

POWER OFF ACTIVATED TYPE ELECTROMAGNEIC BRAKE MOTORS 无励磁动作型电磁制动电动机

60W

□90mm



规格 / 电动机 SPECS / MOTOR

没有内藏简易制动 This type of motor does not contain a built-in simple brake mechanism.

| 品名 Model 机型 Type 导线型 Lead Wire Type | | 额定 Rating | 输出功率 Output power W | 电压 Voltage V | 频率 Frequency Hz | 电流 Current A | 启动转矩 Starting Torque mN.m | 额定转矩 Rated Torque mN.m | 额定转速 Rated Speed r/min | 电容器容量 Capacitor μ F |
|--|-----------------|-----------|---------------------|------------------|-----------------|--------------|---------------------------|------------------------|------------------------|-------------------------|
| 齿轮轴型 Pinion Shaft | 圆轴型 Round Shaft | | | | | | | | | |
| 5RK60GN-AFM | 5RK60A-AFM | 3min | 60 | 1ph100 | 50 | 1.26 | 470 | 470 | 1200 | 25.0 |
| | | | | | 60 | | | | | |
| 5RK60GN-EFM | 5RK60A-EFM | 3min | 60 | 1ph110 1ph120 | 60 | 1.05 | 330 380 | 380 | 1550 | 15.0 |
| | | | | | | | | | | |
| 5RK60GN-CFM | 5RK60A-CFM | 3min | 60 | 1ph220 1ph230 | 50 | 0.55 0.60 | 420 460 | 470 | 1250 | 4.5 |
| | | | | | | | | | | |
| 5RK60GN-HFM | 5RK60A-HFM | 3min | 60 | 1ph220 1ph230 | 60 | 0.55 0.60 | 420 460 | 380 | 1550 | |
| | | | | | | | | | | |
| 5IK60GN-SFM | 5IK60A-SFM | 连续 Cont | 60 | 3ph220 | 50 | 0.45 | 1000 | 470 | 1250 | - |
| | | | | | 60 | 0.40 | 800 | | | |

●各种安全规格以电动机铭牌上的型号取得认定。●Ⓢ:内藏热保护装置(自动复位型)。在电机因某种原因过热时会自行启动使电动机停止。●电动机温度下降后恢复运行,故在进行检查作业时请务必事先切断电源。

●When the motor is approved under various safety standards, the model name on the nameplate is the approved model name. ●Contains a built-in thermal protector (automatic return). If a motor overheats for any reason, the thermal protector is 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.

种类 TYPE

●电动机 MOTOR

| 机型 Type | 型号 Model | |
|--------------------|-------------------|-----------------|
| | 齿轮轴型 Pinion Shaft | 圆轴型 Round Shaft |
| 导线型 Lead Wire Type | 5RK60GN-AFM | 5RK60A-AFM |
| | 5RK60GN-EFM | 5RK60A-EFM |
| | 5RK60GN-CFM | 5RK60A-CFM |
| | 5RK60GN-HFM | 5RK60A-HFM |
| | 5IK60GN-SFM | 5IK60A-SFM |

●平行轴减速器(另售) PARALLEL SHAFT GEARHEAD (SOLD SEPARATELY)

| 减速器种类 Gearhead Type | 减速器型号 Gearhead Model | 减速比 Gear Ratio |
|-------------------------------|----------------------------|---|
| 长寿命·低噪音 Long Life · Low Noise | 5GN□K | 3、3.6、5、6、7.5、9、12.5、15、18、25、30、36、50、60、75、90、100、120、150、180、200 |
| | 5GN10XK(中间减速器 Mid-gearbox) | |

- 减速器型号的□中为减速比的数值
- Enter the gear ratio in the box (□) within the model name

■ 装有减速器时的容许转矩

ALLOWABLE TORQUE WHEN BEING WITH GEARHEAD

- 减速器·中间减速器另售
- 减速器型号的□中为减速比的数值。
- 色表示与电动机同一方向运转，其他则为相反方向。
- 转速是以电动机的同步转速 (50Hz:1500r/min、60Hz:1800r/min) 为基准除以减速比而算出来的数值。实际转速将随负载大小变化而比所示数值减少 2%~20%左右。
- 希望以大于下表的减速比进行进一步减速时，可在电动机与减速器之间安装减速比为10的中间减速器。这时的容许转矩为10N·m
- Gearhead and mid-gearbox can be sold separately.
- Enter the gear ratio in the box (□) within the model name.
- The colored background indicates the same rotating direction of the motor while the rotating direction of others are opposite.
- The speed is calculated by dividing the motor's synchronous speed (50Hz: 1500r/min、60Hz: 1800r/min) by the gear ratio. The actual speed is 2%~20% less than the displayed value, depending on the size of the load.
- To reduce the speed beyond the gear ratio in the table, attach a mid-gearbox (gear ratio: 10) between the gearhead and motor. In that case, the permissible torque is 10 N·m.

容许力矩单位 Allowance Torque Unit: 上段 Upside (N.m) / 下段 Belowside (kgf.cm)

| 机型Type 电动机/减速器 Motor/Gearhead | 减速比Gear Ratio | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 12.5 | 15 | 18 | 25 | 30 | 36 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 | | |
|---|---------------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|-----|-----|------------------|-----|
| | | | | | | | | | | | | | | | | | | | | | | | 转速Speed r/min | |
| 5RK60GN-AFM 5RK60GN-EFM 5RK60GN-CFM 5RK60GN-HFM 5IK60GN-SFM | 5GN□K | 50Hz | 500 | 417 | 300 | 250 | 200 | 166 | 120 | 100 | 83 | 60 | 50 | 41 | 30 | 25 | 20 | 16 | 15 | 12.5 | 10 | 8.3 | 7.5 | |
| | | 60Hz | 600 | 500 | 360 | 300 | 240 | 200 | 144 | 120 | 100 | 72 | 60 | 50 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 | |
| | | 50Hz | 1.1 | 1.4 | 1.9 | 2.3 | 2.9 | 3.4 | 4.8 | 5.7 | 6.8 | 8.6 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| | | 60Hz | 11.2 | 14.2 | 19.3 | 23.4 | 29.6 | 34.7 | 48.9 | 58.1 | 69.3 | 87.7 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | | 50Hz | 0.92 | 1.1 | 1.5 | 1.8 | 2.3 | 2.8 | 3.8 | 4.6 | 5.5 | 6.9 | 8.3 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| | | 60Hz | 9.38 | 11.2 | 15.3 | 18.3 | 23.4 | 28.5 | 38.7 | 46.9 | 56.1 | 70.1 | 84.7 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | |

■ 容许悬挂负载·容许轴向负载

PERMISSIBLE OVERHUNG LOAD AND THRUST LOAD

电动机 (圆轴型) → P217
减速器 → P217

Motor (Round Shaft) → P217
Gearhead → P217

■ 减速器的容许负载惯性惯量 J

PERMISSIBLE LOAD INERTIA J FOR GEARHEAD

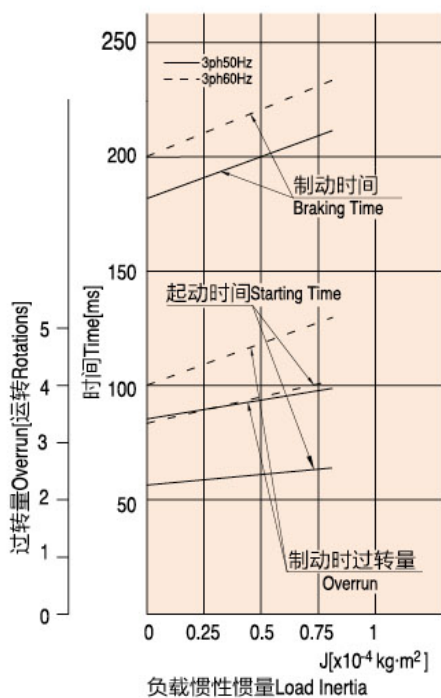
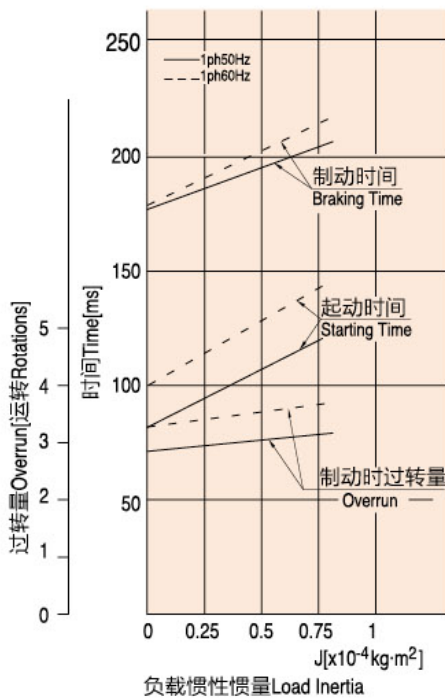
→ P218

■ 起动、制动特性(参考值)

STARTING AND BRAKE CHARACTERISTICS(REFERENCE VALUES)

● 单相电动机 Single-phase Motor

● 三相电动机 Three-phase Motor

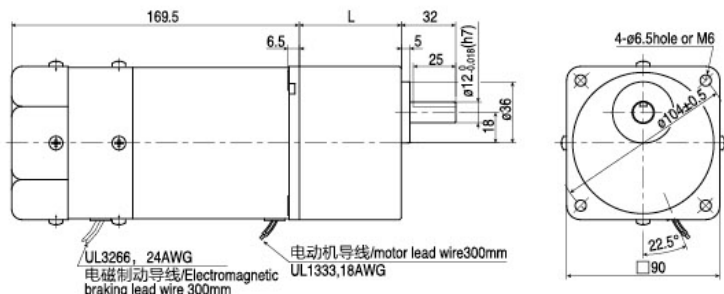


外形图 (单位 mm) DIMENSIONS(Unit mm)

减速器附有安装用螺丝
Mounting screws are included with gearhead.

● 导线型 Lead wiring Type

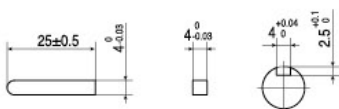
重量 Weight: 电动机 Motor 3.55kg 减速器 Gearhead 1.35kg



| 电动机型号 Motor Model | 减速器型号 Gearhead Model | 减速比 Gear Ratio | L1 |
|---|-------------------------|-------------------|----|
| 5RK60GN-AFM 5RK60GN-EFM 5RK60GN-CFM 5RK60GN-HFM 5IK60GN-SFM | 5GN□K | 3~18 | 42 |
| | | 25~200 | 60 |

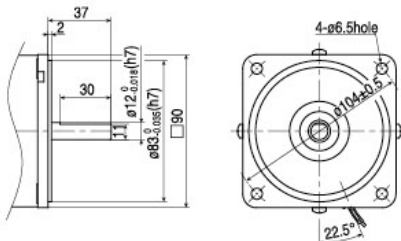
- 减速器型号的□中为减速比的数值
- Enter the gear ratio in the box (□) within the model name

● 键·键槽 (减速器附件) Key-keyway (The key is included with the gearhead)



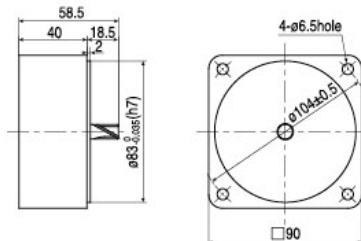
● 圆轴型的转轴部分 Shaft Section of Round Shaft Type

除重量及轴部外, 电动机外形与齿轮轴相同
Excluding weight and the shaft section Motor shape are the same as those of the pinion shaft



● 中间减速器 Mid-gearbox

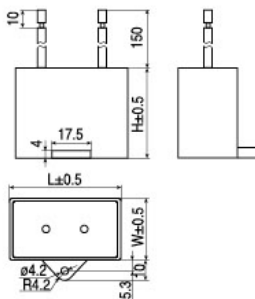
可安装在GN齿轮轴型上
Can be connected to GN pinion Shaft type 5GN10XK
重量 Weight: 0.6kg



● 电容器外形尺寸 Formal Dimension of Capacitor

| 型号 Model | | 电容器型号 Capacitor Model | L | W | H |
|----------------------|--------------------|--------------------------|----|----|----|
| 齿轮轴型 Pinion Shaft | 圆轴型 Round Shaft | | | | |
| 5RK60GN-AFM | 5RK60A-AFM | ZD250CFAUL | 47 | 23 | 35 |
| 5RK60GN-EFM | 5RK60A-EFM | ZD150CFAUL | 47 | 20 | 31 |
| 5RK60GN-CFM | 5RK60A-CFM | ZD45BFAUL | 47 | 19 | 31 |

- 常规电容器出线为引线, 也可根据客户要求配置插件式187#
- Note: Conventional capacitor is a lead wire type. Inserted 187# is optional



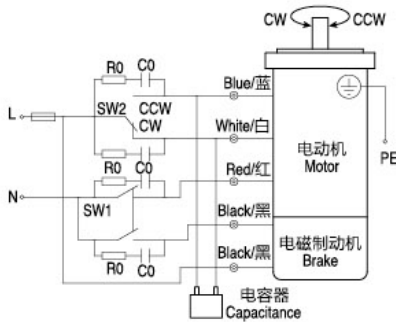
连接图 CONNECTION DIAGRAMS

- 运转方向指从电动机轴看来的方向。CW表示顺时针方向，CCW表示逆时针方向。
- 表中所记品名为齿轮轴型，圆轴型亦同。
- The direction of motor rotation is as viewed from the shaft end of motor.
CW represents the clockwise direction, while CCW represents the counterclockwise direction.
- Name indicated in the list is pinion shaft type, also valid for the equivalent round.

单相电动机 Single-phase Motor

5RK60GN-AFM、5RK60GN-EFM、5RK60GN-CFM、5RK60GN-HFM

- SW1为电动机的运行/停止及电磁制动操作开关。(联动) ● SW1设定ON时，电磁制动解除，电动机开始运作。
- SW1设定OFF时，电动机停止，电磁制动开始工作。
- 在电动机停止状态下解除电磁制动时，应将SW1设定为非联动，而仅将色导线侧的接触点设定ON。
- 运转方向 ● 将SW2转换至CW侧时，电动机作顺时针方向运转。 ● 将SW2转换至CCW侧时，电动机作逆时针方向运转。
- SW1 operates both motor and electromagnetic brake action. (Switched Simultaneously)
- The motor will rotate when SW1 is switched simultaneously to ON
- When SW1 is switched simultaneously to OFF, the motor is stopped, set the electromagnetic brake and holds the load.
- If you wish to release the brake while the motor is stopped, set the SW1 to be off and connection point at the side of black lead to be on.
- Direction of Rotation. ● To rotate the motor in a clockwise (CW) direction, turn SW2 to CW. ● To rotate the motor in a counterclockwise (CCW) direction, turn SW2 to CCW.

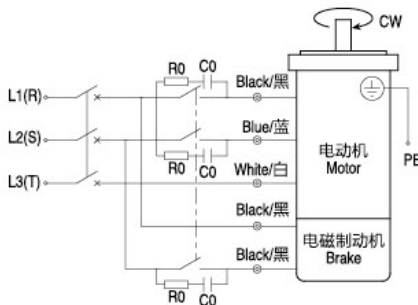


| 开关号码 Switch NO. | 开关的接触点容量Contact capacity switch | | 参考 Note |
|--------------------|---|---|------------------------------|
| | 单相100V、110/120V输入 Single-Phase 100VAC, 110/120VAC Input | 单相220V、230V输入 Single-Phase 200VAC, 220/230VAC Input | |
| SW1 | AC125V 3A以上 (感应负载) 125 VAC 3A | AC250V 1.5A以上 (感应负载) 250 VAC 1.5A | 联动Switched Simultaneously |
| SW2 | minimum Switched Simultaneously (Inductive Load) | minimum Switched Simultaneously (Inductive Load) | - |

三相电动机 Three-phase Motor

5IK60GN-SFM

- SW1为电动机的运行/停止及电磁制动操作开关。(联动) ● SW1设定ON时，电磁制动解除，电动机开始运作。
- SW1设定OFF时，电动机停止，电磁制动开始工作。
- 在电动机停止状态下解除电磁制动时，应将SW1设定为非联动，而仅将色导线侧的接触点设定ON。
- 运转方向 ● 若对换R、S、T中任意二条，电动机逆时针方向运转
- SW1 operates both motor and electromagnetic brake action. (Switched Simultaneously)
- The motor will rotate when SW1 is switched simultaneously to ON
- When SW1 is switched simultaneously to OFF, the moto is stopped, set the electromagnetic brake and holds the load.
- If you wish to release the brake while the motor is stopped, set the SW1 to off and connection point at the side of black lead to be on.
- Direction of Rotation. ● To change the rotation direction, change any two connections among R, S and T.



| 开关号码 Switch NO. | 开关的接触点容量Contact capacity switch | 参考 Note |
|--------------------|--|------------------------------|
| SW1 | AC250V 1.5A以上 (感应负载) AC250 VAC 1.5A minimum Switched Simultaneously (Inductive Load) | 联动Switched Simultaneously |

● 请注意 Note:

- R0C0为吸收电涌电压用CR电路。[R0=5~200Ω C0=0.1~0.2μF、200WV(400WV)]
- 请使用选购配件EPCR1201-2
- R0 and C0 indicate surge suppressor circuit.[R0=5~200Ω C0=0.1~0.2μF, 200WV(400WV)]
- EPCR1201-2 is available as an optional surge suppressor.