B AC Motors

Torque Motor 40W(□90mm)

40W Torque Motor 40W(□90mm)

Motor Specification

Model 9TDG*-40F2□: Gear Type Shaft 9TDD*-40F2: D-Cut Type Shaft 9TDK*-40F2: Key Type Shaft	Rating at Locked Rotor	Voltage V	Frequency Hz	Poles	Starting Torque kgfcm	 N.m	Output Hz	At max. Output Power Speed r/min	 Torque kgfcm	 N.m	 Current A	 Input W	Capacitor μF / VAC
9TDGA-40F2□	5min.	1ø 110	60	4	6.00	0.600	40	900	4.50	0.450	2.40	200	25.0 / 250
	Cont.	1ø 60			2.00	0.200	17		1.80	0.180	1.60	85	
9TDGD-40F2□	5min.	1ø 220	60	4	6.00	0.600	40		4.50	0.450	1.20	200	6.5 / 450
	Cont.	1ø 140			2.00	0.200	17		1.80	0.180	0.80	85	
9TDGE-40F2□	5min.	1ø 220~240	50	4	6.10	0.610	40	750	4.50	0.450	1.20	190	6.5 / 450
	Cont.	1ø 140			2.10	0.210	17		1.80	0.180	0.80	80	

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

Max. Permissible Torque at Output Shaft of Gearbox

60Hz

Motor Model	Gearbox Model	Gear Ratio		2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
9TDG□-40F2P	9PBK□BH 9PFK□BH	5min.	kgfcm	7.5	11.2	13.4	18.7	22.4	28.0	33.6	42.2	50.6	60.8	61.2	76.5	91.8	110.2	122.4	153.0	183.6	200.0	200.0	200.0	200.0	200.0	200.0	200.0
			N.m	0.73	1.10	1.32	1.83	2.20	2.75	3.29	4.13	4.96	5.95	6.00	7.50	9.00	10.80	12.00	14.99	17.99	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		Cont.	kgfcm	3.0	4.5	5.4	7.5	9.0	11.2	13.4	16.9	20.3	24.3	24.5	30.6	36.7	44.1	49.0	61.2	73.4	82.4	98.8	109.8	131.8	164.7	197.6	197.6
			N.m	0.29	0.44	0.53	0.73	0.88	1.10	1.32	1.65	1.98	2.38	2.40	3.00	3.60	4.32	4.80	6.00	7.20	8.07	9.68	10.76	12.91	16.14	19.37	19.37
9TDG□-40F2H	9HBK□BH 9HFK□BH	5min.	kgfcm	–	11.2	13.4	–	22.4	–	33.6	42.2	50.6	60.8	61.2	76.5	91.8	110.2	–	153.0	183.6	229.5	275.4	300.0	300.0	300.0	300.0	300.0
			N.m		1.10	1.32		2.20		3.29	4.13	4.96	5.95	6.00	7.50	9.00	10.80		14.99	17.99	22.49	26.99	29.40	29.40	29.40	29.40	29.40
		Cont.	kgfcm	–	4.5	5.4	–	9.0	–	13.4	16.9	20.3	24.3	24.5	30.6	36.7	44.1	–	61.2	73.4	82.4	98.8	109.8	131.8	164.7	197.6	197.6
			N.m		0.44	0.53		0.88		1.32	1.65	1.98	2.38	2.40	3.00	3.60	4.32		6.00	7.20	8.07	9.68	10.76	12.91	16.14	19.37	19.37

50Hz

Motor Model	Gearbox Model	Gear Ratio		2	3	3.6	5	6	7.5	9	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	200
9TDG□-40F2P	9PBK□BH 9PFK□BH	5min.	kgfcm	7.5	11.2	13.4	18.7	22.4	28.0	33.6	42.2	50.6	60.8	61.2	76.5	91.8	110.2	122.4	153.0	183.6	200.0	200.0	200.0	200.0	200.0	200.0	200.0
			N.m	0.73	1.10	1.32	1.83	2.20	2.75	3.29	4.13	4.96	5.95	6.00	7.50	9.00	10.80	12.00	14.99	17.99	19.60	19.60	19.60	19.60	19.60	19.60	19.60
		Cont.	kgfcm	3.0	4.5	5.4	7.5	9.0	11.2	13.4	16.9	20.3	24.3	24.5	30.6	36.7	44.1	49.0	61.2	73.4	82.4	98.8	109.8	131.8	164.7	197.6	197.6
			N.m	0.29	0.44	0.53	0.73	0.88	1.10	1.32	1.65	1.98	2.38	2.40	3.00	3.60	4.32	4.80	6.00	7.20	8.07	9.68	10.76	12.91	16.14	19.37	19.37
9TDG□-40F2H	9HBK□BH 9HFK□BH	5min.	kgfcm	–	11.2	13.4	–	22.4	–	33.6	42.2	50.6	60.8	61.2	76.5	91.8	110.2	–	153.0	183.6	229.5	275.4	300.0	300.0	300.0	300.0	300.0
			N.m		1.10	1.32		2.20		3.29	4.13	4.96	5.95	6.00	7.50	9.00	10.80		14.99	17.99	22.49	26.99	29.40	29.40	29.40	29.40	29.40
		Cont.	kgfcm	–	4.5	5.4	–	9.0	–	13.4	16.9	20.3	24.3	24.5	30.6	36.7	44.1	–	61.2	73.4	82.4	98.8	109.8	131.8	164.7	197.6	197.6
			N.m		0.44	0.53		0.88		1.32	1.65	1.98	2.38	2.40	3.00	3.60	4.32		6.00	7.20	8.07	9.68	10.76	12.91	16.14	19.37	19.37

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

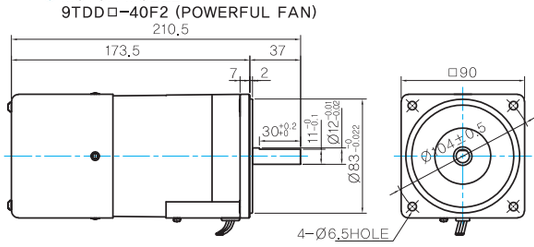
Motor Images

9TDD□-40F2	9TDG□-40F2P+9PBK□BH	9TDG□-40F2P+9PFK□BH	9TDG□-40F2H+9HBK□BH	9TDG□-40F2H+9HFK□BH
				

Dimensions

MOTOR ONLY

● MOTOR MODEL:
9TDD□-40F2 (POWERFUL FAN)



● MOTOR OUTPUT SHAFT

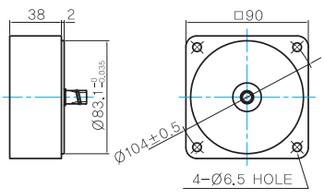
MODEL	SPEC
D-CUT TYPE	
9TDD□-40F2	
KEY TYPE	
9TDK□-40F2	

● KEY SPEC

MOTOR

INTER-DECIMAL GEARBOX

● MODEL: 9XD10□□



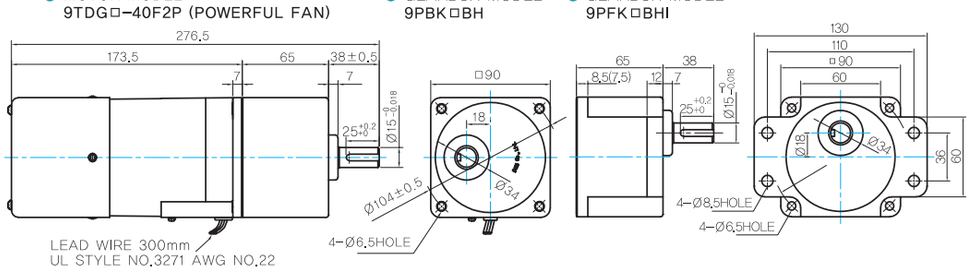
GEARED MOTOR

P TYPE GEARBOX

● MOTOR MODEL:
9TDG□-40F2P (POWERFUL FAN)

● GEARBOX MODEL:
9PBK□BH

● GEARBOX MODEL:
9PFK□BHI



● GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	
9PBK□BH 9PFK□BH	

● KEY SPEC

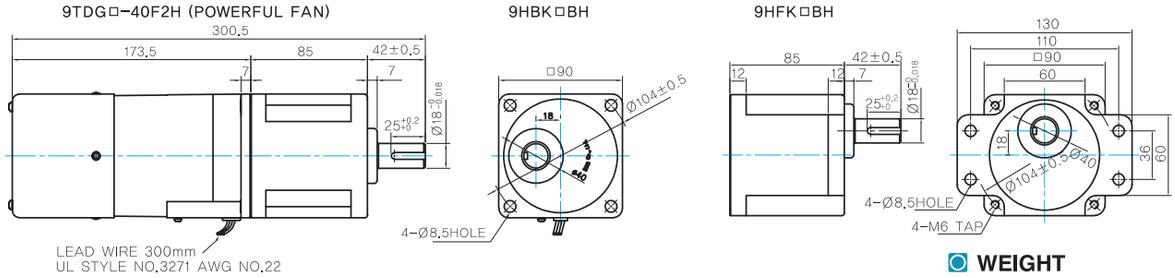
GEARBOX

H TYPE GEARBOX

● MOTOR MODEL:
9TDG□-40F2H (POWERFUL FAN)

● GEARBOX MODEL:
9HBK□BH

● GEARBOX MODEL:
9HFK□BH



● GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	
9HBK□BH 9HFK□BH	

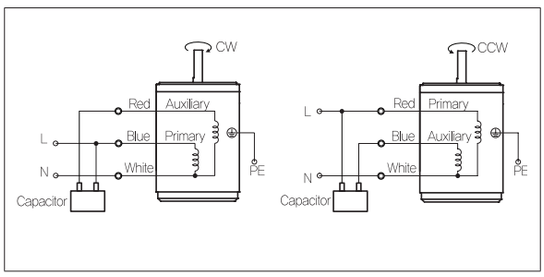
● KEY SPEC

GEARBOX

WEIGHT

PART		WEIGHT(Kg)
MOTOR		3.1
GEAR BOX	9PB(F)K2BH ~ 9PB(F)K18BH	1.3
	9PB(F)K20BH ~ 9PB(F)K200BH	1.4
	9HB(F)K3BH ~ 9HB(F)K9BH	1.45
	9HB(F)K12.5BH ~ 9HB(F)K18BH	1.5
	9HB(F)K20BH ~ 9HB(F)K60BH	1.7
	9HB(F)K75BH ~ 9HB(F)K200BH	1.8
	9XD10□□	0.5

Connection Diagrams



1) The direction of motor rotation is as viewed from the shaft end of the motor.
2) CW represents the clockwise direction, while CCW represents the counterclockwise direction.
3) 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