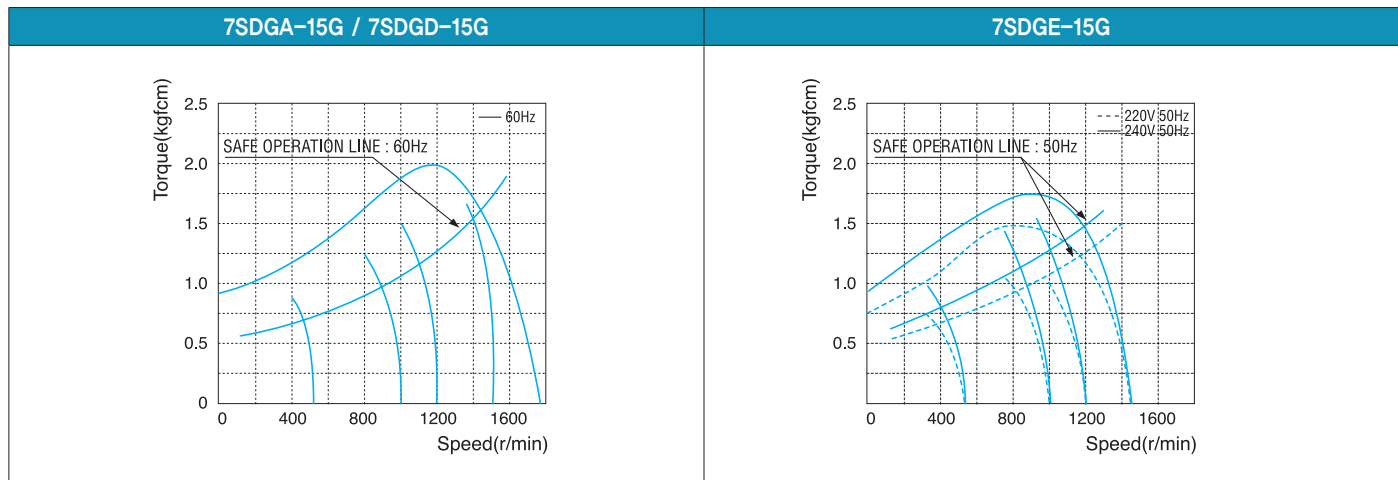
15W Speed Control Induction Motor 15W(□70mm)

Motor Specification

Model 7SDG□-15G: Gear Type Shaft 7SDD□-15: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
7SDGA-15G	15	1∅110	60	4	Cont.	90-1700	0.67	0.067	1.13	0.113	0.58	0.058	3.5 / 250
7SDGD-15G	15	1∅220	60	4	Cont.	90-1700	1.00	0.100	1.18	0.118	0.63	0.063	1.2 / 450
7SDGE-15G	15	1∅220	50	4	Cont.	90-1400	0.80	0.080	1.05	0.105	0.50	0.050	1.0 / 450
		1∅240					1.00	0.100	1.25	0.125	0.60	0.060	

- 1) Enter the phase & voltage code in the in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	7.5	9	12.5	15	18	25	30
7SDG□-15G	7GBK□BMH	1200	110	60	kgfcm	2.8	3.4	5.6	7.0	8.4	11.7	14.1	16.9	21.2	25.4
					N.m	0.28	0.33	0.55	0.69	0.83	1.15	1.38	1.65	2.08	2.49
			220	60	kgfcm	2.9	3.5	5.9	7.3	8.8	12.2	14.7	17.6	22.1	26.6
		N.m			0.29	0.35	0.58	0.72	0.86	1.20	1.44	1.73	2.17	2.60	
		220/240	50	kgfcm	3.1	3.7	6.2	7.8	9.3	13.0	15.6	18.7	23.4	28.1	
				N.m	0.31	0.37	0.61	0.76	0.92	1.27	1.53	1.83	2.30	2.76	
				110	60	kgfcm	1.4	1.7	2.9	3.6	4.3	6.0	7.2	8.7	10.9
		N.m	0.14			0.17	0.28	0.35	0.42	0.59	0.71	0.85	1.07	1.28	
		90	220	60	kgfcm	1.6	1.9	3.1	3.9	4.7	6.5	7.8	9.4	11.8	14.2
N.m	0.15				0.18	0.31	0.38	0.46	0.64	0.77	0.92	1.16	1.39		
220/240	50				kgfcm	1.5	1.8	3.0	3.7	4.5	6.2	7.5	9.0	11.3	13.5
		N.m	0.15	0.18	0.29	0.37	0.44	0.61	0.73	0.88	1.10	1.32			

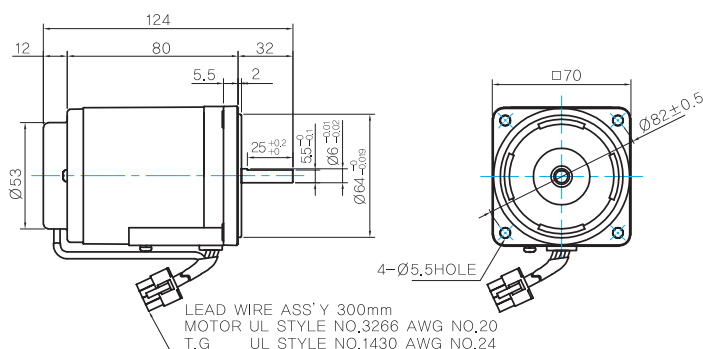
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	36	50	60	75	90	100	120	150	180	
7SDG□ -15G	7GBK□BMH	1200	110	60	kgfcm	27.7	38.4	46.1	50.0	50.0	50.0	50.0	50.0	50.0	
					N.m	2.71	3.77	4.52	4.90	4.90	4.90	4.90	4.90	4.90	
			220	60	kgfcm	28.9	40.1	48.1	50.0	50.0	50.0	50.0	50.0	50.0	50.0
					N.m	2.83	3.93	4.72	4.90	4.90	4.90	4.90	4.90	4.90	
			220/ 240	50	kgfcm	30.6	42.5	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
					N.m	3.00	4.17	4.90	4.90	4.90	4.90	4.90	4.90	4.90	
		90	110	60	kgfcm	14.2	19.7	23.7	29.6	35.5	39.4	47.3	50.0	50.0	
					N.m	1.39	1.93	2.32	2.90	3.48	3.87	4.64	4.90	4.90	
					kgfcm	15.4	21.4	25.7	32.1	38.6	42.8	50.0	50.0	50.0	
220	60	60	N.m	1.51	2.10	2.52	3.15	3.78	4.20	4.90	4.90	4.90			
			kgfcm	14.7	20.4	24.5	30.6	36.7	40.8	49.0	50.0	50.0			
220/ 240	50	50	N.m	1.44	2.00	2.40	3.00	3.60	4.00	4.80	4.90	4.90			
			kgfcm	14.7	20.4	24.5	30.6	36.7	40.8	49.0	50.0	50.0			

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimensions

MOTOR ONLY

- MOTOR MODEL: 7SDD□-15 (NO FAN)



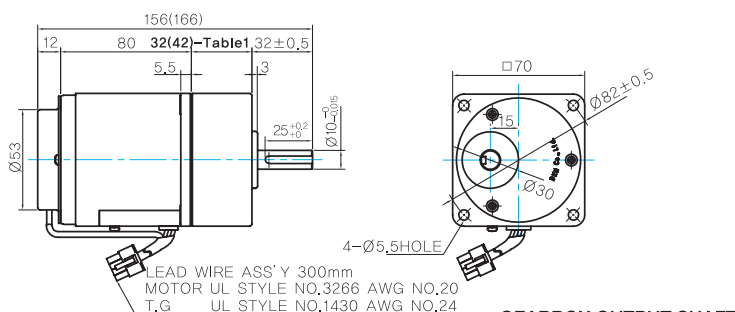
MOTOR OUTPUT SHAFT

MODEL	SPEC
D-CUT TYPE	

GEARED MOTOR

G TYPE GEARBOX

- MOTOR MODEL: 7SDG□-15G (NO FAN)
- GEARBOX MODEL: 7GBK□BMH



GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	

WEIGHT

PART	WEIGHT(Kg)
MOTOR	1,14
GEAR BOX	0,36
7GBK3BMH ~ 7GBK18BMH	0,44
7GBK25BMH ~ 7GBK30BMH	0,5
7GBK36MH ~ 7GBK180MH	

KEY SPEC

MOTOR

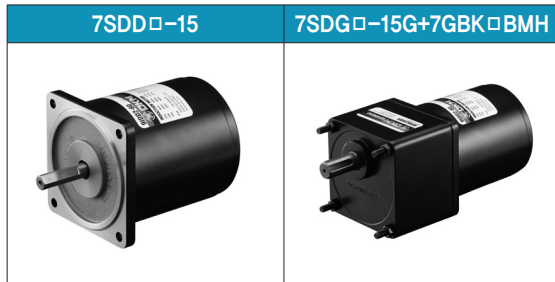
32(42)-Table1

SIZE(mm)	GEAR RATIO
32	7GBK3BMH - 7GBK18BMH
42	7GBK25BMH - 7GBK180BMH

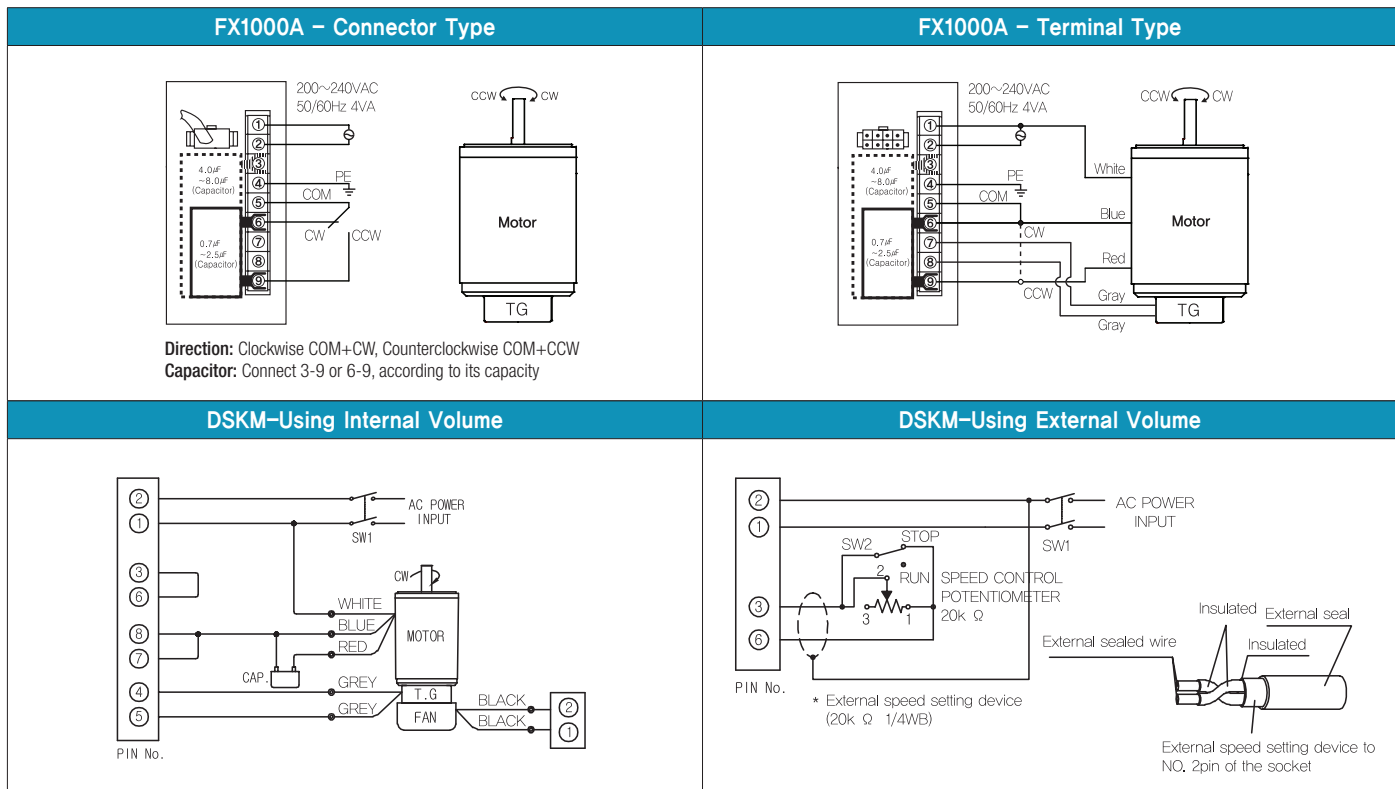
B AC Motors

S.C. Induction Motor 15W (□70mm)

Motor Images



Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.

Now you can adjust the main volume to control the output speed of motor.

2) The direction of motor rotation is as viewed from the shaft end of the motor.

3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.

4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

15W

Speed Control Induction Motor 15W(□80mm)

Motor Specification

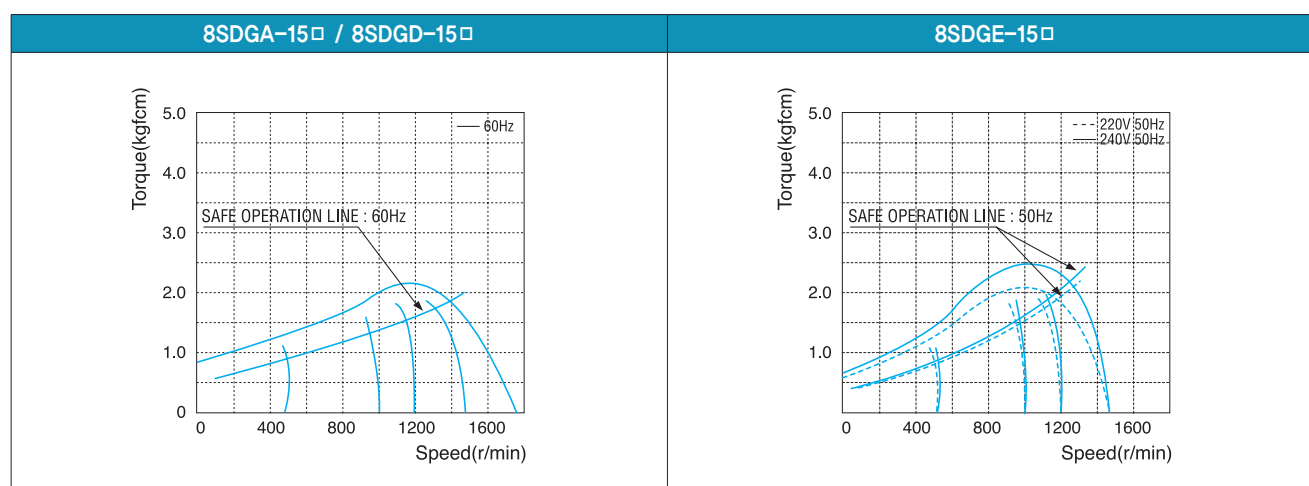
Model 8SDG*-15□: Gear Type Shaft 8SDD*-15: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
8SDGA-15□	15	1∅110	60	4	Cont.	90-1700	0.70	0.070	1.50	0.150	0.35	0.035	3.5 / 450
8SDGD-15□	15	1∅220	60	4	Cont.	90-1700	0.85	0.085	1.50	0.150	0.35	0.035	1.2 / 450
8SDGE-15□	15	1∅220	50	4	Cont.	90-1400	0.75	0.075	1.20	0.120	0.35	0.035	1.0 / 450
		0.85					0.085	1.40	0.140	0.35	0.035		

1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.

2) All models contain a built-in thermal protector.

3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60
8SDG□ -15G	8GBK□ BMH	1200	110	60	kgfcm	3.7	4.5	6.2	7.5	9.3	11.2	15.6	18.7	22.4	28.1	33.8	36.7	40.8	51.0	61.2
					N.m	0.37	0.44	0.61	0.73	0.92	1.10	1.53	1.83	2.20	2.76	3.31	3.60	4.00	5.00	6.00
			220	60	kgfcm	3.7	4.5	6.2	7.5	9.3	11.2	15.6	18.7	22.4	28.1	33.8	36.7	40.8	51.0	61.2
					N.m	0.37	0.44	0.61	0.73	0.92	1.10	1.53	1.83	2.20	2.76	3.31	3.60	4.00	5.00	6.00
			220/ 240	50	kgfcm	3.5	4.2	5.8	7.0	8.7	10.5	14.5	17.4	20.9	26.3	31.5	34.3	38.1	47.6	57.1
					N.m	0.34	0.41	0.57	0.68	0.85	1.02	1.42	1.71	2.05	2.57	3.09	3.36	3.73	4.66	5.60
		90	110	60	kgfcm	0.9	1.0	1.5	1.7	2.2	2.6	3.6	4.4	5.2	6.6	7.9	8.6	9.5	11.9	14.3
					N.m	0.09	0.10	0.14	0.17	0.21	0.26	0.36	0.43	0.51	0.64	0.77	0.84	0.93	1.17	1.40
			220	60	kgfcm	0.9	1.0	1.5	1.7	2.2	2.6	3.6	4.4	5.2	6.6	7.9	8.6	9.5	11.9	14.3
					N.m	0.09	0.10	0.14	0.17	0.21	0.26	0.36	0.43	0.51	0.64	0.77	0.84	0.93	1.17	1.40
			220/ 240	50	kgfcm	0.9	1.0	1.5	1.7	2.2	2.6	3.6	4.4	5.2	6.6	7.9	8.6	9.5	11.9	14.3
					N.m	0.09	0.10	0.14	0.17	0.21	0.26	0.36	0.43	0.51	0.64	0.77	0.84	0.93	1.17	1.40

B AC Motors

S.C. Induction Motor 15W (□80mm)

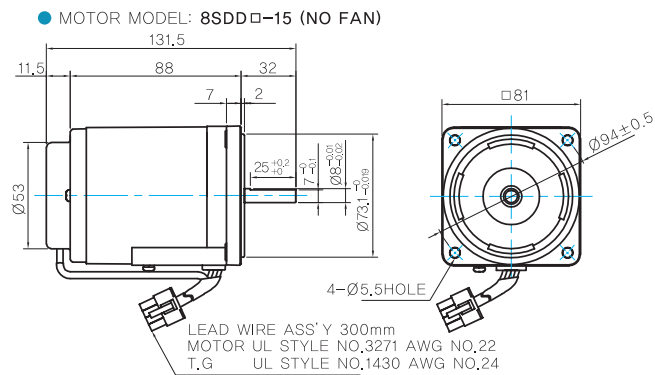
Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	75	90	100	120	150	180	200	250	300	360	10	12	15	18	25	30	36	50	60		
8SDG□ -15G	8GBK□ BMH	1200	110	60	kgfcm	76.5	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	12.3	14.4	17.3	20.0	26.3	29.7	34.6	45.0	49.5		
					N.m	7.50	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	1.21	1.41	1.70	1.96	2.57	2.91	3.39	4.41	4.85
			220	60	kgfcm	76.5	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	12.5	14.9	18.7	22.4	31.1	37.4	44.8	62.3	74.7
					N.m	7.50	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	1.22	1.46	1.83	2.20	3.05	3.66	4.39	6.10	7.32
			220/ 240	50	kgfcm	71.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	11.5	13.4	16.2	18.6	24.5	27.7	32.3	42.0	46.2
					N.m	7.00	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	1.13	1.32	1.58	1.83	2.40	2.72	3.16	4.12	4.53
	90	110	60	kgfcm	17.9	21.4	23.8	28.6	35.7	42.8	42.7	53.4	64.1	76.9	2.9	3.4	4.0	4.7	6.1	6.9	8.1	10.5	11.6			
				N.m	1.75	2.10	2.33	2.80	3.50	4.20	4.18	5.23	6.28	7.53	0.28	0.33	0.40	0.46	0.60	0.68	0.79	1.03	1.13			
		220	60	kgfcm	17.9	21.4	23.8	28.6	35.7	42.8	42.7	53.4	64.1	76.9	2.9	3.4	4.0	4.7	6.1	6.9	8.1	10.5	11.6			
				N.m	1.75	2.10	2.33	2.80	3.50	4.20	4.18	5.23	6.28	7.53	0.28	0.33	0.40	0.46	0.60	0.68	0.79	1.03	1.13			
		220/ 240	50	kgfcm	17.9	21.4	23.8	28.6	35.7	42.8	42.7	53.4	64.1	76.9	2.9	3.4	4.0	4.7	6.1	6.9	8.1	10.5	11.6			
				N.m	1.75	2.10	2.33	2.80	3.50	4.20	4.18	5.23	6.28	7.53	0.28	0.33	0.40	0.46	0.60	0.68	0.79	1.03	1.13			

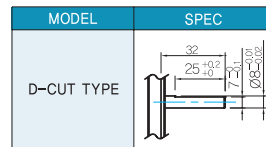
- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimensions

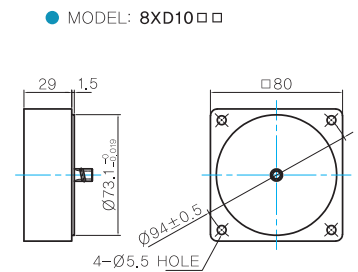
MOTOR ONLY



MOTOR OUTPUT SHAFT

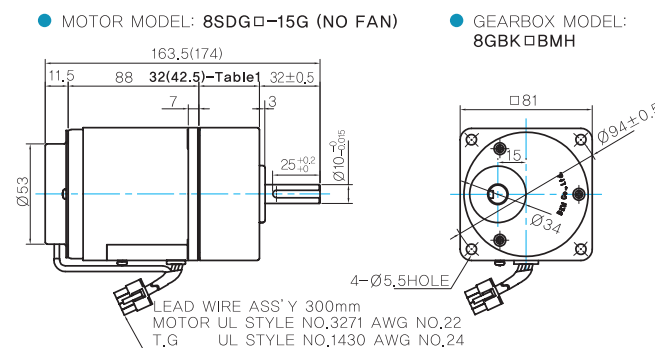


INTER-DECIMAL GEARBOX

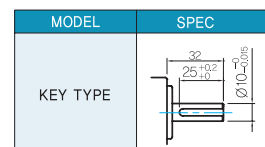


GEARED MOTOR

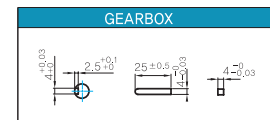
G TYPE GEARBOX



GEARBOX OUTPUT SHAFT



KEY SPEC

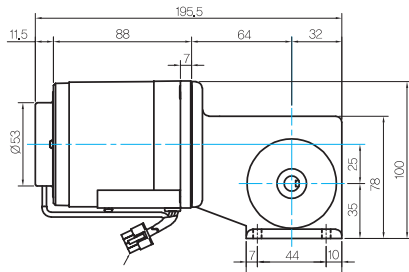


32(42.5)-Table1

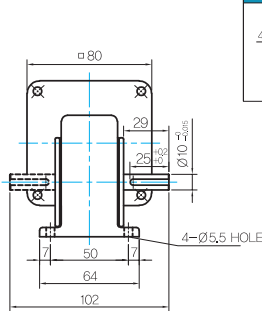
SIZE(mm)	GEAR RATIO
32	8GBK3BMH - 8GBK18BMH
42.5	8GBK25BMH - 8GBK360BMH

W TYPE GEARBOX

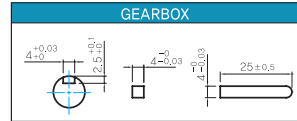
MOTOR MODEL:
8SDG□-15W (NO FAN)



GEARBOX MODEL:
8WD□BL/BR/BRL



KEY SPEC



WEIGHT

PART	WEIGHT(Kg)	
MOTOR	1.7	
GEAR BOX	8GBK3BMH ~ 8GBK18BMH	0.48
	8GBK25BMH ~ 8GBK30BMH	0.61
	8GBK36BMH ~ 8GBK180BMH	0.67
	8GBK200BMH ~ 8GBK360BMH	0.63
	8WD□BL/BR/BRL	0.67
8XD10□	0.44	

Motor Images



Connection Diagrams

FX1000A – Connector Type	FX1000A – Terminal Type
<p>Direction: Clockwise COM+CW, Counterclockwise COM+CCW Capacitor: Connect 3-9 or 6-9, according to its capacity</p>	
DSKM-Using Internal Volume	DSKM-Using External Volume
	<p>* External speed setting device (20k Ω 1/4WB)</p> <p>External speed setting device to NO. 2pin of the socket</p>

- At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation. Now you can adjust the main volume to control the output speed of motor.
- 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.
- When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 25W (□80mm)

25W Speed Control Induction Motor 25W(□80mm)

Motor Specification

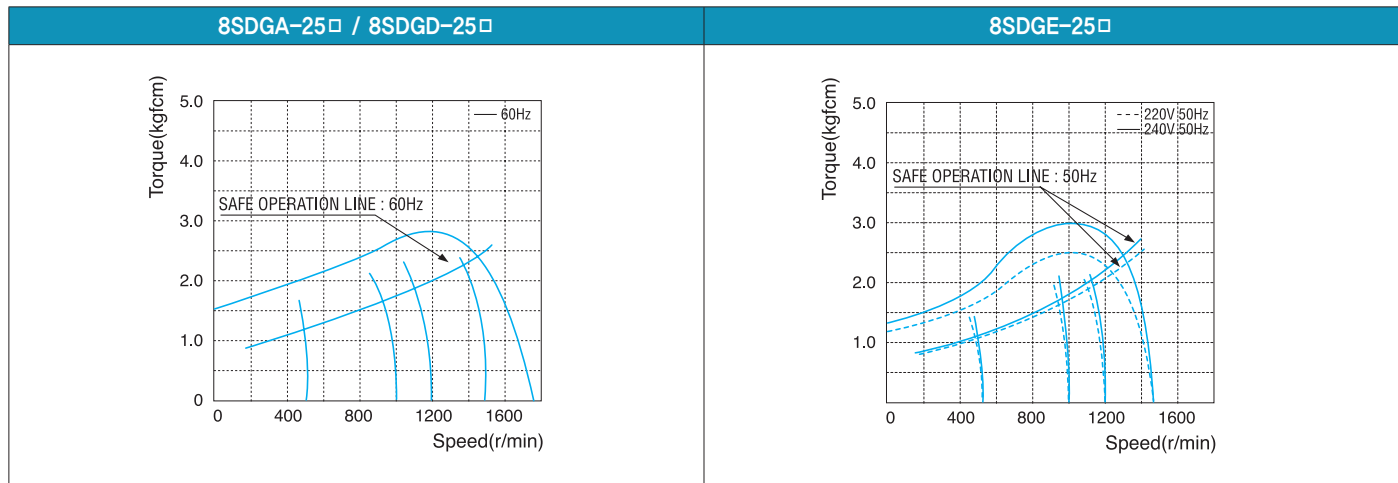
Model 8SDG*-25□: Gear Type Shaft 8SDD*-25: D-Cut Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
							kgfcm	N.m	1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
8SDGA-25□	25	1φ110	60	4	Cont.	90-1700	1.40	0.140	1.55	0.155	0.70	0.070	6.0 / 250
8SDGD-25□	25	1φ220	60	4	Cont.	90-1700	1.60	0.160	1.80	0.180	0.90	0.090	1.5 / 450
8SDGE-25□	25	1φ220	50	4	Cont.	90-1400	1.00	0.100	1.50	0.150	0.50	0.050	1.3 / 450
		1φ240					1.20	0.120	1.80	0.180	0.50	0.050	

1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.

2) All models contain a built-in thermal protector.

3) Gear Type Shaft are for attaching Gearbox and D-Cut Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40
8SDG□ -25G	8GBK□BMH	1200	110	60	kgfcm	3.9	4.6	6.4	7.7	9.6	11.6	16.1	19.3	23.2	29.1	34.9	37.9	42.2
					N.m	0.38	0.45	0.63	0.76	0.95	1.13	1.58	1.89	2.27	2.85	3.42	3.72	4.13
			220	60	kgfcm	5.8	6.9	9.6	11.5	14.4	17.3	24.0	28.8	34.6	39.2	47.1	46.4	51.6
		N.m			0.57	0.68	0.94	1.13	1.41	1.70	2.35	2.83	3.39	3.84	4.61	4.55	5.06	
		220/ 240	50	kgfcm	4.5	5.4	7.5	9.0	11.2	13.4	18.7	22.4	26.9	33.8	40.5	44.1	49.0	
				N.m	0.44	0.53	0.73	0.88	1.10	1.32	1.83	2.20	2.64	3.31	3.97	4.32	4.80	
	90	110	60	kgfcm	1.7	2.1	2.9	3.5	4.4	5.2	7.3	8.7	10.5	13.1	15.8	17.1	19.0	
				N.m	0.17	0.20	0.28	0.34	0.43	0.51	0.71	0.85	1.02	1.29	1.54	1.68	1.87	
			220	60	kgfcm	2.2	2.7	3.7	4.5	5.6	6.7	9.3	11.2	13.4	16.9	20.3	22.0	24.5
		N.m			0.22	0.26	0.37	0.44	0.55	0.66	0.92	1.10	1.32	1.65	1.98	2.16	2.40	
		220/ 240	50	kgfcm	1.2	1.5	2.1	2.5	3.1	3.7	5.2	6.2	7.5	9.4	11.3	12.2	13.6	
				N.m	0.12	0.15	0.20	0.24	0.31	0.37	0.51	0.61	0.73	0.92	1.10	1.20	1.33	

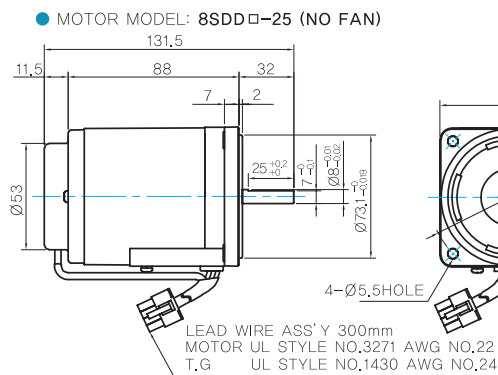
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	50	60	75	90	100	120	150	180	200	250	300	360	
8SDG□ -25G	8GBK□BMH	1200	110	60	kgfcm	52.7	63.2	79.1	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	
					N.m	5.16	6.20	7.75	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84		
			220	60	kgfcm	64.5	77.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
		220/ 240	50	kgfcm	61.2	73.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
		90	110	60	kgfcm	23.8	28.6	35.7	42.8	47.6	57.1	71.4	80.0	80.0	80.0	80.0	80.0	80.0
					N.m	2.33	2.80	3.50	4.20	4.66	5.60	7.00	7.84	7.84	7.84	7.84	7.84	
220	60		kgfcm	30.6	36.7	45.9	55.1	61.2	73.4	80.0	80.0	80.0	80.0	80.0	80.0	80.0		
220/ 240	50	kgfcm	17.0	20.4	25.5	30.6	34.0	40.8	51.0	61.2	61.0	76.3	80.0	80.0				
N.m	1.67	2.00	2.50	3.00	3.33	4.00	5.00	6.00	5.98	7.47	7.84	7.84						

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	10	12	15	18	25	30	36	50	60
8SDG□ -25W	8WD□BL/ □BR/□BRL	1200	110	60	kgfcm	12.7	14.9	17.9	20.6	27.1	30.7	35.7	46.5	51.2
					N.m	1.25	1.46	1.75	2.02	2.66	3.01	3.50	4.56	5.01
			220	60	kgfcm	14.9	17.9	22.4	26.9	37.4	44.8	53.8	74.7	81.6
		220/240	50	kgfcm	14.8	17.3	20.8	24.0	31.5	35.6	41.5	54.0	59.4	
		90	110	60	kgfcm	5.7	6.7	8.1	9.3	12.3	13.9	16.1	21.0	23.1
					N.m	0.56	0.66	0.79	0.91	1.20	1.36	1.58	2.06	2.26
			220	60	kgfcm	7.4	8.6	10.4	12.0	15.8	17.8	20.7	27.0	29.7
		220/240	50	kgfcm	4.1	4.8	5.8	6.7	8.8	9.9	11.5	15.0	16.5	
		N.m	0.40	0.47	0.57	0.65	0.86	0.97	1.13	1.47	1.62			

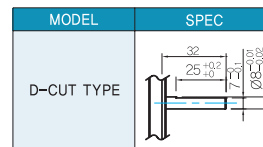
- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimensions

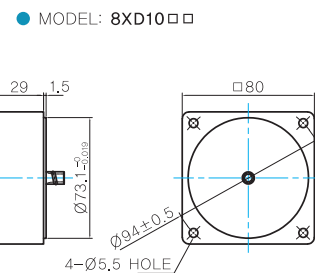
MOTOR ONLY



MOTOR OUTPUT SHAFT

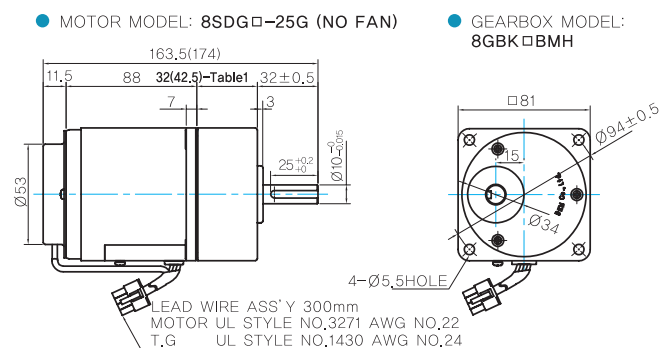


INTER-DECIMAL GEARBOX

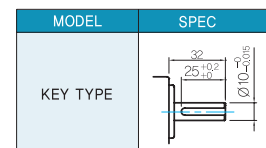


GEARED MOTOR

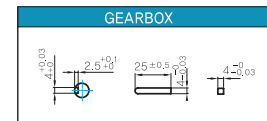
G TYPE GEARBOX



GEARBOX OUTPUT SHAFT



KEY SPEC



32(42.5)-Table1

SIZE(mm)	GEAR RATIO
32	8GBK3BMH - 8GBK18BMH
42.5	8GBK25BMH - 8GBK360BMH

B AC Motors

S.C. Induction Motor 25W (□80mm)

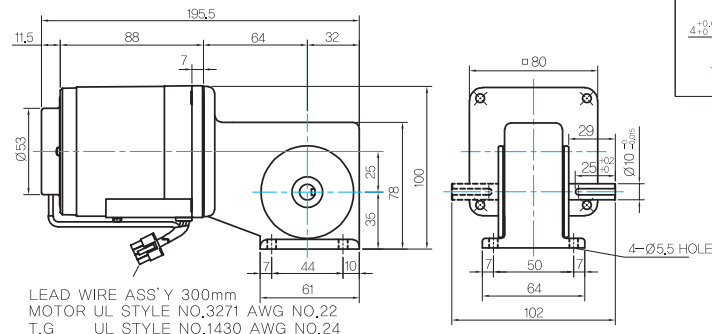
Dimensions

W TYPE GEARBOX

MOTOR MODEL:
8SDG□-25W (NO FAN)

GEARBOX MODEL:
8WD□BL/BR/BRL

KEY SPEC



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.22
T.G UL STYLE NO.1430 AWG NO.24

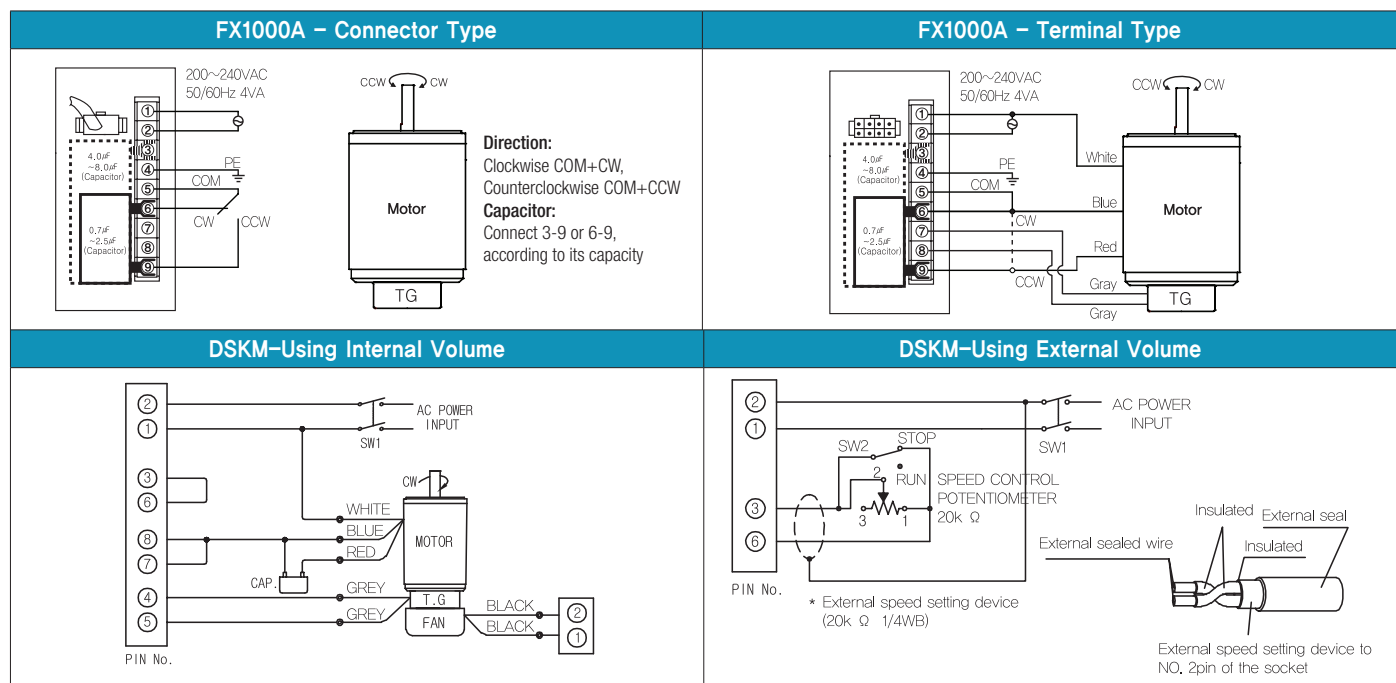
WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.7
8GBK3BMH ~ 8GBK18BMH	0.48
8GBK25BMH ~ 8GBK30BMH	0.61
8GBK36BMH ~ 8GBK180BMH	0.67
8GBK200BMH ~ 8GBK360BMH	0.63
8WD□BL/BR/BRL	0.67
8XD10□□	0.44

Motor Images



Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.

Now you can adjust the main volume to control the output speed of motor.

2) The direction of motor rotation is as viewed from the shaft end of the motor.

3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.

4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

40W

Speed Control Induction Motor
40W(□90mm)

Motor Specification

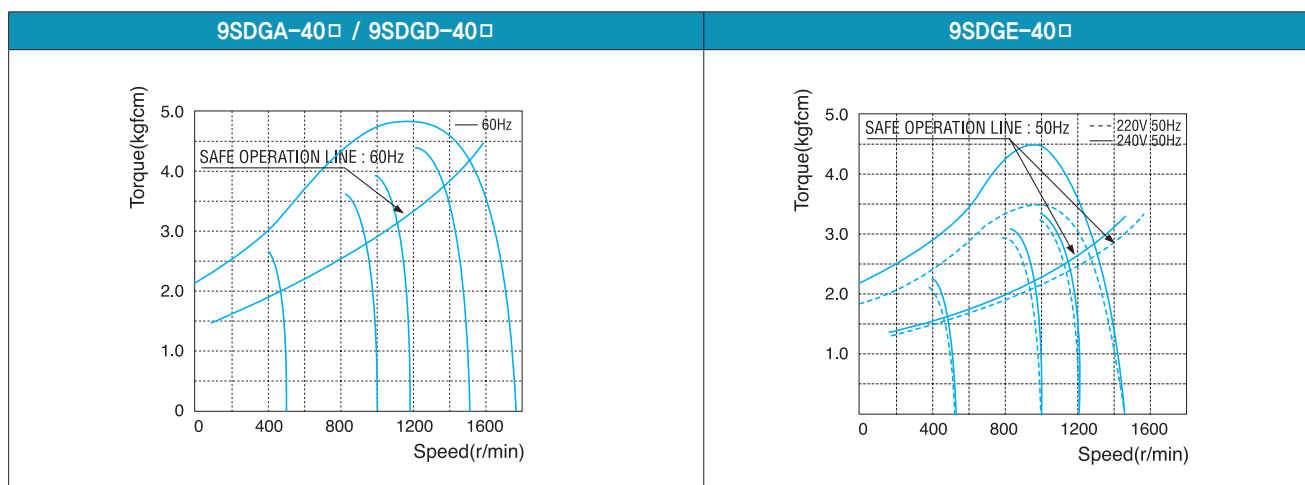
Model 9SDG*-40□: Gear Type Shaft 9SDD*-40: D-Cut Type Shaft 9SDK*-40: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
9SDGA-40□	40	1∅ 110	60	4	Cont.	90-1700	2.00	0.200	2.90	0.290	1.20	0.120	10.0 / 250
9SDGD-40□	40	1∅ 220	60	4	Cont.	90-1700	2.00	0.200	2.90	0.290	1.20	0.120	2.5 / 450
9SDGE-40□	40	1∅ 220	50	4	Cont.	90-1400	1.70	0.170	2.50	0.250	0.70	0.070	2.0 / 450
		2.10					0.210	3.00	0.300	0.70	0.070		

1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.

2) All models contain a built-in thermal protector.

3) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30
9SDG□ -40G	9GBK□ BMH	1200	110	60	kgfcm	4.8	7.2	8.7	12.0	14.4	18.1	21.7	24.1	30.1	36.1	39.2	54.4	65.3
					N.m	0.47	0.71	0.85	1.18	1.42	1.77	2.12	2.36	2.95	3.54	3.84	5.33	6.39
			220/240	60	kgfcm	4.8	7.2	8.7	12.0	14.4	18.1	21.7	24.1	30.1	36.1	39.2	54.4	65.3
					N.m	0.47	0.71	0.85	1.18	1.42	1.77	2.12	2.36	2.95	3.54	3.84	5.33	6.39
			220/240	50	kgfcm	5.0	7.5	9.0	12.5	14.9	18.7	22.4	24.9	31.1	37.4	40.5	56.3	67.5
					N.m	0.49	0.73	0.88	1.22	1.46	1.83	2.20	2.44	3.05	3.66	3.97	5.51	6.62
		90	110	60	kgfcm	2.0	3.0	3.6	5.0	6.0	7.5	9.0	10.0	12.5	14.9	16.2	22.5	27.0
					N.m	0.20	0.29	0.35	0.49	0.59	0.73	0.88	0.98	1.22	1.46	1.59	2.21	2.65
			220	60	kgfcm	2.0	3.0	3.6	5.0	6.0	7.5	9.0	10.0	12.5	14.9	16.2	22.5	27.0
					N.m	0.20	0.29	0.35	0.49	0.59	0.73	0.88	0.98	1.22	1.46	1.59	2.21	2.65
			220/240	50	kgfcm	1.2	1.7	2.1	2.9	3.5	4.4	5.2	5.8	7.3	8.7	9.5	13.1	15.8
					N.m	0.11	0.17	0.20	0.28	0.34	0.43	0.51	0.57	0.71	0.85	0.93	1.29	1.54

B AC Motors

S.C. Induction Motor 40W (□90mm)

Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	36	40	50	60	75	90	100	120	150	180	200	
9SDG□ -40G	9GBK□ BMH	1200	110	60	kgfcm N.m	71.0 6.96	78.9 7.73	98.6 9.66	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	
			220	60	kgfcm N.m	71.0 6.96	78.9 7.73	98.6 9.66	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80
			220/ 240	50	kgfcm N.m	73.4 7.20	81.6 8.00	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80
		90	110	60	kgfcm N.m	29.4 2.88	32.6 3.20	40.8 4.00	49.0 4.80	61.2 6.00	73.4 7.20	81.6 8.00	97.9 9.60	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80
			220	60	kgfcm N.m	29.4 2.88	32.6 3.20	40.8 4.00	49.0 4.80	61.2 6.00	73.4 7.20	81.6 8.00	97.9 9.60	100.0 9.80	100.0 9.80	100.0 9.80	100.0 9.80
			220/ 240	50	kgfcm N.m	17.1 1.68	19.0 1.87	23.8 2.33	28.6 2.80	35.7 3.50	42.8 4.20	47.6 4.66	57.1 5.60	71.4 7.00	85.7 8.40	85.7 8.40	

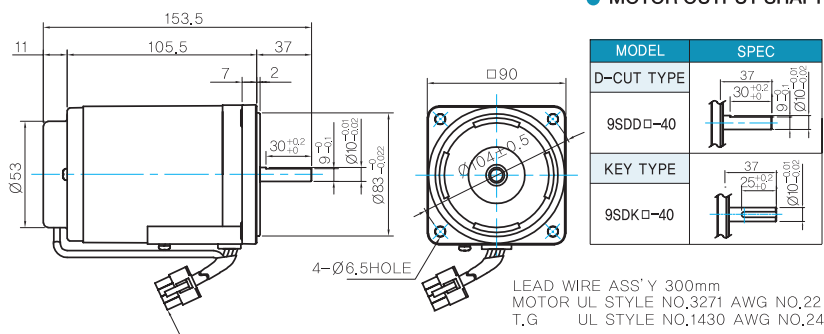
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	10	12	15	18	25	30	36	50	60
9SDG□ -40W	9WD□BL/ □BR/□BRL	1200	110	60	kgfcm N.m	23.8 2.33	27.8 2.73	33.5 3.28	38.6 3.79	50.8 4.97	57.4 5.63	66.8 6.55	87.0 8.53	95.7 9.38
			220	60	kgfcm N.m	24.1 2.36	28.9 2.83	36.1 3.54	43.3 4.25	60.2 5.90	72.2 7.08	86.7 8.49	120.4 11.79	122.4 12.00
			220/240	50	kgfcm N.m	24.6 2.41	28.8 2.82	34.7 3.40	40.0 3.92	52.5 5.15	59.4 5.82	69.1 6.77	90.0 8.82	99.0 9.70
		90	110	60	kgfcm N.m	9.8 0.96	11.5 1.13	13.9 1.36	16.0 1.57	21.0 2.06	23.8 2.33	27.6 2.71	36.0 3.53	39.6 3.88
			220	60	kgfcm N.m	9.8 0.96	11.5 1.13	13.9 1.36	16.0 1.57	21.0 2.06	23.8 2.33	27.6 2.71	36.0 3.53	39.6 3.88
			220/240	50	kgfcm N.m	5.7 0.56	6.7 0.66	8.1 0.79	9.3 0.91	12.3 1.20	13.9 1.36	16.1 1.58	21.0 2.06	23.1 2.26

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimensions

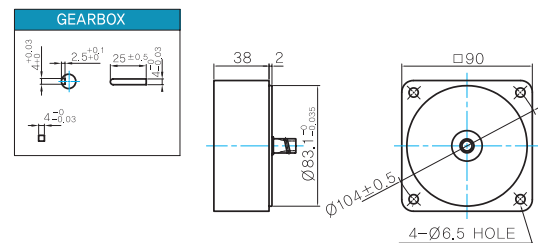
MOTOR ONLY

- MOTOR MODEL: 9SDD□-40 (NO FAN)



INTER-DECIMAL GEARBOX

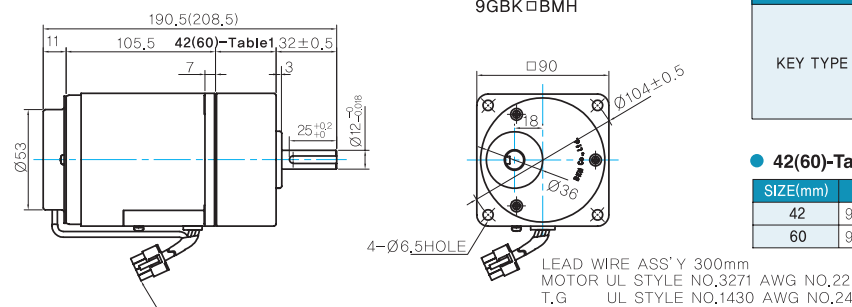
- MODEL: 9XD10□□



GEARED MOTOR

G TYPE GEARBOX

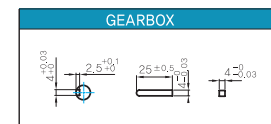
- MOTOR MODEL: 9SDG□-40G (NO FAN)
- GEARBOX MODEL: 9GBK□BMH



GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	32 25.0±0.02 Ø10±0.03

KEY SPEC

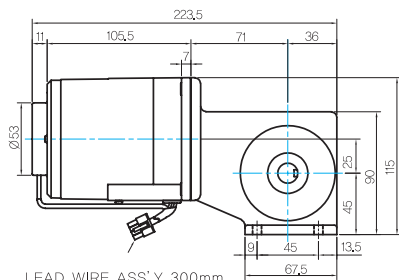


42(60)-Table1

SIZE(mm)	GEAR RATIO
42	9GBK2BMH - 9GBK18BMH
60	9GBK25BMH - 9GBK200BMH

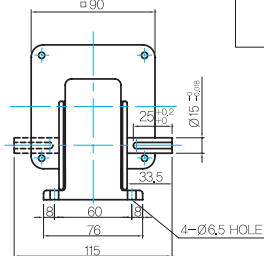
W TYPE GEARBOX

● MOTOR MODEL:
9SDG□-40W (NO FAN)

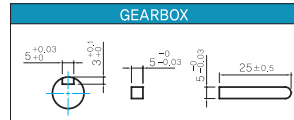


LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.22
T.G UL STYLE NO.1430 AWG NO.24

● GEARBOX MODEL:
9WD□BL/BR/BRL



KEY SPEC



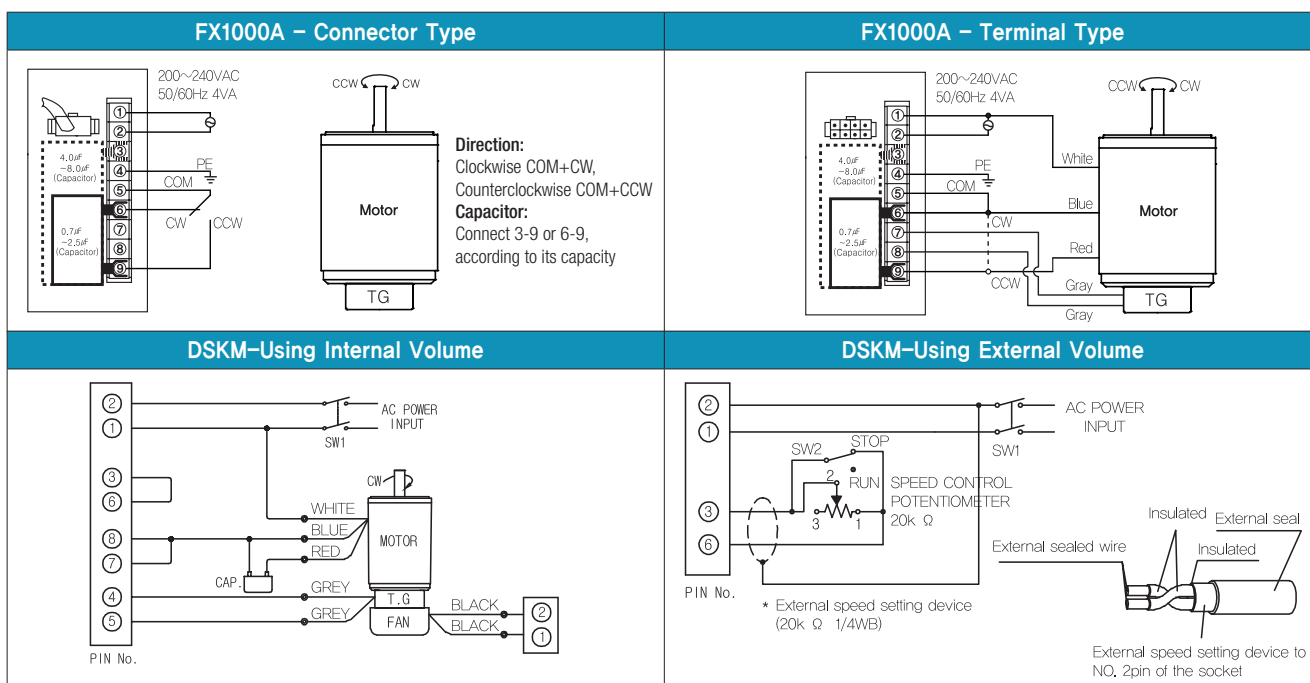
WEIGHT

PART	WEIGHT(Kg)
MOTOR	2,4
9GBK2BMH ~ 9GBK15BMH	0,67
9GBK18BMH ~ 9GBK30BMH	0,96
9GBK36BMH ~ 9GBK200BMH	1,07
9WD□BL/BR/BRL	1,0
9XD10□□	0,5

Motor Images



Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.

Now you can adjust the main volume to control the output speed of motor.

2) The direction of motor rotation is as viewed from the shaft end of the motor.

3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.

4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 60W (□90mm)

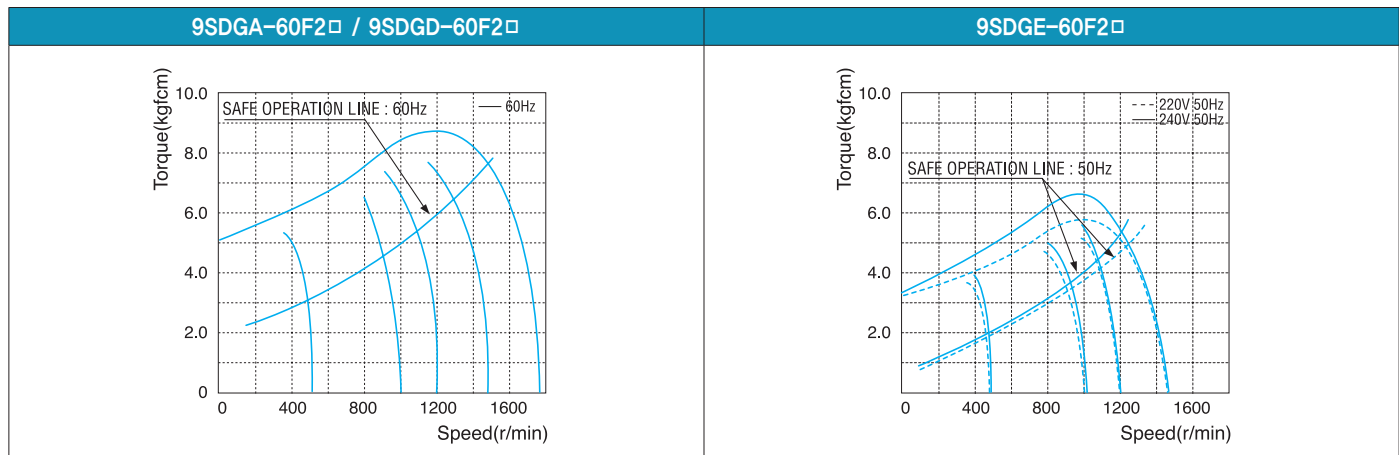
60W Speed Control Induction Motor 60W(□90mm)

Motor Specification

Model 9SDG*-60F2□: Gear Type Shaft 9SDD*-60F2: D-Cut Type Shaft 9SDK*-60F2: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
9SDGA-60F2□	60	1∅ 110	60	4	Cont.	90-1700	3.20	0.320	6.10	0.610	2.80	0.280	16.0 / 250
9SDGD-60F2□	60	1∅ 220	60	4	Cont.	90-1700	3.80	0.380	6.50	0.650	3.00	0.300	4.0 / 400
9SDGE-60F2□	60	1∅ 220	50	4	Cont.	90-1400	5.20	0.520	5.20	0.520	1.00	0.100	3.5 / 450
		5.80					0.580	5.80	0.580	1.00	0.100		

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	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	200			
9SDG□ -60F2P	9PBK □BH	1200	110	60	kgfcm	10.1	15.2	18.2	25.3	30.4	38.0	45.6	57.2	68.6	82.4	83.0	103.7	124.4	149.3	165.9	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0		
					N.m	0.99	1.49	1.79	2.48	2.98	3.72	4.47	5.60	6.73	8.07	8.13	10.16	12.20	14.63	16.26	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
			220	60	kgfcm	10.8	16.2	19.4	27.0	32.4	40.5	48.6	60.9	73.1	87.8	88.4	110.5	132.6	159.1	176.8	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	1.06	1.59	1.90	2.64	3.17	3.97	4.76	5.97	7.17	8.60	8.66	10.83	12.99	15.59	17.33	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	
		90	110	60	kgfcm	9.6	14.4	17.3	24.1	28.9	36.1	43.3	54.4	65.3	78.3	78.9	98.6	118.3	142.0	157.8	197.2	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
					N.m	0.94	1.42	1.70	2.36	2.83	3.54	4.25	5.33	6.39	7.67	7.73	9.66	11.60	13.91	15.46	19.33	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
	220		60	kgfcm	4.6	7.0	8.4	11.6	13.9	17.4	20.9	26.3	31.5	37.8	38.1	47.6	57.1	68.5	76.2	95.2	114.2	128.1	153.7	170.8	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
	N.m	0.46	0.68	0.82	1.14	1.37	1.71	2.05	2.57	3.09	3.70	3.73	4.66	5.60	6.72	7.46	9.33	11.20	12.55	15.06	16.74	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	
	90	220	60	kgfcm	5.0	7.5	9.0	12.5	14.9	18.7	22.4	28.1	33.8	40.5	40.8	51.0	61.2	73.4	81.6	102.0	122.4	137.3	164.7	183.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
				N.m	0.49	0.73	0.88	1.22	1.46	1.83	2.20	2.76	3.31	3.97	4.00	5.00	6.00	7.20	8.00	10.00	12.00	13.45	16.14	17.93	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		220/240	50	kgfcm	1.7	2.5	3.0	4.2	5.0	6.2	7.5	9.4	11.3	13.5	13.6	17.0	20.4	24.5	27.2	34.0	40.8	45.8	54.9	61.0	73.2	91.5	109.8	109.8	109.8	109.8	109.8	109.8
	N.m	0.16	0.24	0.29	0.41	0.49	0.61	0.73	0.92	1.10	1.32	1.33	1.67	2.00	2.40	2.67	3.33	4.00	4.48	5.38	5.98	7.17	8.97	10.76	10.76	10.76	10.76	10.76	10.76	10.76	10.76	

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200		
9SDG□ -60F2H	9HBK □BH 9HFK □BH	1200	110	60	kgfcm N.m	15.2 1.49	18.2 1.79	30.4 2.98	45.6 4.47	57.2 5.60	68.6 6.73	82.4 8.07	83.0 8.13	103.7 10.16	124.4 12.20	149.3 14.63	207.4 20.33	248.9 24.39	279.1 27.35	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	16.2 1.59	19.4 1.90	32.4 3.17	48.6 4.76	60.9 5.97	73.1 7.17	87.8 8.60	88.4 8.66	110.5 10.83	132.6 12.99	159.1 15.59	221.0 21.66	265.2 25.99	297.4 29.14	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	14.4 1.42	17.3 1.70	28.9 2.83	43.3 4.25	54.4 5.33	65.3 6.39	78.3 7.67	78.9 7.73	98.6 9.66	118.3 11.60	142.0 13.91	197.2 19.33	236.6 23.19	265.4 26.00	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
		90	110	60	kgfcm N.m	7.0 0.68	8.4 0.82	13.9 1.37	20.9 2.05	26.3 2.57	31.5 3.09	37.8 3.70	38.1 3.73	47.6 4.66	57.1 5.60	68.5 6.72	95.2 9.33	114.2 11.20	128.1 12.55	153.7 15.06	170.8 16.74	205.0 20.09	256.2 25.11	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220	60	kgfcm N.m	7.5 0.73	9.0 0.88	14.9 1.46	22.4 2.20	28.1 2.76	33.8 3.31	40.5 3.97	40.8 4.00	51.0 5.00	61.2 6.02	73.4 7.20	102.0 10.00	122.4 12.00	137.3 13.45	164.7 16.14	183.0 17.93	219.6 21.52	274.5 26.90	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220/ 240	50	kgfcm N.m	2.5 0.24	3.0 0.29	5.0 0.49	7.5 0.73	9.4 0.92	11.3 1.10	13.5 1.32	13.6 1.33	17.0 1.67	20.4 2.00	24.5 2.40	34.0 3.33	40.8 4.00	45.8 4.48	54.9 5.38	61.0 5.98	73.2 7.17	91.5 8.97	109.8 10.76	109.8 10.76	109.8 10.76	109.8 10.76

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	10	12	15	18	25	30	36	50	60
9SDG□ -60F2W	9WD□BL/ □BR/□BRL	1200	110	60	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
			220	60	kgfcm N.m	53.3 5.22	62.4 6.12	75.1 7.36	86.6 8.48	113.8 11.15	128.7 12.61	149.8 14.68	142.9 14.00	122.4 12.00
			220/240	50	kgfcm N.m	47.6 4.66	55.7 5.46	67.0 6.57	77.3 7.57	101.5 9.95	114.8 11.25	133.6 13.10	142.9 14.00	122.4 12.00
		90	110	60	kgfcm N.m	23.0 2.25	26.9 2.63	32.3 3.17	37.3 3.66	49.0 4.80	55.4 5.43	64.5 6.32	84.0 8.23	92.4 9.06
			220	60	kgfcm N.m	24.6 2.41	28.8 2.82	34.7 3.40	40.0 3.92	52.5 5.15	59.4 5.82	69.1 6.77	90.0 8.82	99.0 9.70
			220/240	50	kgfcm N.m	8.2 0.80	9.6 0.94	11.6 1.13	13.3 1.31	17.5 1.72	19.8 1.94	23.0 2.26	30.0 2.94	33.0 3.23

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9SDG□ -60F2WH	9WHD□-030	1200	110	60	kgfcm N.m	38.4 3.77	49.4 4.84	69.5 6.81	87.8 8.61	100.7 9.86	117.1 11.48	144.0 14.11	164.7 16.14	163.3 16.00	132.7 13.00
			220	60	kgfcm N.m	41.0 4.01	52.7 5.16	74.1 7.26	93.6 9.17	107.3 10.51	124.8 12.23	153.4 15.03	173.5 17.00	163.3 16.00	132.7 13.00
			220/240	50	kgfcm N.m	36.5 3.58	47.0 4.60	66.1 6.48	83.5 8.18	95.7 9.38	111.4 10.91	136.9 13.41	156.6 15.35	163.3 16.00	132.7 13.00
		90	110	60	kgfcm N.m	17.6 1.73	22.7 2.22	31.9 3.13	40.3 3.95	46.2 4.53	53.8 5.27	66.1 6.48	75.6 7.41	84.0 8.23	98.6 9.66
			220	60	kgfcm N.m	18.9 1.85	24.3 2.38	34.2 3.35	43.2 4.23	49.5 4.85	57.6 5.64	70.8 6.94	81.0 7.94	90.0 8.82	105.6 10.35
			220/240	50	kgfcm N.m	6.3 0.62	8.1 0.79	11.4 1.12	14.4 1.41	16.5 1.62	19.2 1.88	23.6 2.31	27.0 2.65	30.0 2.94	35.2 3.45

Motor Images



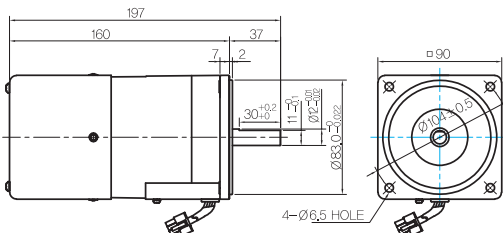
B AC Motors

S.C. Induction Motor 60W (□90mm)

Dimensions

MOTOR ONLY

- MOTOR MODEL:
9SDD□-60F2 (POWERFUL FAN)

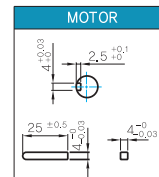


LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

MOTOR OUTPUT SHAFT

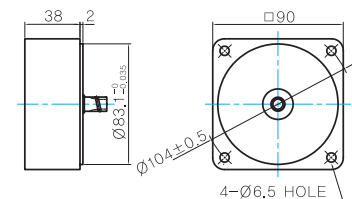
MODEL	SPEC
D-CUT TYPE	
9SDD□-60F2	
KEY TYPE	
9SDK□-60F2	

KEY SPEC



INTER-DECIMAL GEARBOX

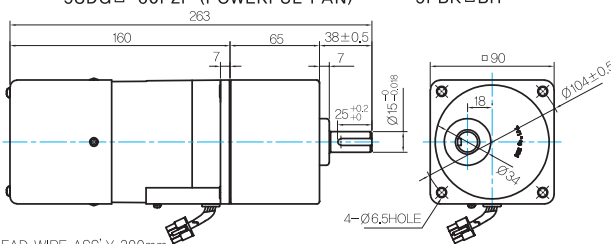
- MODEL: 9XD10□□



GEARED MOTOR

P TYPE GEARBOX

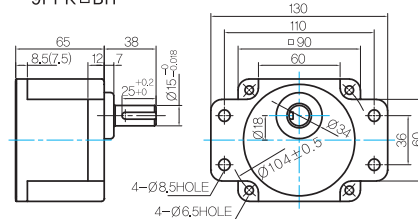
- MOTOR MODEL:
9SDG□-60F2P (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

- GEARBOX MODEL:
9PBK□BH

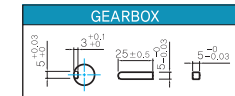
- GEARBOX MODEL:
9PFK□BH



GEARBOX OUTPUT SHAFT

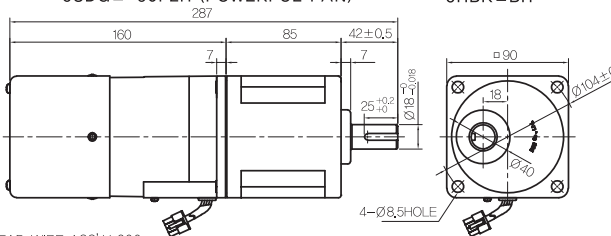
MODEL	SPEC
KEY TYPE	
9PBK□BH	
9PFK□BH	

KEY SPEC



H TYPE GEARBOX

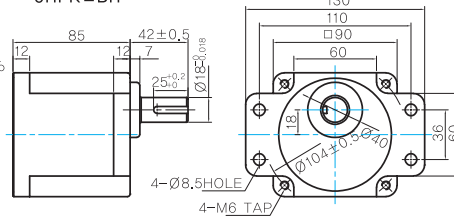
- MOTOR MODEL:
9SDG□-60F2H (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

- GEARBOX MODEL:
9HBK□BH

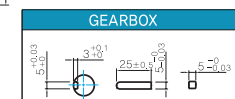
- GEARBOX MODEL:
9HFK□BH



GEARBOX OUTPUT SHAFT

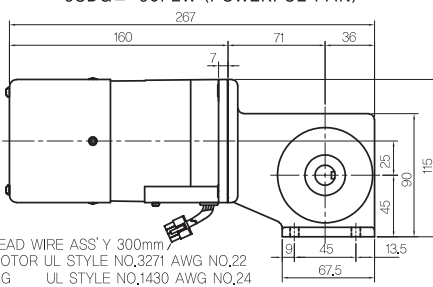
MODEL	SPEC
KEY TYPE	
9HBK□BH	
9HFK□BH	

KEY SPEC



W TYPE GEARBOX

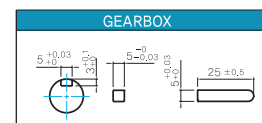
- MOTOR MODEL:
9SDG□-60F2W (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

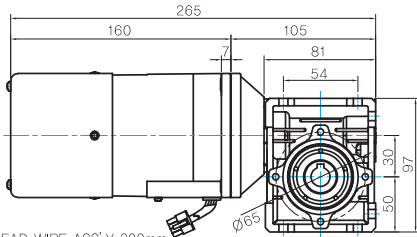
- GEARBOX MODEL:
9WD□BL/BR/BRL

KEY SPEC



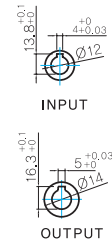
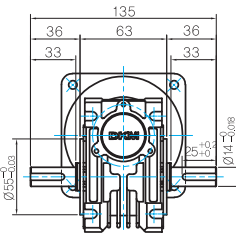
WH TYPE GEARBOX

- MOTOR MODEL:
9SDG□-60F2WH (POWERFUL FAN)

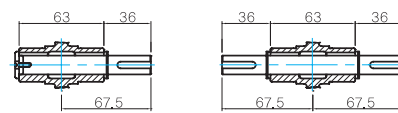


LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO.3271 AWG NO.22
T.G UL STYLE NO.1430 AWG NO.24

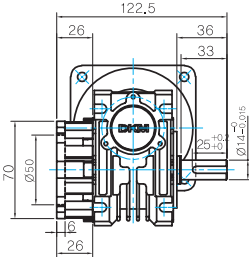
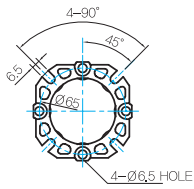
- GEARBOX MODEL:
9WHD□-030



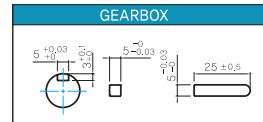
- SHAFT(Unidirectional, Bi-directional)



- FLANGE



- KEY SPEC

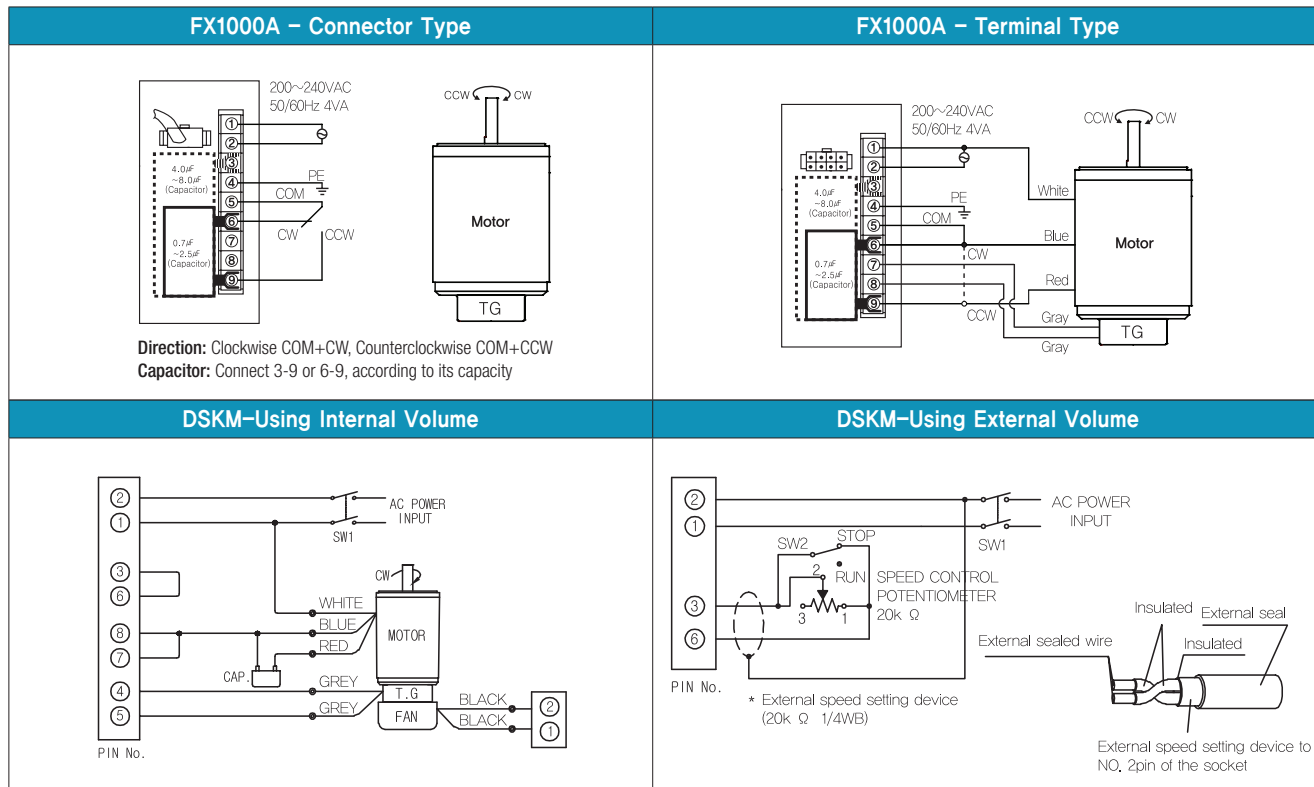


WEIGHT

PART	WEIGHT(Kg)
MOTOR	2,7
9PB(F)K2BH ~ 9PB(F)K18BH	1,3
9PB(F)K20BH ~ 9PB(F)K200BH	1,4
9HB(F)K3BH ~ 9HB(F)K9BH	1,45
9HB(F)K12.5BH ~ 9HB(F)K18BH	1,5
9HB(F)K20BH ~ 9HB(F)K60BH	1,7
9HB(F)K75BH ~ 9HB(F)K200BH	1,8
9WD□BL/BR/BRL	1,0
9WHD□-030	1,13
9XD10□□	0,5

* The output flange and shafts are sold separately.

Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.

Now you can adjust the main volume to control the output speed of motor.

2) The direction of motor rotation is as viewed from the shaft end of the motor.

3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.

4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 90W (□90mm)

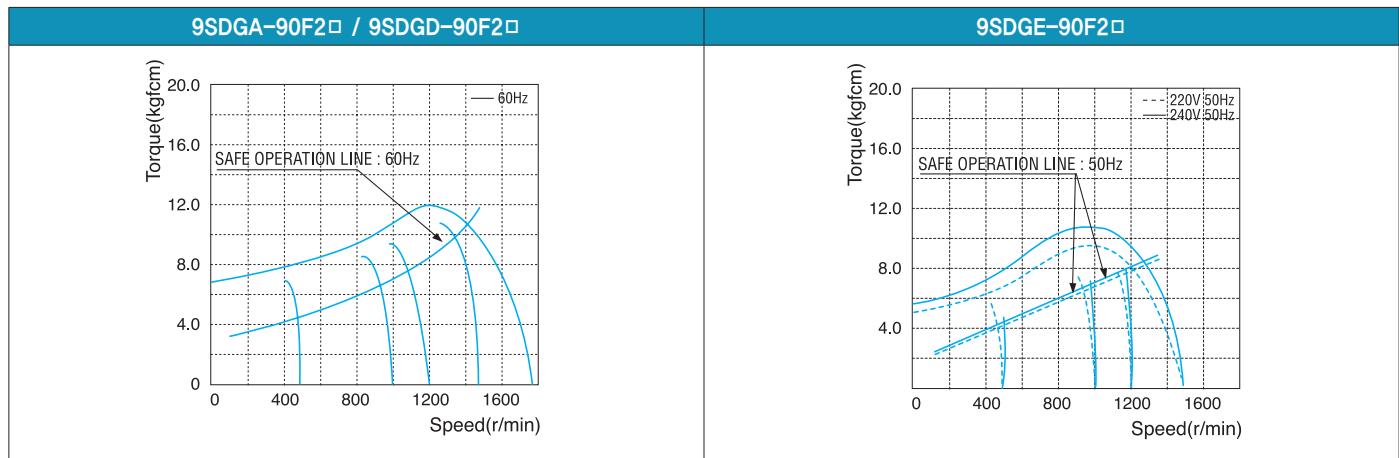
90W Speed Control Induction Motor 90W(□90mm)

Motor Specification

Model 9SDG*-90F2□: Gear Type Shaft 9SDD*-90F2: D-Cut Type Shaft 9SDK*-90F2: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque kgfcm N.m		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
9SDGA-90F2□	90	1∅ 110	60	4	Cont.	90-1700	6.50	0.650	6.30	0.630	3.00	0.300	20.0 / 250
9SDGD-90F2□	90	1∅ 220	60	4	Cont.	90-1700	6.50	0.650	6.30	0.630	3.00	0.300	5.0 / 400
9SDGE-90F2□	90	1∅ 220	50	4	Cont.	90-1400	4.60	0.460	5.40	0.540	2.20	0.220	5.0 / 400
		1∅ 240					5.50	0.550	6.10	0.610	2.20	0.220	

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	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	200		
9SDG□ -90F2P	9PBK □BH	1200	110	60	kgfcm	10.5	15.7	18.8	26.1	31.4	39.2	47.1	59.1	70.9	85.1	85.7	107.1	128.5	154.2	171.4	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	
					N.m	1.02	1.54	1.84	2.56	3.07	3.84	4.61	5.79	6.95	8.33	8.40	10.50	12.59	15.11	16.79	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
			220	60	kgfcm	10.5	15.7	18.8	26.1	31.4	39.2	47.1	59.1	70.9	85.1	85.7	107.1	128.5	154.2	171.4	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
		N.m	1.02	1.54	1.84	2.56	3.07	3.84	4.61	5.79	6.95	8.33	8.40	10.50	12.59	15.11	16.79	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	
		90	220	60	kgfcm	5.0	7.5	9.0	12.5	14.9	18.7	22.4	28.1	33.8	40.5	40.8	51.0	61.2	73.4	81.6	102.0	122.4	137.3	164.7	183.0	200.0	200.0	200.0	200.0	200.0	200.0
					N.m	0.49	0.73	0.88	1.22	1.46	1.83	2.20	2.76	3.31	3.97	4.00	5.00	6.00	7.20	8.00	10.00	12.00	13.45	16.14	17.93	19.60	19.60	19.60	19.60	19.60	19.60
	220/240		50	kgfcm	3.7	5.5	6.6	9.1	11.0	13.7	16.4	20.6	24.8	29.7	29.9	37.4	44.9	53.9	59.8	74.8	89.8	100.7	120.8	134.2	161.0	200.0	200.0	200.0	200.0	200.0	
	N.m	0.36	0.54	0.64	0.89	1.07	1.34	1.61	2.02	2.43	2.91	2.93	3.67	4.40	5.28	5.86	7.33	8.80	9.86	11.84	13.15	15.78	19.60	19.60	19.60	19.60	19.60	19.60			

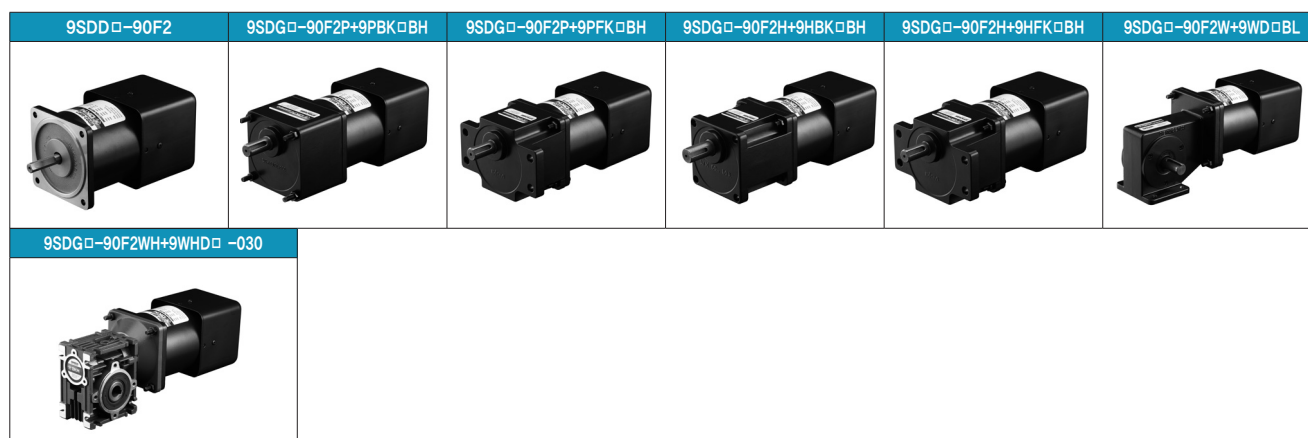
- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200		
9SDG□ -90F2H	9HBK □BH 9HFK □BH	1200	110	60	kgfcm N.m	15.7 1.54	18.8 1.84	31.4 3.07	47.1 4.61	59.1 5.79	70.9 6.95	85.1 8.33	85.7 8.40	107.1 10.50	128.5 12.59	154.2 15.11	214.2 20.99	257.0 25.19	288.2 28.25	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	15.7 1.54	18.8 1.84	31.4 3.07	47.1 4.61	59.1 5.79	70.9 6.95	85.1 8.33	85.7 8.40	107.1 10.50	128.5 12.59	154.2 15.11	214.2 20.99	257.0 25.19	288.2 28.25	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	15.2 1.49	18.2 1.79	30.4 2.98	45.6 4.47	57.2 5.60	68.6 6.73	82.4 8.07	83.0 8.13	103.7 10.16	124.4 12.20	149.3 14.63	207.4 20.33	248.9 24.39	279.1 27.35	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
		90	110	60	kgfcm N.m	7.5 0.73	9.0 0.88	14.9 1.46	22.4 2.20	28.1 2.76	33.8 3.31	40.5 3.97	40.8 4.00	51.0 5.00	61.2 6.00	73.4 7.20	102.0 10.00	122.4 12.00	137.3 13.45	164.7 16.14	183.0 17.93	196.6 21.52	219.6 21.52	274.5 26.90	300.0 29.40	300.0 29.40	300.0 29.40
			220	60	kgfcm N.m	7.5 0.73	9.0 0.88	14.9 1.46	22.4 2.20	28.1 2.76	33.8 3.31	40.5 3.97	40.8 4.00	51.0 5.00	61.2 6.00	73.4 7.20	102.0 10.00	122.4 12.00	137.3 13.45	164.7 16.14	183.0 17.93	196.6 21.52	219.6 21.52	274.5 26.90	300.0 29.40	300.0 29.40	300.0 29.40
			220/ 240	50	kgfcm N.m	5.5 0.54	6.6 0.64	11.0 1.07	16.4 1.61	20.6 2.02	24.8 2.43	29.7 2.91	29.9 2.93	37.4 3.67	44.9 4.40	53.9 5.28	74.8 7.33	89.8 8.80	100.7 9.86	120.8 11.84	134.2 13.15	161.0 15.78	201.3 19.73	241.6 23.67	241.6 23.67	241.6 23.67	241.6 23.67

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	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	24.6 2.41	28.8 2.82	34.7 3.40	40.0 3.92	52.5 5.15	59.4 5.82	69.1 6.77	90.0 8.82	99.0 9.70
			220	60	kgfcm N.m	24.6 2.41	28.8 2.82	34.7 3.40	40.0 3.92	52.5 5.15	59.4 5.82	69.1 6.77	90.0 8.82	99.0 9.70
			220/240	50	kgfcm N.m	18.0 1.77	21.1 2.07	25.4 2.49	29.3 2.87	38.5 3.77	43.6 4.27	50.7 4.97	66.0 6.47	72.6 7.11

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9SDG□ -90F2WH	9WHD□-030	1200	110	60	kgfcm N.m	39.7 3.89	51.0 5.00	71.8 7.04	90.7 8.89	104.0 10.19	121.0 11.85	148.7 14.57	170.1 16.67	163.3 16.00	132.7 13.00
			220	60	kgfcm N.m	39.7 3.89	51.0 5.00	71.8 7.04	90.7 8.89	104.0 10.19	121.0 11.85	148.7 14.57	170.1 16.67	163.3 16.00	132.7 13.00
			220/240	50	kgfcm N.m	38.4 3.77	49.4 4.84	69.5 6.81	87.8 8.61	100.7 9.86	117.1 11.48	144.0 14.11	164.7 16.14	163.3 16.00	132.7 13.00
		90	110	60	kgfcm N.m	18.9 1.85	24.3 2.38	34.2 3.35	43.2 4.23	49.5 4.85	57.6 5.64	70.8 6.94	81.0 7.94	90.0 8.82	105.6 10.35
			220	60	kgfcm N.m	18.9 1.85	24.3 2.38	34.2 3.35	43.2 4.23	49.5 4.85	57.6 5.64	70.8 6.94	81.0 7.94	90.0 8.82	105.6 10.35
			220/240	50	kgfcm N.m	13.9 1.36	17.8 1.75	25.1 2.46	31.7 3.10	36.3 3.56	42.2 4.14	51.9 5.09	59.4 5.82	66.0 6.47	77.4 7.59

Motor Images



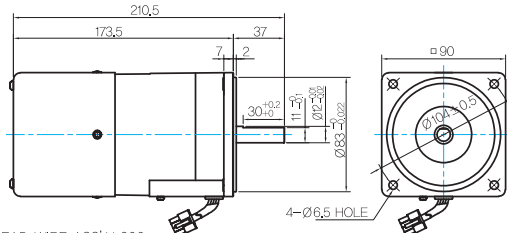
B AC Motors

S.C. Induction Motor 90W (□90mm)

Dimensions

MOTOR ONLY

- MOTOR MODEL:
9SDD□-90F2 (POWERFUL FAN)

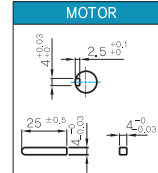


LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

MOTOR OUTPUT SHAFT

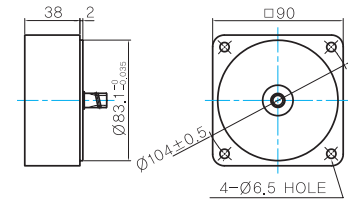
MODEL	SPEC
D-CUT TYPE	
KEY TYPE	

KEY SPEC



INTER-DECIMAL GEARBOX

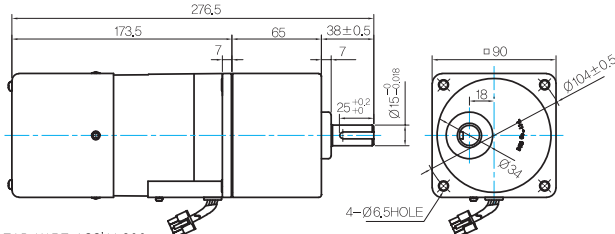
- MODEL: 9XD10□□



GEARED MOTOR

P TYPE GEARBOX

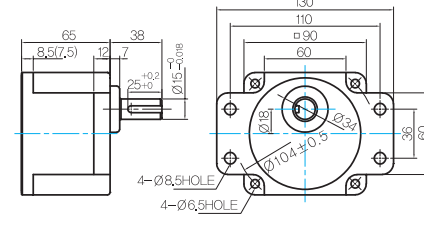
- MOTOR MODEL:
9SDG□-90F2P (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

- GEARBOX MODEL:
9PBK□BH

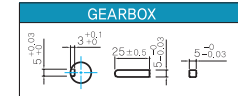
- GEARBOX MODEL:
9PFK□BH



GEARBOX OUTPUT SHAFT

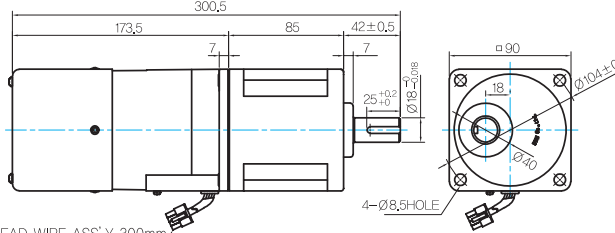
MODEL	SPEC
KEY TYPE	
9PBK□BH 9PFK□BH	

KEY SPEC



H TYPE GEARBOX

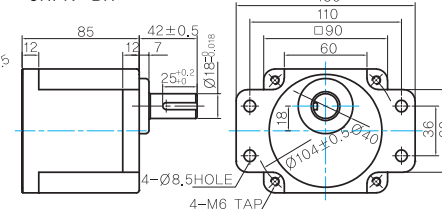
- MOTOR MODEL:
9SDG□-90F2H (POWERFUL FAN)



LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

- GEARBOX MODEL:
9HBK□BH

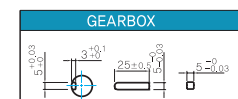
- GEARBOX MODEL:
9HFK□BH



GEARBOX OUTPUT SHAFT

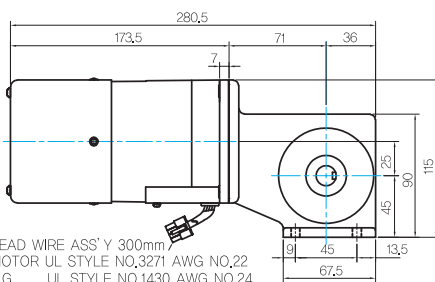
MODEL	SPEC
KEY TYPE	
9HBK□BH 9HFK□BH	

KEY SPEC



W TYPE GEARBOX

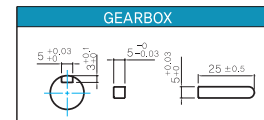
- MOTOR MODEL:
9SDG□-90F2W (POWERFUL FAN)



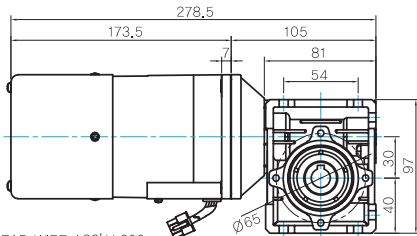
LEAD WIRE ASS'Y 300mm
MOTOR UL STYLE NO,3271 AWG NO,22
T,G UL STYLE NO,1430 AWG NO,24

- GEARBOX MODEL:
9WD□BL/BR/BRL

KEY SPEC

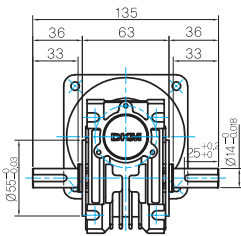


● MOTOR MODEL:
9SDG□-90F2WH (POWERFUL FAN)

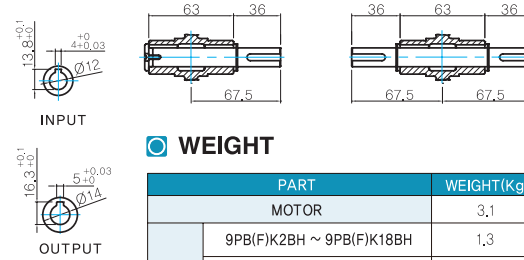


LEAD WIRE ASS'Y 300mm)
MOTOR UL STYLE NO,3271 AWG NO,22
T.G UL STYLE NO,1430 AWG NO,24

● GEARBOX MODEL:
9WHD□-030



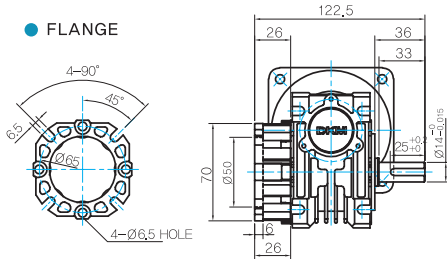
● SHAFT(Unidirectional, Bi-directional)



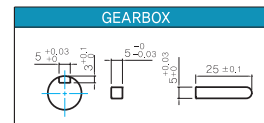
● WEIGHT

PART	WEIGHT(Kg)	
MOTOR	3,1	
GEAR BOX	9PB(F)K2BH ~ 9PB(F)K18BH	1,3
	9PB(F)K20BH ~ 9PB(F)K200BH	1,4
	9HB(F)K3BH ~ 9HB(F)K9BH	1,45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1,5
	9HB(F)K20BH ~ 9HB(F)K60BH	1,7
	9HB(F)K75BH ~ 9HB(F)K200BH	1,8
9WD□BL/BR/BRL	1,0	
9WHD□-030	1,13	
9XD10□□	0,5	

● FLANGE



● KEY SPEC



* The output flange and shafts are sold separately.

● Connection Diagrams

FX1000A – Connector Type	FX1000A – Terminal Type
<p>Direction: Clockwise COM+CW, Counterclockwise COM+CCW Capacitor: Connect 3-9 or 6-9, according to its capacity</p>	
DSKM–Using Internal Volume	DSKM–Using External Volume
	<p>* External speed setting device (20k Ω 1/4WB)</p> <p>External speed setting device to NO. 2pin of the socket</p>

- 1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.
Now you can adjust the main volume to control the output speed of motor.
- 2) The direction of motor rotation is as viewed from the shaft end of the motor.
- 3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- 4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 120W (□90mm)

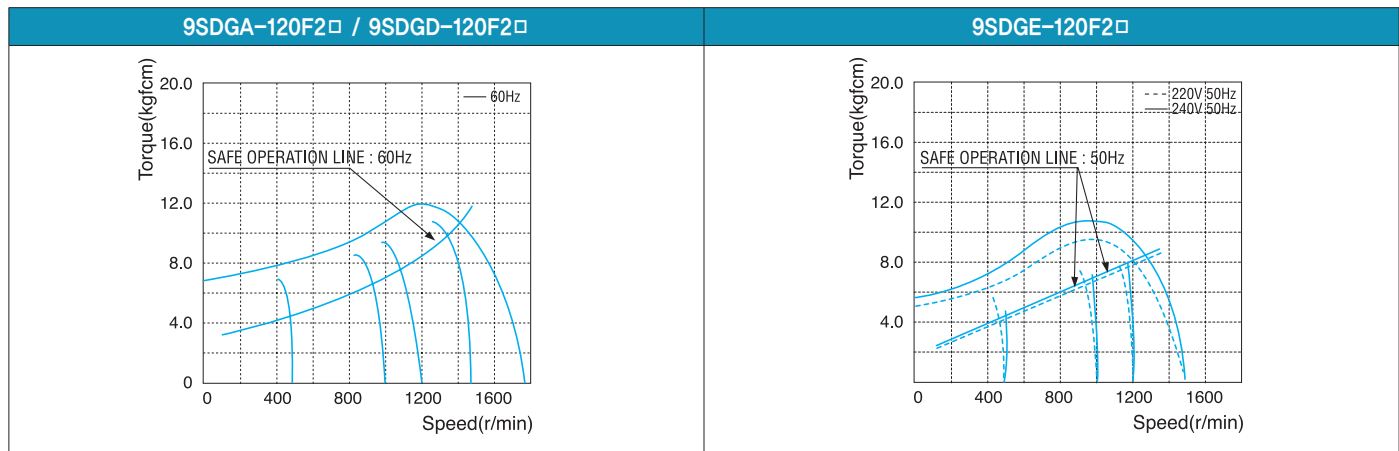
120W Speed Control Induction Motor 120W(□90mm)

Motor Specification

Model 9SDG*-120F2□: Gear Type Shaft 9SDD*-120F2: D-Cut Type Shaft 9SDK*-120F2: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
							kgfcm	N.m	kgfcm	N.m	kgfcm	N.m	
9SDGA-120F2□	120	1∅110	60	4	Cont.	90-1700	7.80	0.780	7.50	0.750	4.20	0.420	25.0 / 250
9SDGD-120F2□	120	1∅220	60	4	Cont.	90-1700	7.80	0.780	7.50	0.750	4.20	0.420	6.0 / 400
9SDGE-120F2□	120	1∅220	50	4	Cont.	90-1400	5.60	0.560	7.20	0.720	4.00	0.400	6.5 / 400
		6.50					0.650	7.90	0.790	4.00	0.400		

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	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	200				
9SDG□ -120F2P	9PBK □BH	1200	110	60	kgfcm	12.5	18.7	22.4	31.1	37.4	46.7	56.0	70.3	84.4	101.3	102.0	127.5	153.0	183.6	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0			
					N.m	1.22	1.83	2.20	3.05	3.66	4.58	5.49	6.89	8.27	9.92	10.00	12.50	14.99	17.99	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		220/240	50	kgfcm	12.0	17.9	21.5	29.9	35.9	44.8	53.8	67.5	81.0	97.2	97.9	122.4	146.9	176.3	195.8	200.0	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	1.17	1.76	2.11	2.93	3.51	4.39	5.27	6.62	7.94	9.53	9.60	12.00	14.39	17.27	19.19	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		9PFK □BH	110	60	kgfcm	7.0	10.5	12.5	17.4	20.9	26.1	31.4	39.4	47.3	56.7	57.1	71.4	85.7	102.8	114.2	142.8	171.4	192.2	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	
					N.m	0.68	1.02	1.23	1.71	2.05	2.56	3.07	3.86	4.63	5.56	5.60	7.00	8.40	10.08	11.20	13.99	16.79	18.83	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
	220		60	kgfcm	7.0	10.5	12.5	17.4	20.9	26.1	31.4	39.4	47.3	56.7	57.1	71.4	85.7	102.8	114.2	142.8	171.4	192.2	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	
				N.m	0.68	1.02	1.23	1.71	2.05	2.56	3.07	3.86	4.63	5.56	5.60	7.00	8.40	10.08	11.20	13.99	16.79	18.83	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60
	220/240		50	kgfcm	6.6	10.0	12.0	16.6	19.9	24.9	29.9	37.5	45.0	54.0	54.4	68.0	81.6	97.9	108.8	136.0	163.2	183.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0
				N.m	0.65	0.98	1.17	1.63	1.95	2.44	2.93	3.68	4.41	5.29	5.33	6.66	8.00	9.60	10.66	13.33	15.99	17.93	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60	19.60

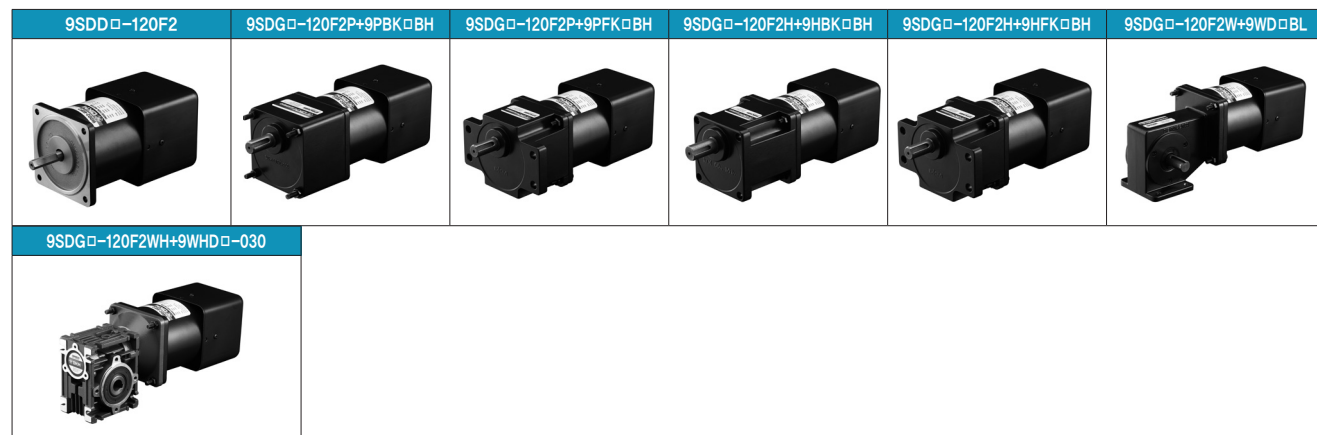
- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio.
The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200		
9SDG□ -120F2H	9HBK □BH 9HFK □BH	1200	110	60	kgfcm N.m	18.7 1.83	22.4 2.20	37.4 3.66	56.0 5.49	70.3 6.89	84.4 8.27	101.3 9.92	102.0 10.00	127.5 12.50	153.0 14.99	183.6 17.99	255.0 24.99	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	60	kgfcm N.m	18.7 1.83	22.4 2.20	37.4 3.66	56.0 5.49	70.3 6.89	84.4 8.27	101.3 9.92	102.0 10.00	127.5 12.50	153.0 14.99	183.6 17.99	255.0 24.99	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	300.0 29.40	
			220/ 240	50	kgfcm N.m	17.9 1.76	21.5 2.11	35.9 3.51	53.8 5.27	67.5 6.62	81.0 7.94	97.2 9.53	97.9 9.60	122.4 12.00	146.9 14.39	176.3 17.27	244.8 23.99	293.8 28.79	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	300.0 29.40
		90	110	60	kgfcm N.m	10.5 1.02	12.5 1.23	20.9 2.05	31.4 3.07	39.4 3.86	47.3 4.63	56.7 5.56	57.1 5.60	71.4 7.00	85.7 8.40	102.8 10.08	139.9 13.99	167.9 16.79	188.3 18.83	226.0 22.60	251.1 25.11	294.0 29.40	300.0 30.00	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220	60	kgfcm N.m	10.5 1.02	12.5 1.23	20.9 2.05	31.4 3.07	39.4 3.86	47.3 4.63	56.7 5.56	57.1 5.60	71.4 7.00	85.7 8.40	102.8 10.08	139.9 13.99	167.9 16.79	188.3 18.83	226.0 22.60	251.1 25.11	294.0 29.40	300.0 30.00	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40
			220/ 240	50	kgfcm N.m	10.0 0.98	12.0 1.17	19.9 1.95	29.9 2.93	37.5 3.68	45.0 4.41	54.0 5.29	54.4 5.33	68.0 6.66	81.6 8.00	97.9 9.60	136.0 13.33	163.2 15.99	183.0 17.93	219.6 21.52	244.0 23.91	292.8 28.69	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40	300.0 29.40

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	10	12	15	18	25	30	36	50	60
9SDG□ -120F2W	9WD□BL/ □BR/□BRL	1200	110	60	kgfcm N.m	61.5 6.03	72.0 7.06	86.6 8.49	99.9 9.79	131.3 12.86	148.5 14.55	153.1 15.00	142.9 14.00	122.4 12.00
			220	60	kgfcm N.m	61.5 6.03	72.0 7.06	86.6 8.49	99.9 9.79	131.3 12.86	148.5 14.55	153.1 15.00	142.9 14.00	122.4 12.00
			220/240	50	kgfcm N.m	59.0 5.79	69.1 6.77	83.2 8.15	95.9 9.40	126.0 12.35	142.6 13.97	153.1 15.00	142.9 14.00	122.4 12.00
		90	110	60	kgfcm N.m	34.4 3.38	40.3 3.95	48.5 4.75	55.9 5.48	73.5 7.20	83.2 8.15	96.8 9.48	126.0 12.35	122.4 12.00
			220	60	kgfcm N.m	34.4 3.38	40.3 3.95	48.5 4.75	55.9 5.48	73.5 7.20	83.2 8.15	96.8 9.48	126.0 12.35	122.4 12.00
			220/240	50	kgfcm N.m	32.8 3.21	38.4 3.76	46.2 4.53	53.3 5.22	70.0 6.86	79.2 7.76	92.2 9.03	120.0 11.76	122.4 12.00

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9SDG□ -120F2WH	9WHD□-030	1200	110	60	kgfcm N.m	47.3 4.63	60.8 5.95	85.5 8.38	108.0 10.58	123.8 12.13	144.0 14.11	177.0 17.35	173.5 17.00	163.3 16.00	132.7 13.00
			220	60	kgfcm N.m	47.3 4.63	60.8 5.95	85.5 8.38	108.0 10.58	123.8 12.13	144.0 14.11	177.0 17.35	173.5 17.00	163.3 16.00	132.7 13.00
			220/240	50	kgfcm N.m	49.8 4.88	64.0 6.27	90.1 8.83	113.8 11.15	130.4 12.77	151.7 14.86	183.7 18.00	173.5 17.00	163.3 16.00	132.7 13.00
		90	110	60	kgfcm N.m	26.5 2.59	34.0 3.33	47.9 4.69	60.5 5.93	69.3 6.79	80.6 7.90	99.1 9.71	113.4 11.11	126.0 12.35	132.7 13.00
			220	60	kgfcm N.m	26.5 2.59	34.0 3.33	47.9 4.69	60.5 5.93	69.3 6.79	80.6 7.90	99.1 9.71	113.4 11.11	126.0 12.35	132.7 13.00
			220/240	50	kgfcm N.m	25.2 2.47	32.4 3.18	45.6 4.47	57.6 5.64	66.0 6.47	76.8 7.53	94.4 9.25	108.0 10.58	120.0 11.76	132.7 13.00

Motor Images

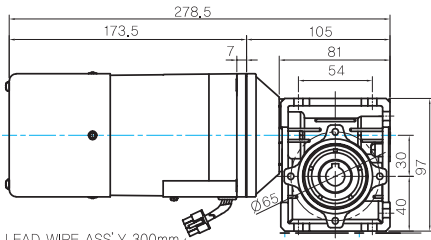


WH TYPE GEARBOX

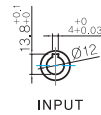
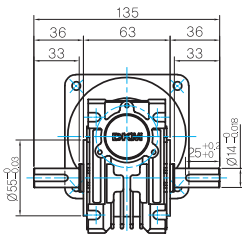
● MOTOR MODEL:
9SDG□-120F2WH (POWERFUL FAN)

● GEARBOX MODEL:
9WHD□-030

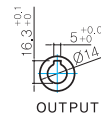
● SHAFT(Unidirectional, Bi-directional)



LEAD WIRE ASS'Y 300mm/
MOTOR UL STYLE NO,3271 AWG NO,22
T.G UL STYLE NO,1430 AWG NO,24



INPUT

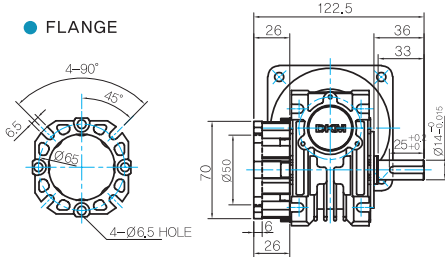


OUTPUT

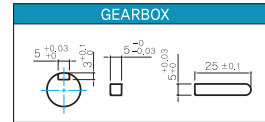
WEIGHT

PART	WEIGHT(Kg)
MOTOR	3,1
9PB(F)K2BH ~ 9PB(F)K18BH	1,3
9PB(F)K20BH ~ 9PB(F)K200BH	1,4
9HB(F)K3BH ~ 9HB(F)K9BH	1,45
9HB(F)K12.5BH ~ 9HB(F)K18BH	1,5
9HB(F)K20BH ~ 9HB(F)K60BH	1,7
9HB(F)K75BH ~ 9HB(F)K200BH	1,8
9WD□BL/BR/BRL	1,0
9WHD□-030	1,13
9XD10□□	0,5

FLANGE

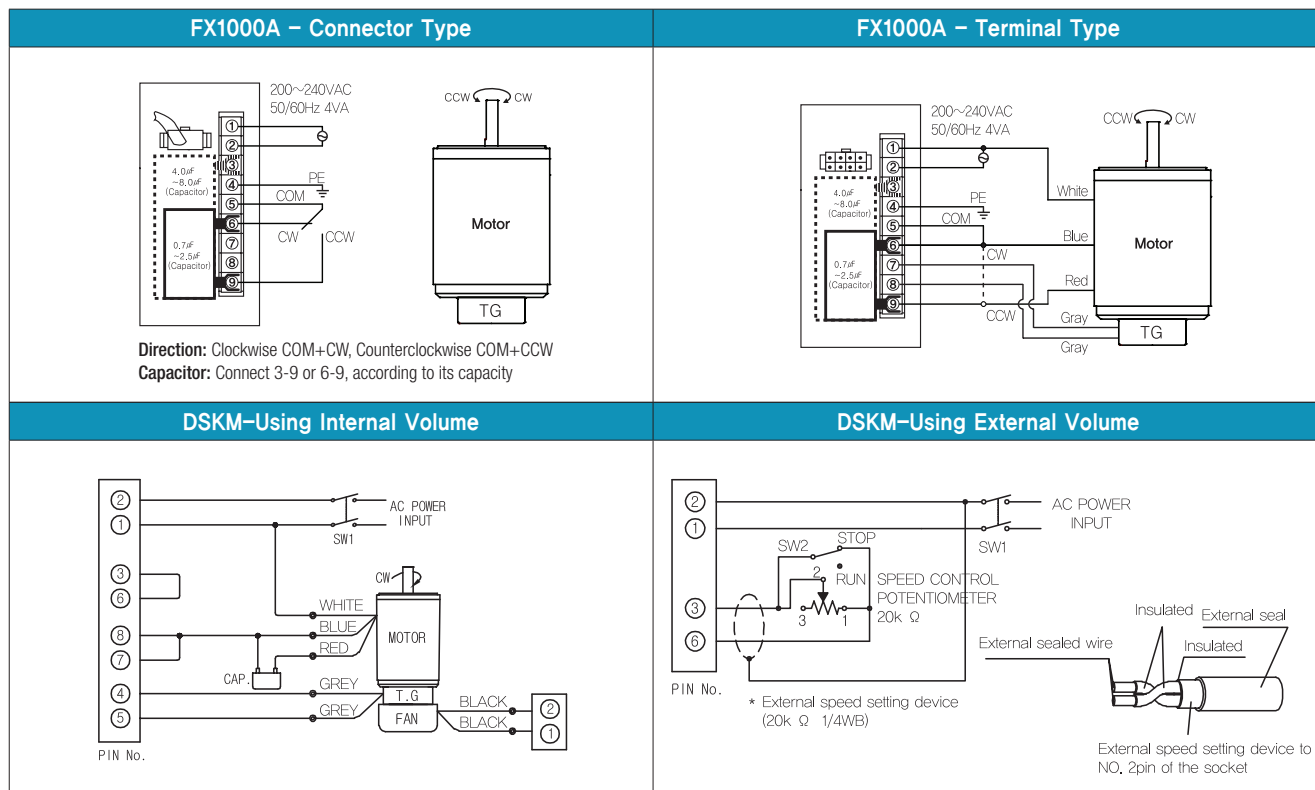


KEY SPEC



* The output flange and shafts are sold separately.

Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.

Now you can adjust the main volume to control the output speed of motor.

2) The direction of motor rotation is as viewed from the shaft end of the motor.

3) CW represents the clockwise direction, while CCW represents the counterclockwise direction.

4) When using powerful fan (F2 type) attached motor, connect two black wires of the fan to No.1 and No.2 terminals in order to supply power.

B AC Motors

S.C. Induction Motor 180W (□90mm)

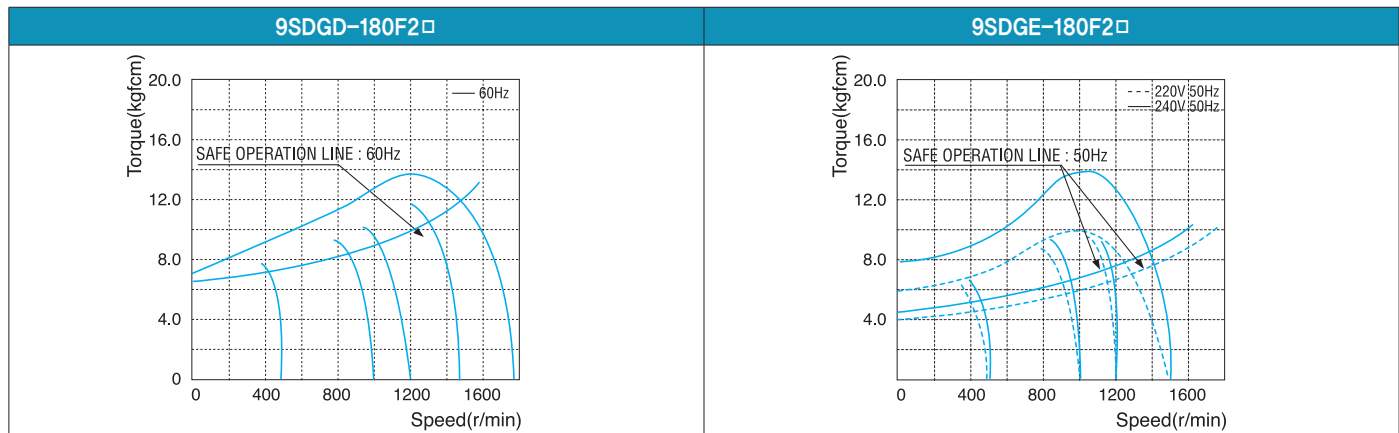
180W Speed Control Induction Motor 180W(□90mm)

Motor Specification

Model 9SDG*-180F2□: Gear Type Shaft 9SDD*-180F2: D-Cut Type Shaft 9SDK*-180F2: Key Type Shaft	Output W	Voltage V	Frequency Hz	Poles	Duty	Speed Range r/min	Starting Torque		Permissible Torque				Capacitor μF / VAC
									1200r/min		90r/min		
									kgfcm	N.m	kgfcm	N.m	
9SDGD-180F2□	180	1φ220	60	4	Cont.	90-1700	8.40	0.840	10.00	1.000	6.60	0.660	8.0 / 400
9SDGE-180F2□	180	1φ220	50	4	Cont.	90-1400	6.20	0.620	10.00	1.000	6.60	0.660	8.0 / 400
		7.10					0.710	12.00	1.200	7.50	0.750		

- 1) Enter the phase & voltage code in the place * and enter the model type of attaching Gearbox in the box (□) within the motor model name.
- 2) All models contain a built-in thermal protector.
- 3) Gear Type Shaft are for attaching Gearbox and D-Cut & Key Type Shaft are for using motor only.

Speed-Torque Characteristics



Max. Permissible Torque at Output Shaft of Gearbox

Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	3	3.6	6	9	12.5	15	18	20	25	30	36	50	60	75	90	100	120	150	180	200		
9SDG□ -180F2H	9HBK□ BH	1200	220	60	kgfcm	24.9	29.9	49.8	74.7	93.8	112.5	135.0	136.0	170.0	204.0	244.8	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	
					N.m	2.44	2.93	4.88	7.32	9.19	11.03	13.23	13.33	16.66	19.99	23.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40
	9HFK□ BH	90	220	60	kgfcm	16.4	19.7	32.9	49.3	61.9	74.3	89.1	89.8	112.2	134.6	161.6	224.4	269.3	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
					N.m	1.61	1.93	3.22	4.83	6.06	7.28	8.73	8.80	11.00	13.19	15.83	21.99	26.39	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40
			220/240	50	kgfcm	18.7	22.4	37.4	56.0	70.3	84.4	101.3	102.0	127.5	153.0	183.6	255.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0	300.0
					N.m	1.83	2.20	3.66	5.49	6.89	8.27	9.92	10.00	12.50	14.99	17.99	24.99	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40	29.40

- 1) Enter the phase & voltage code in the box (□) within the motor model name.
- 2) Enter the gear ratio in the box (□) within the Gearbox model name.
- 3) A colored background indicates gear shaft rotation in the same direction as the motor shaft; a white background indicates rotation in the opposite direction.
- 4) The rotating speed is calculated by dividing the motor's synchronous speed (50Hz: 1,500r/min, 60Hz: 1,800r/min) by the gear ratio. The actual speed is 2~20% less than the displayed value, depending on the size of the load.

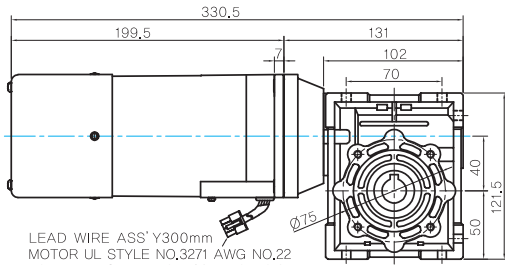
Motor Model	Gearbox Model	r/min	V	Hz	Gear Ratio	7.5	10	15	20	25	30	40	50	60	80
9SDG□ -180F2WH	9WHD□-030 9WHD□-040	1200	220	60	kgfcm	63.0	81.0	114.0	144.0	165.0	192.0	183.7	173.5	163.3	132.7
					N.m	6.17	7.94	11.17	14.11	16.17	18.82	18.00	17.00	16.00	13.00
		90	220/240	50	kgfcm	75.6	97.2	136.8	172.8	198.0	204.1	183.7	173.5	163.3	132.7
					N.m	7.41	9.53	13.41	16.93	19.40	20.00	18.00	17.00	16.00	13.00
			220	60	kgfcm	41.6	53.5	75.2	95.0	108.9	126.7	155.8	173.5	163.3	132.7
					N.m	4.07	5.24	7.37	9.31	10.67	12.42	15.26	17.00	16.00	13.00
			220/240	50	kgfcm	47.3	60.8	85.5	108.0	123.8	144.0	177.0	173.5	163.3	132.7
					N.m	4.63	5.95	8.38	10.58	12.13	14.11	17.35	17.00	16.00	13.00

B AC Motors

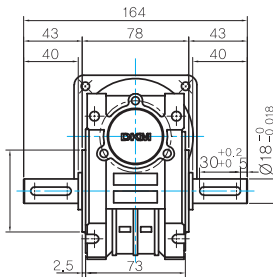
S.C. Induction Motor 180W (□90mm)

Dimensions

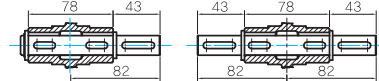
● MOTOR MODEL:
9SDG□-180F2WH (GENERAL FAN)



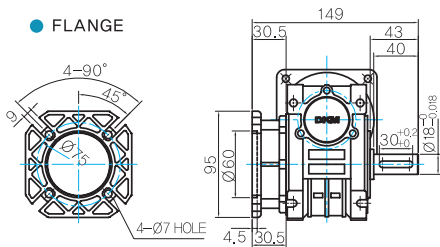
● GEARBOX MODEL:
9WHD□-040



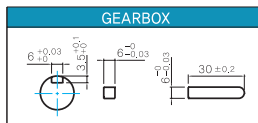
● SHAFT(Unidirectional, Bi-directional)



● FLANGE



● KEY SPEC



WEIGHT

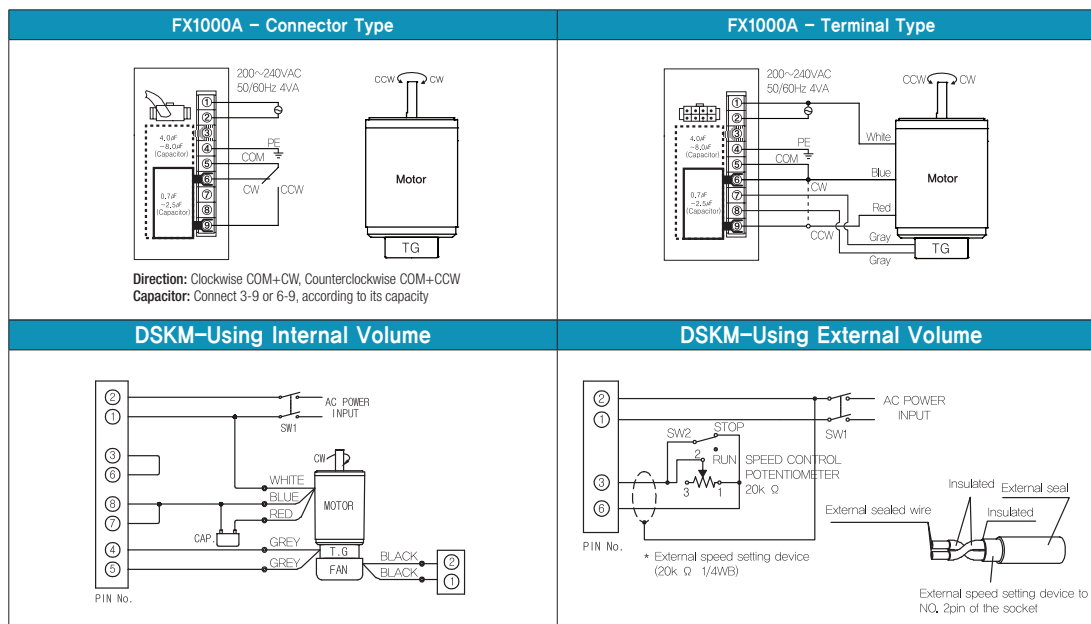
PART	WEIGHT(Kg)	
MOTOR	3,0	
GEAR BOX	9HB(F)K3BH ~ 9HB(F)K9BH	1,45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1,5
	9HB(F)K20BH ~ 9HB(F)K60BH	1,7
	9HB(F)K75BH ~ 9HB(F)K200BH	1,8
	9WHD□-030	1,13
9WHD□-040	2,2	
9XD10□□	0,5	

* The output flange and shafts are sold separately.

Motor Images



Connection Diagrams



1) At first connect the speed controller with the motor as instructed in connection diagrams. And then input the external power to both of the terminal 'AC' for the rated speed operation.
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