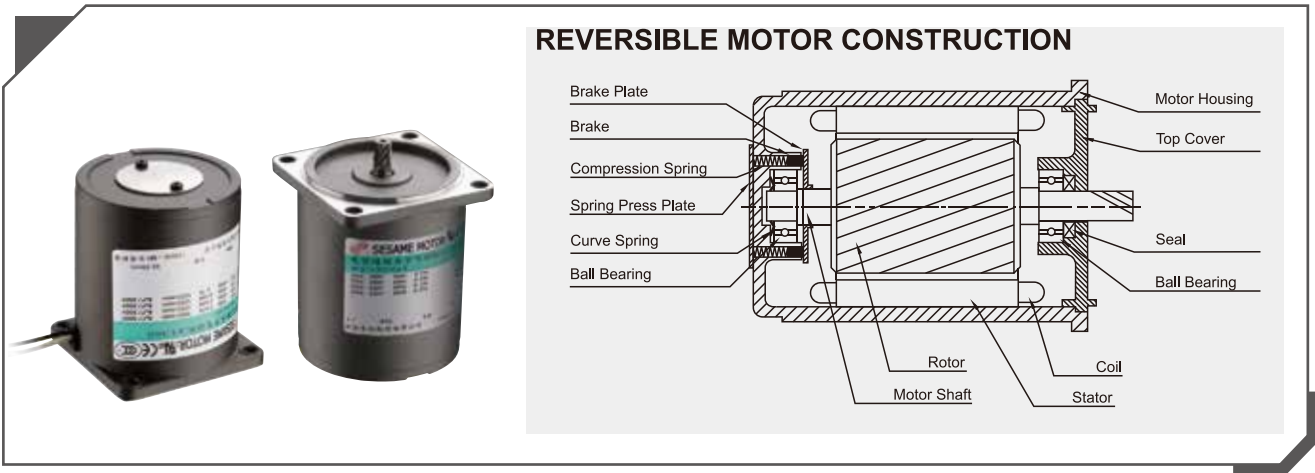


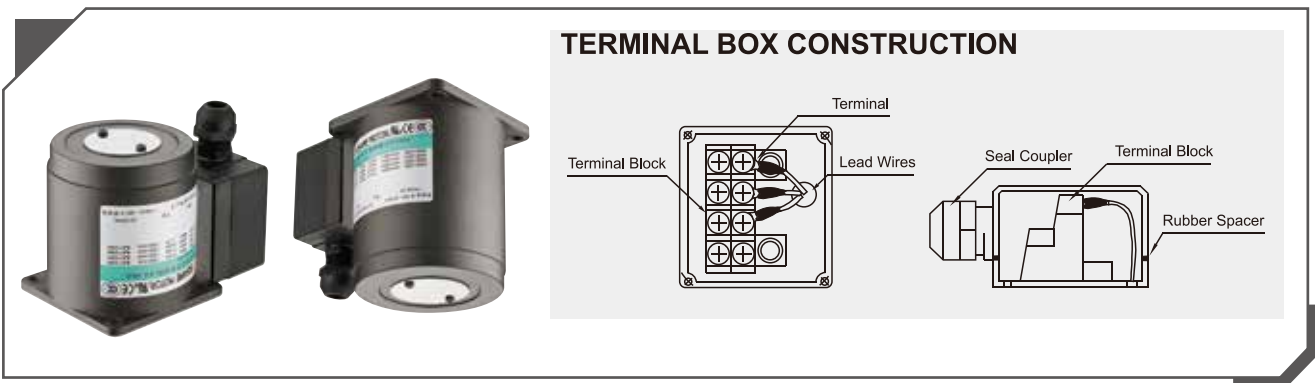
RK Series REVERSIBLE MOTOR

- Rated Time: 30 minutes
- Built-in Easy Brake System
- Frequent Forward/Reverse Usage
- Few Over Run, Minor Holding Force

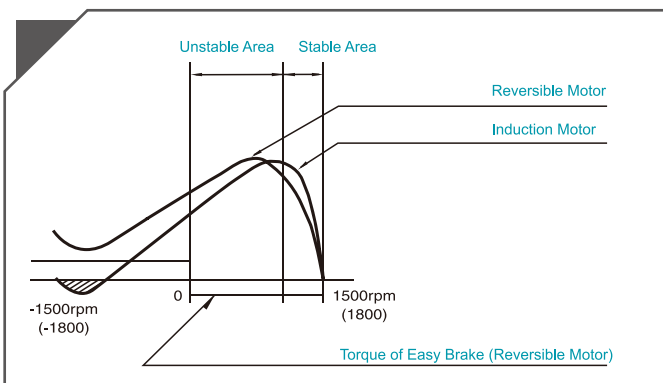
REVERSIBLE MOTOR, LEAD WIRE TYPE (6W-60W)



REVERSIBLE MOTOR, TERMINAL BOX TYPE (6W-60W)



REVERSIBLE MOTOR CURVE



Notes : At 50Hz, a 4-Pole motor has synchronous turning speed of 1500rpm, 1800rpm at 60Hz.

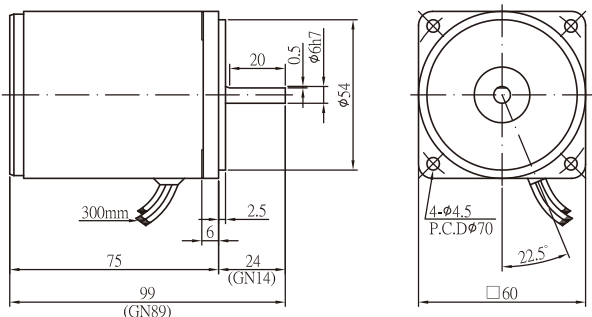
BRAKE TORQUE & OVERRUNS

OUTPUT (W)	BRAKE TORQUE (kg.cm)	OVERTURNS (TURNS)
6	0.59	4-6
15	1.27	4-6
25	1.47	4-6
40	3.92	4-6
60	3.92	4-6

※ FOR REFERENCE ONLY

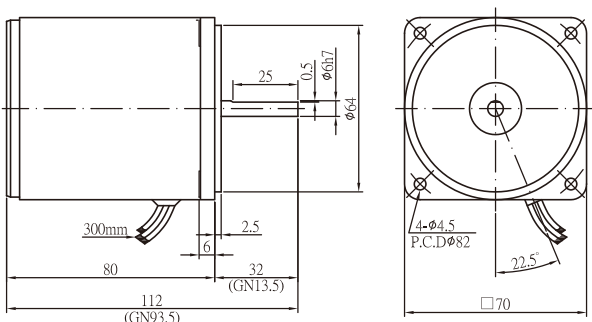
RK Series REVERSIBLE MOTOR, LEAD WIRE TYPE-IP22

■ OUTLINE & SPECIFICATION
■ UNIT : mm



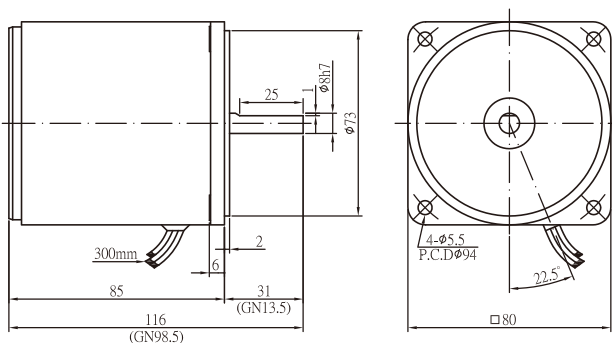
6W

6W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
2RK6A(GN)-A	6	1ø100/110	50/60	4	900/1150	30 /minutes	0.72/0.7	0.57/0.51	0.24/0.25	3.3/300V 3/300V
2RK6A(GN)-C	6	1ø200/220	50/60	4	1000/1300	30 /minutes	0.72/0.8	0.55/0.45	0.13/0.15	1/450V
2RK6A(GN)-CE	6	1ø230/240	50	4	1100/1050	30 /minutes	0.95/0.94	0.53/0.55	0.14/0.14	1/450V



15W

15W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
3RK15A(GN)-A	15	1ø100/110	50/60	4	1200/1450	30 /minutes	1.17/1.24	1.16/0.95	0.37/0.44	6/300V
3RK15A(GN)-C	15	1ø200/220	50/60	4	1200/1450	30 /minutes	0.96/1.34	0.96/0.97	0.20/0.23	1.5/450V
3RK15A(GN)-CE	15	1ø230/240	50	4	1250	30 /minutes	1.36/1.31	1.14/1.19	0.19/0.21	1.5/450V



25W

25W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
4RK25A(GN)-A	25	1ø100/110	50/60	4	1250/1650	30 /minutes	1.65/1.92	1.95/1.48	0.56/0.51	8/300V
4RK25A(GN)-C	25	1ø200/220	50/60	4	1300/1600	30 /minutes	1.98/1.94	1.89/1.54	0.29/0.30	2.5/450V 2/450V
4RK25A(GN)-CE	25	1ø230/240	50	4	1350/1350	30 /minutes	2.22/2.19	1.8/1.82	0.25/0.25	2/450V

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.

MOTOR AND SPEED REDUCER

GENERAL PURPOSE MOTOR

SPEED CONTROLLED MOTOR

CONTROLLER

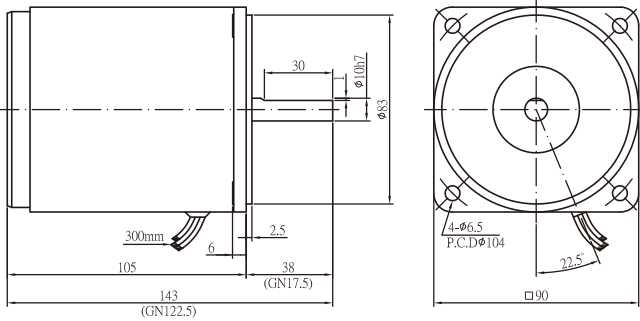
BRAKE MOTOR

CLUTCH BRAKE MOTOR

TORQUE MOTOR

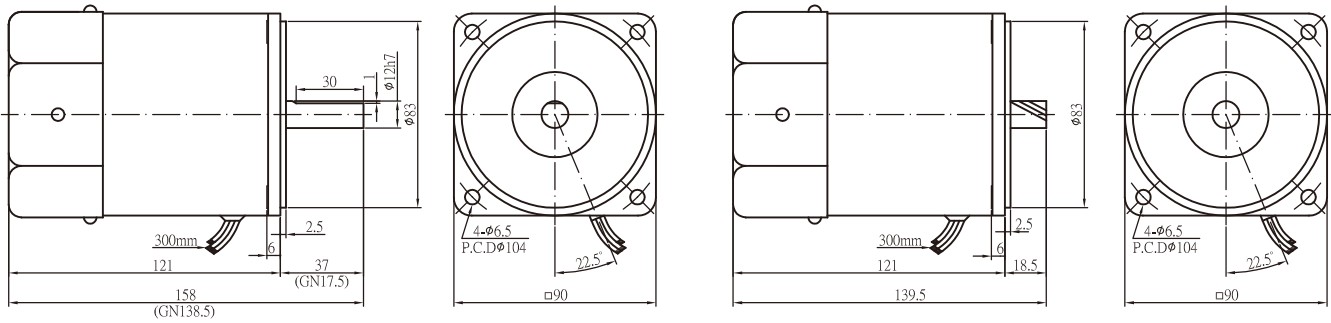
SPEED REDUCER

COMPONENTS



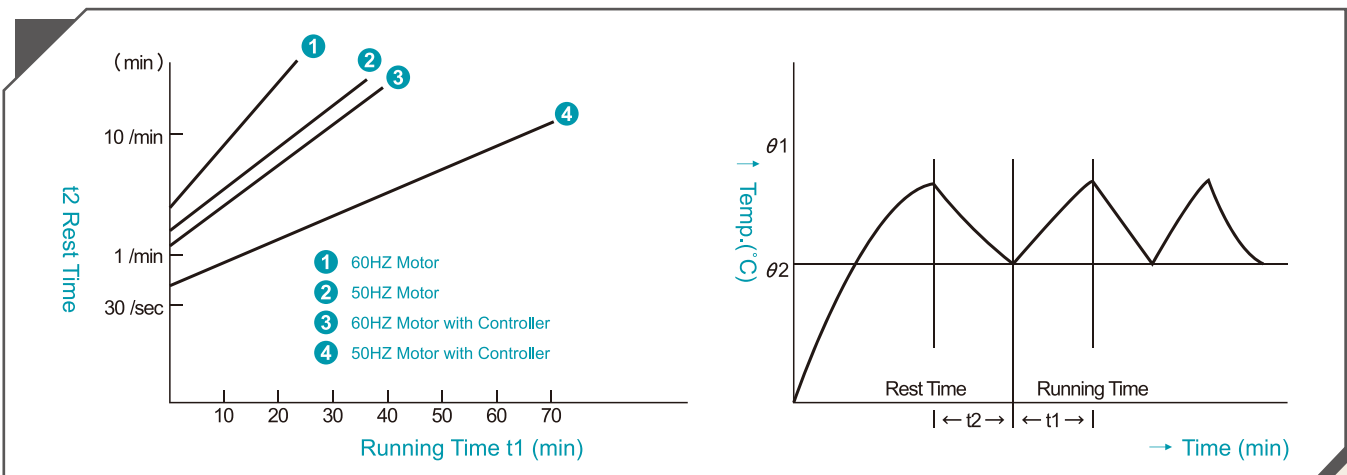
40W

40W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
5RK40A(GN)-A	40	1φ100/110	50/60	4	1050/1500	30 /minutes	2.43/3.1	2.83/2.64	0.99/1.01	12/300V
5RK40A(GN)-C	40	1φ200/220	50/60	4	1150/1500	30 /minutes	3.76/2.73	3.35/2.64	0.54/0.53	4/450V 3/350V
5RK40A(GN)-CE	40	1φ230/240	50	4	1150/1300	30 /minutes	2.41/3.17	3.36/3.04	0.49/0.44	3/450V



60W/60W-GX

60W/60W-GX MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
5RK60A(GN, GX)-AF	60	1φ100/110	50/60	4	1300/1600	30 /minutes	3.08/4.03	4.82/3.78	1.34/1.25	16/300V
5RK60A(GN, GX)-CF	60	1φ200/220	50/60	4	1250/1600	30 /minutes	2.38/2.97	4.68/3.68	0.75/0.73	4/450V
5RK60A(GN, GX)-CEF	60	1φ230/240	50	4	1300	30 /minutes	4.33/4.72	4.59/4.6	0.57/0.63	4/450V

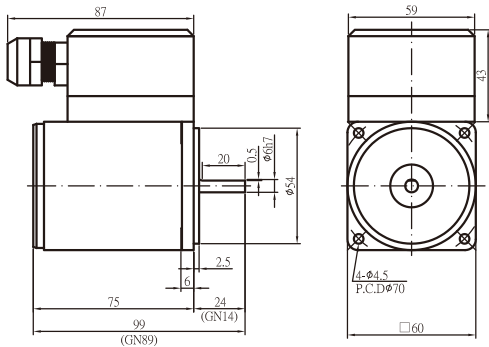


REMARKS :

- "Rated Time" indicates the time limit to which the motor must stop running after its continuous operation, and resume to run only after cooling down. Otherwise, the motor may burn down due to overheating.
- Reversible motors can also be used according to the methods shown above.

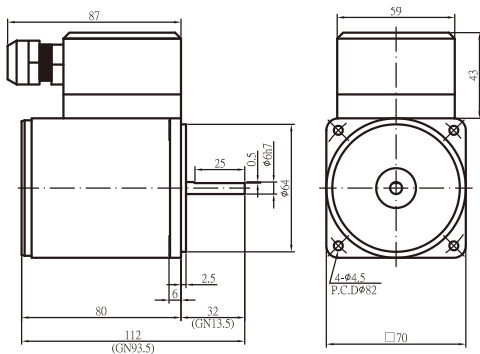
RK Series REVERSIBLE MOTOR, TERMINAL BOX TYPE-IP54

■ OUTLINE & SPECIFICATION
■ UNIT : mm



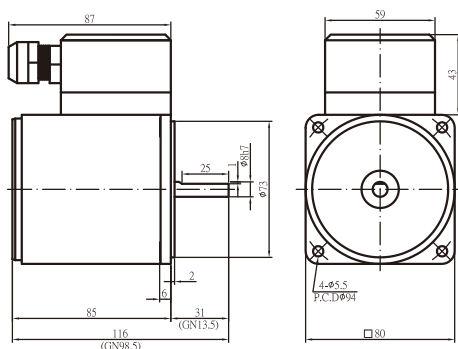
6W

6W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (µF)
2RK6A(GN)-AT	6	1ø100/110	50/60	4	900/1150	30 /minutes	0.72/0.7	0.57/0.51	0.24/0.25	3.3/300V 3/300V
2RK6A(GN)-CT	6	1ø200/220	50/60	4	1000/1300	30 /minutes	0.72/0.8	0.55/0.45	0.13/0.15	1/450V
2RK6A(GN)-CET	6	1ø230/240	50	4	1100/1050	30 /minutes	0.95/0.94	0.53/0.55	0.14/0.14	1/450V



15W

15W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (µF)
3RK15A(GN)-AT	15	1ø100/110	50/60	4	1200/1450	30 /minutes	1.17/1.24	1.16/0.95	0.37/0.44	6/300V
3RK15A(GN)-CT	15	1ø200/220	50/60	4	1200/1450	30 /minutes	0.96/1.34	0.96/0.97	0.20/0.23	1.5/450V
3RK15A(GN)-CET	15	1ø230/240	50	4	1250	30 /minutes	1.36/1.31	1.14/1.19	0.19/0.21	1.5/450V



25W

25W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (µF)
4RK25A(GN)-AT	25	1ø100/110	50/60	4	1250/1650	30 /minutes	1.65/1.92	1.95/1.48	0.56/0.51	8/300V
4RK25A(GN)-CT	25	1ø200/220	50/60	4	1300/1600	30 /minutes	1.98/1.94	1.89/1.54	0.29/0.3	2.5/450V 2/450V
4RK25A(GN)-CET	25	1ø230/240	50	4	1350/1350	30 /minutes	2.22/2.19	1.8/1.82	0.25/0.25	2/450V

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MOTOR AND SPEED REDUCER

GENERAL PURPOSE MOTOR

SPEED CONTROLLED MOTOR

CONTROLLER

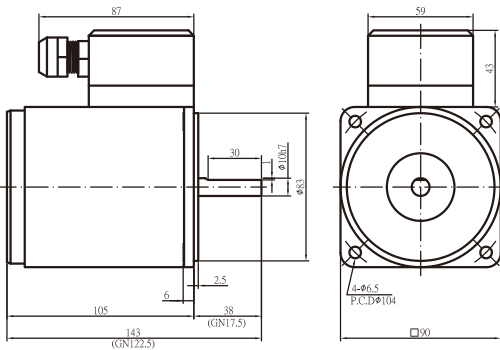
BRAKE MOTOR

CLUTCH BRAKE MOTOR

TORQUE MOTOR

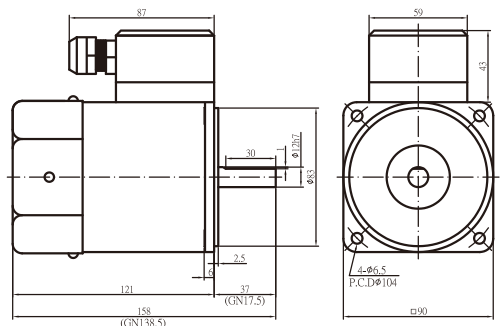
SPEED REDUCER

COMPONENTS

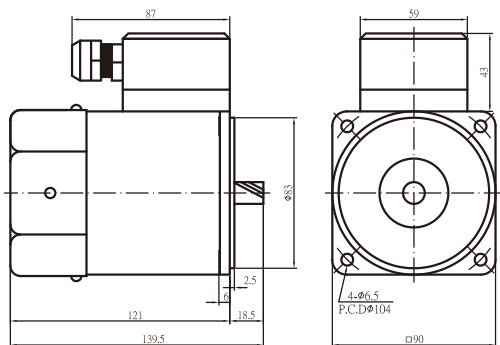


40W

40W MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
5RK40A(GN)-AT	40	1φ100/110	50/60	4	1050/1500	30 /minutes	2.43/3.1	2.83/2.64	0.99/1.01	12/300V
5RK40A(GN)-CT	40	1φ200/220	50/60	4	1150/1500	30 /minutes	3.76/2.73	3.35/2.64	0.54/0.53	4/450V 3/450V
5RK40A(GN)-CET	40	1φ230/240	50	4	1150/1300	30 /minutes	2.41/3.17	3.36/3.04	0.49/0.44	3/450V



60W



60W-GX

60W/60W-GX MODEL	OUTPUT (W)	VOLTAGE (V)	FREQ. (HZ)	POLE (P)	RATED SPEED (rpm)	RATED TIME	STARTING TORQUE (Kg.cm)	RATED TORQUE (Kg.cm)	RATED CURRENT (A)	CAPACITY (μF)
5RK60A(GN, GX)-AFT	60	1φ100/110	50/60	4	1300/1600	30 /minutes	3.08/4.03	4.82/3.78	1.34/1.25	16/300V
5RK60A(GN, GX)-CFT	60	1φ200/220	50/60	4	1250/1600	30 /minutes	2.38/2.97	4.68/3.68	0.75/0.73	4/450V
5RK60A(GN, GX)-CEFT	60	1φ230/240	50	4	1300	30 /minutes	4.33/4.72	4.59/4.6	0.57/0.63	4/450V

REMARKS :

- "Rated Time" indicates the time limit to which the motor must stop running after its continuous operation, and resume to run only after cooling down. Otherwise, the motor may be burn down to overheating.
- The usage of the reversible motor (terminal box type) is the same as the reversible motor (lead-wire type).

SPEED REDUCER ■ OUTLINE & SPECIFICATION

■ UNIT : mm

HOW TO SELECT A SPEED REDUCER

■ ROTATION AND TORQUE GIVEN FROM CONJUNCTION WITH SPEED REDUCER

Following is the calculation formula:

$$\text{Rotations : } N_G = \frac{N_M}{i}$$

$$\text{Torque : } T_G = T_M \cdot i \cdot \eta$$

N_G : Rotations after conjunction with speed reducer (rpm)

N_M : Rotations of motor (rpm)

i : Ratio

T_G : Torque after conjunction with speed reducer (kg·cm)

T_M : Torque of motor (kg·cm)

η : The transmission efficiency of speed reducer

■ MAXIMUM TORQUE ALLOWED

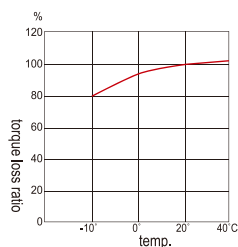
The maximum torque a speed reducer can tolerate is limited due to materials or other specs. Please see the specification of speed reducer for maximum torque allowed at different ratio.

■ ALLOWABLE RADIAL LOAD AND AXIAL LOAD

Radial load refers to the bending load of output shaft at the 1/2 point, commonly used in units linked by chains. Radial load can be disregarded if a coupling is used. Do not over-load since radial load and axial load may affect service life and strength.

■ ADJUSTED THE SPEED REDUCER RATIO VIA ENVIRONMENT TEMPERATURE

Transmission efficiency of a speed reducer apparently does affected by the environment temperature. The graphic display the torque loss percentage at different ambient temperature (for reference only).



■ MOTOR EQUIP WITH ROUND SHAFT AND GEAR SHAFT, ONLY GEAR SHAFT CAN CONJUNCT WITH SPEED REDUCER.



■ LOAD PATTERNS VS. LIFESPAN OF SPEED REDUCER

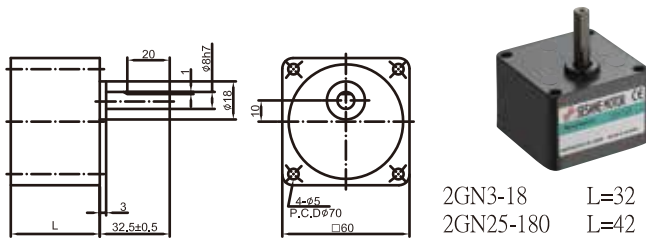
Speed Reducer lifespan will vary by ways of loading including but not limit to operation time frame, different type of bearing. The following table assumes that the load gear is under the maximum permissible torque. (Reference for engineers)

Unit : hrs

LOAD PATTERN	BEARING			BALL BEARING			Application instructions
	5 hrs/day	8 hrs/day	24 hrs/day	5 hrs/day	8 hrs/day	24 hrs/day	
FIXED LOAD	2000	1500	1000	6250	5000	3400	Operated in one direction, such as conveyors.
SLIGHT IMPACT	1500	1250	800	4200	3400	2500	Frequent start/stop, ex. cam operator.
STRONG IMPACT	800 ~1000	700 ~1000	600 ~700	2000 ~2500	1700 ~2500	1400 ~1700	Reversible motors, instant moment reversed, with brake system in an instant brake.

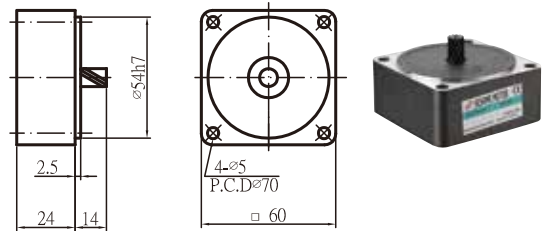
Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.

■ 2 GN□KE . 2 GN□ / SPEED REDUCER



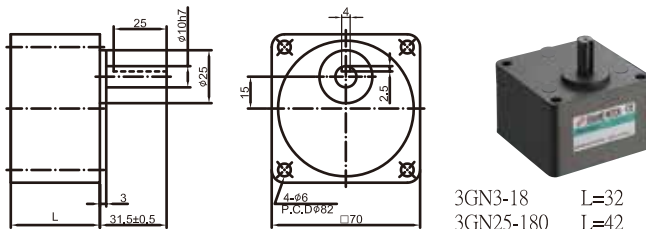
2GN3-18 L=32
2GN25-180 L=42

■ 2GN10X . 2GN10XK / INTERMEDIATE SPEED REDUCER



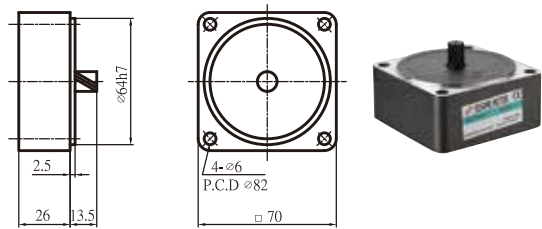
SPEED(rpm)	500	300	200	180	150	120	100	60	50	30	20	15	10
SPEED REDUCTION RATIO 50HZ	3	5	7.5	-	10	12.5	15	25	30	50	75	100	150
SPEED REDUCTION RATIO 60HZ	3.6	6	9	10	-	15	18	30	36	60	90	120	180
MAX. TORQUE (kgf.cm)	1.1	1.8	2.7	3.0	3.9	4.5	5.4	8.1	9.7	15	23	25	25

■ 3 GN□KE . 3 GN□ / SPEED REDUCER



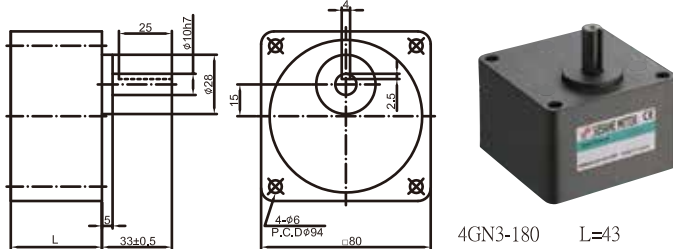
3GN3-18 L=32
3GN25-180 L=42

■ 3GN10X . 3GN10XK / INTERMEDIATE SPEED REDUCER



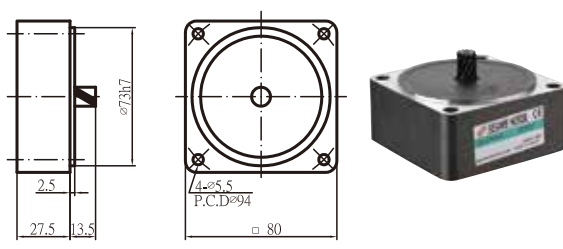
SPEED(rpm)	500	300	200	180	150	120	100	60	50	45	37.5	30	20	15	10
SPEED REDUCTION RATIO 50HZ	3	5	7.5	-	10	12.5	15	25	30	-	40	50	75	100	150
SPEED REDUCTION RATIO 60HZ	3.6	6	9	10	-	15	18	30	36	40	-	60	90	120	180
MAX. TORQUE (kgf.cm)	2.6	4.4	6.6	7.4	9.8	11	13	20	24	24	32	36	50	50	50

■ 4 GN□KE . 4 GN□ / SPEED REDUCER



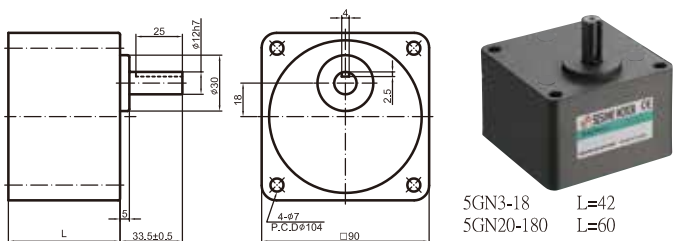
4GN3-180 L=43

■ 4GN10X . 4GN10XK / INTERMEDIATE SPEED REDUCER



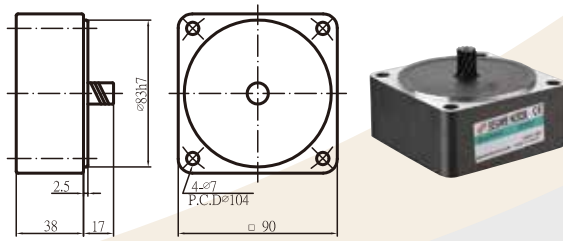
SPEED(rpm)	500	300	200	180	150	120	100	60	50	45	37.5	30	20	15	10
SPEED REDUCTION RATIO 50HZ	3	5	7.5	-	10	12.5	15	25	30	-	40	50	75	100	150
SPEED REDUCTION RATIO 60HZ	3.6	6	9	10	-	15	18	30	36	40	-	60	90	120	180
MAX. TORQUE (kgf.cm)	4.4	7.4	11	12	15	11	22	33	40	40	50	60	80	80	80

■ 5 GN□KE . 5 GN□ / SPEED REDUCER



5GN3-18 L=42
5GN20-180 L=60

■ 5GN10X . 5GN10XK / INTERMEDIATE SPEED REDUCER



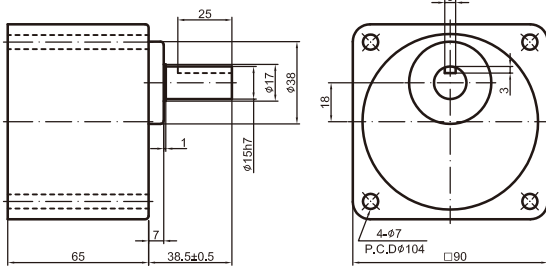
SPEED(rpm)	500	300	200	180	150	120	100	90	75	60	50	45	37.5	30	20	15	10
SPEED REDUCTION RATIO 50HZ	3	5	7.5	-	10	12.5	15	-	20	25	30	-	40	50	75	100	150
SPEED REDUCTION RATIO 60HZ	3.6	6	9	10	-	15	18	20	-	30	36	40	-	60	90	120	180
MAX. TORQUE (kgf.cm)	10	17	26	29	36	43	52	52	65	78	93	93	100	100	100	100	100

SPEED REDUCER

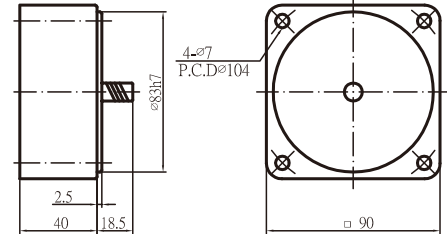
■ OUTLINE & SPECIFICATION
 ■ UNIT : mm



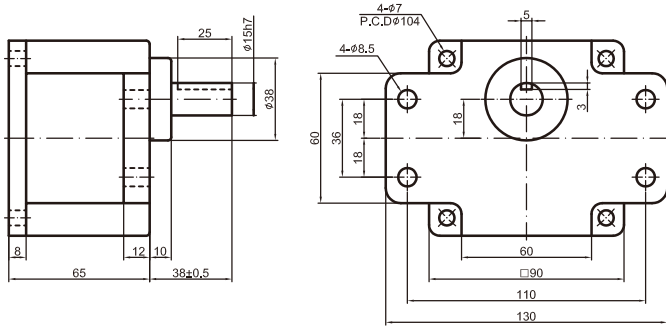
■ 5 GX□KB / SPEED REDUCER



■ 5GX10XK / INTERMEDIATE SPEED REDUCER

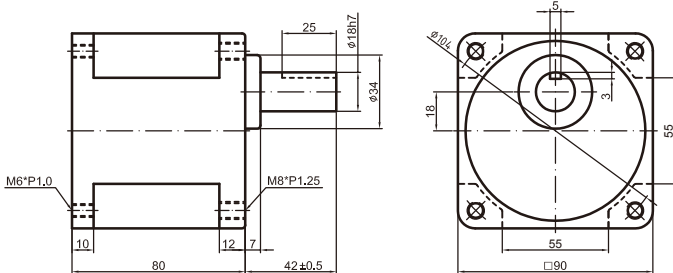


■ 5 GX□K / SPEED REDUCER



SPEED(rpm)	500	300	200	120	100	90	75	60	50	30	20	15	10	9	7.5
SPEED REDUCTION RATIO 50HZ	3	5	7.5	12.5	15	-	20	25	30	50	75	100	150	-	200
SPEED REDUCTION RATIO 60HZ	3.6	6	9	15	18	20	-	30	36	60	90	120	180	200	-
MAX. TORQUE(kgf.cm)	15	26	38	57	69	69	86	103	124	200	200	200	200	200	200

■ 5 GX□KBH / GRAVITY FORCE TYPE REDUCER



SPEED(rpm)	30	20	15	10	9	7.5
SPEED REDUCTION RATIO 50HZ	50	75	150	150	-	200
SPEED REDUCTION RATIO 60HZ	60	90	180	120	200	-
MAX. TORQUE(kgf.cm)	350	350	350	350	350	350

NOTES :

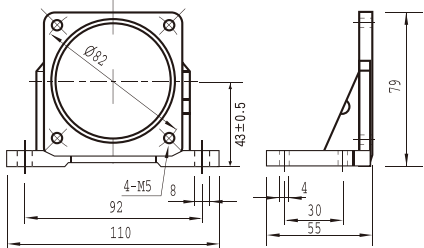
1. Please fill in the required speed reduction ratio in the □ (square) after the speed reducer model no.
2. Rotational speed is calculated by dividing the synchronous speed of the motor (50Hz: 1500rpm; 60Hz: 1800rpm) with the reduction ratio. Depending on total load, actual rotational speed is 2%~20% less.
3. Speed reducers marked in the highlighted areas have opposite rotational direction to the motor. Others unmarked have the same rotational direction as the motor.
4. Attention: metal chips or objects in speed reducer will result in gear damage, noise and shorten service-life when assembling with motor.
5. Please make sure that the shaft size of the motor matches to that of the accompanying reducer model before assembly, otherwise inconformity will occur.

COMPONENTS

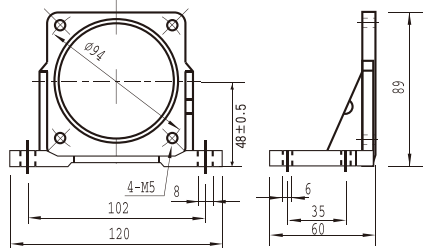
L TYPE BASE BRACKET FOR MOTOR INSTALLATION



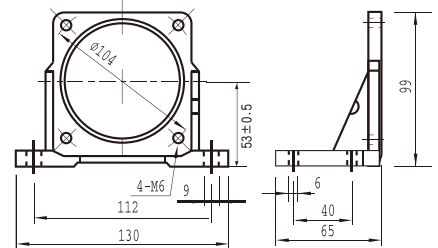
PAL-3N (□70mm)



PAL-4N (□80mm)

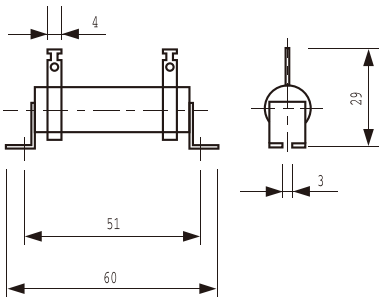


PAL-5N (□90mm)

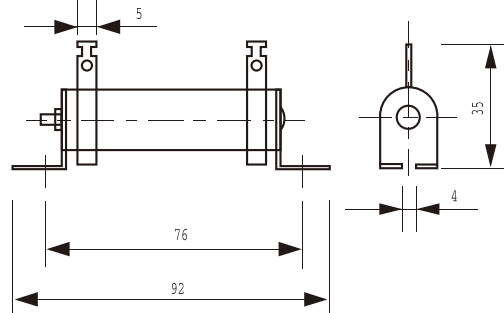


EXTERNAL RESISTOR FOR ELECTRONIC BRAKE CIRCUITS

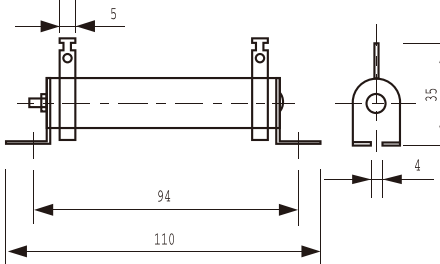
DDR10W10Ω J (10/10)



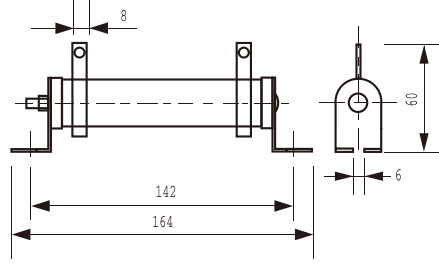
DDR20W20Ω J (20/20)



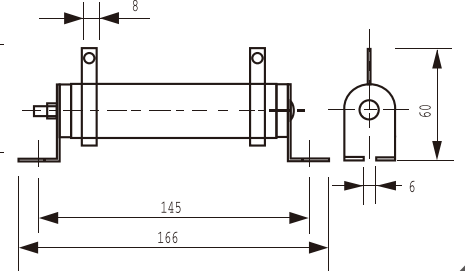
DDR30W20Ω J (30/20)



DDR50W50Ω J (50/50)

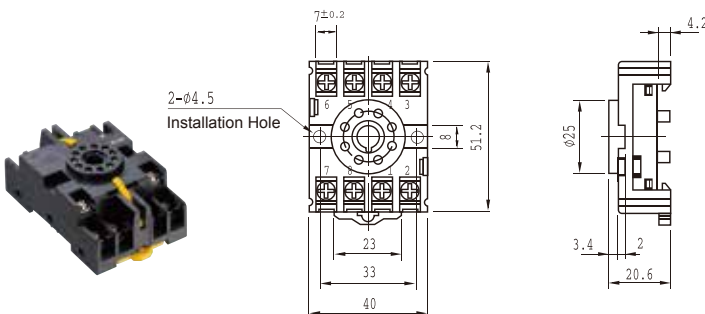


DDR80W50Ω J (80/50)

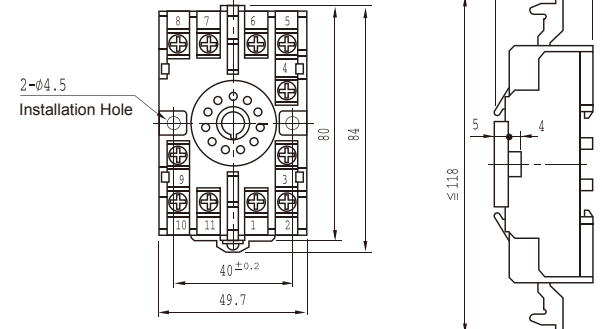


EXTENDED BASE BRACKET

PF-083A PIN Base (8 PIN)



11-PFA PIN Base (11 PIN)



GENERAL PURPOSE MOTOR

SPEED CONTROLLED MOTOR

CONTROLLER

BRAKE MOTOR

CLUTCH BRAKE MOTOR

TORQUE MOTOR

SPEED REDUCER

COMPONENTS