



INDUSTRIAL SOLUTIONS

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# MOTOR AND SPEED REDUCER

## CLUTCH BRAKE MOTOR 離合剎車馬達



### ● 特徵 FEATURES

#### ■ 適用高頻率之問歇運轉 SUITABLE FOR HIGHLY FREQUENT START/STOP OPERATION

使用高精密度、高應答性的離合器及煞車器，最適合高頻率啟動/停止的機構。High precision and responsive clutch and brake are most suitable for frequent start/stop applications.

#### ■ 定位精準 PRECISE POSITIONING

當煞車器作動時，離合器會將馬達的連結跳開，因無馬達過轉問題，可使定位相當精準。

When the brake is in use, the clutch will separate the link from the brake, so there are no overruns, making positioning precise and accurate.

#### ■ 設計精簡 SIMPLE DESIGN

採用精巧、不佔空間的設計理念，不但操作容易，且能使機械美觀、簡潔。Adapting compact and space-saving design, making it easy to operate and looking elegant.

### ● 離合剎車器的構造 CONSTRUCTION OF CLUTCH BRAKER

離合剎車器是使用精密離合器與煞車器加以組合，適用於高頻率的啟動/停止。在與減速機結合後，很容易達成位置決定、寸動及間接輸送等動作。A clutch brake is a precision clutch assembled with a brake, suitable for highly frequent start/stop operation. After adjoining with a speed reducer, it can easily accomplish actions such as positioning, inch movement and interval transportation.

#### ■ 離合剎車器的規格 SPECIFICATION OF THE CLUTCH BRAKER

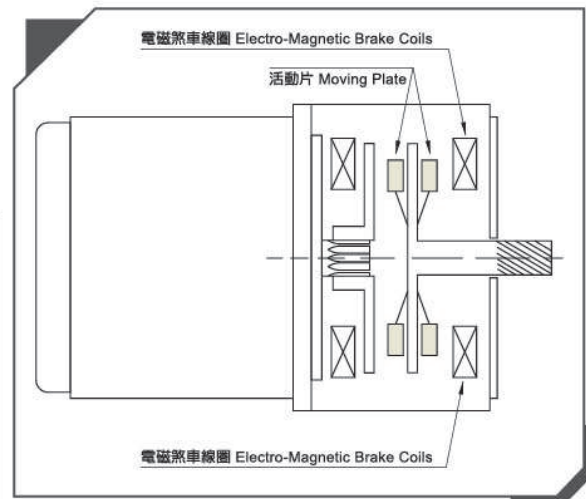
機型 MODELS	GK機型 GK TYPE		GS機型 GS TYPE	
	剎車器 BRAKER	離合器 CLUTCH	剎車器 BRAKER	離合器 CLUTCH
靜摩擦力矩 (kg.cm) STATIC FRICTION TORQUE	10	10	15	15
動摩擦力矩 (kg.cm) DYNAMIC FRICTION TORQUE	7	7	10	10
額定電壓 (DC-V) RATED VOLTAGE	24	24	24	24
容量 (W) CAPACITY (AT 20°C)	8	6	8	6
動作程度 MOVEMENT	最大100回/分鐘 Max.: 100 rounds/min			

#### ■ 絕緣阻抗 INSULATING RESISTANCE :

線圈與外殼間以DC 500V高阻計量測，測定值在10MΩ以上。  
Tested value at 10MΩ and above, measured by DC 500V hi-resistance meter between the coil and housing.

#### ■ 絕緣耐力 INSULATION ENDURANCE :

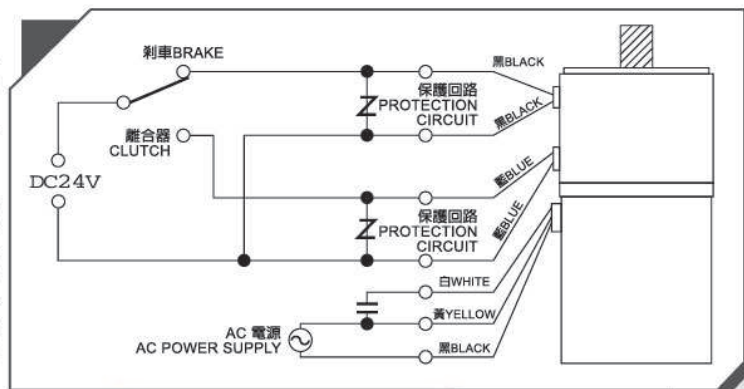
線圈與外殼間以60Hz, 1kV加入一分鐘無異狀。  
No damages caused after 1kV at 60Hz was tested between the coil and housing.



### ● 離合剎車器的結線圖 WIRING OF A CLUTCH BRAKE

馬達電源(AC)與離合器、煞車用電源(DC24V)必須分開。馬達在運轉狀態時，開關切向離合器側時，出力軸開始迴轉並將動力傳出。切向煞車側時瞬時停止，且保有很大的保持力。若將DC電源切斷時，出力軸可以自由轉動。

The power source for the motor (AC) and the clutch/brake (DC24V) must be separated. As the switch is on the clutch side when the motor is rotating, the output shaft will start rotating and transmits power accordingly. As the switch is on the brake side, it would stop instantly and hold great retention force. If the DC power is shut off, the output shaft can rotate freely.



通用型馬達

速度控制型馬達

控制器

煞車馬達

離合煞車馬達

轉矩馬達

減速機

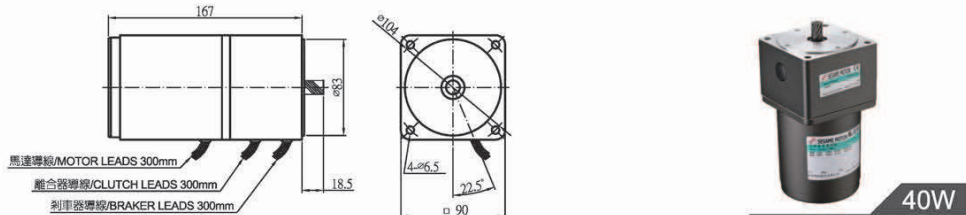
零件類

推桿馬達

INDUCTION CLUTCH BRAKE MOTOR

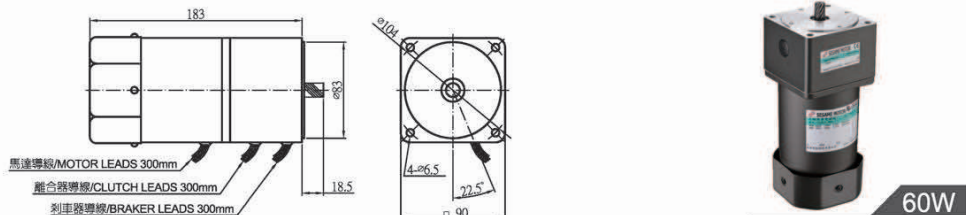
離合剎車 連續運轉型

- 外形圖與規格表
- OUTLINE & SPECIFICATION
- 單位/UNIT : mm



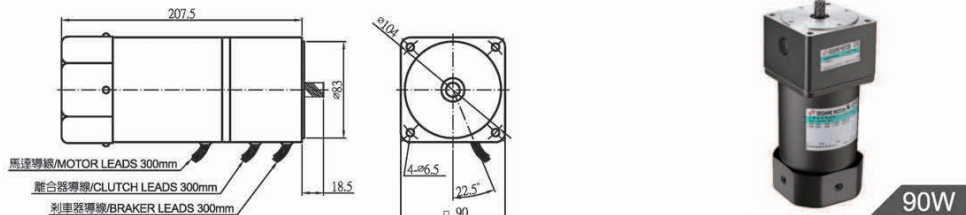
40W

馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	額定轉速 (rpm) RATED SPEED	額定時間 (RATED TIME)	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK40GK-A	MBC90GN-DC24V	40	1ø100/110	50/60	4	1250/1600	連續 Continuous	2.14/2.66	3.17/2.41	0.87/0.76	10/300V
5IK40GK-C	MBC90GN-DC24V	40	1ø200/220	50/60	4	1300/1650	連續 Continuous	1.75/2.17	3.01/2.35	0.4/0.34	2.5/450V
5IK40GK-CE	MBC90GN-DC24V	40	1ø230/240	50	4	1350/1350	連續 Continuous	2.3/2.58	2.87/2.84	0.32/0.32	2.5/450V
5IK40GK-S	MBC90GN-DC24V	40	3ø220	60	4	1400/1600	連續 Continuous	10.51/7.83	2.83/2.4	0.29/0.27	-
5IK40GK-U	MBC90GN-DC24V	40	3ø380	60	4	1350/1600	連續 Continuous	9.25/6.68	2.85/2.45	0.16/0.15	-



60W

馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	額定轉速 (rpm) RATED SPEED	額定時間 (RATED TIME)	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK60GS-AF	MBC90GX-DC24V	60	1ø100/110	50/60	4	1200/1650	連續 Continuous	2.6/2.94	5.0/3.5	1.8/1.12	16/300V
5IK60GS-CF	MBC90GX-DC24V	60	1ø200/220	50/60	4	1250/1600	連續 Continuous	3.62/4.41	4.64/3.63	0.64/0.54	4/450V
5IK60GS-CE	MBC90GX-DC24V	60	1ø230/240	50	4	1300/1350	連續 Continuous	4.14/5.22	4.56/4.40	0.56/0.55	4/450V
5IK60GS-SF	MBC90GX-DC24V	60	3ø220	60	4	1300/1550	連續 Continuous	13.72/10.70	4.47/3.77	0.41/0.39	-
5IK60GS-UF	MBC90GX-DC24V	60	3ø380	60	4	1400/1550	連續 Continuous	14.33/10.15	4.2/3.79	0.21/0.22	-



90W

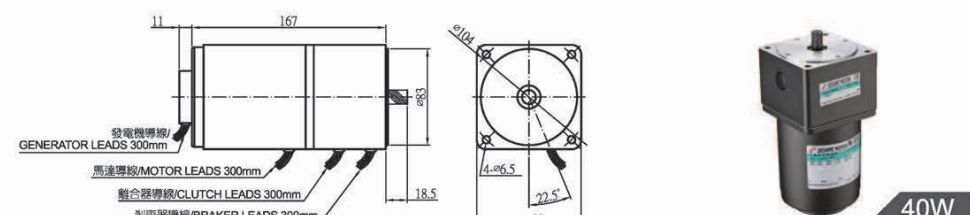
馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	額定轉速 (rpm) RATED SPEED	額定時間 (RATED TIME)	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK90GS-AF	MBC90GX-DC24V	90	1ø100/110	50/60	4	1300/1650	連續 Continuous	4.76/5.86	6.68/5.33	1.5/1.41	22/250V
5IK90GS-CF	MBC90GX-DC24V	90	1ø200/220	50/60	4	1300/1650	連續 Continuous	4.3/4.21	6.89/5.34	0.76/0.72	5/450V
5IK90GS-CE	MBC90GX-DC24V	90	1ø230/240	50	4	1350/1350	連續 Continuous	4.93/5.08	6.44/6.42	0.66/0.68	5/450V
5IK90GS-SF	MBC90GX-DC24V	90	3ø220	60	4	1400/1650	連續 Continuous	23.3/18.25	6.4/5.3	0.7/0.6	-
5IK90GS-UF	MBC90GX-DC24V	90	3ø380	60	4	1400/1650	連續 Continuous	23.3/18.14	6.3/5.3	0.4/0.3	-

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty. 產品因人為原因或天災等因素導致不良或損壞，不在保固範圍內。

VARIABLE SPEED CLUTCH BRAKE MOTOR

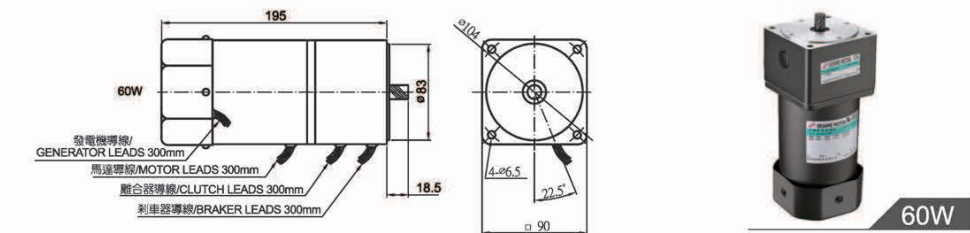
離合剎車 無段變速型

- 外形圖與規格表
- OUTLINE & SPECIFICATION
- 單位/UNIT : mm



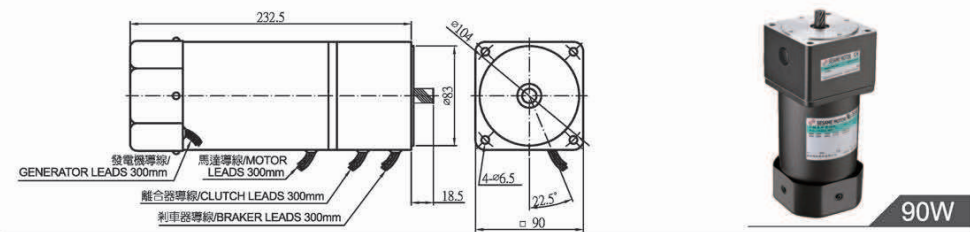
40W

馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) RATED OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	電流 (A) CURRENT	調速範圍 (rpm) ADJUSTABLE RANGE	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK40RGK-A	MBC90GN-DC24V	40	100/110	50/60	4	0.87/0.76	90~1400/90~1700	2.14/2.66	3.16/2.41	0.87/0.76	10/300V
5IK40RGK-C	MBC90GN-DC24V	40	200/220	50/60	4	0.4/0.34	90~1400/90~1700	1.75/2.17	3.6/2.4	0.4/0.34	2.5/450V
5IK40RGK-CE	MBC90GN-DC24V	40	230/240	50	4	0.32/0.32	90~1400	2.3/2.58	4.4/4.6	0.32/0.32	2.5/450V



60W

馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) RATED OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	電流 (A) CURRENT	調速範圍 (rpm) ADJUSTABLE RANGE	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK60RGK-AF	MBC90GN-DC24V	60	100/110	50/60	4	1.8/1.12	90~1400/90~1700	2.6/2.94	5.6/6.9	1.8/1.12	16/300V
5IK60RGK-CF	MBC90GN-DC24V	60	200/220	50/60	4	0.64/0.54	90~1400/90~1700	3.62/4.41	5.9/6.9	0.64/0.54	4/450V
5IK60RGK-CEF	MBC90GN-DC24V	60	230/240	50	4	0.56/0.55	90~1400	4.14/5.22	7.2	0.56/0.55	4/450V



90W

馬達/MOTOR	離合剎車機/CLUTCH BRAKE	額定輸出 (W) RATED OUTPUT	電壓 (V) VOLTAGE	頻率 (HZ) FREQ.	極數 (P) POLE	電流 (A) CURRENT	調速範圍 (rpm) ADJUSTABLE RANGE	起動轉矩 (Kg.cm) STARTING TORQUE	額定轉矩 (Kg.cm) RATED TORQUE	額定電流 (A) RATED CURRENT	電容量 (μF) CAPACITY
5IK90RGS-AF	MBC90GX-DC24V	90	100/110	50/60	4	1.5/1.41	90~1400/90~1700	4.76/5.86	8.4/10.2	1.5/1.41	22/250V
5IK90RGS-CF	MBC90GX-DC24V	90	200/220	50/60	4	0.76/0.72	90~1400/90~1700	4.3/4.21	8/8	0.76/0.72	5/450V
5IK90RGS-CEF	MBC90GX-DC24V	90	230/240	50	4	0.66/0.68	90~1400	4.93/5.08	9.8/10.2	0.66/0.68	5/450V

- 備註:
1. 選用離合器的馬達因停動頻率及停動時間會產生很大的慣性矩，因此在選用適合齒輪時，請詳計算本身機器上的反饋慣性矩，並告知本公司，讓本公司為貴公司提供適用之齒輪。
  2. 因瞬間啓動及停止會產生很大的電流，致使馬達溫度急速升高，因停動頻率不可大於20次/分，GK離合器剎車之出力軸一律為GN軸，而GS離合器剎車之出力軸一律為GX軸。

- NOTES:
1. A clutch motor will have great inertia according to the stop frequency and interval. When selecting a connecting gear, please calculate the feedback inertia accurately on your machine and advise us, so we can provide you the applicable model of speed reducer.
  2. Instant start and stop will produce great currents, causing the temperature to rise rapidly, thus the start-stop frequency could not exceed 20 times per minute. GK model clutch brake motors have GN shafts, and GS model clutch brake motors have GX shafts.