B AC Motors

Torque Motor 20W(□90mm)

20W Torque Motor 20W(□90mm)

Motor Specification

Model 9TDG□-20F2G: Gear Type Shaft 9TDD□-20F2: D-Cut Type Shaft 9TDK□-20F2: Key Type Shaft	Rating at Locked Rotor	Voltage	Frequency	Poles	Starting Torque		Output	At max. Output Power				Capacitor
		V	Hz		kgfcm	N.m	Hz	Speed r/min	Torque kgfcm	Torque N.m	Current A	Input W	μF / VAC
9TDGA-20F2G	5min.	1ø 110	60	4	3.00	0.300	20	900	2.20	0.220	1.00	110	16.0 / 250
	Cont.	1ø 60			0.90	0.090	6		0.65	0.065	0.70	29	
9TDGD-20F2G	5min.	1ø 220	60	4	3.00	0.300	20		2.20	0.220	0.60	110	4.0 / 450
	Cont.	1ø 140			0.90	0.090	6		0.65	0.065	0.35	29	
9TDGE-20F2G	5min.	1ø 220~240	50	4	3.20	0.320	20	750	2.20	0.220	0.60	96	4.0 / 450
	Cont.	1ø 140			1.00	0.100	6		0.65	0.065	0.35	32	

1) Enter the phase & voltage code in the in the box (□) within the motor model name.
2) All models contain a built-in thermal protector.
3) Gear Type Shaft 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	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	200
9TDG□-20F2G	9GBK□ BMH	5min.	kgfcm	3.7	5.5	6.6	9.1	11.0	13.7	16.4	18.3	22.8	27.4	29.7	41.3	49.5	53.9	59.8	74.8	89.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
			N.m	0.36	0.54	0.64	0.89	1.07	1.34	1.61	1.79	2.24	2.68	2.91	4.04	4.85	5.28	5.86	7.33	8.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80
		Cont.	kgfcm	1.1	1.6	1.9	2.7	3.2	4.0	4.9	5.4	6.7	8.1	8.8	12.2	14.6	15.9	17.7	22.1	26.5	33.2	39.8	44.2	53.0	66.3	79.6	79.6
			N.m	0.11	0.16	0.19	0.26	0.32	0.40	0.48	0.53	0.66	0.79	0.86	1.19	1.43	1.56	1.73	2.17	2.60	3.25	3.90	4.33	5.20	6.50	7.80	7.80

50Hz

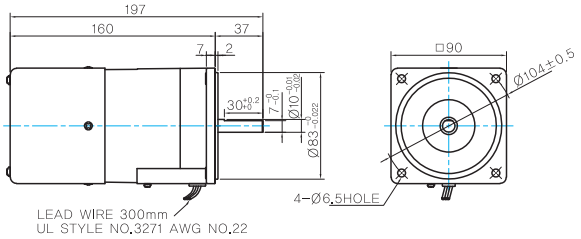
Motor Model	Gearbox Model	Gear Ratio		2	3	3.6	5	6	7.5	9	10	12.5	15	18	25	30	36	40	50	60	75	90	100	120	150	180	200
9TDG□-20F2G	9GBK□ BMH	5min.	kgfcm	3.7	5.5	6.6	9.1	11.0	13.7	16.4	18.3	22.8	27.4	29.7	41.3	49.5	53.9	59.8	74.8	89.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
			N.m	0.36	0.54	0.64	0.89	1.07	1.34	1.61	1.79	2.24	2.68	2.91	4.04	4.85	5.28	5.86	7.33	8.80	9.80	9.80	9.80	9.80	9.80	9.80	9.80
		Cont.	kgfcm	1.1	1.6	1.9	2.7	3.2	4.0	4.9	5.4	6.7	8.1	8.8	12.2	14.6	15.9	17.7	22.1	26.5	33.2	39.8	44.2	53.0	66.3	79.6	79.6
			N.m	0.11	0.16	0.19	0.26	0.32	0.40	0.48	0.53	0.66	0.79	0.86	1.19	1.43	1.56	1.73	2.17	2.60	3.25	3.90	4.33	5.20	6.50	7.80	7.80

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

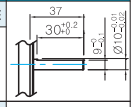
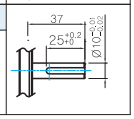
Dimensions

MOTOR ONLY

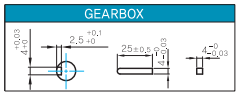
● MOTOR MODEL: 9TDD□-20F2 (POWERFUL FAN)



MOTOR OUTPUT SHAFT

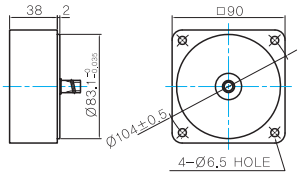
MODEL	SPEC
D-CUT TYPE 9TDD□-20F2	
KEY TYPE 9TDK□-20F2	

● KEY SPEC



INTER-DECIMAL GEARBOX

● MODEL: 9XD10□□

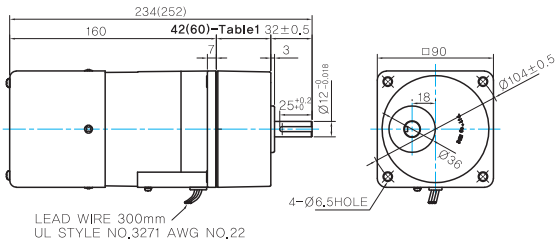


GEARED MOTOR

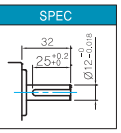
G TYPE GEARBOX

● MOTOR MODEL: 9TDG□-20F2G (POWERFUL FAN)

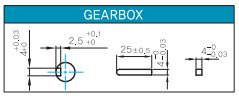
● GEARBOX MODEL: 9GBK□BMH



● GEARBOX OUTPUT SHAFT

MODEL	SPEC
KEY TYPE	

● KEY SPEC



WEIGHT

PART		WEIGHT(Kg)
MOTOR		2.4
GEAR BOX	9GBK2BMH ~ 9GBK15BMH	0.67
	9GBK18BMH ~ 9GBK30BMH	0.96
	9GBK36BMH ~ 9GBK200BMH	1.07
	9WD□BL/BR/BRL	1.0
	9XD10□□	0.5

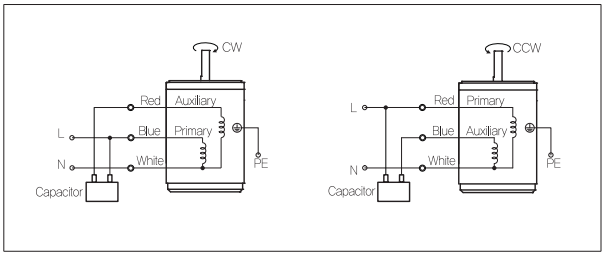
● 42(60)-Table1

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

Motor Images

9TDD□-20F2	9TDG□-20F2G+9GBK□BMH
	

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