

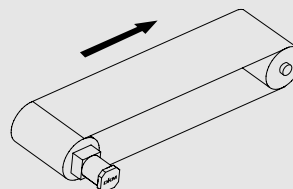
INDUCTION MOTORS



Lead wire type



Terminal Box type



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■ Features

● Suitable for Uni-directional Continuous Operation

Induction motors are for uni-directional continuous operation such as conveyor belt system.

● Meet Safety Standards and Global Power Supply Voltages

The most part of models conform to KS/UL standards and CE Marking. And meets power supply voltages of North America, Asia and Europe. ; 100V, 110V, 200V, 220V, 230V, 380V, 400V, 440V

● Single Phase run

For a single phase motor run, please use the condenser complying with the capacity of that motor.

For a single-phase induction motor, it is not possible to reverse the direction within a short time during operation. So stop the motor first and change the direction next. (Figure 1.)

● Three Phase run

Three phase induction motor has relative higher starting torque comparing single phase and has high reliability because it can be operated by a three-phase power source directly. (Figure 2.)

CIRCUIT DIAGRAM(C.W)

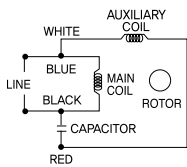
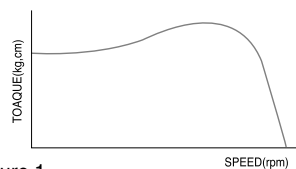


Figure 1

SPEED-TORQUE CURVE



CIRCUIT DIAGRAM(C.W)

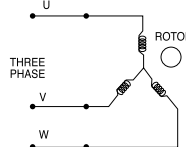
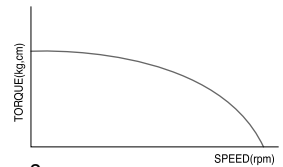


Figure 2

SPEED-TORQUE CURVE



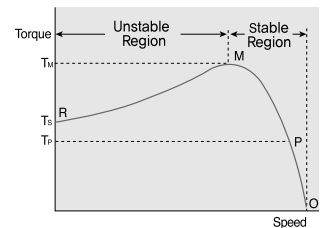
● The Relation between Speed and Torque

In a condition of constant power voltage, the relation between speed and torque is like right figure.

Under the condition of no-load, the number of rotation roughly is same as the number of synchronous rotation. But if the load increases, the number of rotation decreases and approaches to the speed (rpm) indicated by the point P where the torque T_p horizontally meets the load curve.

When the load further increases and reaches the point M, the motor stops at the point R because the motor no longer generates further torque.

Therefore, the leg R-M is referred to as an unstable zone and the leg O-M is a stable zone for operation.



● Feature of Voltage and Condenser

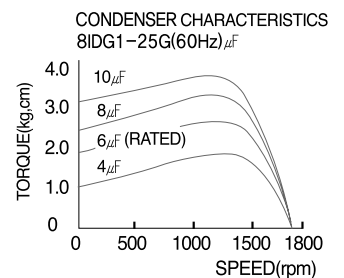
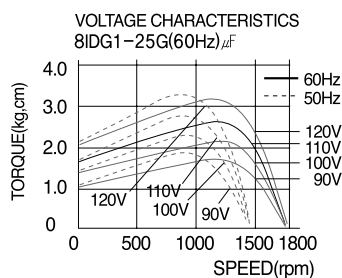
Generally the torque of induction motor changes in proportion to the value of two times the voltage. And it also changes according the capacity of the condenser.

If the condenser capacity increases, the starting torque and rated torque will increase.

But if the capacity increases by over 2 times, the rated torque decreases and starting torque do not increase.

When the induction motor is short on torque, it is possible to increase the torque by increasing the voltage or the condenser capacity to continue the operation.

But please be informed that in this case the loss input of the motor increases and the rapid rise of temperature would be. However, if the motor must be run with insufficient torque, take measures to let the motor release heat as much as possible by installing separate fan as a example and operate the motor so that the temperature of the motor's housing keep below 90℃ .



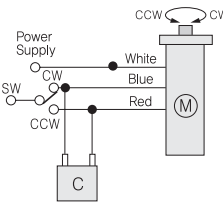
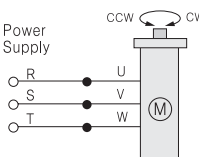
INDUCTION MOTOR LINE-UP

Frame size □mm (in.)	Output W	Type	Power (Voltage)					Page
			Single phase		Three phase			
			100/110/115V	200/220/230V	200/220/230V	380 V	440V	
60 (2.36)	6	Lead Wire	●	●	-	-	-	17-1
70 (2.76)	6	Lead Wire	●	●	-	-	-	18
	10	Lead Wire	●	●	-	-	-	20
	15	Lead Wire	●	●	-	-	-	21-1
80 (3.15)	15	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	22
	25	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	24
90 (3.54)	40	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	26
	60	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	28
	90	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	31
	120	Lead Wire Terminal box	● ●	● ●	● ●	● ●	● ●	34
	150	Lead Wire Terminal box	- -	- -	● ●	● ●	● ●	37
	180	Lead Wire Terminal box	- -	● ●	- -	- -	- -	40
	200	Lead Wire Terminal box	- -	- -	● ●	● ●	● ●	43

General Specifications

Item	Specifications
Insulation Resistance	100 MΩ or more when 500 VDC is applied between the windings and the frame after rated motor operation under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 1.5 KV at 50 Hz and 60 Hz applied between the windings and the frame for 1 minute after rated motor operation under normal ambient temperature and humidity.
Temperature Rise	Temperature rise of windings are 80℃ (144°F) or less measured by the resistance change method after rated motor operation with connecting a gearhead or equivalent heat radiation plate. [Three-Phase 6W type : 70℃ (126°F)]
Insulation Class	Class B [130℃ (266°F)]
Overheat Protection	Operating temperature, open : 130℃ ± 5℃ (266℃ ± 9°F) close : 82℃ ± 15℃ (179.6°F ± 27°F)
Ambient Temperature Range	-10℃ ~ + 40℃ (14°F ~ 104°F) [Three-phase 200VAC : -10℃ ~ +50℃ (14°F ~ 122°F)] (nonfreezing)
Ambient Humidity	85% maximum (noncondensing)

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
 CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	 CCW : To change the rotation direction, change any connections between U,V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 6W

□60mm(2.36in.)
LEAD WIRE TYPE



LEAD선 TYPE MOTOR
+BOX TYPE GEARHEAD

Motor Specification



Model 6IDG□-6G : Pinion Shaft Type 6IDG□-6 : Round Shaft Type		Output		Voltage	Freq.	Freq.	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	g/cm	mN.m	oz-in	g/cm	mN.m	oz-in	r/min	μF	VAC
TP 6IDG(S)A-6G	-	1/125	6	Single Phase110	60	0.2	400	40	5.6	400	40	5.8	1550	2.5	250
TP 6IDG(S)B-6G	-			Single Phase115	60										
TP 6IDG(S)C-6G	-			Single Phase 220	50	0.1	400	40	5.6	490	49	6.9	1300		
TP 6IDG(S)D-6G	-			Single Phase 220	60					400	40	5.8	1550		
TP 6IDG(S)E-6G	-			Single Phase 230	50					490	49	6.9	1300		
TP 6IDG(S)F-6G	-			Single Phase 230	60					400	40	5.8	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	180	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10	9	7.2
Motor/Gearhead	Gear Ratio	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	250
6IDG□-6G / 6GBD□BMH	kgfcm	1.0	1.2	1.7	2.0	2.5	3.0	3.4	4.2	5.0	6.0	6.0	7.5	9.0	11	12.5	14	16	20	24	27	30	30	30	30	30
	N.m	0.10	0.12	0.17	0.20	0.25	0.30	0.34	0.42	0.50	0.60	0.60	0.75	0.89	1.1	1.2	1.4	1.6	2.0	2.4	2.7	3	3	3	3	3
	lb-in	0.88	1.06	1.50	1.77	2.2	2.6	3.0	3.7	4.4	5.3	5.3	6.6	7.9	9.7	10.6	12.4	14	18	21	24	26	26	26	26	26

50Hz

Model	speed RPM (r/min)	500	417	300	250	200	166	150	120	100	83	75	60	50	41	37	30	25	20	16	15	12	10	8	7.5	6
Motor/Gearhead	Gear Ratio	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	250
6IDG□-6G / 6GBD□BMH	kgfcm	1.2	1.4	2.0	2.4	3.0	3.6	4.0	5.0	6.0	7.1	7.1	8.9	11	13	15	16	19	24	29	30	30	30	30	30	30
	N.m	0.12	0.14	0.20	0.24	0.30	0.36	0.40	0.50	0.60	0.71	0.71	0.89	1.1	1.3	1.5	1.6	1.9	2.4	2.9	3	3	3	3	3	3
	lb-in	1.06	1.24	1.77	2.1	2.6	3.2	3.5	4.4	5.3	6.3	6.3	7.9	9.7	11	13	14	17	21	26	26	26	26	26	26	26

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

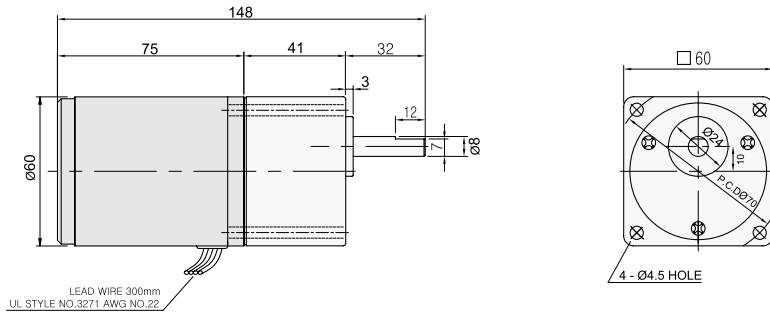
* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimension

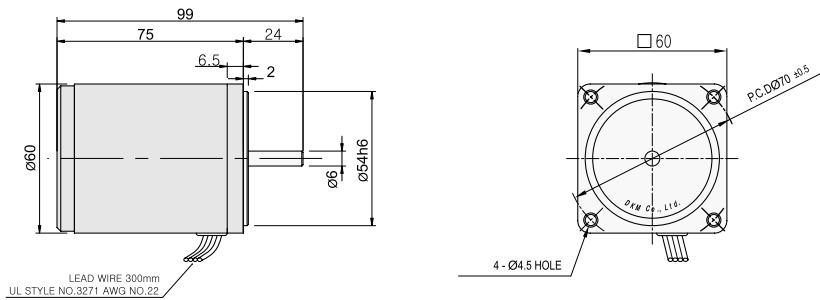
◆ GEARED MOTOR

- * MOTOR MODEL : 6IDG□-6G(NO FAN)
- * GEARHEAD MODEL : 6GBD 3BMH - 6GBD 250BMH



◆ MOTOR ONLY

- * MOTOR MODEL : 6ID□□-6(NO FAN)



◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	
6IDG-□6G	
ROUND TYPE	
6IDS□-6	

◆ WEIGHT

PART		WEIGHT(Kg)
MOTOR		0.7
GEAR HEAD	6GBD3BMH - 6GBD18BMH	0.3
	6GBD25BMH - 6GBD 30BMH	0.32
	6GBD36BMH - 6GBD250BMH	0.34

◆ GEARHEAD OUTPUT

MODEL	SHAFT
D-CUT TYPE	
6GBD3BMH ~6GBD250BMH	

INDUCTION MOTOR

6W

□70mm(2.76in.)
LEAD WIRE TYPE



LEAD WIRE TYPE MOTOR
+BOX TYPE GEARHEAD

Motor Specification



Model 7IDG□-6G : Pinion Shaft Type 7IDS□-6 : Round Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Freq. A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type					g/cm	mN.m	oz-in	g/cm	mN.m	oz-in		μF	VAC
 7IDG(S)A-6G	-	1/125 6	Single Phase 110	60	0.25	400	40	5.6	400	40	5.8	1550	2.5	250
 7IDG(S)B-6G	-		Single Phase 115	60					400	40	5.8	1550		
 7IDG(S)C-6G	-		Single Phase 220	50	0.15	400	40	5.6	490	49	6.9	1350	0.7	400
 7IDG(S)D-6G	-		Single Phase 220	60					400	40	5.8	1550		
 7IDG(S)E-6G	-		Single Phase 230	50					490	49	6.9	1350		
 7IDG(S)F-6G	-		Single Phase 230	60					400	40	5.8	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-6G / 7GBD□BMH	kgf cm	1.0	1.2	1.7	2.0	2.5	3.0	4.2	5.1	6.1	7.5	9.1	11	12.5	14	16	20	24	27	30	30	30
	N.m	0.10	0.12	0.17	0.20	0.25	0.30	0.42	0.50	0.60	0.75	0.89	1.1	1.2	1.4	1.6	2.0	2.4	2.7	3	3	3
	lb-in	0.88	1.06	1.50	1.77	2.2	2.6	3.7	4.4	5.3	6.6	7.9	9.7	10.6	12.4	14	18	21	24	26	26	26

50Hz

Model	speed RPM (r/min)	500	416	300	250	200	166	120	100	83	60	50	41	38	30	25	20	16	15	15	10	8.3
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-6G / 7GBD□BMH	kgf cm	1.2	1.4	2.0	2.4	3.0	3.6	5.1	6.1	7.1	8.9	11	13	15	16	19	24	29	30	30	30	30
	N.m	0.12	0.14	0.20	0.24	0.30	0.36	0.50	0.60	0.71	0.89	1.1	1.3	1.5	1.6	1.9	2.4	2.9	3	3	3	3
	lb-in	1.06	1.24	1.77	2.1	2.6	3.2	4.4	5.3	6.3	7.9	9.7	11	13	14	17	21	26	26	26	26	26

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

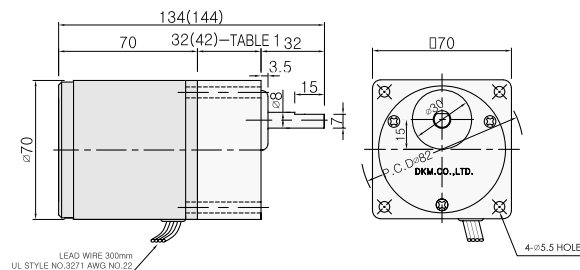
* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

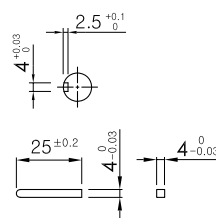
Dimension

◆ GEARED MOTOR

- * MOTOR MODEL : 7IDG□-6G (NO FAN)
- * GEARHEAD MODEL : 7GB□3BMH - 7GB□180BMH



◆ KEY SPEC

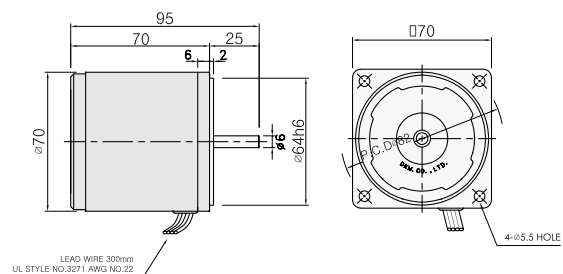


◆ GEARHEAD 출력축 사양

MODEL	출력축 구분
D-CUT TYPE	32 15 Z ⁰ _{-0.1}
7GBD3BMH ~7GBD180BMH	
KEY TYPE	32 25 1 10
7GBK3BMH ~7GBK180BMH	

◆ MOTOR ONLY

- * MOTOR MODEL : 7ID□□-6 (NO FAN)



◆ WEIGHT

PART		WEIGHT(Kg)
MOTOR		0.84
GEAR HEAD	7GB□3BMH - 7GB□18BMH	0.36
	7GB□25BMH - 7GB□30BMH	0.44
	7GB□36BMH - 7GB□180BMH	0.5

◆ 32(42)-TABLE 1

SIZE(mm)	GEAR RATIO
32	7GB□3BMH - 7GB□18BMH
42	7GB□25BMH - 7GB□180BMH

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	12
7IDG□-6G	
ROUND TYPE	25 6 10
7IDS□-6	
D-CUT TYPE	25 15 5.5 0.1 10
7IDD□-6	

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

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	Not Available

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 10W

□70mm(2.76in.)
LEAD WIRE TYPE



LEAD WIRE TYPE MOTOR
+BOX TYPE GEARHEAD

Motor Specification



Model 7IDG□-10G : Pinion Shaft Type 7IDS□-10 : Round Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
(TP) 7IDG(S)A-10G	-	1/75	10	Single Phase 110	60	0.3	500	50	7.1	700	70	9.9	1550	3.0	250
(TP) 7IDG(S)B-10G	-			Single Phase 115	60										
(TP) 7IDG(S)C-10G	-			Single Phase 220	50	0.18	500	50	7.1	840	84	11.9	1300	1.0	400
(TP) 7IDG(S)D-10G	-			Single Phase 220	60										
(TP) 7IDG(S)E-10G	-			Single Phase 230	50										
(TP) 7IDG(S)F-10G	-			Single Phase 230	60										
										700	70	9.9	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-10G / 7GBD□BMH	kgf cm	1.5	1.9	2.5	3.2	4.0	4.9	6.7	8.0	9.7	12	15	18	20	22	26	32	40	40	40	40	40
	N.m	0.15	0.19	0.25	0.32	0.40	0.49	0.67	0.80	0.97	1.2	1.5	1.8	2.0	2.2	2.6	3.2	4	4	4	4	4
	lb-in	1.32	1.68	2.21	2.83	3.5	4.3	5.9	7.1	8.6	10.6	13.2	15.9	17.7	20	23	28	35	35	35	35	35

50Hz

Model	speed RPM (r/min)	500	416	300	250	200	166	120	100	83	60	50	41	38	30	25	20	16	15	12.5	10	8.3
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-10G / 7GBD□BMH	kgf cm	1.8	2.3	3.0	3.8	4.8	5.9	8.1	9.6	11.6	14	18	22	24	27	31	38	40	40	40	40	40
	N.m	0.18	0.23	0.3	0.38	0.48	0.59	0.81	0.96	1.16	1.4	1.8	2.2	2.4	2.7	3.1	3.8	4	4	4	4	4
	lb-in	1.59	2.01	2.65	3.39	4.2	5.2	7.1	8.5	10.3	12.7	15.9	19.1	21.2	24	28	34	35	35	35	35	35

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

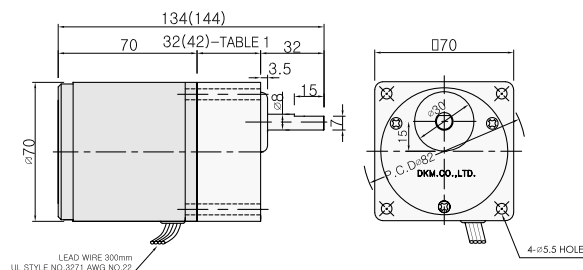
* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimension

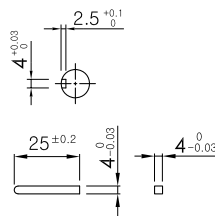
◆ GEARED MOTOR

* MOTOR MODEL : 7IDG□-10G (NO FAN)

* GEARHEAD MODEL : 7GB□ 3BMH - 7GB□ 180BMH



◆ KEY SPEC

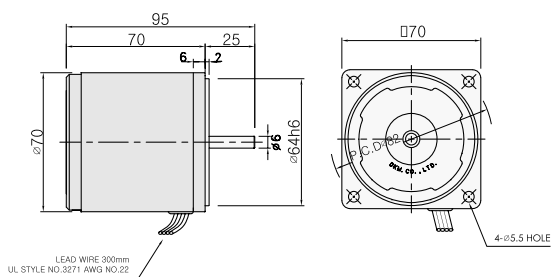


◆ GEARHEAD 출력축 사양

MODEL	출력축 구분
D-CUT TYPE	32 15 7 _{0.1} ★
7GBD3BMH ~7GBD180BMH	
KEY TYPE	32 25 23 Ø10
7GBK3BMH ~7GBK180BMH	

◆ MOTOR ONLY

* MOTOR MODEL : 7ID□-10 (NO FAN)



◆ WEIGHT

PART		WEIGHT(Kg)
MOTOR		0.84
GEAR HEAD	7GB□ 3BMH - 7GB□ 18BMH	0.36
	7GB□ 25BMH - 7GB□ 30BMH	0.44
	7GB□ 36BMH - 7GB□ 180BMH	0.5

◆ 32(42)-TABLE 1

SIZE(mm)	GEAR RATIO
32	7GB□ 3BMH - 7GB□ 18BMH
42	7GB□ 25BMH - 7GB□ 180BMH

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	12
7IDG□-10G	
ROUND TYPE	25 25 Ø6 ★
7IDS□-10	
D-CUT TYPE	25 15 5.5 _{0.1} Ø6
7IDD□-10	

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

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	Not Available

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 15W

□70mm(2.76in.)
LEAD WIRE TYPE



LEAD선 TYPE MOTOR
+ BOX TYPE GEARHEAD

Motor Specification



Model 7IDG□-15G : Pinion Shaft Type 7IDG□-15 : Round Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type					gfcM	mN.m	oz-in	gfcM	mN.m	oz-in		μF	VAC
TP 7IDG(S)1-15G	-	1/50 15	Single Phase 110	60	0.34	650	65	9.2	950	95	13.48	1550	5.0	250
TP 7IDG(S)B-15G	-		Single Phase 115	60										
TP 7IDG(S)C-15G	-		Single Phase 220	50	0.2	700	70	9.9	1120	112	15.9	1300	1.2	400
TP 7IDG(S)2-15G	-		Single Phase 220	60		650	65	9.2	1000	100	14.2	1550		
TP 7IDG(S)E-15G	-		Single Phase 230	50		750	75	10.6	1120	112	15.9	1300		
TP 7IDG(S)F-15G	-		Single Phase 230	60		650	65	9.2	1000	100	14.2	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-7G	7GBK□BMH	kgf cm	2.6	3.1	4.3	5.1	6.4	7.7	11	13	15	19	23	28	31	35	42	50	50	50	50	50
		N.m	0.26	0.31	0.43	0.51	0.64	0.77	1.1	1.3	1.5	1.9	2.3	2.8	3.1	3.5	4.2	5	5	5	5	5
		lb-in	2.3	2.7	3.8	4.5	5.6	6.8	9.7	11	13	17	20	25	27	31	37	44	44	44	44	44

50Hz

Model	speed RPM (r/min)	500	417	300	250	200	167	120	100	83	60	50	41	37.5	30	25	20	16	15	13	10	8
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
7IDG□-7G	7GBK□BMH	kgf cm	3.0	3.6	5.1	6.1	7.6	9.1	13	15	18	23	27	33	36	41	50	50	50	50	50	50
		N.m	0.30	0.36	0.51	0.61	0.76	0.91	1.30	1.50	1.80	2.30	2.7	3.3	3.6	4.1	5	5	5	5	5	5
		lb-in	2.6	3.2	4.5	5.4	6.7	8.0	11	13	16	20	24	29	32	36	44	44	44	44	44	44

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

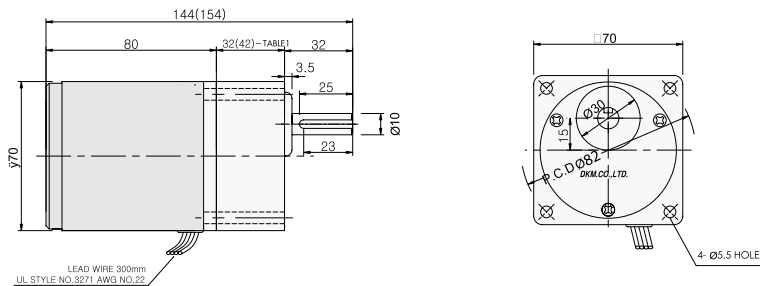
* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

Dimension

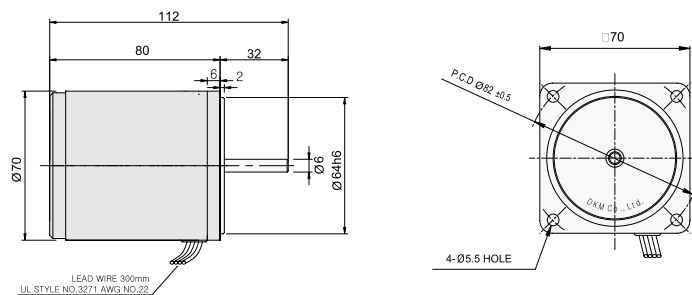
◆ GEARED MOTOR

- * MOTOR MODEL : 7IDG□-15G(NO FAN)
- * GEARHEAD MODEL : 7GBK3BMH - 7GBK180BMH

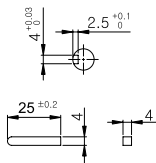


◆ MOTOR ONLY

- * MOTOR MODEL : 7ID□-15(NO FAN)



◆ KEY SPEC



◆ GEARHEAD OUTPUT

MODEL	SHAFT
D-CUT TYPE	32 15 7 0.1
7GBD3BMH ~7GBD180BMH	32 15 7 0.1
KEY TYPE	32 25 23 10
7GBK3BMH ~7GBK180BMH	32 25 23 10

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	12
7IDG□-15G	12
ROUND TYPE	32 10
7IDS□-15	32 10

◆ 32(42)-TABLE 1

SIZE(mm)	GEAR RATIO
32	7GB□3BMH - 7GB□180BMH
42	7GB□25BMH - 7GB□180BMH

◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.04
GEAR HEAD	0.36
7GB□3BMH - 7GB□180BMH	0.36
7GB□25BMH - 7GB□30BMH	0.44
7GB□36BMH - 7GB□250BMH	0.5

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

INDUCTION MOTOR 15W

□80mm(3.15in.)



LEAD WIRE TYPE MOTOR
+ BOX TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ BOX TYPE GEARHEAD

Motor Specification



Model 8IDG□-15G : Pinion Shaft Type 8IDS□-15 : Round Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type					gfcM	mN.m	oz-in	gfcM	mN.m	oz-in		μF	VAC
TP 8IDG(S)A-15G	8IDG(S)A-15G-T	1/50 15	Single Phase 110	60	0.4	650	65	9.2	950	95	13.48	1550	3.5	250
TP 8IDG(S)B-15G	8IDG(S)B-15G-T		Single Phase 115	60										
TP 8IDG(S)C-15G	8IDG(S)C-15G-T		Single Phase 220	50	0.25	700	70	9.9	1120	112	15.9	1300	1.5	400
TP 8IDG(S)D-15G	8IDG(S)D-15G-T		Single Phase 220	60		650	65	9.2	1000	100	14.2	1550		
TP 8IDG(S)E-15G	8IDG(S)E-15G-T		Single Phase 230	50		750	75	10.6	1120	112	15.9	1300		
TP 8IDG(S)F-15G	8IDG(S)F-15G-T		Single Phase 230	60		650	65	9.2	1000	100	14.2	1550		
TP 8IDG(S)G-15G	8IDG(S)G-15G-T		Three Phase 220	50	0.25	1300	130	18.5	1200	120	17	1300		
TP 8IDG(S)H-15G	8IDG(S)H-15G-T		Three Phase 220	60					1000	100	14.2	1550		
TP 8IDG(S)I-15G	8IDG(S)I-15G-T		Three Phase 230	50					1200	120	17	1300		
TP 8IDG(S)J-15G	8IDG(S)J-15G-T		Three Phase 230	60					1000	100	14.2	1550		
TP 8IDG(S)K-15G	8IDG(S)K-15G-T		Three Phase 380	50	0.14	1300	130	18.5	1200	120	17	1300		
TP 8IDG(S)L-15G	8IDG(S)L-15G-T		Three Phase 380	60					1000	100	14.2	1550		
TP 8IDG(S)M-15G	8IDG(S)M-15G-T		Three Phase 400	50	0.11	1300	130	18.5	1200	120	17	1300		
TP 8IDG(S)N-15G	8IDG(S)N-15G-T		Three Phase 440	50					1000	100	14.2	1550		
TP 8IDG(S)O-15G	8IDG(S)O-15G-T		Three Phase 440	60					1000	100	14.2	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10	7	6	5
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	250	300	360
8IDG□-15G / 8GBK□BMH	kgf cm	2.9	3.5	4.9	5.8	7.3	8.7	12.2	14.6	17.5	21.9	26.3	31.5	36.5	39.6	47.5	59.4	71.3	79.2	80	80	80	80	80	80
	N.m	0.29	0.35	0.49	0.58	0.73	0.87	1.2	1.5	1.8	2.2	2.6	3.2	3.6	4.0	4.8	5.9	7.1	7.9	8	8	8	8	8	8
	lb-in	2.6	3.1	4.3	5.1	6.4	7.7	11	13	15	19	23	28	32	35	42	52	63	70	71	71	71	71	71	71

50Hz

Model	speed RPM (r/min)	500	417	300	250	200	167	120	100	83	60	50	42	38	30	25	20	17	15	13	10	8	6	5	5
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	250	300	360
8IDG□-15G / 8GBK□BMH	kgf cm	3.4	4.1	5.7	6.8	8.5	10.2	14.2	17.0	20.4	25.6	30.7	36.8	38.8	46.2	55.4	69.2	80	80	80	80	80	80	80	80
	N.m	0.34	0.41	0.57	0.68	0.85	1.02	1.4	1.7	2.0	2.6	3.1	3.7	3.8	4.6	5.5	6.9	8	8	8	8	8	8	8	8
	lb-in	3.0	3.6	5.0	6.0	7.5	9.0	13	15	18	23	27	32	34	41	49	61	71	71	71	71	71	71	71	71

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

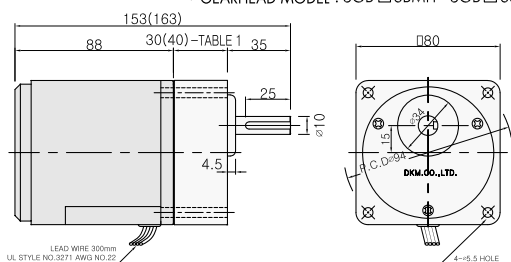
* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 80kgfcm (8N.m, 71lb-in).

Dimension

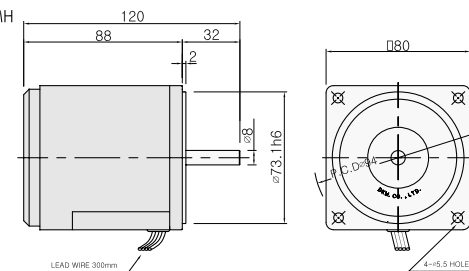
LEAD WIRE TYPE

- ◆ GEARED MOTOR * MOTOR MODEL : 8IDG□-15G (NO FAN)
* GEARHEAD MODEL : 8GB□3BMH - 8GB□360BMH

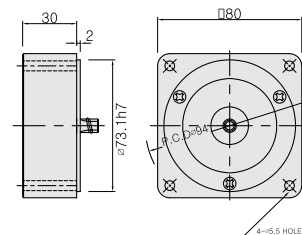


◆ MOTOR ONLY

- * MOTOR MODEL : 8ID□□-15 (NO FAN)

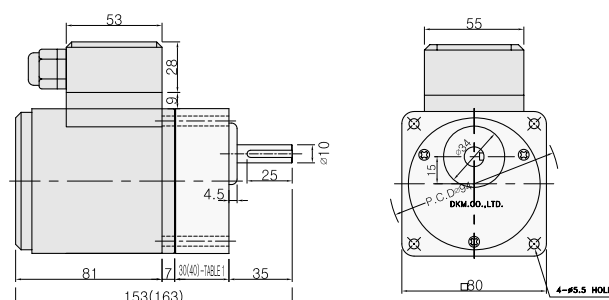


- ◆ INTER-DECIMAL GEARHEAD
* MODEL : 8XD10M□



TERMINAL BOX TYPE

- * MOTOR MODEL : 8IDG□-15G (NO FAN)



◆ 30(40)-TABLE 1

SIZE(mm)	GEAR RATIO
30	8GB□3BMH - 8GB□18BMH
40	8GB□25BMH - 8GB□360BMH

◆ GEARHEAD OUTPUT

MODEL	SHAFT
ROUND TYPE	
8GBS3BMH ~8GBS360BMH	
D-CUT TYPE	
8GBD3BMH ~8GBD360BMH	
KEY TYPE	
8GBK3BMH ~8GBK360BMH	

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	
8IDG□-15G	
ROUND TYPE	
8IDS□-15	
D-CUT TYPE	
8IDD□-15	
KEY TYPE	
8IDK□-15	

◆ KEY SPEC

MOTOR	GEARHEAD

◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.6
DECIMAL GEARHEAD	0.44
GEAR HEAD	8GB□3BMH - 8GB□18BMH: 0.48
	8GB□25BMH - 8GB□30BMH: 0.61
	8GB□36BMH - 8GB□180BMH: 0.67
	8GB□200BMH - 8GB□360BMH: 0.63

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

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	Not Available

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 25W

□80mm(3.15in.)



LEAD WIRE TYPE MOTOR
+ BOX TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ BOX TYPE GEARHEAD

Motor Specification



Model 8IDG□-25G : Pinion Shaft Type 8IDS□-25 : Round Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mNm	oz-in	gfcM	mNm	oz-in	r/min	μF	VAC
TP 8IDG(S)A-25G	8IDG(S)A-25G-T	1/30	25	Single Phase 110	60	0.6	1100	110	16	1600	160	23	1550	6.0	250
TP 8IDG(S)B-25G	8IDG(S)B-25G-T			Single Phase 115	60										
TP 8IDG(S)C-25G	8IDG(S)C-25G-T			Single Phase 220	50	0.3	1000	100	14	1900	190	27	1300	2.0	400
TP 8IDG(S)D-25G	8IDG(S)D-25G-T			Single Phase 220	60										
TP 8IDG(S)E-25G	8IDG(S)E-25G-T			Single Phase 230	50										
TP 8IDG(S)F-25G	8IDG(S)F-25G-T			Single Phase 230	60										
TP 8IDG(S)G-25G	8IDG(S)G-25G-T			Three phase 220	50	0.25	1500	150	21	1800	180	25	1300	-	-
TP 8IDG(S)H-25G	8IDG(S)H-25G-T			Three phase 220	60										
TP 8IDG(S)I-25G	8IDG(S)I-25G-T			Three phase 230	50										
TP 8IDG(S)J-25G	8IDG(S)J-25G-T			Three phase 230	60										
TP 8IDG(S)K-25G	8IDG(S)K-25G-T			Three phase 380	50	0.14	1500	150	21	1800	180	25	1300	-	-
TP 8IDG(S)L-25G	8IDG(S)L-25G-T			Three phase 380	60										
TP 8IDG(S)M-25G	8IDG(S)M-25G-T			Three phase 400	50	0.11	1500	150	21	1800	180	25	1300	-	-
TP 8IDG(S)N-25G	8IDG(S)N-25G-T			Three phase 440	50										
TP 8IDG(S)O-25G	8IDG(S)O-25G-T			Three phase 440	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'Round Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	600	500	360	300	240	200	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10	7	6	5
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	250	300	360
8IDG□-25G	8GBK□BMH	kgf cm	4.4	5.2	7.3	8.7	10.9	13.1	18.2	21.9	26.2	32.9	39.4	47.3	52.6	59.4	71.3	80	80	80	80	80	80	80	80
		N.m	0.44	0.52	0.73	0.87	1.09	1.31	1.82	2.19	2.62	3.29	3.9	4.7	5.2	5.9	7.1	8	8	8	8	8	8	8	8
		lb-in	3.9	4.6	6.4	7.7	9.6	12	16	19	23	29	35	42	46	52	63	71	71	71	71	71	71	71	71

50Hz

Model	speed RPM (r/min)	500	417	300	250	200	167	120	100	83	60	50	42	38	30	25	20	17	15	13	10	8	6	5	5
Motor/Gearhead	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	250	300	360
8IDG□-25G	8GBK□BMH	kgf cm	5.3	6.4	8.9	10.7	13.4	16.0	22.3	26.7	32.1	40.2	48.2	57.8	64.2	72.6	80	80	80	80	80	80	80	80	80
		N.m	0.53	0.64	0.89	1.07	1.34	1.60	2.23	2.67	3.21	4.02	4.8	5.8	6.4	7.3	8	8	8	8	8	8	8	8	8
		lb-in	4.7	5.7	7.9	9.4	11.8	14	20	24	28	35	43	51	57	64	71	71	71	71	71	71	71	71	71

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

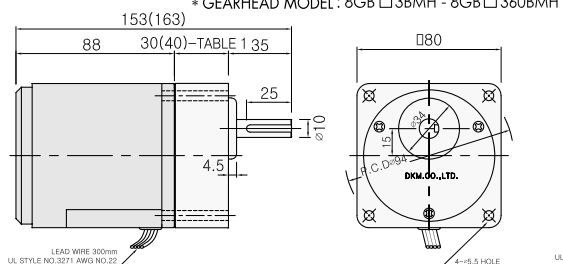
* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 80kgfcm (8N.m, 71lb-in).

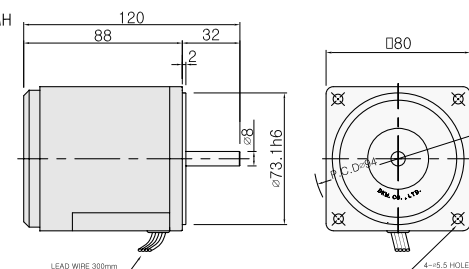
Dimension

LEAD WIRE TYPE

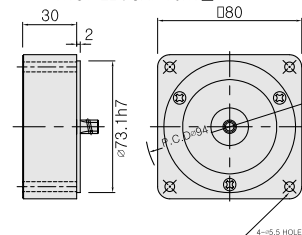
- ◆ GEARED MOTOR * MOTOR MODEL : 8IDG□-25G (NO FAN)
* GEARHEAD MODEL : 8GB□3BMH - 8GB□360BMH



- ◆ MOTOR ONLY
* MOTOR MODEL : 8ID□-25 (NO FAN)

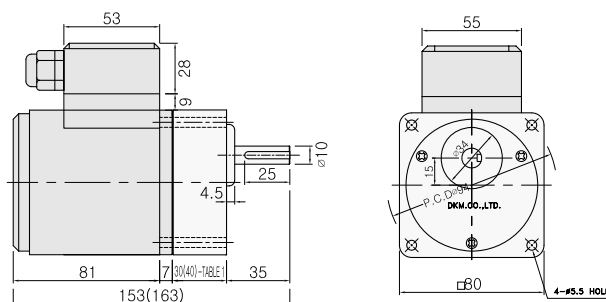


- ◆ INTER-DECIMAL GEARHEAD
* MODEL : 8XD10M□



TERMINAL BOX TYPE

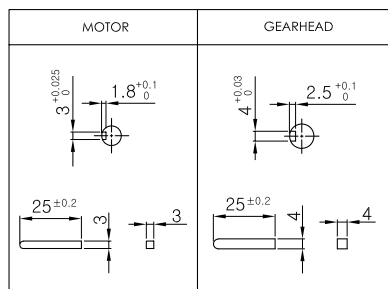
- * MOTOR MODEL : 8IDG□-25 (NO FAN)



30(40)-TABLE 1

SIZE(mm)	GEAR RATIO
30	8GB□3BMH - 8GB□18BMH
40	8GB□25BMH - 8GB□360BMH

KEY SPEC



WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.6
DECIMAL GEARHEAD	0.44
GEAR HEAD	
8GB□3BMH - 8GB□18BMH	0.48
8GB□25BMH - 8GB□30BMH	0.61
8GB□36BMH - 8GB□180BMH	0.67
8GB□200BMH - 8GB□360BMH	0.63

GEARHEAD OUTPUT

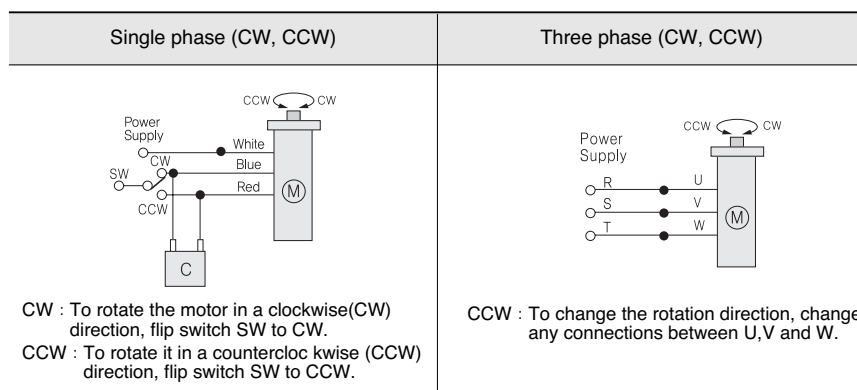
MODEL	SHAFT
ROUND TYPE	35mm shaft, 10mm diameter
8GBS3BMH ~ 8GBS360BMH	
D-CUT TYPE	35mm shaft, 10mm diameter, 9mm key
8GBD3BMH ~ 8GBD360BMH	
KEY TYPE	35mm shaft, 10mm diameter, 9mm key, 23mm key length
8GBK3BMH ~ 8GBK360BMH	

MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	11mm shaft
8IDG□-25G	
ROUND TYPE	32mm shaft, 10mm diameter, 9mm key
8IDS□-25	
D-CUT TYPE	32mm shaft, 10mm diameter, 9mm key, 7mm key length
8IDD□-25	
KEY TYPE	32mm shaft, 10mm diameter, 9mm key, 23mm key length
8IDK□-25	

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

Connection Diagrams



- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 40W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ BOX TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ BOX TYPE GEARHEAD

Motor Specification



Model 9IDG□-40G : Pinion Shaft Type 9IDD□-40 : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mNm	oz-in	gfcM	mNm	oz-in	r/min	μF	VAC
TP 9IDG(D)A-40G	9IDG(D)A-40G-T	1/15	40	Single Phase 110	60	0.9	2000	200	28	2600	260	37	1550	10	250
TP 9IDG(D)B-40G	9IDG(D)B-40G-T			Single Phase 115	60										
TP 9IDG(D)C-40G	9IDG(D)C-40G-T			Single Phase 220	50										
TP 9IDG(D)D-40G	9IDG(D)D-40G-T			Single Phase 220	60										
TP 9IDG(D)E-40G	9IDG(D)E-40G-T			Single Phase 230	50	0.45	2000	200	28	3000	300	42	1300	2.5	400
TP 9IDG(D)F-40G	9IDG(D)F-40G-T			Single Phase 230	60										
TP 9IDG(D)G-40G	9IDG(D)G-40G-T			Three phase 220	50										
TP 9IDG(D)H-40G	9IDG(D)H-40G-T			Three phase 220	60										
TP 9IDG(D)I-40G	9IDG(D)I-40G-T			Three phase 230	50	0.4	2600	260	37	3000	300	42	1300	-	-
TP 9IDG(D)J-40G	9IDG(D)J-40G-T			Three phase 230	60										
TP 9IDG(D)K-40G	9IDG(D)K-40G-T			Three phase 380	50										
TP 9IDG(D)L-40G	9IDG(D)L-40G-T			Three phase 380	60										
TP 9IDG(D)M-40G	9IDG(D)M-40G-T			Three phase 400	50	0.22	2600	260	37	3000	300	42	1300	-	-
TP 9IDG(D)N-40G	9IDG(D)N-40G-T			Three phase 440	50										
TP 9IDG(D)O-40G	9IDG(D)O-40G-T			Three phase 440	60										
TP 9IDG(D)P-40G	9IDG(D)P-40G-T			Three phase 440	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	180	144	120	100	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-40G	9GBK□MH	kgf cm	5.0	6.8	8.2	11.3	13.6	17.0	20.4	22.7	28.4	34.0	40.8	51.1	61.3	73.6	81.5	100	100	100	100	100	100	100
		N.m	0.50	0.68	0.82	1.13	1.36	1.70	2.04	2.27	2.84	3.40	4.08	5.11	6.1	7.4	8.2	10	10	10	10	10	10	10
		lb-in	4.4	6.0	7.2	10.0	12.0	15.0	18.0	20.0	25.1	30.0	36.0	45.1	54.1	65.0	72.0	88	88	88	88	88	88	88

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	150	120	100	83	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-40G	9GBK□MH	kgf cm	6.0	8.3	9.9	13.8	16.5	20.7	24.8	27.5	34.4	41.3	49.6	62.1	74.5	89.4	99.1	100	100	100	100	100	100	100
		N.m	0.60	0.83	0.99	1.38	1.65	2.07	2.48	2.75	3.44	4.13	4.96	6.21	7.5	8.9	9.9	10	10	10	10	10	10	10
		lb-in	5.3	7.3	8.7	12.2	14.6	18.3	21.9	24.3	30.4	36.5	43.8	54.8	65.8	78.9	87.5	88	88	88	88	88	88	88

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

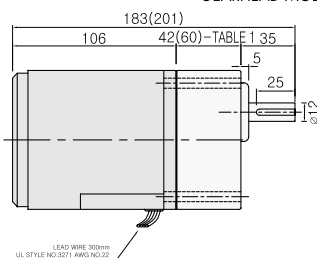
* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 100kgfcm (10N.m, 88lb-in).

Dimension

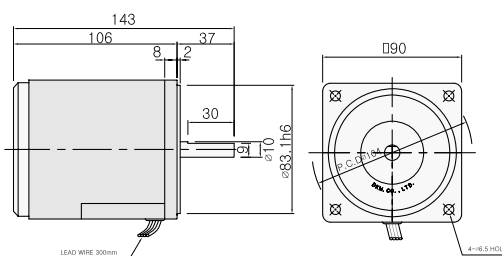
LEAD WIRE TYPE

- ◆ GEARED MOTOR * MOTOR MODEL : 9IDG□-40G (NO FAN)
* GEARHEAD MODEL : 9GB□3MH - 9GB□180MH

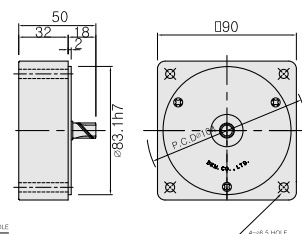


MOTOR ONLY

- * MOTOR MODEL : 9ID□□-40 (NO FAN)

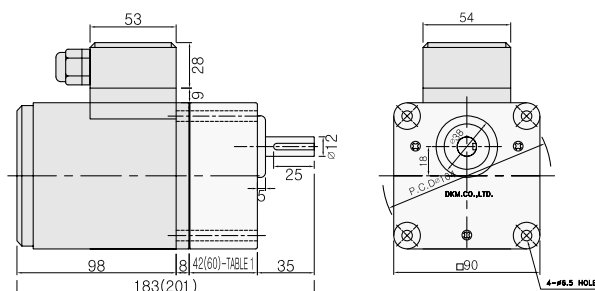


- ◆ INTER-DECIMAL GEARHEAD
* MODEL : 9XD10M□



TERMINAL BOX TYPE

- * MOTOR MODEL : 9IDG□-40G (NO FAN)



42(60)-TABLE 1

SIZE(mm)	GEAR RATIO
42	9GB□3MH - 9GB□15MH
60	9GB□18MH - 9GB□180MH

WEIGHT

PART	WEIGHT(Kg)
MOTOR	2.4
DECIMAL GEARHEAD	0.5
GEAR HEAD	
9GB□3MH - 9GB□15MH	0.67
9GB□18MH - 9GB□30MH	0.96
9GB□36MH - 9GB□180MH	1.07

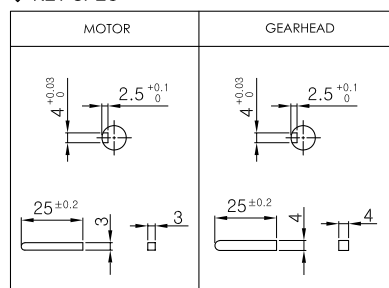
GEARHEAD OUTPUT

MODEL	SHAFT
ROUND TYPE	35
9GBS3MH ~9GBS180MH	φ12
D-CUT TYPE	35
9GBD3MH ~9GBD180MH	φ12, 25, 1.0
KEY TYPE	35
9GBK3MH ~9GBK180MH	φ12, 25, 1.0

MOTOR OUTPUT

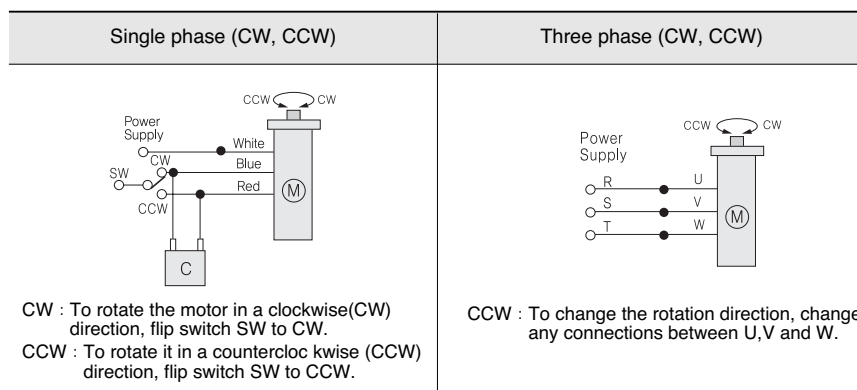
MODEL	SHAFT
GEAR TYPE	17.5
9IDG□-40G	φ10
ROUND TYPE	37
9IDS□-40	φ10
D-CUT TYPE	37
9IDD□-40	φ10
KEY TYPE	37
9IDK□-40	φ10

KEY SPEC



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

Connection Diagrams



- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 60W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEAD

Motor Specification



Model 9IDG□-60FP : Pinion Shaft Type 9IDD□-60F : D-Cut Shaft Type			Output HP W		Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type	gfcM						mN.m	oz-in	gfcM	mN.m	oz-in	μF		VAC	
ⒾP 9IDG(D)A-60FP	9IDG(D)A-60FP-T	1/12 60	Single Phase 110	60	1.20	3000	300	42	3800	380	54	1550	16	250		
ⒾP 9IDG(D)B-60FP	9IDG(D)B-60FP-T		Single Phase 115	60												
ⒾP 9IDG(D)C-60FP	9IDG(D)C-60FP-T		Single Phase 220	50	0.60	3000	300	42	4560	456	65	1300	4.0	400		
ⒾP 9IDG(D)D-60FP	9IDG(D)D-60FP-T		Single Phase 220	60					3800	380	54	1550				
ⒾP 9IDG(D)E-60FP	9IDG(D)E-60FP-T		Single Phase 230	50					4560	456	65	1300				
ⒾP 9IDG(D)F-60FP	9IDG(D)F-60FP-T		Single Phase 230	60					3800	380	54	1550				
ⒾP 9IDG(D)G-60FP	9IDG(D)G-60FP-T		Three phase 220	50	0.60	5000	500	71	4560	456	65	1300	-	-		
ⒾP 9IDG(D)H-60FP	9IDG(D)H-60FP-T		Three phase 220	60					3800	380	54	1550				
ⒾP 9IDG(D)I-60FP	9IDG(D)I-60FP-T		Three phase 230	50					4560	456	65	1300				
ⒾP 9IDG(D)J-60FP	9IDG(D)J-60FP-T		Three phase 230	60					3800	380	54	1550				
ⒾP 9IDG(D)K-60FP	9IDG(D)K-60FP-T		Three phase 380	50	0.38	5000	500	71	4560	456	65	1300	-	-		
ⒾP 9IDG(D)L-60FP	9IDG(D)L-60FP-T		Three phase 380	60					3800	380	54	1550				
ⒾP 9IDG(D)M-60FP	9IDG(D)M-60FP-T		Three phase 400	50	0.27	5000	500	71	4560	456	65	1300	-	-		
ⒾP 9IDG(D)N-60FP	9IDG(D)N-60FP-T		Three phase 440	50					4560	456	65	1300				
ⒾP 9IDG(D)O-60FP	9IDG(D)O-60FP-T		Three phase 440	60					3800	380	54	1550				

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-60FP	9PBK□BH 9PFK□BH	kgf cm	7.5	9.7	11.7	16.2	19.4	24.3	29.2	36.5	43.8	52.6	59.0	66.0	79.2	95	106	132	158	177	200	200	200	200
		N.m	0.8	1.0	1.2	1.6	1.9	2.4	2.9	3.7	4.4	5.3	5.9	6.6	7.9	9.5	10.6	13.2	15.8	17.7	20	20	20	20
		lb-in	6.6	8.6	10	14	17	21	26	32	39	46	52	58	70	84	94	117	140	156	177	177	177	177

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-60FP	9PBK□BH 9PFK□BH	kgf cm	10.0	12.2	14.6	20.3	24	30	37	46	55	66	72	83	99	119	132	165	198	200	200	200	200	200
		N.m	1.0	1.2	1.5	2.0	2.4	3.0	3.7	4.6	5.5	6.6	7.2	8.3	9.9	11.9	13.2	16.5	20	20	20	20	20	20
		lb-in	8.8	10.8	12.9	17.9	21.5	26.8	32.2	40.3	48.4	58.0	63.6	72.8	87	105	117	146	175	177	177	177	177	177

* Enter the gear ratio in the box (□) within the model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

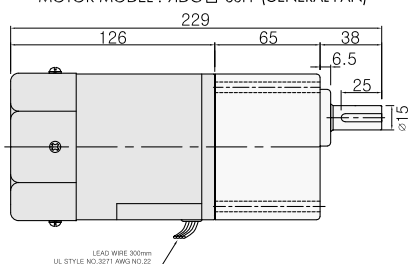
* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 200kgfcm (20N.m, 177lb-in).

Dimension

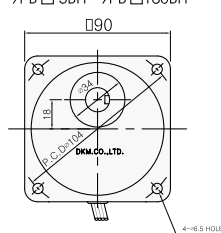
LEAD WIRE TYPE

GEARED MOTOR

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

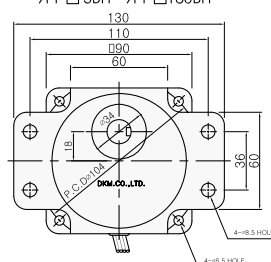


* GEARHEAD MODEL :
9PB□3BH - 9PB□180BH



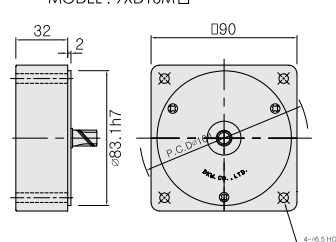
* GEARHEAD MODEL :

9PF□3BH - 9PF□180BH



INTER-DECIMAL GEARHEAD

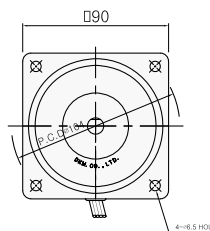
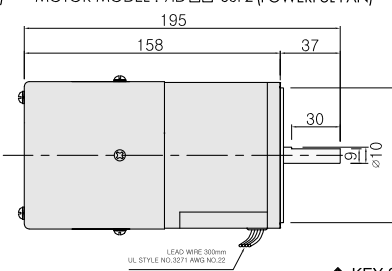
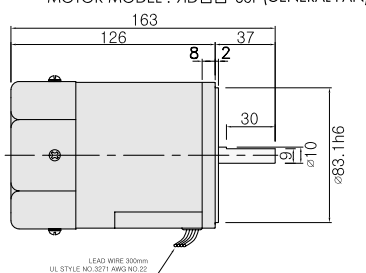
* MODEL : 9XD10M□



MOTOR ONLY

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

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

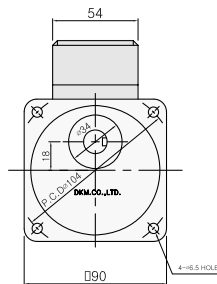
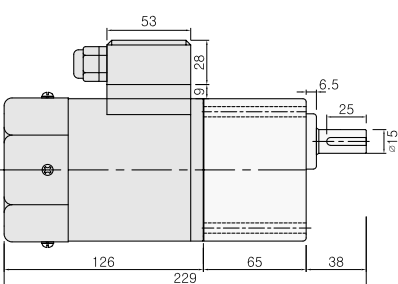


GEARHEAD OUTPUT

MODEL	SHAFT
ROUND TYPE 9P□S3BH ~9P□S180BH	
D-CUT TYPE 9P□D3BH ~9P□D180BH	
KEY TYPE 9P□K3BH ~9P□K180BH	

TERMINAL BOX TYPE

* MOTOR MODEL : 9IDG□-60FP-T (GENERAL FAN)



KEY SPEC

MOTOR	GEARHEAD

WEIGHT

PART		WEIGHT(Kg)
MOTOR		2.6
DECIMAL GEARHEAD		0.5
GEAR HEAD	9P□□ 3BH - 9P□□9BH	1.3
	9P□□ 12.5BH - 9P□□18BH	1.3
	9P□□ 25BH - 9P□□60BH	1.4
	9P□□ 90BH - 9P□□180BH	1.4

MOTOR OUTPUT

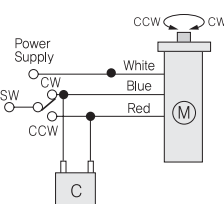
MODEL	SHAFT
GEAR TYPE 9IDG□-60□P	
ROUND TYPE 9IDS□-60□	
D-CUT TYPE 9IDD□-60□	
KEY TYPE 9IDK□-60□	

* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

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

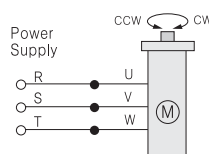
Connection Diagrams

Single phase (CW, CCW)



CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW.
CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.

Three phase (CW, CCW)



CCW : To change the rotation direction, change any connections between U,V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 90W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model 9IDG□-90FP(H) : Pinion Shaft Type 9IDD□-90F : D-Cut Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor					
Lead Wire Type	Terminal Box Type					g/cm	mN.m	oz-in	g/cm	mN.m	oz-in		μF	VAC				
TP 9IDG(D)A-90FP(H)	9IDG(D)A-90FP(H)-T	1/8 90	Single Phase 110	60	2.00	4500	450	64	5700	570	81	1550	20	250				
TP 9IDG(D)B-90FP(H)	9IDG(D)B-90FP(H)-T		Single Phase 115	60														
TP 9IDG(D)C-90FP(H)	9IDG(D)C-90FP(H)-T		Single Phase 220	50	1.00	4500	450	64	5700	570	81	1550			5.0	400		
TP 9IDG(D)D-90FP(H)	9IDG(D)D-90FP(H)-T		Single Phase 220	60														
TP 9IDG(D)E-90FP(H)	9IDG(D)E-90FP(H)-T		Single Phase 230	50									5700	570			81	1300
TP 9IDG(D)F-90FP(H)	9IDG(D)F-90FP(H)-T		Single Phase 230	60														
TP 9IDG(D)G-90FP(H)	9IDG(D)G-90FP(H)-T		Three phase 220	50	0.80	7000	700	99	6840	684	97	1300	-	-				
TP 9IDG(D)H-90FP(H)	9IDG(D)H-90FP(H)-T		Three phase 220	60														
TP 9IDG(D)I-90FP(H)	9IDG(D)I-90FP(H)-T		Three phase 230	50											6840	684	97	1300
TP 9IDG(D)J-90FP(H)	9IDG(D)J-90FP(H)-T		Three phase 230	60														
TP 9IDG(D)K-90FP(H)	9IDG(D)K-90FP(H)-T		Three phase 380	50	0.44	7000	700	99	6840	684	97	1300	-	-				
TP 9IDG(D)L-90FP(H)	9IDG(D)L-90FP(H)-T		Three phase 380	60											0.36	7000	700	99
TP 9IDG(D)M-90FP(H)	9IDG(D)M-90FP(H)-T		Three phase 400	50														
TP 9IDG(D)N-90FP(H)	9IDG(D)N-90FP(H)-T		Three phase 440	50	5700	570	81	1550										
TP 9IDG(D)O-90FP(H)	9IDG(D)O-90FP(H)-T		Three phase 440	60														

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-90FP	9PBK□BH 9PFK□BH	kgf cm	12	14.6	17.5	24.3	29.2	36.5	43.7	54.8	65.7	78.8	88.0	99	119	143	158	198	200	200	200	200	200	200
		N.m	1.2	1.5	1.8	2.4	2.9	3.7	4.4	5.5	6.6	7.9	8.8	9.9	12	14	16	20	20	20	20	20	20	20
		lb-in	10.6	12.9	15.5	21.5	25.8	32.2	38.6	48.4	58.0	69.6	77.7	87.4	105	126	140	175	177	177	177	177	177	177
9IDG□-90FH	9HBK□BH	kgf cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	232	259	300	300	300	300	300
		N.m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	23	26	30	30	30	30	30
		lb-in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	205	229	265	265	265	265	265

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-90FP	9PBK□BH 9PFK□BH	kgf cm	15	18.2	21.9	30.4	36.5	45.6	54.7	68.4	82.1	98.6	110	124	150	180	199	200	200	200	200	200	200	200
		N.m	1.5	1.8	2.2	3.0	3.7	4.6	5.5	6.8	8.2	9.9	11	12	15	18	20	20	20	20	20	20	20	20
		lb-in	13.2	16.1	19.3	26.8	32.2	40.3	48.3	60	72	87	97	109	132	159	176	177	177	177	177	177	177	177
9IDG□-90FH	9HBK□BH	kgf cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241	289	300	300	300	300	300	300
		N.m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	29	30	30	30	30	30	30
		lb-in	-	-	-	-	-	-	-	-	-	-	-	-	-	-	213	255	265	265	265	265	265	265

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

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

Dimension

LEAD WIRE TYPE

◆ GEARED MOTOR

* MOTOR MODEL : 9IDG□-90FP(H)(GENERAL FAN)

* GEARHEAD MODEL :

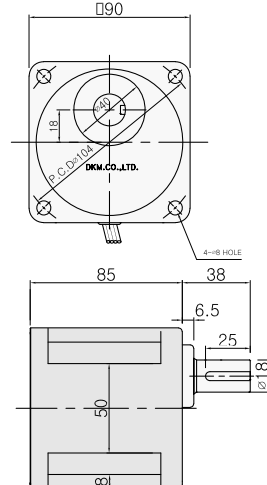
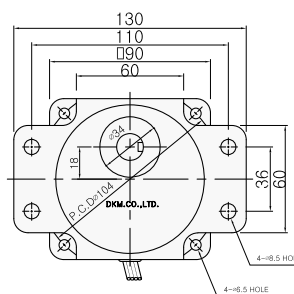
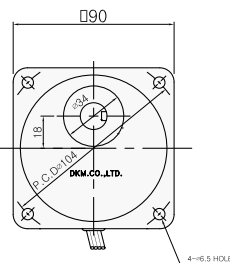
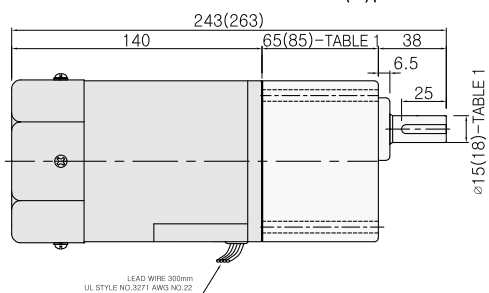
9PB□3BH - 9PB□180BH

* GEARHEAD MODEL :

9PF□3BH - 9PF□180BH

* GEARHEAD MODEL :

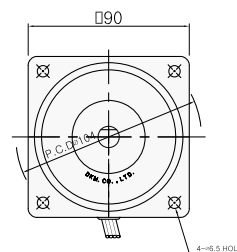
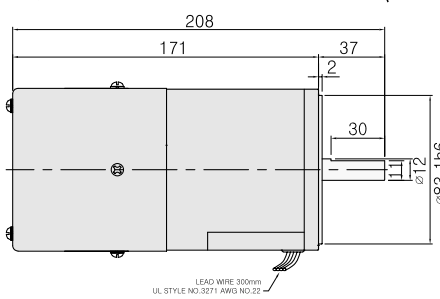
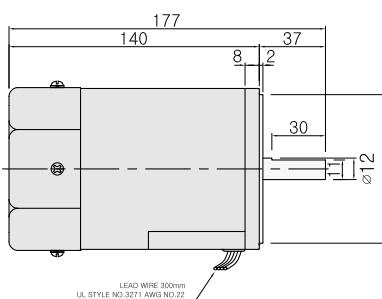
9HB□3BH - 9HB□180BH



◆ MOTOR ONLY

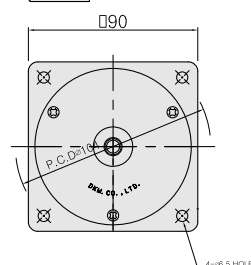
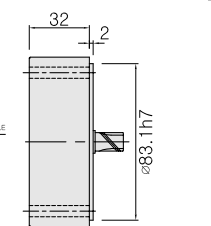
* MOTOR MODEL : 9ID□□-90F(GENERAL FAN)

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



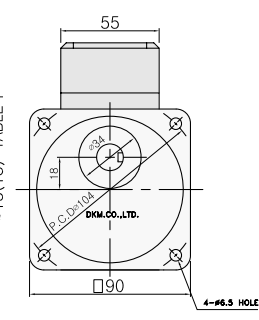
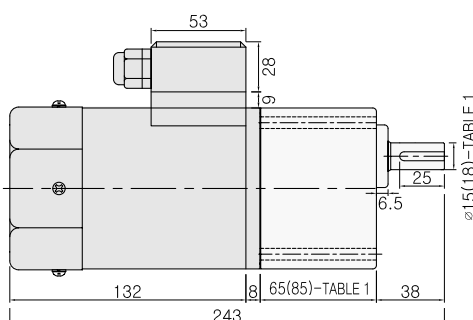
◆ INTER-DECIMAL GEARHEAD

* MODEL : 9XD10M□



TERMINAL BOX TYPE

* MOTOR MODEL :
9IDG□-90FP(H)-T (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

◆ 65(85)-TABLE1

SIZE(mm)	GEARHEAD TYPE
65 - φ15	P TYPE GEARHEAD
85 - φ18	H TYPE GEARHEAD

◆ KEY SPEC

MOTOR	GEARHEAD

◆ WEIGHT

PART		WEIGHT(Kg)	
MOTOR		3.0	
DECIMAL GEARHEAD		0.5	
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H)□□ 3BH - 9P(H)□□9BH	1.3	1.45
	9P(H)□□ 12.5BH - 9P(H)□□18BH	1.3	1.5
	9P(H)□□ 25BH - 9P(H)□□60BH	1.4	1.7
	9P(H)□□ 90BH - 9P(H)□□180BH	1.4	1.8

◆ GEARHEAD OUTPUT

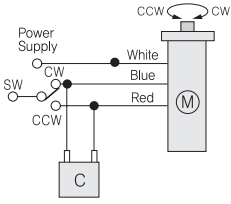
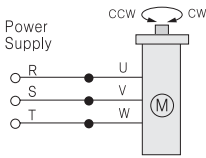
MODEL	P TYPE	H TYPE
ROUND TYPE		
9P(H)□S3BH ~9P(H)□S180BH		
D-CUT TYPE		
9P(H)□D3BH ~9P(H)□D180BH		
KEY TYPE		
9P(H)□K3BH ~9P(H)□K180BH		

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	18.5(22)
9IDG□-90□P(H)	
ROUND TYPE	
9IDS□-90□	
D-CUT TYPE	
9IDD□-90□	
KEY TYPE	
9IDK□-90□	

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

■ Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
 CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	 CCW : To change the rotation direction, change any connections between U,V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 120W

□90mm(3.54in.)

LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEADLEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEADTERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEADLEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model 9IDG□-120FP(H) : Pinion Shaft Type 9IDD□-120F : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mNm	oz-in	gfcM	mNm	oz-in	r/min	μF	VAC
TP 9IDG(D)A-120FP(H)	9IDG(D)A-120FP(H)-T	1/6	120	Single Phase 110	60	2.50	5900	590	83	7600	760	108	1550	25	250
TP 9IDG(D)B-120FP(H)	9IDG(D)B-120FP(H)-T			Single Phase 115	60										
TP 9IDG(D)C-120FP(H)	9IDG(D)C-120FP(H)-T			Single Phase 220	50	1.20	5900	590	83	9100	910	129	1300	6	400
TP 9IDG(D)D-120FP(H)	9IDG(D)D-120FP(H)-T			Single Phase 220	60										
TP 9IDG(D)E-120FP(H)	9IDG(D)E-120FP(H)-T			Single Phase 230	50										
TP 9IDG(D)F-120FP(H)	9IDG(D)F-120FP(H)-T			Single Phase 230	60	1.00	9300	930	132	7600	760	108	1550	-	-
TP 9IDG(D)G-120FP(H)	9IDG(D)G-120FP(H)-T			Three phase 220	50										
TP 9IDG(D)H-120FP(H)	9IDG(D)H-120FP(H)-T			Three phase 220	60										
TP 9IDG(D)I-120FP(H)	9IDG(D)I-120FP(H)-T			Three phase 230	50										
TP 9IDG(D)J-120FP(H)	9IDG(D)J-120FP(H)-T			Three phase 230	60	0.55	9300	930	132	9100	910	129	1300	-	-
TP 9IDG(D)K-120FP(H)	9IDG(D)K-120FP(H)-T			Three phase 380	50										
TP 9IDG(D)L-120FP(H)	9IDG(D)L-120FP(H)-T			Three phase 380	60	0.54	9300	930	132	7600	760	108	1550	-	-
TP 9IDG(D)M-120FP(H)	9IDG(D)M-120FP(H)-T			Three phase 400	50										
TP 9IDG(D)N-120FP(H)	9IDG(D)N-120FP(H)-T			Three phase 440	50										
TP 9IDG(D)O-120FP(H)	9IDG(D)O-120FP(H)-T			Three phase 440	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-120FP	9PBK□BH 9PFK□BH	kgf cm	17.5	18.7	22.5	31.2	37.4	46.8	56.1	70.2	84.2	101	114	126	152	182	200	200	200	200	200	200	200	200
		N.m	1.8	1.9	2.3	3.1	3.7	4.7	5.6	7.0	8.4	10.1	11.4	12.6	15	18	20	20	20	20	20	20	20	20
		lb-in	15.5	16.5	19.9	27.5	33.2	41.3	49.5	62.0	74	89	101	111	134	161	177	177	177	177	177	177	177	177
9IDG□-120FH	9HBK□BH	kgf cm	-	20.6	24.8	-	41.1	-	61.7	77.2	93	111	-	139	167	200	-	220	240	300	300	300	300	300
		N.m	-	2.1	2.5	-	4.1	-	6.2	7.7	9.3	11.1	-	13.9	16.7	20.0	-	22	24	30	30	30	30	30
		lb-in	-	18.2	21.9	-	36.3	-	54.5	68.2	81.8	98.1	-	122	148	177	-	194	212	265	265	265	265	265

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-120FP	9PBK□BH 9PFK□BH	kgf cm	22.0	23.2	27.8	37.8	46.4	58.0	69.6	87.0	104	125	140	156	188	200	200	200	200	200	200	200	200	200
		N.m	2.20	2.32	2.78	3.87	4.64	5.80	6.96	8.7	10.4	12.5	14.0	15.6	19	20	20	20	20	20	20	20	20	20
		lb-in	19.4	20.5	24.5	34.2	41.0	51.2	61.5	76.8	92	110	124	138	166	177	177	177	177	177	177	177	177	177
9IDG□-120FH	9HBK□BH	kgf cm	-	25.5	30.6	-	51.0	-	76.6	95.7	114	138	-	172	207	220	-	240	260	300	300	300	300	300
		N.m	-	2.6	3.1	-	5.1	-	7.7	9.6	11.4	13.8	-	17.2	20.7	22	-	24	26	30	30	30	30	30
		lb-in	-	22.5	27.0	-	45.1	-	67.6	84.5	101	121	-	152	182	194	-	212	230	265	265	265	265	265

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

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

■ Dimension

- LEAD WIRE TYPE

◆ GEARED MOTOR

* MOTOR MODEL : 9IDG □ -120FP(H) (GENERAL FAN)

* GEARHEAD MODEL:

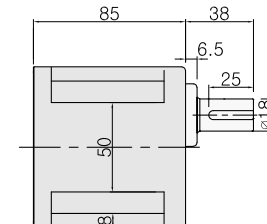
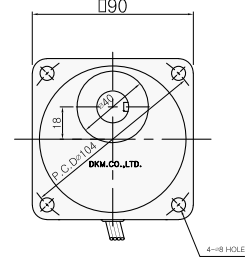
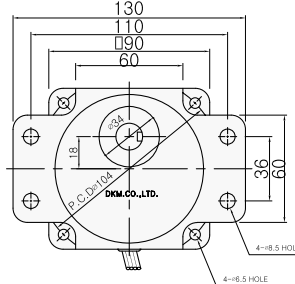
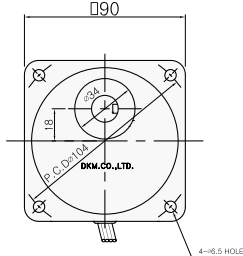
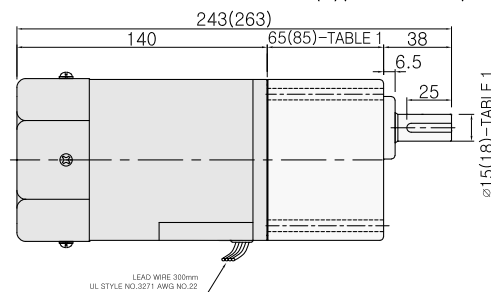
9PB □ 3BH - 9PB □ 180BH

* GEARHEAD MODEL:

9PF □ 3BH - 9PF □ 180BH

* GEARHEAD MODEL:

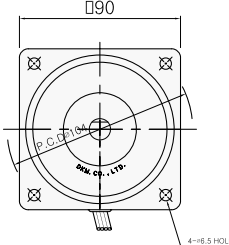
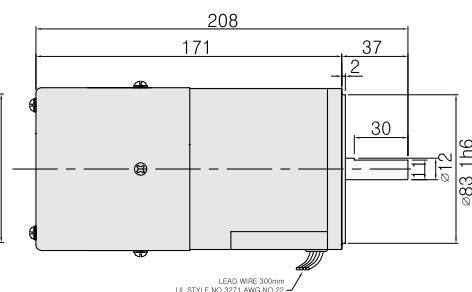
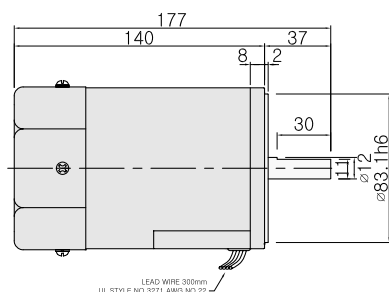
9HB □ 3BH - 9HB □ 180BH



◆ MOTOR ONLY

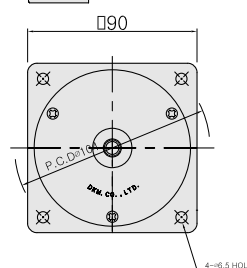
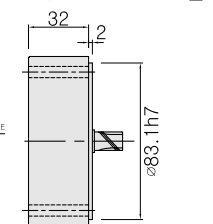
* MOTOR MODEL : 9ID□□-120F (GENERAL FAN)

* MOTOR MODEL : 9ID□□-120F2 (POWERFUL FAN)



◆ INTER-DECIMAL GEARHEAD

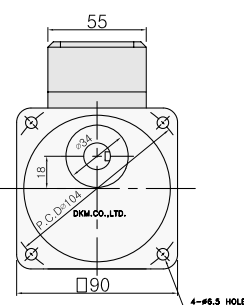
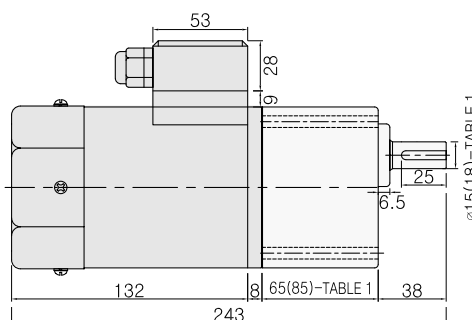
* MODEL : 9XD10M□



- TERMINAL BOX TYPE

* MOTOR MODEL :

9IDG□-120FP(H)-T (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

◆ 65(85)-TABLE 1

SIZE(mm)	GEARHEAD TYPE
65 - $\varnothing 15$	P TYPE GEARHEAD
85 - $\varnothing 18$	H TYPE GEARHEAD

◆ KEY SPEC

MOTOR	GEARHEAD

◆ WEIGHT

PART		WEIGHT(Kg)	
MOTOR		3.0	
DECIMAL GEARHEAD		0.5	
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H)□□3BH - 9P(H)□□9BH	1.3	1.45
	9P(H)□□12.5BH - 9P(H)□□18BH	1.3	1.5
	9P(H)□□25BH - 9P(H)□□60BH	1.4	1.7
	9P(H)□□90BH - 9P(H)□□180BH	1.4	1.8

◆ GEARHEAD OUTPUT

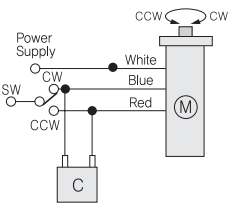
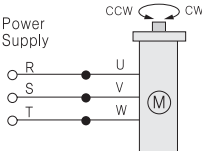
MODEL	P TYPE	H TYPE
ROUND TYPE		
9P(H)□S3BH ~9P(H)□S180BH		
D-CUT TYPE		
9P(H)□D3BH ~9P(H)□D180BH		
KEY TYPE		
9P(H)□K3BH ~9P(H)□K180BH		

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	18.5(22) 
9IDG□-120□ P(H)	* 18.5 : P TYPE 22 : H TYPE
ROUND TYPE	37 
9IDS□-120□	37 
D-CUT TYPE	37 30 113 
9IDD□-120□	37 25 
KEY TYPE	37 25 
9IDK□-120□	37 25 

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

■ Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
 CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	 CCW : To change the rotation direction, change any connections between U,V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 150W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model 9IDG□-150FP(H) : Pinion Shaft Type 9IDD□-150F : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
TP 9IDG(D)G-150FP(H)	9IDG(D)G-150FP(H)-T	1/5	150	Three phase 220	50	1.02	11400	1140	161	11000	1100	156	1300	—	—
TP 9IDG(D)H-150FP(H)	9IDG(D)H-150FP(H)-T			Three phase 220	60					9300	930	132	1550		
TP 9IDG(D)I-150FP(H)	9IDG(D)I-150FP(H)-T			Three phase 230	50					11000	1100	156	1300		
TP 9IDG(D)J-150FP(H)	9IDG(D)J-150FP(H)-T			Three phase 230	60					9300	930	132	1550		
TP 9IDG(D)K-150FP(H)	9IDG(D)K-150FP(H)-T			Three phase 380	50	0.66	11400	1140	161	11000	1100	156	1300	—	—
TP 9IDG(D)L-150FP(H)	9IDG(D)L-150FP(H)-T			Three phase 380	60					9300	930	132	1550		
TP 9IDG(D)M-150FP(H)	9IDG(D)M-150FP(H)-T			Three phase 400	50	0.54	11400	1140	161	11000	1100	156	1300	—	—
TP 9IDG(D)N-150FP(H)	9IDG(D)N-150FP(H)-T			Three phase 440	50					11000	1100	156	1300		
TP 9IDG(D)O-150FP(H)	9IDG(D)O-150FP(H)-T			Three phase 440	60					9300	930	132	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-150FP	9PBK□BH 9PFK□BH	kgf cm	19	23.2	27.8	38.7	46.4	58.0	69.6	87	104	125	135	156	188	200	200	200	200	200	200	200	200	200
		N.m	1.9	2.3	2.8	3.9	4.6	5.8	7.0	8.7	10.4	12.5	13.5	15.6	19	20	20	20	20	20	20	20	20	20
		lb-in	17	20	25	34	41	51	61	77	92	110	119	138	166	177	177	177	177	177	177	177	177	177
9IDG□-150FH	9HBK□BH	kgf cm	-	25.5	30.6	-	51.0	-	76.6	96	114	138	-	172	207	225	-	300	300	300	300	300	300	300
		N.m	-	2.6	3.1	-	5.1	-	7.7	9.6	11.4	13.8	-	17.2	20.7	23	-	30	30	30	30	30	30	30
		lb-in	-	23	27	-	45	-	68	85	101	121	-	152	183	199	-	265	265	265	265	265	265	265

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG□-150FP	9PBK□BH 9PFK□BH	kgf cm	24	29	34	48	58	72	86	108	129	155	167	193	200	200	200	200	200	200	200	200	200	200
		N.m	2.4	2.9	3.4	4.8	5.8	7.2	8.6	10.8	12.9	15.5	16.7	19.3	20	20	20	20	20	20	20	20	20	20
		lb-in	21	25	30	42	51	64	76	95	114	137	148	171	177	177	177	177	177	177	177	177	177	177
9IDG□-150FH	9HBK□BH	kgf cm	-	31.6	37.9	-	63.3	-	94.9	119	142	171	-	213	220	250	-	300	300	300	300	300	300	300
		N.m	-	3.2	3.8	-	6.3	-	9.5	11.9	14.2	17.1	-	21	22	25	-	30	30	30	30	30	30	30
		lb-in	-	28	33	-	56	-	84	105	125	151	-	188	194	221	-	265	265	265	265	265	265	265

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

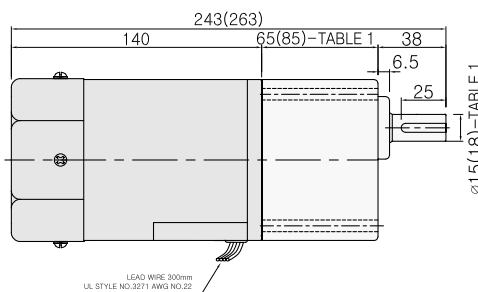
* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 200kgfcm (P type) / 300kgfcm (H type).

Dimension

LEAD WIRE TYPE

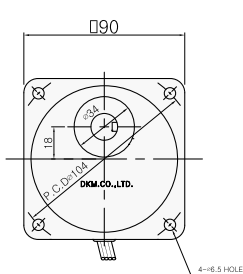
GEARED MOTOR

* MOTOR MODEL : 9IDG□-150FP(H)(GENERAL FAN)



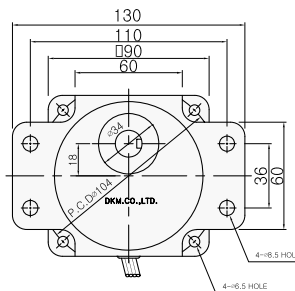
* GEARHEAD MODEL :

9PB□3BH - 9PB□180BH



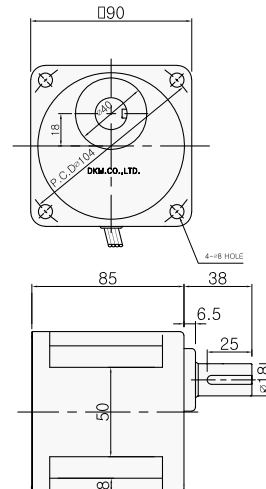
* GEARHEAD MODEL :

9PF□3BH - 9PF□180BH



* GEARHEAD MODEL :

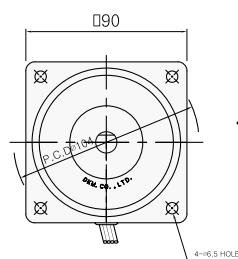
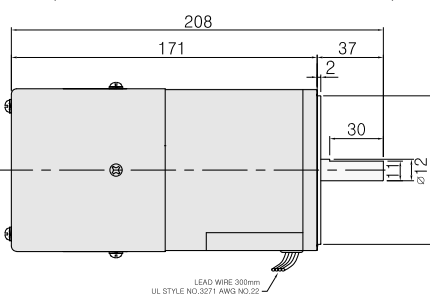
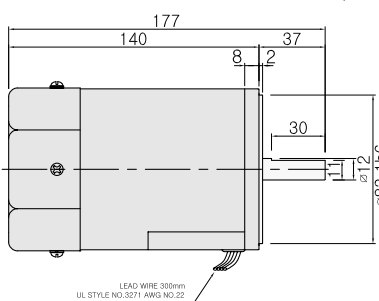
9HB□3BH - 9HB□180BH



MOTOR ONLY

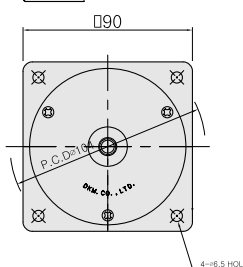
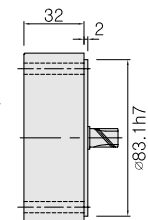
* MOTOR MODEL : 9ID□□-150F(GENERAL FAN)

* MOTOR MODEL : 9ID□□-150F2(POWERFUL FAN)



INTER-DECIMAL GEARHEAD

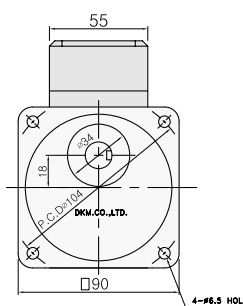
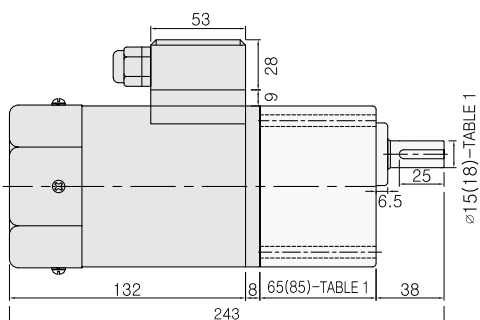
* MODEL : 9XD10M□



TERMINAL BOX TYPE

* MOTOR MODEL :

9IDG□-150FP(H)-T(GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

65(85)-TABLE1

SIZE(mm)	GEARHEAD TYPE
65 - φ15	P TYPE GEARHEAD
85 - φ18	H TYPE GEARHEAD

KEY SPEC

MOTOR	GEARHEAD

WEIGHT

PART		WEIGHT(Kg)	
MOTOR		3.0	
DECIMAL GEARHEAD		0.5	
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H)□□ 3BH - 9P(H)□□9BH	1.3	1.45
	9P(H)□□ 12.5BH - 9P(H)□□18BH	1.3	1.5
	9P(H)□□ 25BH - 9P(H)□□60BH	1.4	1.7
	9P(H)□□ 90BH - 9P(H)□□180BH	1.4	1.8

GEARHEAD OUTPUT

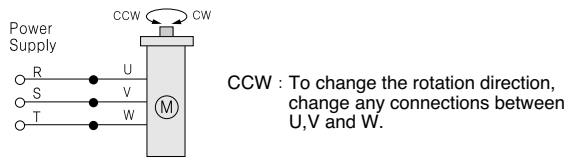
MODEL	P TYPE	H TYPE
ROUND TYPE		
D-CUT TYPE		
KEY TYPE		
9P(H)□□K3BH ~9P(H)□□K180BH		

MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	
ROUND TYPE	
D-CUT TYPE	
KEY TYPE	
9IDK□-150□	

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

■ Connection Diagrams



- 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.

INDUCTION MOTOR

180W

□90mm(3.54in.)

LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEADLEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEADTERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEADLEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model 9IDG□-180FP(H) : Pinion Shaft Type 9IDD□-180F : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
(TP) 9IDG(D)C-180FP(H)	9IDG(D)C-180FP(H)-T	1/4	180	Single Phase 220	50	1.40	7000	700	99	13500	1350	191	1300	6.5	400
(TP) 9IDG(D)D-180FP(H)	9IDG(D)D-180FP(H)-T			Single Phase 220	60					11300	1130	108	1550		
(TP) 9IDG(D)E-180FP(H)	9IDG(D)E-180FP(H)-T			Single Phase 230	50					13500	1350	191	1300		
(TP) 9IDG(D)F-180FP(H)	9IDG(D)F-180FP(H)-T			Single Phase 230	60					11300	1130	108	1550		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDG2-180FP	9PBK□BH 9PFK□BH	kgf cm	22	27	32	45	54	67	80	100	120	152	171	189	200	200	200	200	200	200	200	200	200	200
		N.m	2.2	2.7	3.2	4.5	5.4	6.7	8.0	10	12	15	17	19	20	20	20	20	20	20	20	20	20	20
		lb-in	19	24	29	39	48	60	71	88	106	134	151	167	177	177	177	177	177	177	177	177	177	177
9IDG2-180FH	9HBK□BH	kgf cm	-	28	34	-	57	-	84	105	126	160	-	210	227	273	-	300	300	300	300	300	300	300
		N.m	-	2.8	3.4	-	5.7	-	8.4	11	13	16	-	21	23	27	-	30	30	30	30	30	30	30
		lb-in	-	25	30	-	50	-	74	93	111	141	-	185	200	241	-	265	265	265	265	265	265	265

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
9IDGC-180FP	9PBK□BH 9PFK□BH	kgf cm	25	32	39	54	65	81	97	122	145	200	200	200	200	200	200	200	200	200	200	200	200	200
		N.m	2.5	3.2	3.9	5.4	6.5	8.1	9.7	12	15	19	20	20	20	20	20	20	20	20	20	20	20	20
		lb-in	22	29	34	48	57	71	86	107	128	168	177	177	177	177	177	177	177	177	177	177	177	177
9IDGC-180FH	9HBK□BH	kgf cm	-	34	41	-	68	-	105	128	153	200	-	230	287	300	-	300	300	300	300	300	300	300
		N.m	-	3.4	4.1	-	6.8	-	10.5	13	15	20	-	23	28	30	-	30	30	30	30	30	30	30
		lb-in	-	30	36	-	60	-	90	113	135	177	-	203	245	265	-	265	265	265	265	265	265	265

* Enter the gear ratio in the box (□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

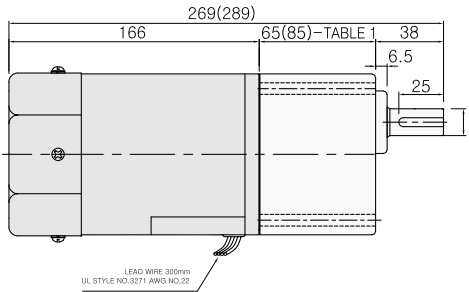
* If more slow speed is needed than above value, use decimal gearhead with a gear ratio of 10:1 could be used between general gearhead and motor. Even in this case, just speed will be reduced without increase in permissible torque; the maximum permissible torque is 200kgfcm (P type) / 300kgfcm (H type).

Dimension

LEAD WIRE TYPE

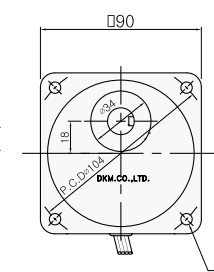
GEARED MOTOR

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



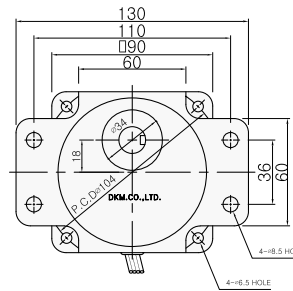
* GEARHEAD MODEL :

9PB□3BH - 9PB□180BH



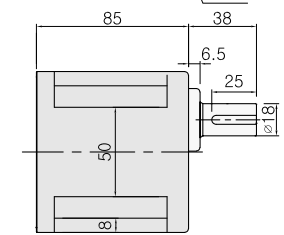
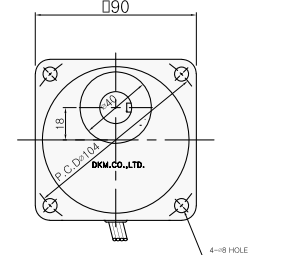
* GEARHEAD MODEL :

9PF□3BH - 9PF□180BH



* GEARHEAD MODEL :

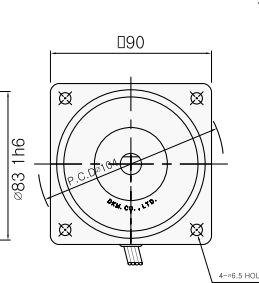
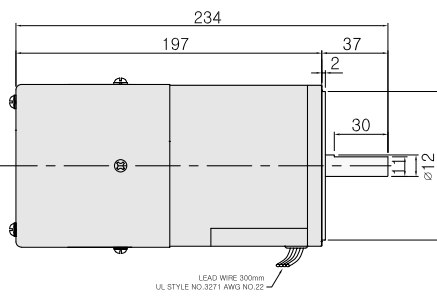
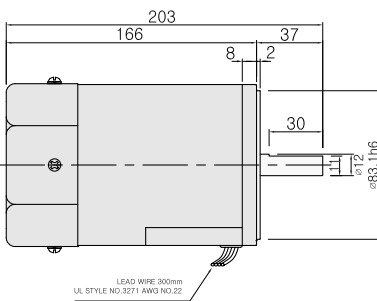
9HB□3BH - 9HB□180BH



MOTOR ONLY

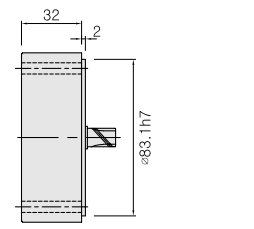
* MOTOR MODEL : 9ID□□-180F(GENERAL FAN)

* MOTOR MODEL : 9ID□□-180F2(POWERFUL FAN)



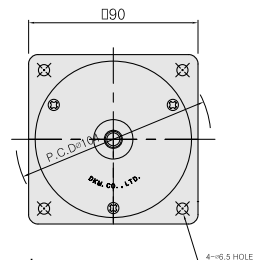
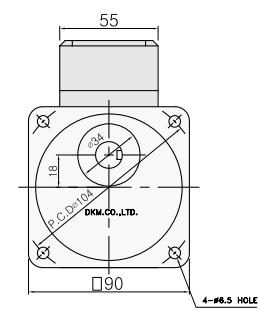
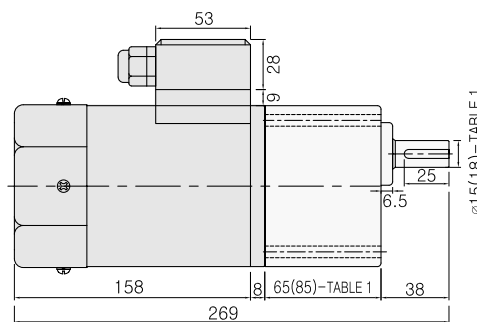
INTER-DECIMAL GEARHEAD

* MODEL : 9XD10M□



TERMINAL BOX TYPE

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



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

65(85)-TABLE 1

SIZE(mm)	GEARHEAD TYPE
65 - φ15	P TYPE GEARHEAD
85 - φ18	H TYPE GEARHEAD

KEY SPEC

MOTOR	GEARHEAD

WEIGHT

PART		WEIGHT(Kg)	
MOTOR		3.8	
DECIMAL GEARHEAD		0.5	
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H)□□ 3BH - 9P(H)□□9BH	1.3	1.45
	9P(H)□□ 12.5BH - 9P(H)□□18BH	1.3	1.5
	9P(H)□□ 25BH - 9P(H)□□60BH	1.4	1.7
	9P(H)□□ 90BH - 9P(H)□□180BH	1.4	1.8

GEARHEAD OUTPUT

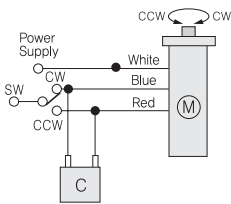
MODEL	P TYPE	H TYPE
ROUND TYPE		
D-CUT TYPE		
KEY TYPE		

MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	
ROUND TYPE	
D-CUT TYPE	
KEY TYPE	

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

■ Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
 CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclockwise (CCW) direction, flip switch SW to CCW.	Not Available

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

INDUCTION MOTOR 200W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR
+ PB TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ PF TYPE GEARHEAD



TERMINAL BOX TYPE MOTOR
+ PF TYPE GEARHEAD



LEAD WIRE TYPE MOTOR
+ HB TYPE GEARHEAD

Motor Specification



Model 91DG□-200FP(H) : Pinion Shaft Type 91DD□-200F : D-Cut Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque g/cm mN.m oz-in	Rated Torque g/cm mN.m oz-in	Rated Speed r/min	Capacitor μF VAC
Lead Wire Type	Terminal Box Type								
TP 91DG(D)G-200FP(H)	91DG(D)G-200FP(H)-T	1/4 200	Three phase 220	50	1.60	14500 1450 205	15000 1500 212	1300	— —
TP 91DG(D)H-200FP(H)	91DG(D)H-200FP(H)-T		Three phase 220	60			12500 1250 177	1550	
TP 91DG(D)I-200FP(H)	91DG(D)I-200FP(H)-T		Three phase 230	50			15000 1500 212	1300	
TP 91DG(D)J-200FP(H)	91DG(D)J-200FP(H)-T		Three phase 230	60			12500 1250 177	1550	
TP 91DG(D)K-200FP(H)	91DG(D)K-200FP(H)-T		Three phase 380	50	0.90	14500 1450 205	15000 1500 212	1300	— —
TP 91DG(D)L-200FP(H)	91DG(D)L-200FP(H)-T		Three phase 380	60			12500 1250 177	1550	
TP 91DG(D)M-200FP(H)	91DG(D)M-200FP(H)-T		Three phase 400	50	0.68	14500 1450 205	15000 1500 212	1300	— —
TP 91DG(D)N-200FP(H)	91DG(D)N-200FP(H)-T		Three phase 440	50			15000 1500 212	1300	
TP 91DG(D)O-200FP(H)	91DG(D)O-200FP(H)-T		Three phase 440	60			12500 1250 177	1550	

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'Pinion Shaft' is for attaching gearhead and 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Permissible Torque When using gearhead

60Hz

Model	speed RPM (r/min)	900	600	500	360	300	240	200	144	120	100	90	72	60	50	45	36	30	24	20	18	15	12	10
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
91DG□-200FP	9PBK□BH 9PFK□BH	kgf cm	28	30	36	51	61	76	91	114	137	164	200	200	200	200	200	200	200	200	200	200	200	200
		N.m	2.8	3	4	5	6	8	9	11	14	16	20	20	20	20	20	20	20	20	20	20	20	20
		lb-in	25	27	32	45	54	67	81	101	121	145	177	177	177	177	177	177	177	177	177	177	177	177
91DG□-200FH	9HBK□BH	kgf cm	-	32	38.3	-	64	-	96	120	144	173	-	216	259	300	-	300	300	300	300	300	300	300
		N.m	-	3	4	-	6	-	10	12	14	17	-	22	26	30	-	30	30	30	30	30	30	30
		lb-in	-	28	34	-	57	-	85	106	127	153	-	191	229	265	-	265	265	265	265	265	265	265

50Hz

Model	speed RPM (r/min)	750	500	417	300	250	200	167	120	100	83	75	60	50	42	38	30	25	20	17	15	13	10	8
Motor/Gearhead	Gear Ratio	2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
91DG□-200FP	9PBK□BH 9PFK□BH	kgf cm	33	37	45	62	74	92	111	139	166	200	200	200	200	200	200	200	200	200	200	200	200	200
		N.m	3.3	4	4	6	7	9	11	14	17	20	20	20	20	20	20	20	20	20	20	20	20	20
		lb-in	29	33	39	54	65	82	98	122	147	176	177	177	177	177	177	177	177	177	177	177	177	177
91DG□-200FH	9HBK□BH	kgf cm	-	39	47	-	78	-	117	146	175	210	-	262	300	300	-	300	300	300	300	300	300	300
		N.m	-	4	5	-	8	-	12	15	18	21	-	26	30	30	-	30	30	30	30	30	30	30
		lb-in	-	34	42	-	69	-	103	129	155	185	-	231	265	265	-	265	265	265	265	265	265	265

* Enter the gear ratio in the box(□) within the gearhead model name. A colored background indicates gear shaft rotation in the same direction as the motor shaft ; a white background indicates rotation in the opposite direction.

* The speed is calculated by dividing the motor's synchronous speed (50Hz : 1500 r/min, 60 Hz : 1800 r/min) by the gear ratio.

* The actual speed is 2~20% less than the displayed value, depending on the size of the load.

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

Dimension

LEAD WIRE TYPE

◆ GEARED MOTOR

* MOTOR MODEL : 9IDG□-200FP(H) (GENERAL FAN)

* GEARHEAD MODEL :

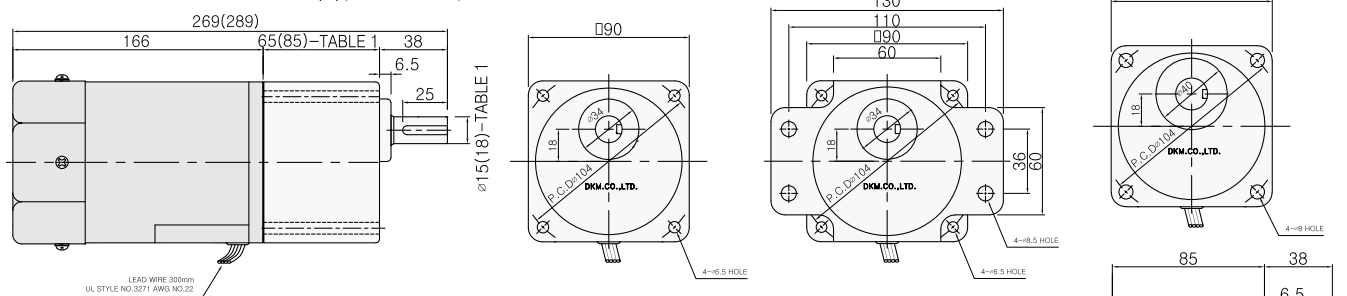
9PB□3BH - 9PB□180BH

* GEARHEAD MODEL :

9PF□3BH - 9PF□180BH

* GEARHEAD MODEL :

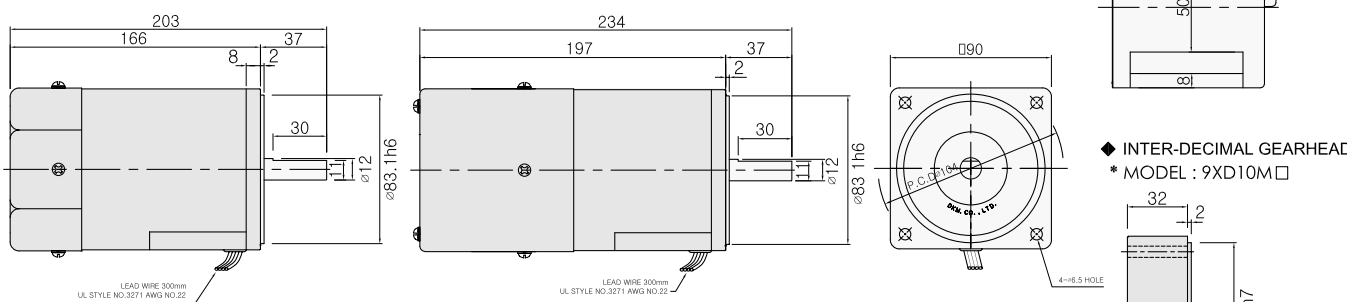
9HB□3BH - 9HB□180BH



◆ MOTOR ONLY

* MOTOR MODEL : 9ID□□-200F (GENERAL FAN)

* MOTOR MODEL : 9ID□□-200F2 (POWERFUL FAN)



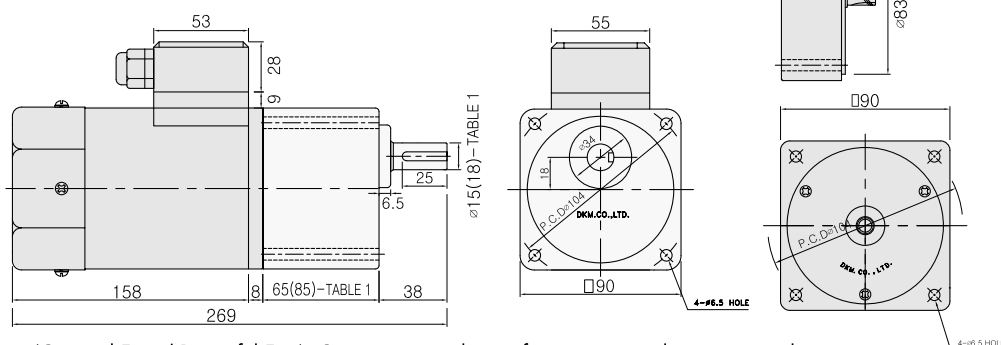
◆ INTER-DECIMAL GEARHEAD

* MODEL : 9XD10M□

TERMINAL BOX TYPE

* MOTOR MODEL :

9IDG□-200FP(H)-T (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan). Customer can choose fan type according to wanted rating time.

◆ 65(85)-TABLE 1

SIZE(mm)	GEARHEAD TYPE
65 - φ15	P TYPE GEARHEAD
85 - φ18	H TYPE GEARHEAD

◆ KEY SPEC

MOTOR	GEARHEAD

◆ WEIGHT

PART		WEIGHT(Kg)	
MOTOR		3.8	
DECIMAL GEARHEAD		0.5	
GEAR HEAD	GEARHEAD TYPE	P TYPE	H TYPE
	9P(H)□□ 3BH - 9P(H)□□9BH	1.3	1.45
	9P(H)□□ 12.5BH - 9P(H)□□18BH	1.3	1.5
	9P(H)□□ 25BH - 9P(H)□□60BH	1.4	1.7
	9P(H)□□ 90BH - 9P(H)□□180BH	1.4	1.8

◆ GEARHEAD OUTPUT

MODEL	P TYPE	H TYPE
ROUND TYPE		
9P(H)□□S3BH ~9P(H)□□S180BH		
D-CUT TYPE		
9P(H)□□D3BH ~9P(H)□□D180BH		
KEY TYPE		
9P(H)□□K3BH ~9P(H)□□K180BH		

◆ MOTOR OUTPUT

MODEL	SHAFT
GEAR TYPE	
9IDG□-200□P(H)	
ROUND TYPE	
9IDS□-200□	
D-CUT TYPE	
9IDD□-200□	
KEY TYPE	
9IDK□-200□	

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

Connection Diagrams

Please refer to page 38.

2 POLE MOTOR



■ INDEX

15W (□80mm)	46
25W (□80mm)	48
40W (□90mm)	50
60W (□90mm)	52
90W (□90mm)	54
120W (□90mm)	56
150W (□90mm)	58
200W (□90mm)	60

2 POLE MOTOR 15W

□80mm(3.12in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 8IDS□-15-A : Round Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type					gfcM	mN.m	oz-in	gfcM	mN.m	oz-in		μF	VAC
TP 8IDSA-15-A	8IDSA-15-A-T	1/50 15	Single Phase 110	60	0.40	500	50	7	700	70	10	3200	6.0	250
TP 8IDSB-15-A	8IDSB-15-A-T		Single Phase 115	60										
TP 8IDSC-15-A	8IDSC-15-A-T		Single Phase 220	50	0.25	500	50	7	840	84	12	2600		
TP 8IDSD-15-A	8IDSD-15-A-T		Single Phase 220	60										
TP 8IDSE-15-A	8IDSE-15-A-T		Single Phase 230	50										
TP 8IDSF-15-A	8IDSF-15-A-T		Single Phase 230	60										
TP 8IDSG-15-A	8IDSG-15-A-T		Three Phase 220	50	0.25	600	60	8.5	700	70	10	2600	—	
TP 8IDSH-15-A	8IDSH-15-A-T		Three Phase 220	60								3200		
TP 8IDSI-15-A	8IDSI-15-A-T		Three Phase 230	50								2600		
TP 8IDSJ-15-A	8IDSJ-15-A-T		Three Phase 230	60								3200		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

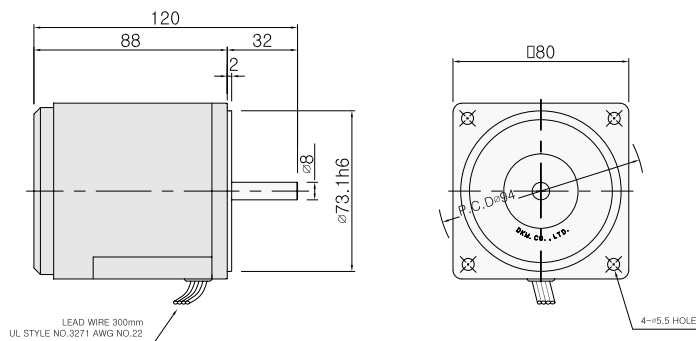
* 'Round Shaft' is for using motor only.

ⓉP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

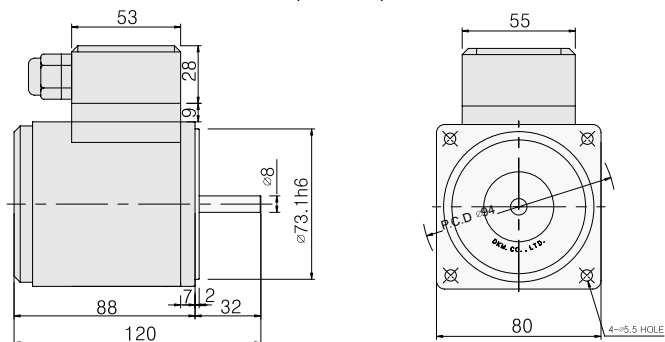
● LEAD WIRE TYPE

* MOTOR MODEL : 8ID□□-15-A (NO FAN)

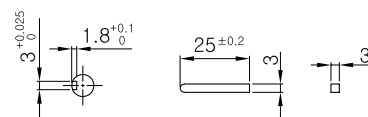


● TERMINAL BOX TYPE

* MOTOR MODEL : 8ID□□-15-AT(NO FAN)



◆ KEY SPEC



◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.6

◆ MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	32 ★ 8
8IDS□-15-A	32 25 7-0.1 8
D-CUT TYPE	32 25 7-0.1 8
8IDD□-15-A	32 25 7-0.1 8
KEY TYPE	32 25 8
8IDK□-15-A	32 25 8

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

Connection Diagrams

Please refer to page 53.

2 POLE MOTOR 25W

□80mm(3.12in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 8IDS□-25-A : Round Shaft Type		Output		Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W				gcm	mN.m	oz-in	gcm	mN.m	oz-in		μF	VAC
ⒾP 8IDSA-25-A	8IDSA-25-A-T	1/30	25	Single Phase 110	60	0.50	600	60	8	900	90	13	3200	6.0	250
ⒾP 8IDSB-25-A	8IDSB-25-A-T			Single Phase 115	60										
ⒾP 8IDSC-25-A	8IDSC-25-A-T			Single Phase 220	50	0.30	600	60	8	1000	100	14	2600	2.5	400
ⒾP 8IDSD-25-A	8IDSD-25-A-T			Single Phase 220	60										
ⒾP 8IDSE-25-A	8IDSE-25-A-T			Single Phase 230	50										
ⒾP 8IDSF-25-A	8IDSF-25-A-T			Single Phase 230	60										
ⒾP 8IDSG-25-A	8IDSG-25-A-T			Three Phase 220	50	0.30	70	70	10	1000	100	14	2600 3200 2600 3200	-	
ⒾP 8IDSH-25-A	8IDSH-25-A-T			Three Phase 220	60										
ⒾP 8IDSI-25-A	8IDSI-25-A-T			Three Phase 230	50										
ⒾP 8IDSJ-25-A	8IDSJ-25-A-T			Three Phase 230	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

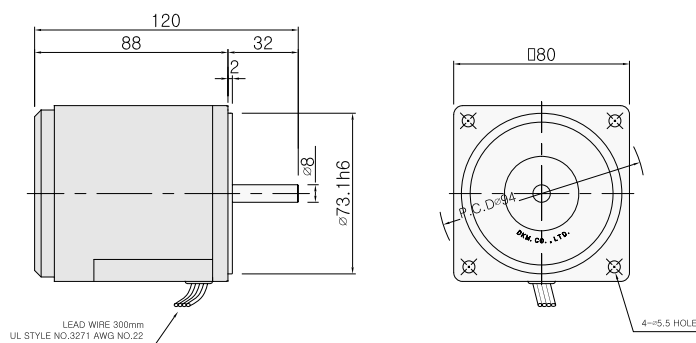
* 'Round Shaft' is for using motor only.

ⒾP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

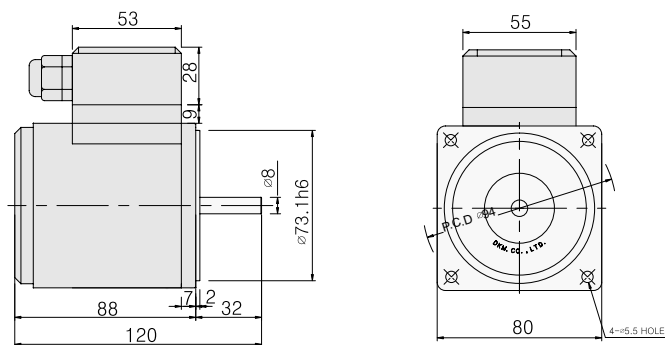
● LEAD WIRE TYPE

* MOTOR MODEL : 8ID□□-25-A (NO FAN)

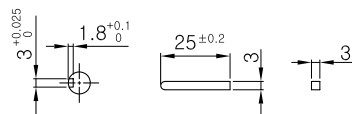


● TERMINAL BOX TYPE

* MOTOR MODEL : 8ID□□-25-AT(No FAN)



◆ KEY SPEC



◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	1.6

◆ MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	32mm diameter shaft with a star symbol indicating a basic dimension.
8IDS□-25-A	32mm diameter shaft with a star symbol indicating a basic dimension.
D-CUT TYPE	32mm diameter shaft with a 25mm diameter hole and a 7mm diameter hole.
8IDD□-25-A	32mm diameter shaft with a 25mm diameter hole and a 7mm diameter hole.
KEY TYPE	32mm diameter shaft with a 25mm diameter hole and a 7mm diameter hole.
8IDK□-25-A	32mm diameter shaft with a 25mm diameter hole and a 7mm diameter hole.

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

Connection Diagrams

Please refer to page 53.

2 POLE MOTOR 40W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-40-A : D-Cut Shaft Type		Output HP W	Voltage VAC	Freq. Hz	Current A	Starting Torque			Rated Torque			Rated Speed r/min	Capacitor	
Lead Wire Type	Terminal Box Type					g/cm	mN.m	oz-in	g/cm	mN.m	oz-in		μF	VAC
Ⓓ 9IDDA-40-A	9IDDA-40-A-T	1/15 40	Single Phase 110	60	0.8	900	90	13	1350	135	19	3200	16	250
Ⓓ 9IDDB-40-A	9IDDB-40-A-T		Single Phase 115	60										
Ⓓ 9IDDC-40-A	9IDDC-40-A-T		Single Phase 220	50					1620	162	23	2600		
Ⓓ 9IDDD-40-A	9IDDD-40-A-T		Single Phase 220	60	0.4	900	90	13	1350	135	19	3200	4.0	400
Ⓓ 9IDDE-40-A	9IDDE-40-A-T		Single Phase 230	50					1620	162	23	2600		
Ⓓ 9IDDF-40-A	9IDDF-40-A-T		Single Phase 230	60					1350	135	19	3200		
Ⓓ 9IDDG-40-A	9IDDG-40-A-T		Three Phase 220	50	0.40	1350	135	19	1620	162	23	2600	-	-
Ⓓ 9IDDH-40-A	9IDDH-40-A-T		Three Phase 220	60					1350	135	19	3200		
Ⓓ 9IDDI-40-A	9IDDI-40-A-T		Three Phase 230	50					1620	162	23	2600		
Ⓓ 9IDDJ-40-A	9IDDJ-40-A-T		Three Phase 230	60					1350	135	19	3200		
Ⓓ 9IDDK-40-A	9IDDK-40-A-T		Three Phase 380	50	0.22	1350	135	19	1620	162	23	2600	-	-
Ⓓ 9IDDL-40-A	9IDDL-40-A-T		Three Phase 380	60					1350	135	19	3200		
Ⓓ 9IDDM-40-A	9IDDM-40-A-T		Three Phase 400	50	0.18	1350	135	19	1620	162	23	2600	-	-
Ⓓ 9IDDN-40-A	9IDDN-40-A-T		Three Phase 440	50					1620	162	23	2600		
Ⓓ 9IDDO-40-A	9IDDO-40-A-T		Three Phase 440	60					1350	135	19	3200		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

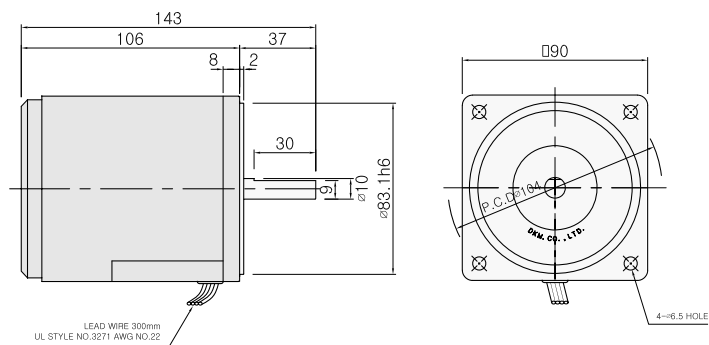
* 'D-Cut Shaft' is for using motor only.

Ⓓ : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

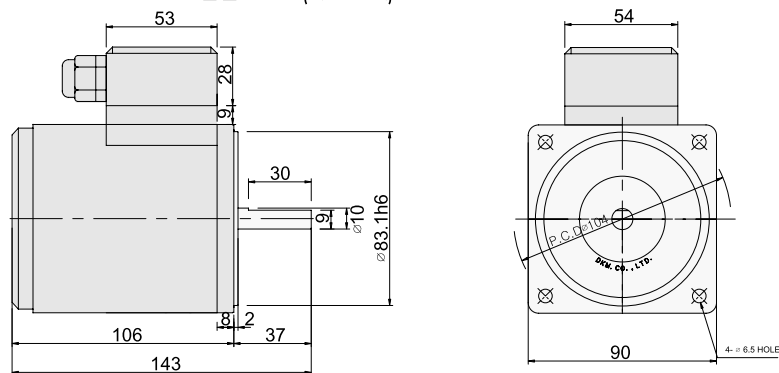
● LEAD WIRE TYPE

* MOTOR MODEL : 9ID□□-40-A (NO FAN)

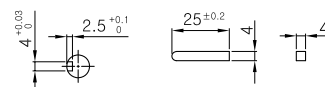


● TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-40-AT(NO FAN)



◆ KEY SPEC



◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	2.4

◆ MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37 $\phi 10$
9IDS□-40-A	37 $\phi 10$
D-CUT TYPE	37 30 9 ± 0.1 $\phi 10$ ★
9IDD□-40-A	37 30 9 ± 0.1 $\phi 10$
KEY TYPE	37 25 $\phi 10$
9IDK□-40-A	37 25 $\phi 10$

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

Connection Diagrams

Please refer to page 53.

2 POLE MOTOR 60W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-60F-A : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
TP 9IDDA-60F-A	9IDDA-60F-A-T	1/12	60	Single Phase 110	60	1.20	1200	120	17	1900	190	27	3200	20	250
TP 9IDDB-60F-A	9IDDB-60F-A-T			Single Phase 115	60										
TP 9IDDC-60F-A	9IDDC-60F-A-T			Single Phase 220	50	0.60	1200	120	17	2200	220	31	2600	5.0	400
TP 9IDDD-60F-A	9IDDD-60F-A-T			Single Phase 220	60										
TP 9IDDE-60F-A	9IDDE-60F-A-T			Single Phase 230	50										
TP 9IDDE-60F-A	9IDDE-60F-A-T			Single Phase 230	60										
TP 9IDDF-60F-A	9IDDF-60F-A-T			Single Phase 230	60										
TP 9IDDG-60F-A	9IDDG-60F-A-T			Three Phase 220	50	0.60	1800	180	25	2200	220	31	2600	-	-
TP 9IDDH-60F-A	9IDDH-60F-A-T			Three Phase 220	60										
TP 9IDDI-60F-A	9IDDI-60F-A-T			Three Phase 230	50										
TP 9IDDI-60F-A	9IDDI-60F-A-T			Three Phase 230	60										
TP 9IDDJ-60F-A	9IDDJ-60F-A-T			Three Phase 230	60										
TP 9IDDK-60F-A	9IDDK-60F-A-T			Three Phase 380	50	0.38	1800	180	25	2200	220	31	2600	-	-
TP 9IDDL-60F-A	9IDDL-60F-A-T			Three Phase 380	60										
TP 9IDDM-60F-A	9IDDM-60F-A-T			Three Phase 400	50	0.27	1800	180	25	2200	220	31	2600	-	-
TP 9IDDN-60F-A	9IDDN-60F-A-T			Three Phase 440	50										
TP 9IDDO-60F-A	9IDDO-60F-A-T			Three Phase 440	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'D-Cut Shaft' is for using motor only.

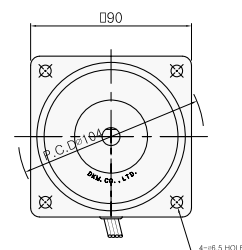
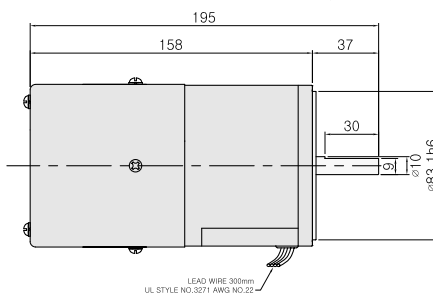
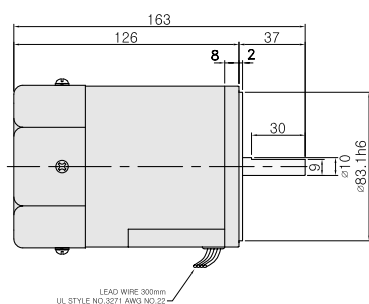
TP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

LEAD WIRE TYPE

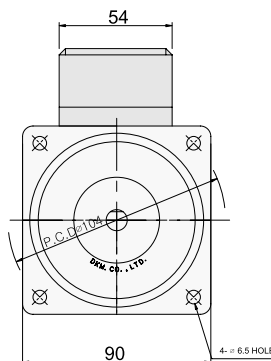
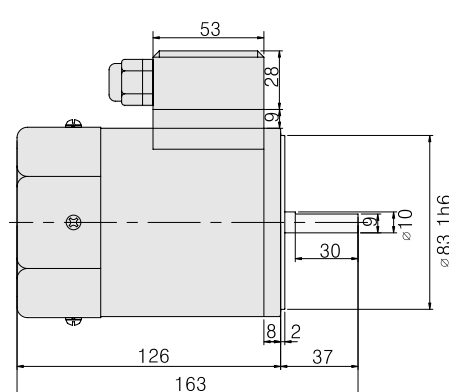
* MOTOR MODEL : 9ID□□-60F-A (GENERAL FAN)

* MOTOR MODEL : 9ID□□-60F2-A (POWERFUL FAN)



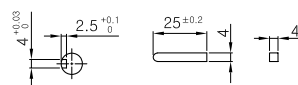
TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-60F-AT (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

KEY SPEC



WEIGHT

PART	WEIGHT(Kg)
MOTOR	2.6

MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37
9IDS□-60□-A	10
D-CUT TYPE	37
9IDD□-60□-A	30
KEY TYPE	37
9IDK□-60□-A	25

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

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclock wise (CCW) direction, flip switch SW to CCW.	CCW : To change the rotation direction, change any connections between U, V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

2 POLE MOTOR 90W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-90F-A : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
ⓉP 9IDDA-90F-A	9IDDA-90F-A-T	1/8	90	Single Phase 110	60	2.00	2200	220	31	2800	280	40	3200	25	250
ⓉP 9IDDB-90F-A	9IDDB-90F-A-T			Single Phase 115	60										
ⓉP 9IDDC-90F-A	9IDDC-90F-A-T			Single Phase 220	50	1.00	2200	220	31	3420	342	48	2600	6.0	400
ⓉP 9IDDD-90F-A	9IDDD-90F-A-T			Single Phase 220	60										
ⓉP 9IDDE-90F-A	9IDDE-90F-A-T			Single Phase 230	50										
ⓉP 9IDDF-90F-A	9IDDF-90F-A-T			Single Phase 230	60										
ⓉP 9IDDG-90F-A	9IDDG-90F-A-T			Three Phase 220	50	0.90	2700	270	38	3420	342	48	2600	-	-
ⓉP 9IDDH-90F-A	9IDDH-90F-A-T			Three Phase 220	60										
ⓉP 9IDDI-90F-A	9IDDI-90F-A-T			Three Phase 230	50										
ⓉP 9IDDJ-90F-A	9IDDJ-90F-A-T			Three Phase 230	60										
ⓉP 9IDDK-90F-A	9IDDK-90F-A-T			Three Phase 380	50	0.5	2700	270	38	3420	342	48	2600	-	-
ⓉP 9IDDL-90F-A	9IDDL-90F-A-T			Three Phase 380	60										
ⓉP 9IDDM-90F-A	9IDDM-90F-A-T			Three Phase 400	50	0.4	2700	270	38	3420	342	48	2600	-	-
ⓉP 9IDDN-90F-A	9IDDN-90F-A-T			Three Phase 440	50										
ⓉP 9IDDO-90F-A	9IDDO-90F-A-T			Three Phase 440	60										

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'D-Cut Shaft' is for using motor only.

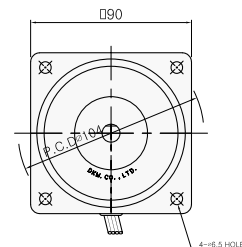
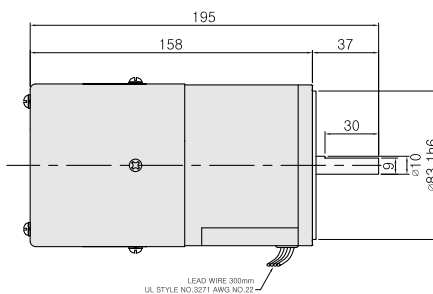
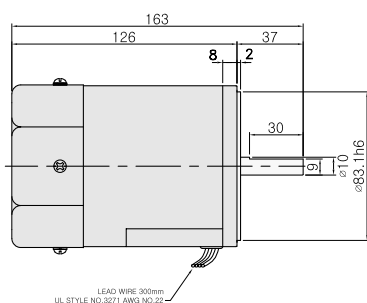
ⓉP : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

● LEAD WIRE TYPE

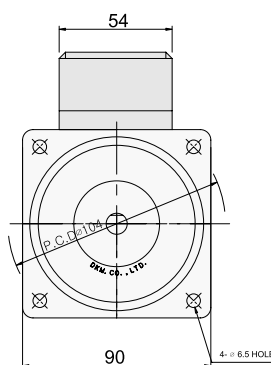
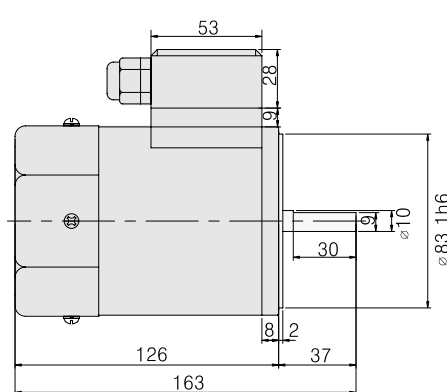
* MOTOR MODEL : 9ID□□-90F-A (GENERAL FAN)

* MOTOR MODEL : 9ID□□-90F2-A (POWERFUL FAN)



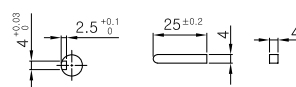
● TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-90F-AT (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

◆ KEY SPEC



◆ WEIGHT

PART	WEIGHT(Kg)
MOTOR	2.6

◆ MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37 8.5 10
9IDS□-90□-A	
D-CUT TYPE	37 30 8.5 10
9IDD□-90□-A	
KEY TYPE	37 25 8.5 10
9IDK□-90□-A	

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

Connection Diagrams

Single phase (CW, CCW)	Three phase (CW, CCW)
CW : To rotate the motor in a clockwise(CW) direction, flip switch SW to CW. CCW : To rotate it in a counterclock wise (CCW) direction, flip switch SW to CCW.	CCW : To change the rotation direction, change any connections between U, V and W.

- 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.
- Connection diagrams are also valid for the equivalent round shaft type.
- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, the motor may ignore the reversing command or change its direction after some delay.

2 POLE MOTOR 120W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-120F-A : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
TP 9IDDA-120F-A	9IDDA-120F-A-T	1/6	120	Single Phase 110	60	2.5	2700	270	38	3700	370	52.8	3200	30	250
TP 9IDDB-120F-A	9IDDB-120F-A-T			Single Phase 115	60										
TP 9IDDC-120F-A	9IDDC-120F-A-T			Single Phase 220	50					4500	450	64.2	2600	6.5	400
TP 9IDDD-120F-A	9IDDD-120F-A-T			Single Phase 220	60	1.2	2700	270	38	3700	370	52.8	3200		
TP 9IDDE-120F-A	9IDDE-120F-A-T			Single Phase 230	50					4500	450	64.2	2600		
TP 9IDDF-120F-A	9IDDF-120F-A-T			Single Phase 230	60					3700	370	52.8	3200		
TP 9IDDG-120F-A	9IDDG-120F-A-T			Three Phase 220	50					4500	450	64.2	2600	-	-
TP 9IDDH-120F-A	9IDDG-120F-A-T			Three Phase 220	60	1.2	4500	450	64	3700	370	52.8	3200		
TP 9IDDI-120F-A	9IDDI-120F-A-T			Three Phase 230	50					4500	450	64.2	2600		
TP 9IDDJ-120F-A	9IDDJ-120F-A-T			Three Phase 230	60					3700	370	52.8	3200		
TP 9IDDK-120F-A	9IDDK-120F-A-T			Three Phase 380	50					4500	450	64.2	2600	-	-
TP 9IDDL-120F-A	9IDDL-120F-A-T			Three Phase 380	60	0.6	4500	450	64	3700	370	52.8	3200		
TP 9IDDM-120F-A	9IDDM-120F-A-T			Three Phase 400	50					4500	450	64.2	2600	-	-
TP 9IDDN-120F-A	9IDDN-120F-A-T			Three Phase 440	50	0.5	4500	450	64	4500	450	64.2	2600		
TP 9IDDO-120F-A	9IDDO-120F-A-T			Three Phase 440	60					3700	370	52.8	3200		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

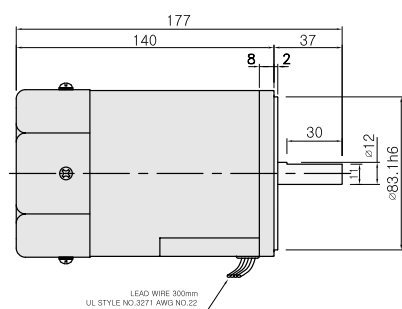
* 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

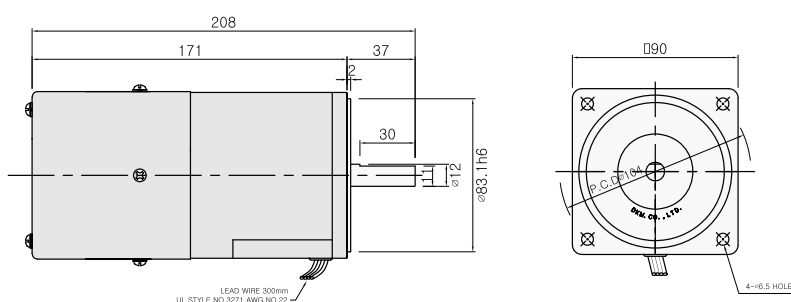
Dimension

LEAD WIRE TYPE

* MOTOR MODEL : 9ID□□-120F-A (GENERAL FAN)

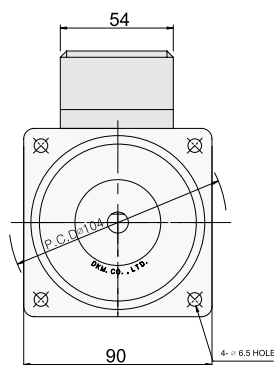
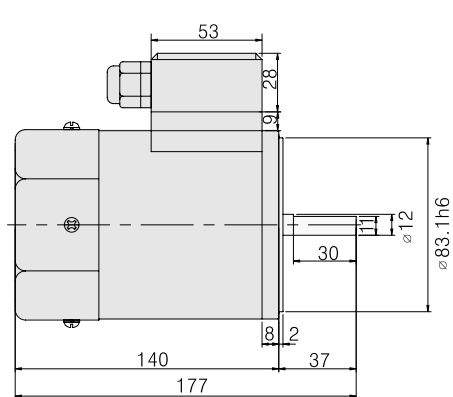


* MOTOR MODEL : 9ID□□-120F2-A (POWERFUL FAN)



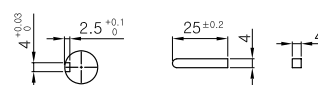
TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-120F-A (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

KEY SPEC



WEIGHT

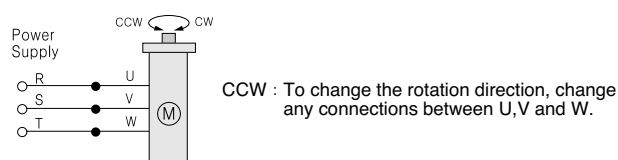
PART	WEIGHT(Kg)
MOTOR	3.0

MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37 12 12
9IDS□-120□-A	
D-CUT TYPE	37 30 12 12
9IDD□-120□-A	★
KEY TYPE	37 25 12
9IDK□-120□-A	

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

Connection Diagrams



- 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.

2 POLE MOTOR 150W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-150F-A : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfcM	mN.m	oz-in	gfcM	mN.m	oz-in	r/min	μF	VAC
TP 9IDDG-150F-A	9IDDG-150F-A-T	1/5	150	Three Phase 220	50	1.40	5700	570	81	5520	552	78	2600	-	-
TP 9IDDDH-150F-A	9IDDDH-150F-A-T			Three Phase 220	60					4600	460	65	3200		
TP 9IDDDI-150F-A	9IDDDI-150F-A-T			Three Phase 230	50					5520	552	78	2600		
TP 9IDDDJ-150F-A	9IDDDJ-150F-A-T			Three Phase 230	60					4600	460	65	3200		
TP 9IDDDK-150F-A	9IDDDK-150F-A-T			Three Phase 380	50	0.66	5700	570	81	5520	552	78	2600	-	-
TP 9IDDDL-150F-A	9IDDDL-150F-A-T			Three Phase 380	60					4600	460	65	3200		
TP 9IDDDM-150F-A	9IDDDM-150F-A-T			Three Phase 400	50	0.54	5700	570	81	5520	552	78	2600	-	-
TP 9IDDDN-150F-A	9IDDDN-150F-A-T			Three Phase 440	50					5520	552	78	2600		
TP 9IDDDO-150F-A	9IDDDO-150F-A-T			Three Phase 440	60					4600	460	65	3200		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

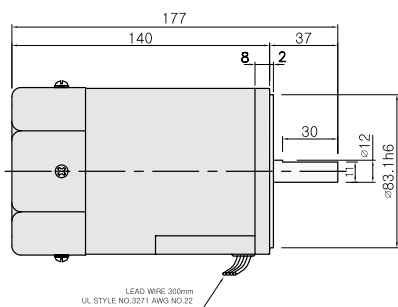
* 'D-Cut Shaft' is for using motor only.

(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

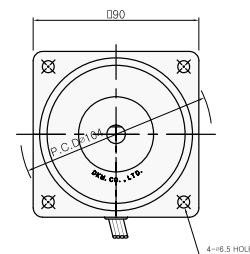
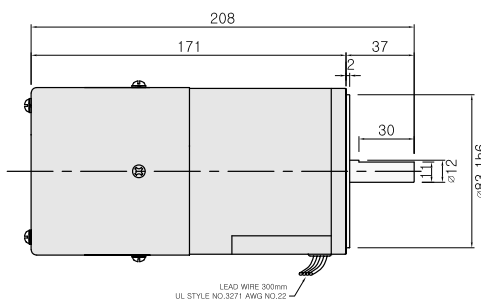
Dimension

LEAD WIRE TYPE

* MOTOR MODEL : 9ID□□-150F-A (GENERAL FAN)

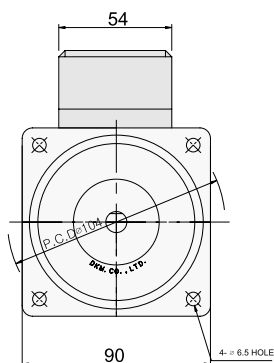
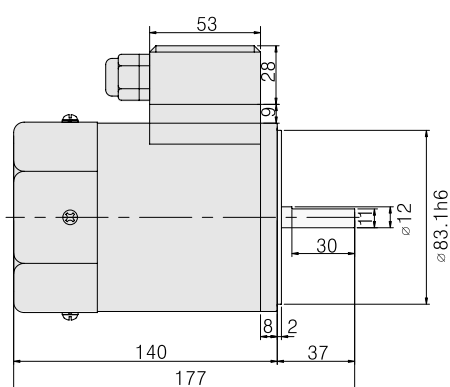


* MOTOR MODEL : 9ID□□-150F2-A (POWERFUL FAN)



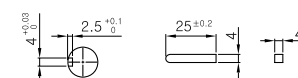
TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-150F-AT (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

KEY SPEC



WEIGHT

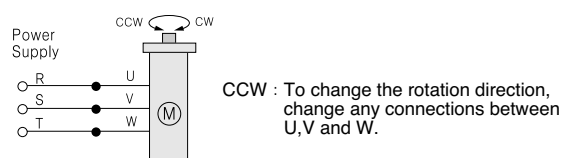
PART	WEIGHT(Kg)
MOTOR	3.0

MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37 12
9IDS□-150□-A	
D-CUT TYPE	37 30 12 ★
9IDD□-150□-A	
KEY TYPE	37 25 12
9IDK□-150□-A	

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

Connection Diagrams



- 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.

2 POLE MOTOR 200W

□90mm(3.54in.)



LEAD WIRE TYPE MOTOR



TERMINAL BOX TYPE MOTOR

Motor Specification



Model 9IDD□-200F-A : D-Cut Shaft Type		Output		Voltage	Freq.	Current	Starting Torque			Rated Torque			Rated Speed	Capacitor	
Lead Wire Type	Terminal Box Type	HP	W	VAC	Hz	A	gfc.m	mN.m	oz-in	gfc.m	mN.m	oz-in	r/min	μF	VAC
TP 9IDDG-200F-A	9IDDG-200F-A-T	1/4	200	Three Phase 220	50	2.00	7500	750	106	7200	720	102	2600	-	-
TP 9IDDH-200F-A	9IDDH-200F-A-T			Three Phase 220	60					6000	600	85	3200		
TP 9IDDI-200F-A	9IDDI-200F-A-T			Three Phase 230	50					7200	720	102	2600		
TP 9IDDJ-200F-A	9IDDJ-200F-A-T			Three Phase 230	60					6000	600	85	3200		
TP 9IDDK-200F-A	9IDDK-200F-A-T			Three Phase 380	50	0.90	7500	750	106	7200	720	102	2600	-	-
TP 9IDDL-200F-A	9IDDL-200F-A-T			Three Phase 380	60					6000	600	85	3200		
TP 9IDDM-200F-A	9IDDM-200F-A-T			Three Phase 400	50	0.68	7500	750	106	7200	720	102	2600	-	-
TP 9IDDN-200F-A	9IDDN-200F-A-T			Three Phase 440	50					7200	720	102	2600		
TP 9IDDO-200F-A	9IDDO-200F-A-T			Three Phase 440	60					6000	600	78	3200		

* Enter the 'Phase & Voltage' code in the box(□) within the motor model name.

* 'D-Cut Shaft' is for using motor only.

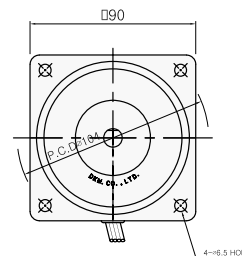
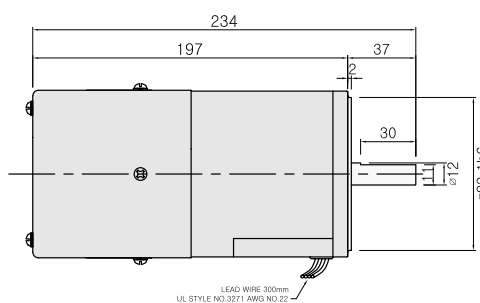
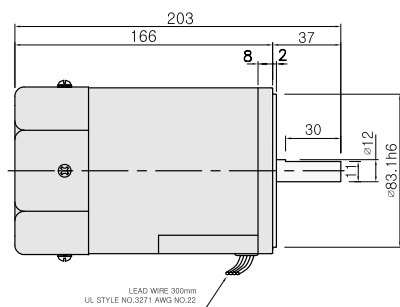
(TP) : Contains a built-in thermal protector. If a motor overheats for any reason the thermal protector opened and the motor stops. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the motor off before inspecting.

Dimension

● LEAD WIRE TYPE

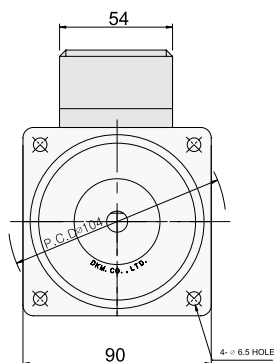
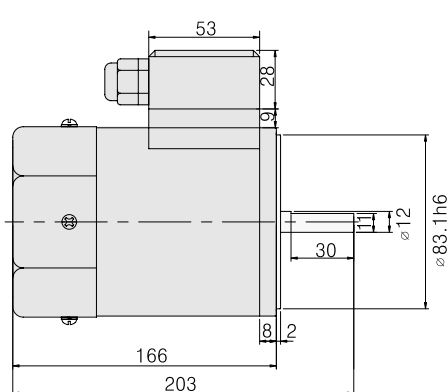
* MOTOR MODEL : 9ID□□-200F-A (GENERAL FAN)

* MOTOR MODEL : 9ID□□-200F2-A (POWERFUL FAN)



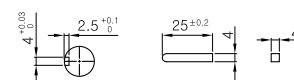
● TERMINAL BOX TYPE

* MOTOR MODEL : 9ID□□-200F-AT (GENERAL FAN)



* Note : There are 2 kinds of fan type (General Fan / Powerful Fan).
Customer can choose fan type according to wanted rating time.

◆ KEY SPEC



◆ WEIGHT

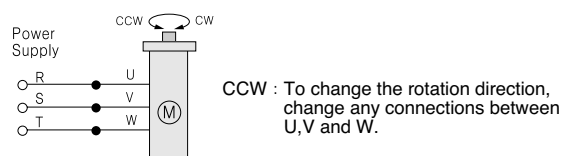
PART	WEIGHT(Kg)
MOTOR	3.8

◆ MOTOR OUTPUT

MODEL	SHAFT
ROUND TYPE	37 12
9IDS□-200□-A	
D-CUT TYPE	37 30 12
9IDD□-200□-A	
KEY TYPE	37 25 12
9IDK□-200□-A	

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

Connection Diagrams



- 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.