



ELECTRONIC INSTANT BRAKE

電子式瞬時煞車器 (SB Series)

■ 使用頻率及界限

OPERATING FREQUENCY AND LIMITATION

雖然IN機形可用於寸動功能，如果使用頻率太高，馬達不斷的啟動、制動，會使溫度變高。所以馬達的表面溫度超過90°時，請暫停使用。

Although the "IN" model could be used for inch movement, a rise in temperature would result from frequent start-stop action of the motor. Please suspend operation temporarily if the surface temperature of the motor exceeds 90°C.

■ 安裝時應注意事項 INSTALLATION CAUTIONS.

- 一台馬達請用一台電子式制車器。
- 馬達出力不同結線方法也不同，所以請依47頁的結線圖結線。
- 開關SW1切向運轉側，馬達開始運作。切向制動側，馬達瞬時停止。
- 端子間有200V 以上電壓，所以結線時請特別注意。
- 開關繼電器、閘刀開關請使用規格品。SB32-IN及SB32S-IN使用開關接點容量AC200V、5A 以上。
- 結線圖範例，表示從馬達軸側看，為順時針方向旋轉的結線方式。
若要作反時針旋轉之結線時：1. 感應式馬達：黃色線與白色導線對換。2. 可逆式馬達：切換SW2開關。
CW：順時鐘方向旋轉 CCW：反時鐘方向旋轉
- 在正逆轉操作的場合，當制動開關(SW1)動作後，需有0.5秒以上才能切換方向開關(SW2)。
- 在制動頻繁的情況下，外接電阻會相當熱，安裝時需特別注意。
- 馬達起動時及制動操作後0.5秒內，請勿作反向旋轉之操作。
- 馬達為感應性負荷，故接點關閉時會有火花產生，為了保護接點，必須連接如結線圖上突波吸收用之CR回路。
Ro=5~200Ω(1/2W以上) Co=0.1~0.2 μF(400VAC以上)
- Apply only one electronic brake onto one motor.
- Motor wiring depends on motor output, please follow the wire diagram to make the wire connection.
- When SW1 is switched from "run" to "brake", the electronic brake is applied to stop the motor instantly.
- Be cautious about the 200 and above voltage among terminals when wiring.
- Apply industrial standard relay switch and gate switch. SB32-IN and SB32S-IN contact capacity is above AC200V, 5A.
- Wire-diagram, it is based on motor shaft point of view, as for clockwise rotate connectivity.
For conduct counter-clock rotation: 1. induction motor: yellow line and white wire on the exchange. 2. reversible motor: switch SW2 switches.
CW: clockwise CCW: counter-clockwise rotation
- For operated a reversible motor, it is require more than 0.5 second to switch its reversible mode.
- In the case of frequent braking, its external resistance will be very hot. For the installation, should pay particular attention.
- Within 0.5 seconds after motor start and operation, please do not perform reversible operation.
- To protect power connect spot from spark light when power on or off, it is require to enforce the connectivity via wire diagram such as surge absorber with CR circuit. Ro=5~200Ω(1/2W above) Co=0.1~0.2 μF(400VAC above)

■ 制動原理 BRAKING PRINCIPLES

電子制車回路是以被半波整流的脈動直流，流入馬達而產生之定向磁場，將馬達瞬間停止。制動電流是由控制器產生，僅在一短時間流入馬達，而後便無作用制動電流的流入時間(約0.5秒)是由控制器內的定時電路控制。因為是用電器特性來產生制車，所以無磨損，動作確實且壽命長。

Electronic brake circuit is design to introduce pulsated direct current rectified by the half wave into motor, to produce directional magnetic field and stop the motor instantly. Brake current is produced by the controller and introduced into motor in a very short time only. The time frame for brake current enter into the motor (approx 0.5 seconds) is controlled by timing circuit inside the controller. No friction created between parts, therefore lifespan is extended.

規格表 SPECIFICATIONS

品名 MODEL	電壓(V) VOLTAGE(V)	相數 PHASE	制車保持力 BRAKE HOLDING FORCE	制車精度 BRAKE PRECISION	馬達出力(W) MOTOR OUTPUT	工作環境溫度 TEMPERATURE
SB31-IN	100 ~ 125	1φ 單相 Single Phase	0.5秒 / Second	200°	6 ~ 90	-10°C ~ +40°C
SB32-IN	200 ~ 240	1φ 單相 Single Phase	0.5秒 / Second	200°	6 ~ 90	-10°C ~ +40°C
SB32S-IN	200 ~ 240	3φ 三相 Three Phase	0.5秒 / Second	200°	6 ~ 90	-10°C ~ +40°C

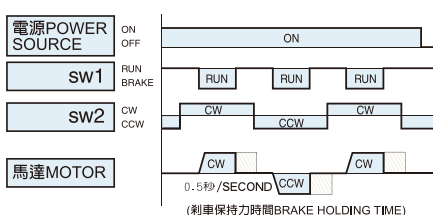
■ 絕緣阻抗 INSULATING RESISTANCE :

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.

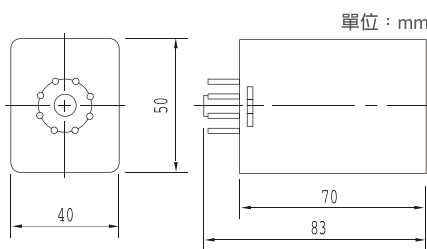
■ 絕緣耐力 INSULATION ENDURANCE :

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 for one minute between the coil and housing.

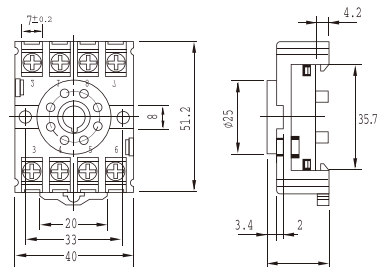
■ 電子式制車器作動時序圖 OPERATIONAL STEPS OF AN ELECTRONIC BRAKE



■ 外型尺寸圖 DRAWING DIMENSIONS



■ 腳座 8-PIN BASE :



泛用型馬達

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

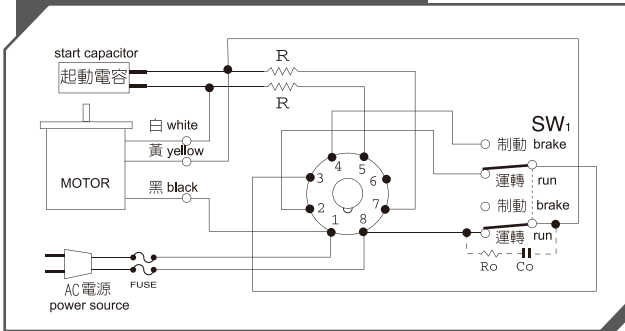
ELECTRONIC INSTANT BRAKE

電子式瞬時煞車器

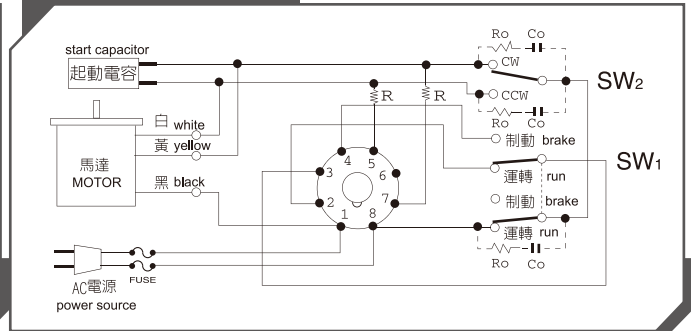
■ SB31-IN(單相110~125V) SINGLE PHASE 110~125V

■ SB32-IN(單相200~240V) SINGLE PHASE 200~240V

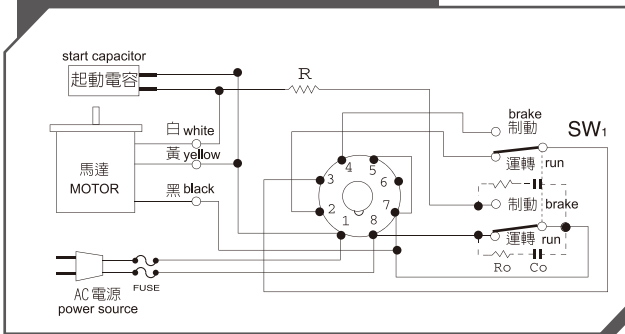
出力6W~25W，單方向運轉
OUTPUT 6W~25W · SINGLE DIRECTION ROTATION



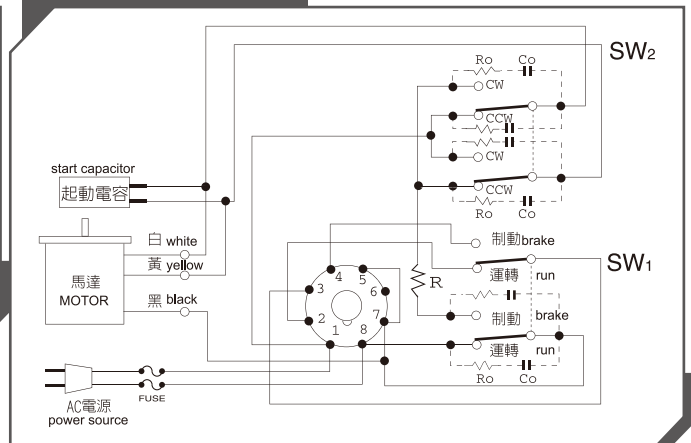
出力6W~25W，正逆轉
OUTPUT 6W~25W · REVERSIBLE



出力40W~90W，單方向運轉
OUTPUT 40W~90W · SINGLE DIRECTION ROTATION

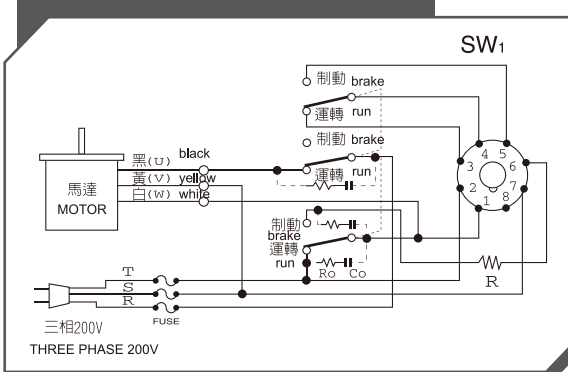


出力40W~90W，正逆轉
OUTPUT 40W~90W · REVERSIBLE

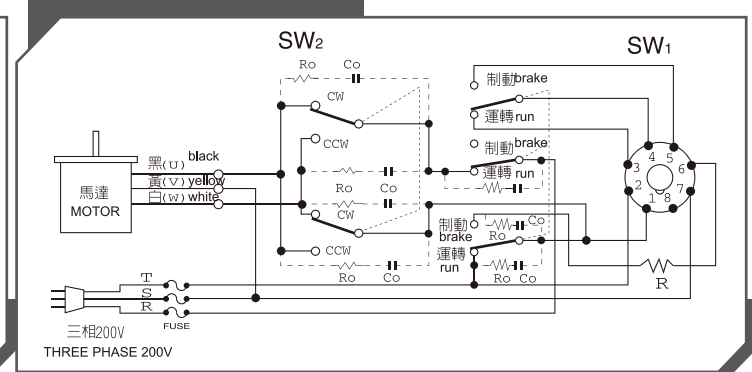


■ SB32S(三相200~240V) THREE PHASE 200~240V

出力25W~90W，單方向運轉



出力25W~90W，正逆轉



■ 外接電阻之選擇 SELECTION OF EXTERNAL RESISTANCE

- 出力6W ~ 25W 的外接電阻為20W / 20 Ω。(品名: DDR20W20 Ω)
- 在制動頻率很高的情況下，外接電阻的溫度會很熱，請改用30W / 20 Ω的外接電阻(品名: DDR30W / 20 Ω)
- 出力40W ~ 90W 的外接電阻為50W / 50 Ω。(品名: DDR50W50 Ω)
- 在制動頻率很高的情況下，外接電阻的溫度會很熱，請改用80W / 50 Ω的外接電阻。(品名: DDR80W50 Ω)
- Output 6W~25W: external resistance 20W/20Ω. (Model:DDR20W20 Ω)
- In frequent braking situation, temperature of external resistance would be very high. please use external resistance 30W20Ω. (Model:DDR30W20Ω)
- Output 40W~90W: external resistance 50W/50Ω. (Model:DDR50W50 Ω)
- In frequent braking situation, temperature of external resistance would be very high. please use external resistance 80W50Ω. (Model:DDR80W50Ω)

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。