

SPEED CONTROLLED MOTOR

速度控制型馬達

- 配線簡單，速度控制容易 Easy Wiring and Speed Control
- 內建電子式煞車回路，具瞬時煞車功能 Built-in Electronic Brake Circuits for Instant Braking
- 速度變化範圍寬廣 Wide Range of Variable Speeds
- 具備並列運轉之功能 Parallel Rotation Performance
- 高應答性、高安定性之速度變化 High-Responsive and Great Stability in Speed Control
- 能與其他控制系統連結 Linkable to Other Control Systems

● 組合型 ASSEMBLED TYPE (US Series)



控制用迴路、運轉電容及可變電阻等均組合在一個控制箱內，並採用連結器與馬達連結、只要接上電源即可使用。
Circuits, capacitor, and variable resistor are assembled into one control box, which is attached to the motor via connector. Ready-to-use.

- ◎ 出力6W-90W
- ◎ 馬達搭配組合型控制器使用
- ◎ Output: 6W-90W
- ◎ Motor should be used along with an assembled type controller.

● 分離型 SEPARATED TYPE (SS Series)

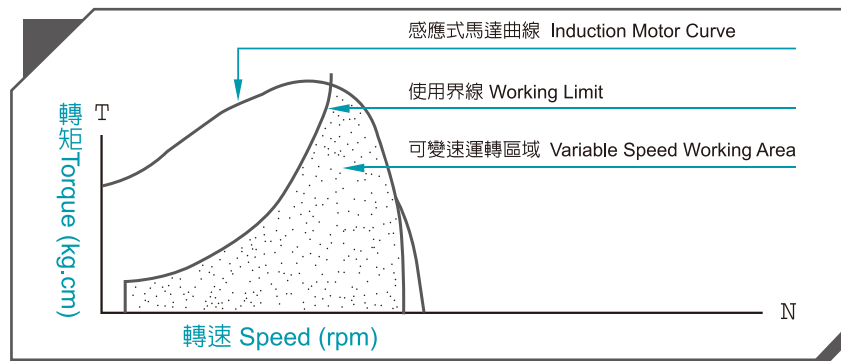


附轉速發電機的感應式馬達與可逆式馬達，可依用途及需求而採用不同的配線方式與控制器連結。
According to different purpose and needs, induction and reversible motors equipped with generators will adopt various wiring methods and controller types.

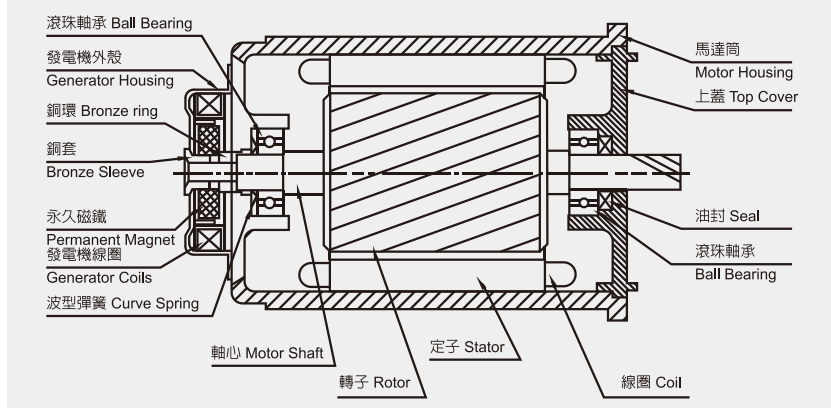
- ◎ 變速、正逆轉
- ◎ 瞬時煞車
- ◎ 並列運轉
- ◎ 與其他系統連結
- ◎ 出力6W-90W
- ◎ Variable Speed, Forward/Reverse
- ◎ Instant Braking
- ◎ Parallel Rotation
- ◎ Connectable to Other Systems
- ◎ Output: 6W-90W

● 轉速-轉矩特性

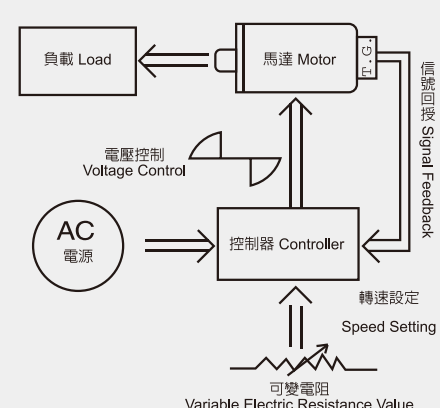
SPEED-TORQUE CURVE



速度控制型馬達構造圖 SPEED CONTROLLED MOTOR CONSTRUCTION



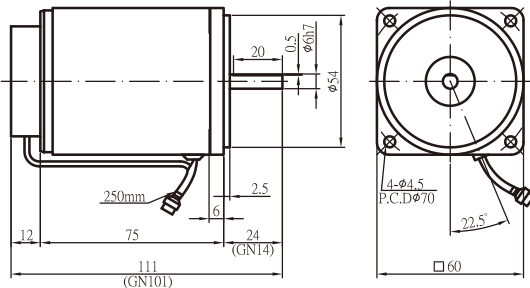
控制原理 CONTROL PRINCIPLES



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

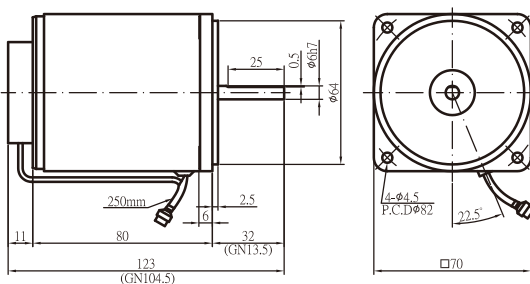
ASSEMBLED TYPE, VARIABLE SPEED, INDUCTION/REVERSIBLE MOTOR

組合型無段變速馬達 感應式/可逆式



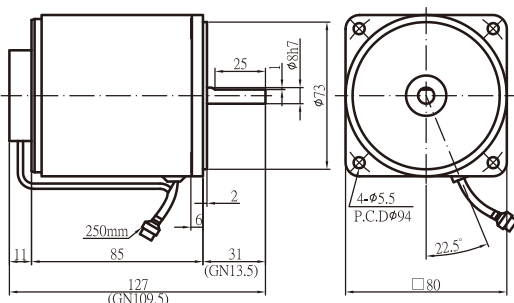
6W外型圖

6W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	M206-(0/4)01	連續Continuous	6	100/110	50/60	4	0.22/0.21	90~1400/90~1700	0.7/0.63	0.4/0.55	0.72/0.5
	M206-(0/4)02	連續Continuous	6	200/220	50/60	4	0.1/0.1	90~1400/90~1700	0.65/0.7	0.44/0.66	0.6/0.7
	M206-(0/4)02E	連續Continuous	6	230/240	50	4	0.11/0.1	90~1400	0.74/0.77	0.39/0.52	0.72/0.8
可逆式 REVERSIBLE	M206-(0/4)11	30分鐘/minutes	6	100/110	50/60	4	0.24/0.25	90~1400/90~1700	0.72/0.7	0.3/0.49	0.6/0.52
	M206-(0/4)12	30分鐘/minutes	6	200/220	50/60	4	0.13/0.15	90~1400/90~1700	0.72/0.8	0.26/0.52	0.67/0.7
	M206-(0/4)12E	30分鐘/minutes	6	230/240	50	4	0.14/0.14	90~1400	0.95/0.94	0.36/0.31	0.8/0.8



15W外型圖

15W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	M315-(0/4)01	連續Continuous	15	100/110	50/60	4	0.36/0.35	90~1400/90~1700	0.88/1.04	0.9/1.5	1.0/1.1
	M315-(0/4)02	連續Continuous	15	200/220	50/60	4	0.18/0.18	90~1400/90~1700	0.75/1.1	1.1/1.5	1.0/1.1
	M315-(0/4)02E	連續Continuous	15	230/240	50	4	0.17/0.17	90~1400	1.06/1.06	1.40/1.32	1.02/1.25
可逆式 REVERSIBLE	M315-(0/4)11	30分鐘/minutes	15	100/110	50/60	4	0.37/0.44	90~1400/90~1700	1.17/1.24	1.1/1.2	0.9/0.85
	M315-(0/4)12	30分鐘/minutes	15	200/220	50/60	4	0.20/0.23	90~1400/90~1700	0.96/1.34	1.4/1.2	0.9/0.85
	M315-(0/4)12E	30分鐘/minutes	15	230/240	50	4	0.19/0.21	90~1400	1.36/1.31	1.52/1.4	1.20/1.10



25W外型圖

25W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	M425-(0/4)01	連續Continuous	25	100/110	50/60	4	0.57/0.45	90~1400/90~1700	1.4/1.4	2.17/2.5	1.4/1.4
	M425-(0/4)02	連續Continuous	25	200/220	50/60	4	0.28/0.25	90~1400/90~1700	1.57/1.38	2.1/2.4	1.6/1.3
	M425-(0/4)02E	連續Continuous	25	230/240	50	4	0.25/0.24	90~1400	1.38/1.55	2.2/2.4	1.5/1.7
可逆式 REVERSIBLE	M425-(0/4)11	30分鐘/minutes	25	100/110	50/60	4	0.56/0.51	90~1400/90~1700	1.65/1.92	2.2/2.9	1.5/1.9
	M425-(0/4)12	30分鐘/minutes	25	200/220	50/60	4	0.29/0.3	90~1400/90~1700	1.98/1.94	2.4/2.6	1.9/1.8
	M425-(0/4)12E	30分鐘/minutes	25	230/240	50	4	0.25/0.25	90~1400	2.22/2.19	2.7/2.9	2.24/2.3

泛用型馬達
GENERAL PURPOSE MOTOR

速度控制型馬達
SPEED CONTROLLED MOTOR

控制器
CONTROLLER

煞車馬達
BRAKE MOTOR

離合煞車馬達
CLUTCH BRAKE MOTOR

轉矩馬達
TORQUE MOTOR

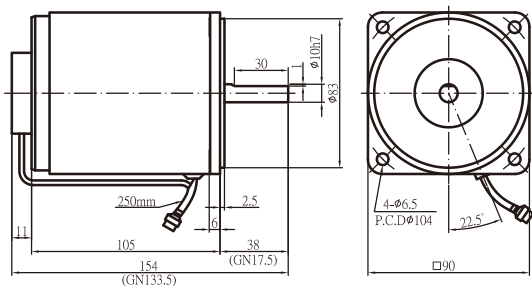
減速機
SPEED REDUCER

零組件類
COMPONENTS

ASSEMBLED TYPE, VARIABLE SPEED, INDUCTION/REVERSIBLE MOTOR

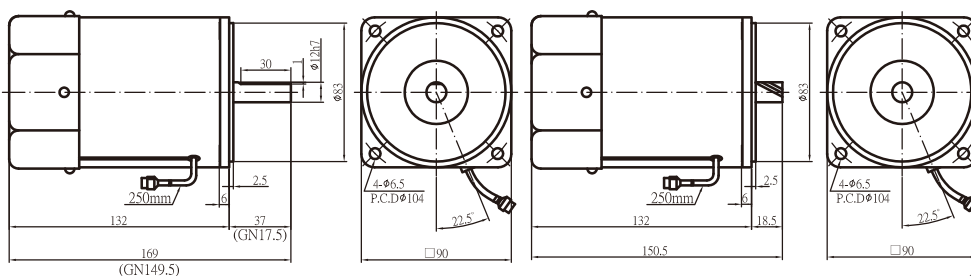
組合型無段變速馬達 感應式/ 可逆式

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



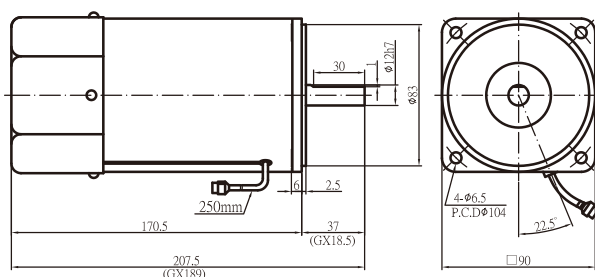
40W外型圖

40W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
INDUCTION 連續運轉式	M540-(0/4)01	連續Continuous	40	100/110	50/60	4	0.87/0.76	90~1400/90~1700	2.14/2.66	3.18/4.2	2.2/2.8
	M540-(0/4)02	連續Continuous	40	200/220	50/60	4	0.4/0.34	90~1400/90~1700	1.75/2.17	3.6/4.2	1.8/2.1
	M540-(0/4)02E	連續Continuous	40	230/240	50	4	0.32/0.32	90~1400	2.3/2.58	4.4/4.6	2.4/2.6
REVERSIBLE 可逆式	M540-(0/4)11	30分鐘/minutes	40	100/110	50/60	4	0.99/1.01	90~1400/90~1700	2.43/3.1	2.8/3.4	1.9/2.4
	M540-(0/4)12	30分鐘/minutes	40	200/220	50/60	4	0.54/0.53	90~1400/90~1700	3.76/2.37	3/3.4	3/2.2
	M540-(0/4)12E	30分鐘/minutes	40	230/240	50	4	0.49/0.44	90~1400	2.4/3.17	3/3.9	2/2.6



60W/60W-GX外型圖

60W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
INDUCTION 連續運轉式	M560-(0/4/6)01	連續Continuous	60	100/110	50/60	4	1.8/1.12	90~1400/90~1700	2.6/2.94	5.6/6.9	3.5/4.0
	M560-(0/4/6)02	連續Continuous	60	200/220	50/60	4	0.64/0.54	90~1400/90~1700	3.62/4.41	5.9/6.9	3.6/4.3
	M560-(0/4/6)02E	連續Continuous	60	230/240	50	4	0.56/0.55	90~1400	4.14/5.22	6.17/7.2	4.37/5.2
REVERSIBLE 可逆式	M560-(0/4/6)11	30分鐘/minutes	60	100/110	50/60	4	1.34/1.25	90~1400/90~1700	3.08/4.03	4.6/5.6	3.2/3.3
	M560-(0/4/6)12	30分鐘/minutes	60	200/220	50/60	4	0.75/0.73	90~1400/90~1700	2.38/2.97	5.5/5.8	2.3/2.5
	M560-(0/4/6)12E	30分鐘/minutes	60	230/240	50	4	0.57/0.63	90~1400	4.33/4.72	6.02/5.6	4.73/4.10



90W外型圖

■ 90W之GN為輕負載 The GN of 90W denotes light loading

90W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
INDUCTION 連續運轉式	M590-(0/6)01	連續Continuous	90	100/110	50/60	4	1.5/1.41	90~1400/90~1700	4.76/5.86	8.4/10.2	5/6.1
	M590-(0/6)02	連續Continuous	90	200/220	50/60	4	0.76/0.72	90~1400/90~1700	4.3/4.21	8/8.7	5.7/6.0
	M590-(0/6)02E	連續Continuous	90	230/240	50	4	0.66/0.68	90~1400	4.93/5.08	9.8/10.2	5.2/5.6

備註 NOTES : 組合型無段變速馬達(可逆式)之使用方式與可逆式馬達(導線式)相同。

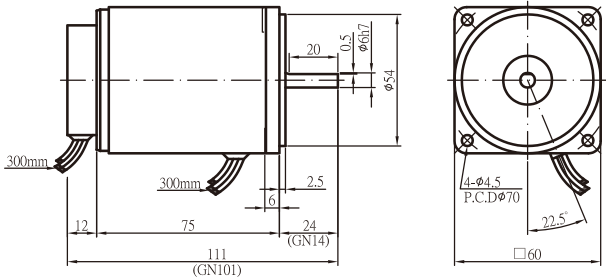
The Assembled Type, Variable Speed Reversible Motor is used in the same way as the Reversible Motor, Lead-Wire Type.

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。

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

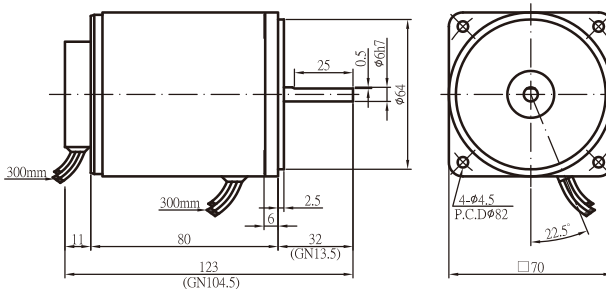
SEPARATED TYPE, VARIABLE SPEED, INDUCTION/REVERSIBLE MOTOR -IP22

分離型無段變速馬達 感應式/ 可逆式-防護等級IP22



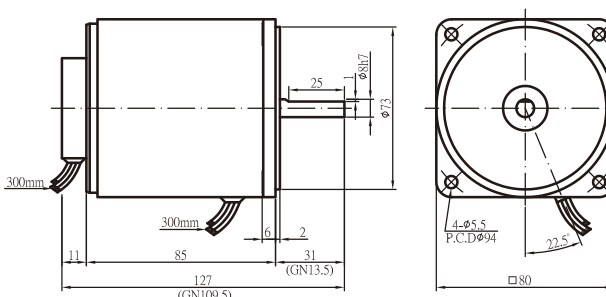
6W外型圖

6W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	2IK6RA(GN)-A	連續Continuous	6	100/110	50/60	4	0.22/0.21	90~1400/90~1700	0.7/0.63	0.4/0.55	0.72/0.5
	2IK6RA(GN)-C	連續Continuous	6	200/220	50/60	4	0.1/0.1	90~1400/90~1700	0.65/0.7	0.44/0.66	0.6/0.7
	2IK6RA(GN)-CE	連續Continuous	6	230/240	50	4	0.11/0.1	90~1400	0.74/0.77	0.39/0.52	0.72/0.8
可逆式 REVERSIBLE	2RK6RA(GN)-A	30分鐘/minutes	6	100/110	50/60	4	0.24/0.25	90~1400/90~1700	0.72/0.7	0.3/0.49	0.6/0.52
	2RK6RA(GN)-C	30分鐘/minutes	6	200/220	50/60	4	0.13/0.15	90~1400/90~1700	0.72/0.8	0.26/0.52	0.67/0.7
	2RK6RA(GN)-CE	30分鐘/minutes	6	230/240	50	4	0.14/0.14	90~1400	0.95/0.94	0.36/0.31	0.8/0.8



15W外型圖

15W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	3IK15RA(GN)-A	連續Continuous	15	100/110	50/60	4	0.36/0.35	90~1400/90~1700	0.89/1.24	0.9/1.5	1.0/1.1
	3IK15RA(GN)-C	連續Continuous	15	200/220	50/60	4	0.18/0.18	90~1400/90~1700	0.75/1.10	1.1/1.5	1.0/1.1
	3IK15RA(GN)-CE	連續Continuous	15	230/240	50	4	0.17/0.17	90~1400	1.06/1.06	1.40/1.32	1.02/1.25
可逆式 REVERSIBLE	3RK15RA(GN)-A	30分鐘/minutes	15	100/110	50/60	4	0.37/0.44	90~1400/90~1700	1.17/1.24	1.1/1.2	0.9/0.85
	3RK15RA(GN)-C	30分鐘/minutes	15	200/220	50/60	4	0.20/0.23	90~1400/90~1700	0.96/1.34	1.4/1.2	0.9/0.85
	3RK15RA(GN)-CE	30分鐘/minutes	15	230/240	50	4	0.19/0.21	90~1400	1.36/1.31	1.5/1.4	1.20/1.15



25W外型圖

25W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
										1200rpm	90rpm
連續運轉式 INDUCTION	4IK25RA(GN)-A	連續Continuous	25	100/110	50/60	4	0.57/0.45	90~1400/90~1700	1.4/1.4	2.17/2.5	1.4/1.4
	4IK25RA(GN)-C	連續Continuous	25	200/220	50/60	4	0.28/0.25	90~1400/90~1700	1.57/1.38	2.1/2.4	1.6/1.3
	4IK25RA(GN)-CE	連續Continuous	25	230/240	50	4	0.25/0.24	90~1400	1.38/1.55	2.2/2.4	1.5/1.7
可逆式 REVERSIBLE	4RK25RA(GN)-A	30分鐘/minutes	25	100/110	50/60	4	0.56/0.51	90~1400/90~1700	1.65/1.92	2.2/2.9	1.5/1.9
	4RK25RA(GN)-C	30分鐘/minutes	25	200/220	50/60	4	0.29/0.3	90~1400/90~1700	1.98/1.94	2.4/2.6	1.9/1.8
	4RK25RA(GN)-CE	30分鐘/minutes	25	230/240	50	4	0.25/0.25	90~1400	2.22/2.19	2.7/2.9	2.24/2.3

泛用型馬達
GENERAL PURPOSE MOTOR

速度控制型馬達
SPEED CONTROLLED MOTOR

控制器
CONTROLLER

煞車馬達
BRAKE MOTOR

離合煞車馬達
CLUTCH BRAKE MOTOR

轉矩馬達
TORQUE MOTOR

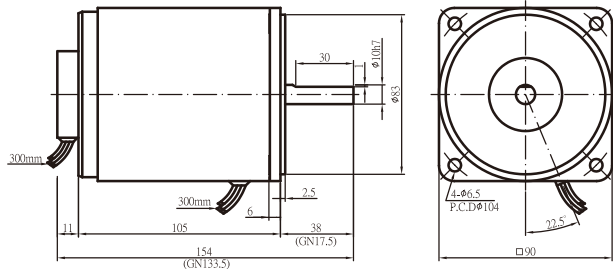
減速機
SPEED REDUCER

零組件類
COMPONENTS

SEPARATED TYPE, VARIABLE SPEED, INDUCTION/REVERSIBLE MOTOR -IP22

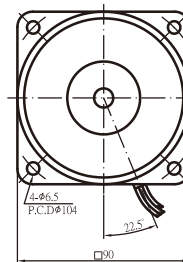
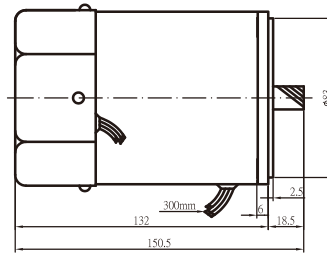
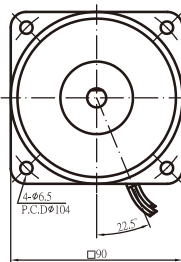
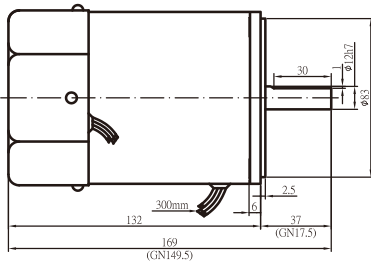
分離型無段變速馬達 感應式/ 可逆式-防護等級IP22

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



40W外型圖

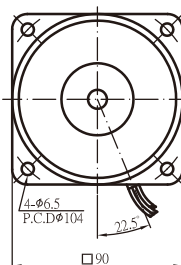
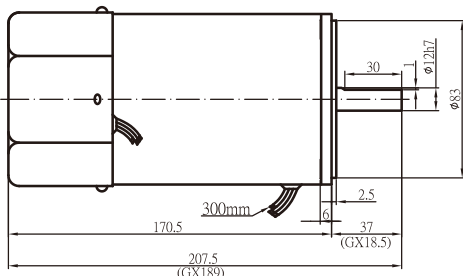
40W機型 TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(W) RATED OUTPUT	電壓(V) VOLTAGE	頻率(HZ) FREQ.	極數(P) POLE	電流(A) CURRENT	調速範圍(rpm) ADJUSTABLE RANGE	起動轉矩(Kg.cm) STARTING TORQUE	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
INDUCTION 連續運轉式	5IK40RA(GN)-A	連續Continuous	40	100/110	50/60	4	0.87/0.76	90~1400/90~1700	2.14/2.66	3.18/4.2	2.2/2.8
	5IK40RA(GN)-C	連續Continuous	40	200/220	50/60	4	0.4/0.34	90~1400/90~1700	1.75/2.17	3.6/4.2	1.8/2.1
	5IK40RA(GN)-CE	連續Continuous	40	230/240	50	4	0.32/0.32	90~1400	2.3/2.58	4.4/4.6	2.4/2.6
REVERSIBLE 可逆式	5RK40RA(GN)-A	30分鐘/minutes	40	100/110	50/60	4	0.99/1.01	90~1400/90~1700	2.43/3.1	2.8/3.4	1.9/2.4
	5RK40RA(GN)-C	30分鐘/minutes	40	200/220	50/60	4	0.54/0.53	90~1400/90~1700	3.76/2.37	3/3.4	3/2.2
	5RK40RA(GN)-CE	30分鐘/minutes	40	230/240	50	4	0.49/0.44	90~1400	2.41/3.17	3/3.9	2/2.6



■ 60W之GN為輕負載 The GN of 60W denotes light loading

60W/60W-GX外型圖

60W/60W-GX 機型TYPE	機種名稱 MODEL	額定時間 RATED TIME	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS	
INDUCTION 連續運轉式	5IK60RA(GN)-AF	連續Continuous	60	100/110	50/60	4	1.80/1.12	90~1400/90~1700	2.60/2.94	5.6/6.9	3.5/4.0
	5IK60RGX-AF	連續Continuous	60	200/220	50/60	4	0.64/0.54	90~1400/90~1700	3.62/4.41	5.9/6.9	4.6/4.4
	5IK60RGX-CF	連續Continuous	60	230/240	50	4	0.56/0.55	90~1400	4.14/5.22	6.17/7.2	4.37/5.2
REVERSIBLE 可逆式	5RK60RA(GN)-AF	30分鐘/minutes	60	100/110	50/60	4	1.34/1.25	90~1400/90~1700	3.08/4.03	4.60/5.60	3.20/3.30
	5RK60RGX-AF	30分鐘/minutes	60	200/220	50/60	4	0.75/0.73	90~1400/90~1700	2.38/2.97	5.5/5.8	2.3/2.5
	5RK60RGX-CF	30分鐘/minutes	60	230/240	50	4	0.57/0.63	90~1400	4.33/4.72	6.02/5.60	4.73/4.10



90W外型圖

■ 90W之GN為輕負載 The GN of 90W denotes light loading

90W機種名稱 MODEL	額定出力(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	容許轉矩(Kg.cm)/ 設定迴轉數 MAXIMUM TORQUE/ PRE-SET TURNINGS		電容器CAPACITOR 容量(μF) CAPACITY	
5IK90RA(GS, GX)-AF	90	100/110	50/60	4	1.5/1.41	90~1400/90~1700	4.76/5.86	8.4/10.2	5/6.1	22	250
5IK90RA(GS, GX)-CF	90	200/220	50/60	4	0.76/0.72	90~1400/90~1700	4.3/4.21	8/8.7	4.4/4.4	5	450
5IK90RA(GS, GX)-CEF	90	230/240	50	4	0.66/0.68	90~1400	4.93/5.08	9.8/10.2	5.2/5.6	5	450

備註 NOTES : 以上均為連續額定。Above models are rated continuously.

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。

ASSEMBLED TYPE SPEED CONTROLLER

組合型速度控制器

● 使用方法與注意事項 INSTRUCTION & PRECAUTIONS

- 電源線請用0.75mm²以上的。
- 變速範圍：50Hz時為90-1400rpm，60Hz時為90-1700rpm。
- 因齒輪減速機構的關係，迴轉方向相反時，請將CW與CCW之結線相反即可。
- STOP與RUN開關，並非電源開關，使用於馬達短時間停止的場合；若馬達須長時間停止時，請將馬達電源關閉。
- Power supply leads should be thicker than 0.75mm².
- Variable speed ranges from 90-1400rpm at 50Hz, and 90-1700rpm at 60Hz.
- Due to the construction of the gear motor, please reverse the CW/CCW wires when you wish to switch to an opposite rotational direction.
- The STOP and RUN switches are for short interval stops only. If the motor must be stopped for a longer period, please turn off the power supply.

感應式機種一覽表 INDUCTION MOTOR MODELS

電壓 VOLTAGE	機種 MODEL	組合式品名 NAME	=	馬達規格 MOTOR	+	控制器規格 CONTROLLER
1ø 100V~125V	US206-001 US206-401 US315-001 US315-401	M206-001 M206-401 M315-001 M315-401				US206-01 US315-01
	US425-001 US425-401 US540-001 US540-401	M425-001 M425-401 M540-001 M540-401				US425-01 US540-01
	US560-001 US560-401 US560-601 US590-001 US590-601	M560-001 M560-401 M560-601 M590-001 M590-601				US560-01 US590-01
1ø 200V	US206-002 US206-402 US315-002 US315-402	M206-002 M206-402 M315-002 M315-402				US206-02 US315-02
	US425-002 US425-402 US540-002 US540-402	M425-002 M425-402 M540-002 M540-402				US425-02 US540-02
	US560-002 US560-402 US560-602 US590-002 US590-602	M560-002 M560-402 M560-602 M590-002 M590-602				US560-02 US590-02
1ø 240V 50Hz	US206-002E US206-402E US315-002E US315-402E	M206-002E M206-402E M315-002E M315-402E				US206-02E US315-02E
	US425-002E US425-402E US540-002E US540-402E	M425-002E M425-402E M540-002E M540-402E				US425-02E US540-02E
	US560-002E US560-402E US560-602E US590-002E US590-602E	M560-002E M560-402E M560-602E M590-002E M590-602E				US560-02E US590-02E

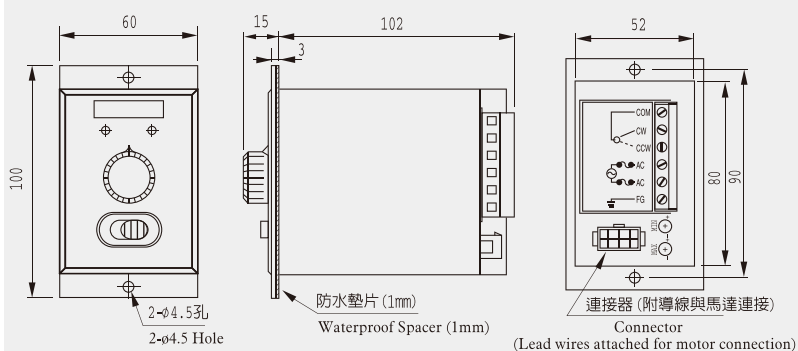


可逆式機種一覽表 REVERSIBLE MOTOR MODELS

電壓 VOLTAGE	機種 MODEL	組合式品名 NAME	=	馬達規格 MOTOR	+	控制器規格 CONTROLLER
1ø 100V~125V	US206-011 US206-411 US315-011 US315-411	M206-011 M206-411 M315-011 M315-411				US206-11 US315-11
	US425-011 US425-411 US540-011 US540-411	M425-011 M425-411 M540-011 M540-411				US425-11 US540-11
	US560-011 US560-411 US560-611	M560-011 M560-411 M560-611				US560-11
1ø 200V	US206-012 US206-412 US315-012 US315-412	M206-012 M206-412 M315-012 M315-412				US206-12 US315-12
	US425-012 US425-412 US540-012 US540-412	M425-012 M425-412 M540-012 M540-412				US425-12 US540-12
	US560-012 US560-412 US560-612	M560-012 M560-412 M560-612				US560-12
1ø 240V 50Hz	US206-012E US206-412E US315-012E US315-412E	M206-012E M206-412E M315-012E M315-412E				US206-12E US315-12E
	US425-012E US425-412E US540-012E US540-412E	M425-012E M425-412E M540-012E M540-412E				US425-12E US540-12E
	US560-012E US560-412E US560-612E	M560-012E M560-412E M560-612E				US560-12E

■ 組合型控制器外型尺寸圖 DIMENSIONS OF ASSEMBLED TYPE SPEED CONTROLLER

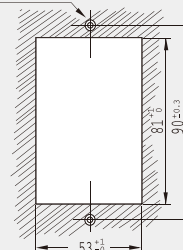
縮尺：1/4 單位：mm 重量：0.5kg SCALE：1/4 UNIT：mm WEIGHT：0.5kg



■ 安裝孔加工圖

THE MACHINING OF THE INSTALLATION HOLES

(2-φ4.5) 安裝孔 (2-φ4.5) Installation Hole(s)



SEPARATED TYPE SPEED CONTROLLER

分離型速度控制器

SS21 /SS22



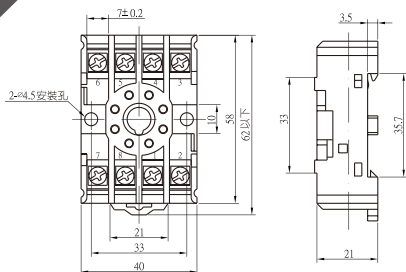
SS31-HR /SS32-HR



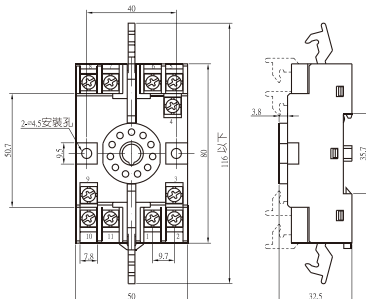
機種規格表 MODEL SPECIFICATIONS

品名 MODEL	SS21	SS22	SS31-HR	SS32-HR
電源範圍 POWER RANGE	100~125V	200~240V	100~125V	200~240V
頻率 FREQUENCY	50/60Hz			
最大容許電流 MAX. CURRENT ALLOWED	2A	2A	3A	3A
適用馬達 SUITABLE MOTOR	6W-90W			
速度控制範圍 SPEED CONTROL RANGE	90~1400rpm (50Hz) / 90~1700rpm (60Hz)			
速度變動率 VARIABLE SPEED RATIO	5%	5%	3%	3%
瞬時制車 INSTANT BRAKE	—	—	電子式制車 Electronic Brake	電子式制車 Electronic Brake
制車保持力時間 BRAKE HOLDING TIME	—	—	0.5 秒 0.5 Second	0.5 秒 0.5 Second
絕緣阻抗 INSULATION RESISTANCE	外殼與各端子間以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 housing and terminals.			
絕緣耐壓 HI-POT INSULATION	外殼與各端子間以60Hz, 1kV加入一分鐘無異狀。 No damages caused after 1kV at 60Hz was tested between the housing and terminals.			
使用環境溫度 AMBIENT TEMPERATURE	-10~+40°			
保存溫度 STORAGE TEMPERATURE	-20~+60°			

8-PIN 腳座 8-PIN BASE

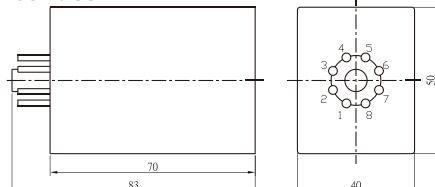


11-PIN 腳座 11-PIN BASE

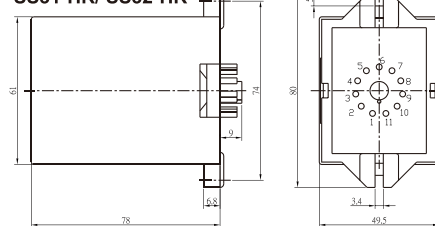


尺寸圖 DIMENSIONS

SS21/ SS22



SS31-HR/ SS32-HR



有段變速的使用

APPLICATION OF STEPPED SPEED

若使用的速度決定後，在切換轉速時，將可變電阻設定成固定電阻值，如下圖所示：

- 1.並聯型：切換開關在接點切換時，與接點端子接觸後，再離開原有端子接點。
- 2.串聯型：完全離開前一接點，才與另一個接點接觸。

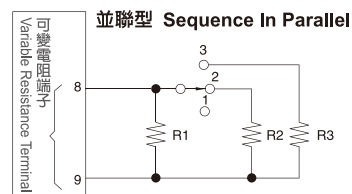
兩者都可使用，請依所需形式做好配線工作。使用串聯型的切換開關，在接點切換的瞬間會造成開路狀態，馬達轉速會急速上升，請特別注意。

Once applicable speed is decided, as speed is changed, variable electric resistance value can be fixed.

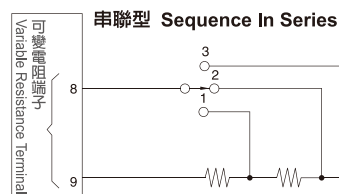
1. Parallel Type: the switch first makes contact with the connecting terminal, then returns to the original terminal point.
2. Series Type: the switch leaves the previous connecting point, then makes contact with another terminal point.

Either type is applicable, please wire accordingly. When using the parallel type switch, an open-circuit mode is created at the instant of switching, where a rapid increase of motor speed must be taken into precaution.

SS21、SS31-HR
SS22、SS32-HR



SS21、SS31-HR
SS22、SS32-HR



■ 並聯型電阻值 (MAX. 20KΩ) R
Sequence In Parallel Resistance Value = $\frac{R1 \times R2}{R1 + R2}$, $\frac{R1 \times R3}{R1 + R3}$

■ 串聯型電阻值 (MAX. 20KΩ) R
Sequence In Series Resistance Value = $R1 + R2 + R3$

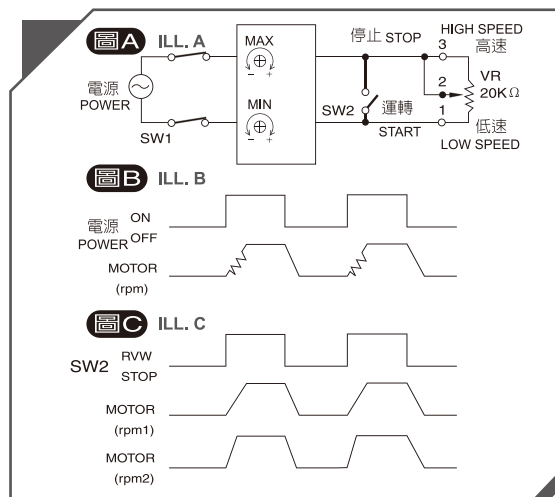
WIRING APPLICATION FOR SEPARATE TYPE CONTROLLER

分離型控制器 在配線上的應用

在間歇性使用的場合，如何改善啟動時的特性

HOW TO IMPROVE STARTING FEATURES ON INTERVAL USAGE

控制器的電源開關 (SW1) 切到ON 時，馬達需有較長的時間來啟動，且在電源開關ON / OFF 間的電源突波，常會造成馬達啟動轉速不穩的暫態現象。(如右圖B)
在間歇性使用的場合，或馬達僅是短時間不使用時，請讓電源常駐於控制器內。改由SW2來控制 RUN/STOP，即可獲得較佳的啟動特性。(如右圖C的 MOTOR rpm1)
若再將MIN 的SVR 向順時鐘微調一點點(但馬達未運轉)，以提升其零點的抵補偏壓值，即可獲得更佳的啟動應答性。(如右圖C的 MOTOR rpm2)
When turning on power switch (SW1) of the controller, the motor needs more time to start. The surges between ON/OFF cause motor starting speed un-steady temporarily. (see ILL. B)
On interval usage or motor is not in use for short time, please leave power connected to the controller. A better starting feature is available by controlling RUN/STOP with SW2. (see MOTOR rpm1 of ILL. C)
To get a better starting response, turn SVR on MIN. clockwise slightly (but keep the motor still stop) to raise a substitution on bias voltage from zero. (see MOTOR rpm2 of ILL. C)



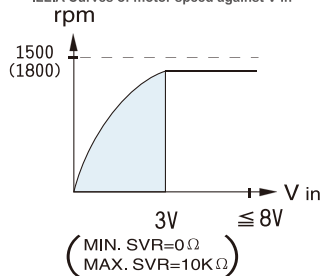
直流電壓控制速度的使用

THE USAGE OF SPEED CONTROL IN DC VOLTAGE

- 速度控制用的可變電阻，可以改用輸入一直流電壓來代替。下圖的配線方法可提供設計應用時參考。
- 在應用時需特別注意V in 不能超過8V，且MIN.的SVR 需向左調至0。
- 需特別注意控制信號側 (V in) 和電源側的隔離狀態 (如下表所示)，以免造成控制器燒毀和漏電的情形。
- 確實連接220Ω，1 / 2W 的電阻器。
- The variable resistance used for speed control could be replaced by inputting a DC voltage. The wiring below is for application reference.
- Be cautious in application that voltage input must not exceed 8V, and the SVR of MIN. must be turned left to zero.
- Special attention to the isolation status between control signal side (V in) and power supply side (see Table 1) to avoid controller burn down and current leakage.
- Be sure to connect 220Ω, 1/2W resistor.

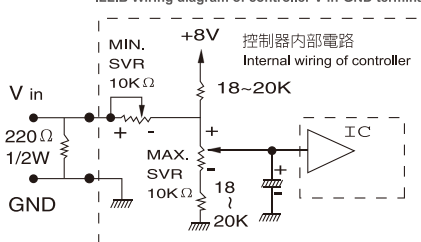
圖A. 馬達轉速對V in的曲線

ILL.A Curves of motor speed against V in



圖B. 控制器V in-GND端子的電路圖

ILL.B Wiring diagram of controller V in-GND terminals



表一/連接端子與電源隔離狀態

Table 1. isolation for connecting terminals and power

品名 Model name	V in 連接端子 connecting terminals	GND 連接端子 connecting terminals	對電源側 隔離狀態 Isolation beside power supply
SS21 SS22	6	3	無 NO
SS31-HR SS32-HR	8	9	有 YES

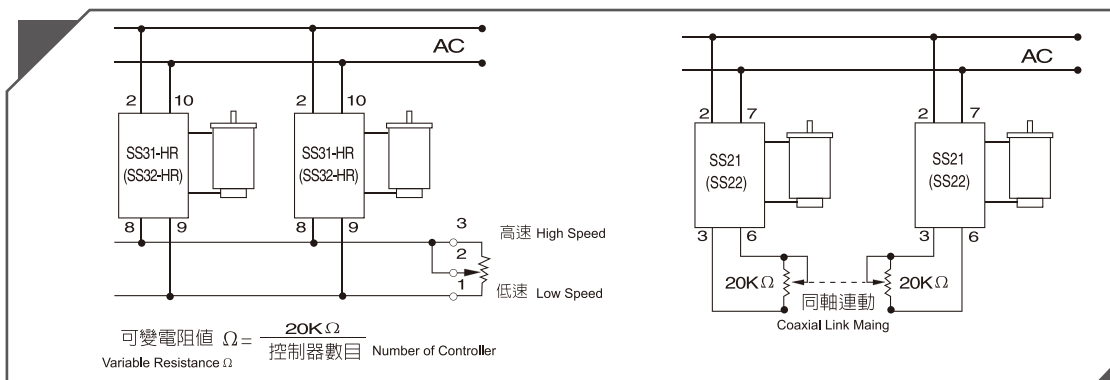
並列運轉

PARALLEL ROTATION

使用一個可變電阻 (僅限SS31 / SS32) 或同軸多組可變電阻 (用於SS21 / SS22) 來控制多個馬達時，控制器的配線，方法如下圖所示。
但各個馬達間會因負載的不同及製品的誤差值，使得轉速會有微小的差異。

When a single variable resistance (only for SS31/SS32) or coaxial multi-variable resistances (only for SS21/SS22) are used to control several motors, the wiring of the controller are shown as below.

Speed of each motor may have minor variation due to different loading and product tolerance.



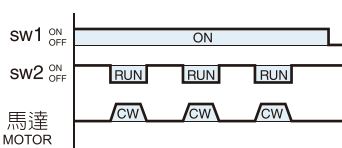
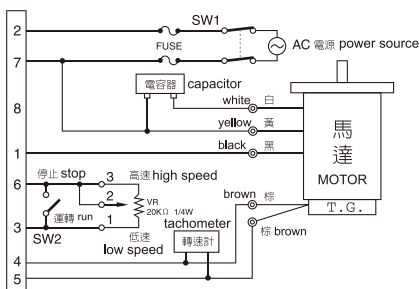
$$\text{Variable Resistance } \Omega = \frac{20K \Omega}{\text{Number of Controller}}$$

SS2I SS22 EXTERNAL WIRING CONNECTIONS

SS21 SS22 外部配線圖

單方向運轉+變速

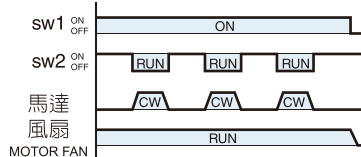
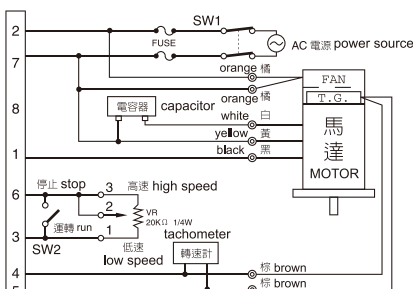
SINGLE ROTATING DIRECTION + VARIABLE SPEED



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1	AC250V,5A以上 above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B 特性

單方向運轉+強制風扇+變速

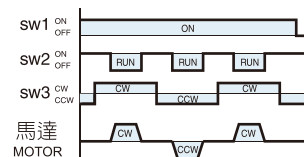
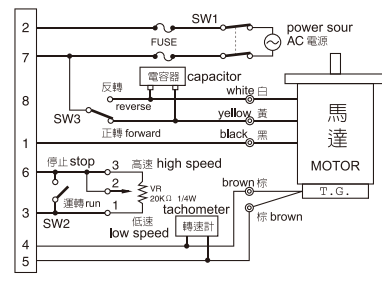
SINGLE ROTATING DIRECTION + FAN + VARIABLE SPEED



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1	AC250V,5A以上 above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B 特性

正逆轉+變速

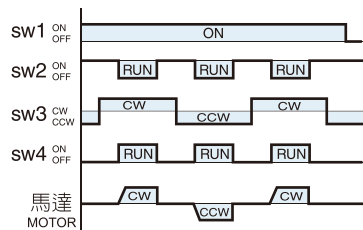
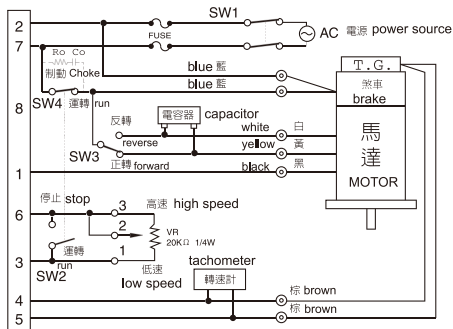
REVERSIBLE + VARIABLE SPEED



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1,SW3	AC250V,5A以上 above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B 特性

正逆轉+電磁制車+變速

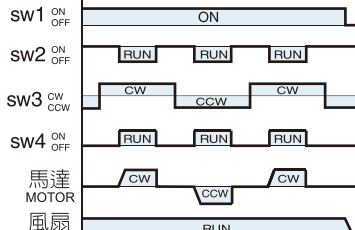
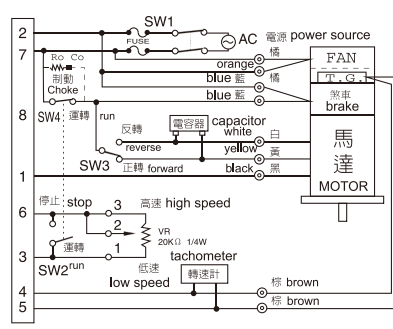
REVERSIBLE + MAGNETIC BRAKE + VARIABLE SPEED



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1,SW3,SW4	AC250V,5A以上 above
SW2	DC20V,10mA
接點保護 Contacting point protection(Ro Co)	Ro=5~200Ω (1/2W以上 above) Co=0.1~0.2μF (400VAC以上 above)
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B 特性

正逆轉+強制風扇+電磁制車+變速

REVERSIBLE + FAN + MAGNETIC BRAKE + VARIABLE SPEED

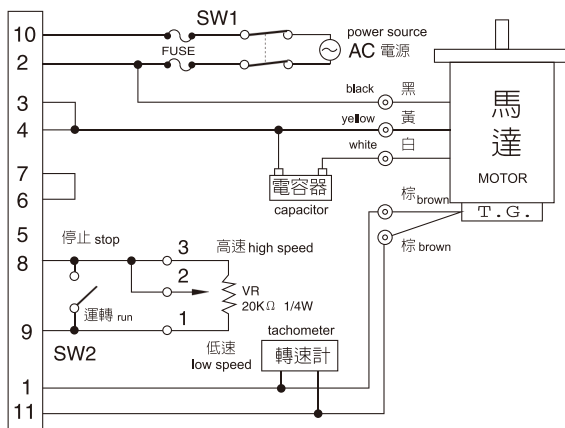


開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1,SW3,SW4	AC250V,5A以上 above
SW2	DC20V,10mA
接點保護 Contacting point protection(Ro Co)	Ro=5~200Ω (1/2W以上 above) Co=0.1~0.2μF (400VAC以上 above)
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B 特性

SS31-HR SS32-HR EXTERNAL WIRING CONNECTIONS SS31-HR SS32-HR 外部配線圖

單一方向運轉+變速

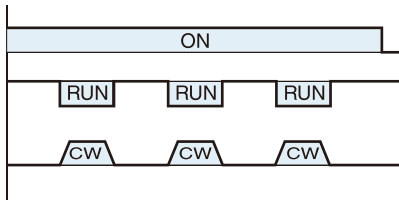
SINGLE ROTATING DIRECTION + VARIABLE SPEED



SW1 ON OFF

SW2 ON OFF

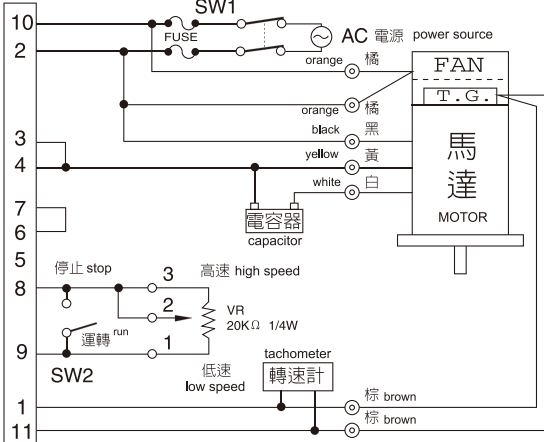
馬達 MOTOR



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1	AC250V,5A以上above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B特性

單一方向運轉+強制風扇+變速

SINGLE ROTATING DIRECTION + FAN + VARIABLE SPEED

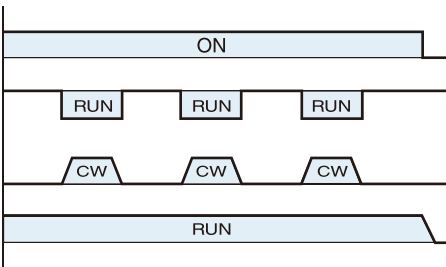


SW1 ON OFF

SW2 ON OFF

馬達 MOTOR

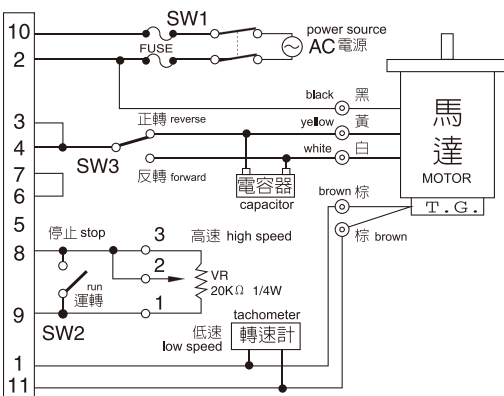
風扇 FAN



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1	AC250V,5A以上above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B特性

正逆轉+變速

REVERSIBLE + VARIABLE SPEED

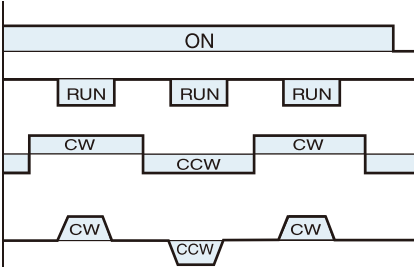


SW1 ON OFF

SW2 ON OFF

SW3 CW CCW

馬達 MOTOR



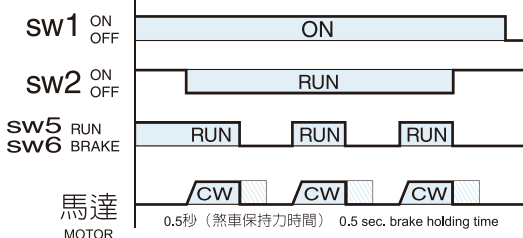
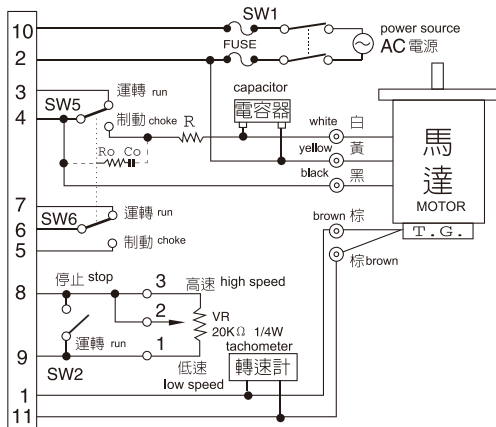
開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1, SW3	AC250V,5A以上above
SW2	DC20V,10mA
可變電阻 Variable resistance(VR)	20KΩ, 1/4W, B特性

SS3I-HR SS32-HR EXTERNAL WIRING CONNECTIONS

SS31-HR SS32-HR 外部配線圖

單一方向運轉+變速+電子式剎車

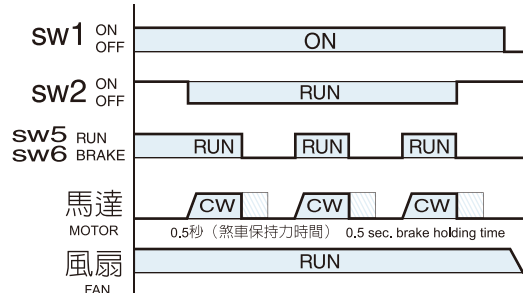
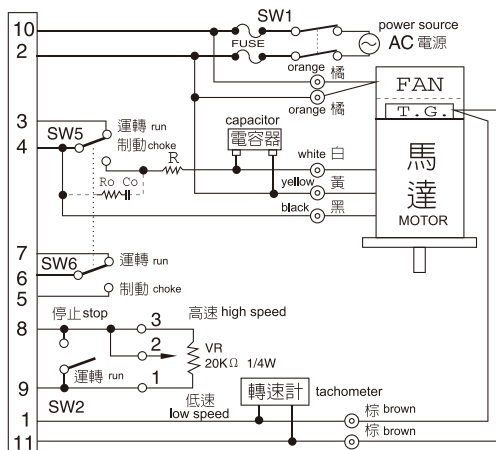
SINGLE ROTATING DIRECTION + VARIABLE SPEED + ELECTRONIC BRAKE



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1, SW5, SW6	AC250V, 5A 以上 above
SW2	DC20V, 10mA
外接電阻 External resistance (Ro Co)	10W 10Ω
接點保護 Contacting point protection (Ro Co)	Ro=5~200Ω (1/2W 以上 above) Co=0.1~0.2μF (400VAC 以上 above)
可變電阻 Variable resistance (VR)	20KΩ, 1/4W, B 特性

單一方向運轉+強制風扇+變速+電子式剎車

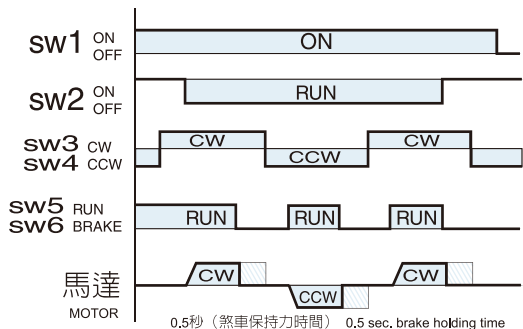
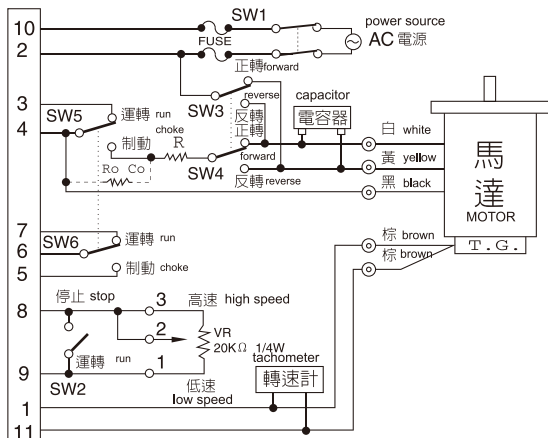
SINGLE ROTATING DIRECTION + FAN + VARIABLE SPEED + ELECTRONIC BRAKE



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1, SW3, SW4, SW5, SW6	AC250V, 5A 以上 above
SW2	DC20V, 10mA
外接電阻 External resistance (R)	10W 10Ω
接點保護 Contacting point protection (Ro Co)	Ro=5~200Ω (1/2W 以上 above) Co=0.1~0.2μF (400VAC 以上 above)
可變電阻 Variable resistance (VR)	20KΩ, 1/4W, B 特性

正逆轉+變速+電子式剎車

REVERSIBLE + VARIABLE SPEED + ELECTRONIC BRAKE

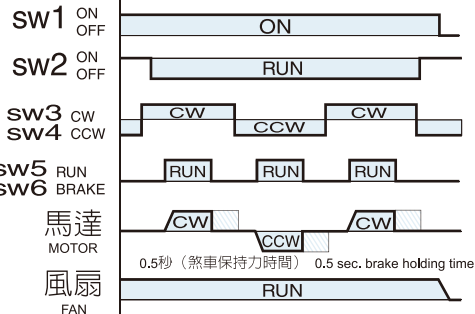
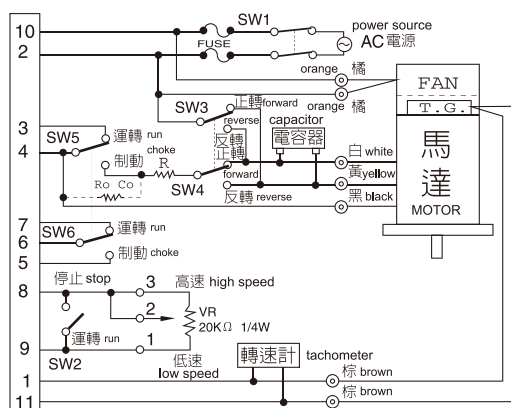


SS31-HR SS32-HR EXTERNAL WIRING CONNECTIONS

SS31-HR SS32-HR 外部配線圖

正逆轉+強制風扇+變速+電子式剎車

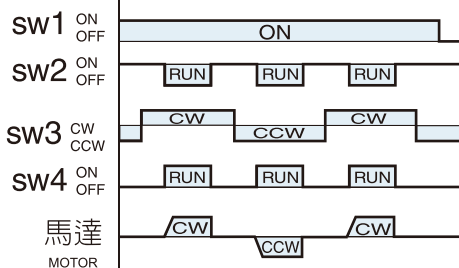
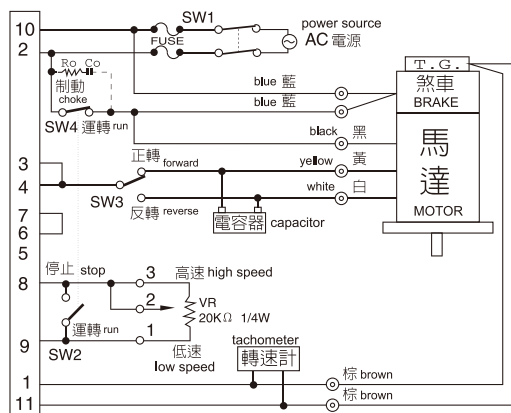
REVERSIBLE + FAN + VARIABLE SPEED + ELECTRONIC BRAKE



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1, SW3, SW4, SW5, SW6	AC250V, 5A 以上 above
SW2	DC20V, 10mA
外接電阻 External resistance (Ro Co)	10W 10Ω
接點保護 Contacting point protection (Ro Co)	Ro=5~200Ω (1/2W 以上 above) Co=0.1~0.2μF (400VAC 以上 above)
可變電阻 Variable resistance (VR)	20KΩ, 1/4W, B特性

正逆轉+電磁剎車+變速

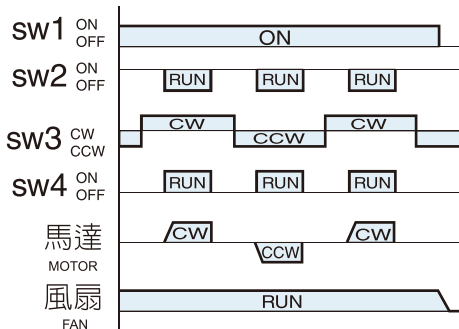
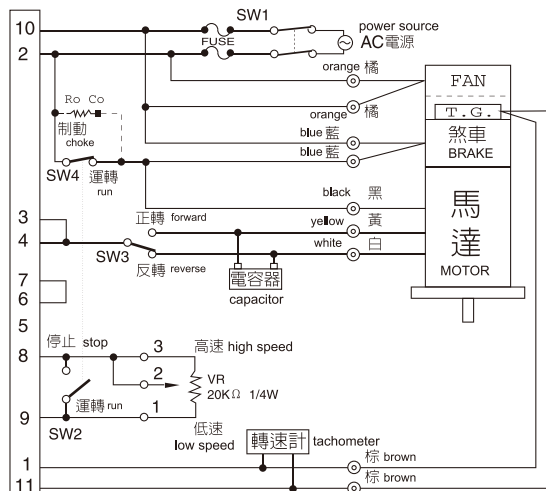
REVERSIBLE + MAGNETIC BRAKE + VARIABLE SPEED



開關編號 SWITCH NUMBER	規格 SPECIFICATION
SW1, SW3, SW4	AC250V, 5A 以上 above
SW2	DC20V, 10mA
接點保護 Contacting point protection (Ro Co)	Ro=5~200Ω (1/2W 以上 above) Co=0.1~0.2μF (400VAC 以上 above)
可變電阻 Variable resistance (VR)	20KΩ, 1/4W, B特性

正逆轉+強制風扇+電磁剎車+變速

REVERSIBLE + FAN + MAGNETIC BRAKE + VARIABLE SPEED



SPEED REDUCER

減速機

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

減速機之選定 HOW TO SELECT A SPEED REDUCER

■ 與減速機直結後的回轉數及轉矩 ROTATION AND TORQUE GIVEN FROM CONJUNCTION WITH SPEED REDUCER

與減速機直結後的回轉數及轉矩可由以下公式算出
Following is the calculation formula:

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

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

N_G : 加減速機後之回轉數 Rotations after conjunction with speed reducer (rpm)

N_M : 馬達本體之回轉數 Rotations of Motor (rpm)

i : 減速機減速比 Speed Reducer's reduce ratio

T_G : 加減速機後之轉矩 Torque after conjunction with speed reducer (kg·m)

T_M : 馬達本體之轉矩 Torque of Motor (kg·m)

η : 減速機之傳動效率 The transmission efficiency of the Speed Reducer

■ 最大容許轉矩 MAXIMUM TORQUE ALLOWED

限於材料或其他條件的限制，減速機能承受的轉矩是有極限的，當減速比變大時，請參考後面各章節。

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.

■ 容許側向負載及容許軸向負載

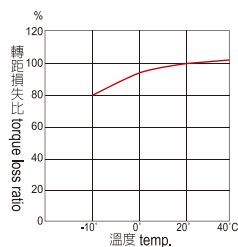
ALLOWABLE RADIAL LOAD AND AXIAL LOAD

所謂側向負載，就是出力軸在1/2處可以承受的彎曲負載，一般使用於以鏈條連結的機構。若是使用的連結器傳動的方式，可以不考慮。因為側向負載與軸向負載會影響減速機的壽命及強度，請勿超負載使用。

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.

■ 依溫度調整減速比 ADJUSTED THE SPEED REDUCER RATIO VIA ENVIRONMENT TEMPERATURE

環境溫度對於減速機的傳動效率有明顯的影響。上表的傳動效率是在室溫20°C時的量測值。當機台使用在寒帶地區時，請用右表的轉矩損失比來乘標示的轉矩。例如：若機台使用在-10°C的環境，其轉矩將減少20%。(僅供參考用)



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).

■ 馬達有圓軸及齒輪軸兩種，只有齒輪軸才能夠與減速機直結。 MOTOR EQUIP WITH ROUND SHAFT AND GEAR SHAFT, ONLY GEAR SHAFT CAN CONJUNCT WITH SPEED REDUCER.

減速機 Speed Reducer

4GN15K



馬達(齒輪軸) Motor (Gear shaft)

4IK25GN-A



馬達(圓軸) Motor (Round shaft)

4IK25A-A



減速機
Speed Reducer
4GN15K



中間減速機
Intermediate
Speed Reducer
4GN10X



馬達(齒輪軸)
Motor (Gear shaft)
4IK25GN-A



■ 負載形態與減速機壽命 LOAD PATTERNS VS. LIFESPAN OF SPEED REDUCER

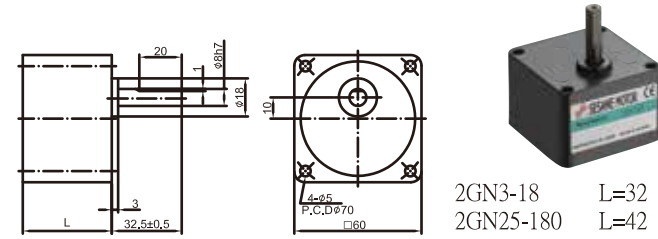
減速機的壽命會因負載方式，每日運轉時間及軸承種類之不同而改變。下表是假設減速機的負載低於最大容許轉矩。(僅供設計人員參考用)

Speed Reducer lifespan will be 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)

單位：小時 hrs

負載形態 LOAD PATTERN	含油軸承 BEARING			滾珠軸承 BALL BEARING			應用說明 Application Instructions.
	5 hrs/day	8 hrs/day	24 hrs/day	5 hrs/day	8 hrs/day	24 hrs/day	
固定負載 FIXED LOAD	2000	1500	1000	6250	5000	3400	單方向運轉，如：輸送機。 Operated in one direction, such as conveyors.
輕微衝擊 SLIGHT IMPACT	1500	1250	800	4200	3400	2500	經常起動/停止的機構，凸輪運轉。 Frequent start/stop, ex. cam operation.
強烈衝擊 STRONG IMPACT	800 ~1000	700 ~1000	600 ~700	2000 ~2500	1700 ~2500	1400 ~1700	可逆馬達的瞬間正逆轉，用 車器瞬間制動。 Reversible motors, instant moment reversed, with brake system in an instant brake.

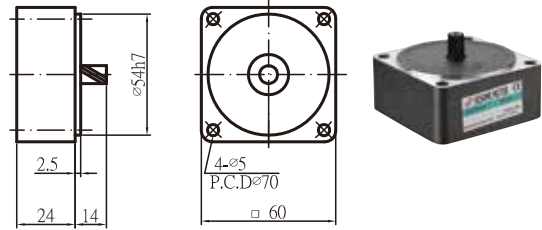
2 GN KE . 2 GN 減速機/ SPEED REDUCER



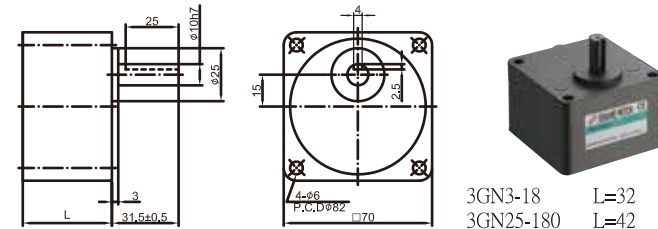
2GN3-18 L=32
2GN25-180 L=42

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

2GN10X . 2GN10XK 中間減速機/ INTERMEDIATE SPEED REDUCER



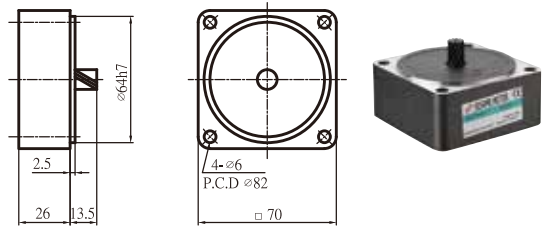
3 GN KE . 3 GN 減速機/ SPEED REDUCER



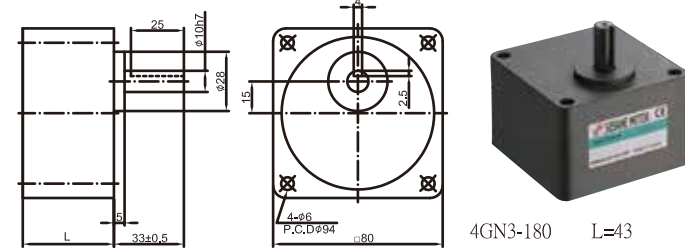
3GN3-18 L=32
3GN25-180 L=42

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

3GN10X . 3GN10XK 中間減速機/ INTERMEDIATE SPEED REDUCER



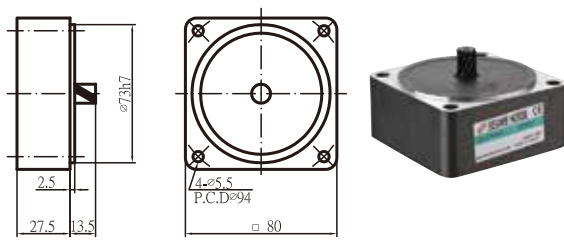
4 GN KE . 4 GN 減速機/ SPEED REDUCER



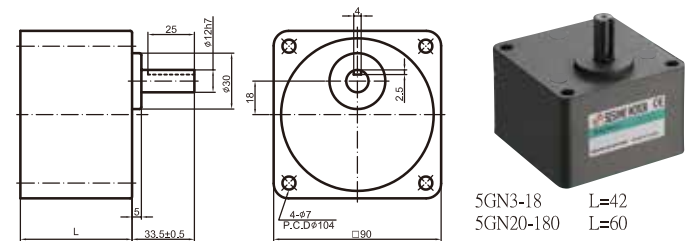
4GN3-180 L=43

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

4GN10X . 4GN10XK 中間減速機/ INTERMEDIATE SPEED REDUCER



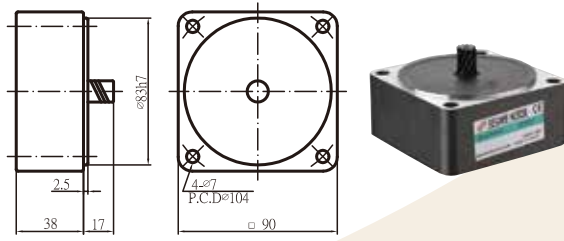
5 GN KE . 5 GN 減速機/ SPEED REDUCER



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

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

5GN10X . 5GN10XK 中間減速機/ INTERMEDIATE SPEED REDUCER



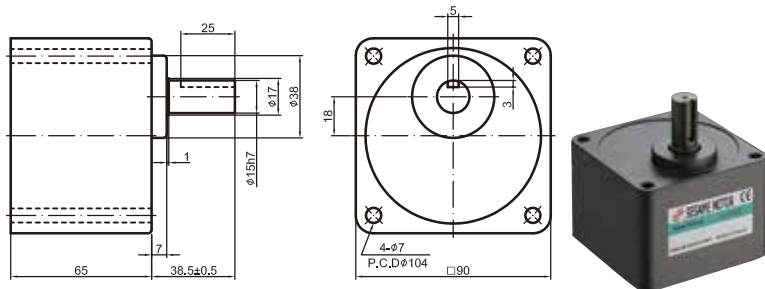
SPEED REDUCER

減速機

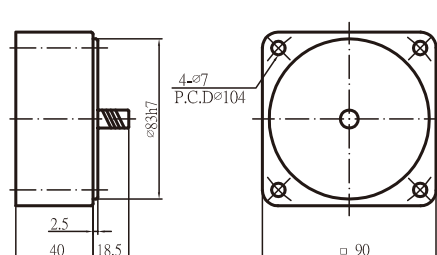
- 外形圖與規格表
- OUTLINE & SPECIFICATION
- 單位/UNIT : mm



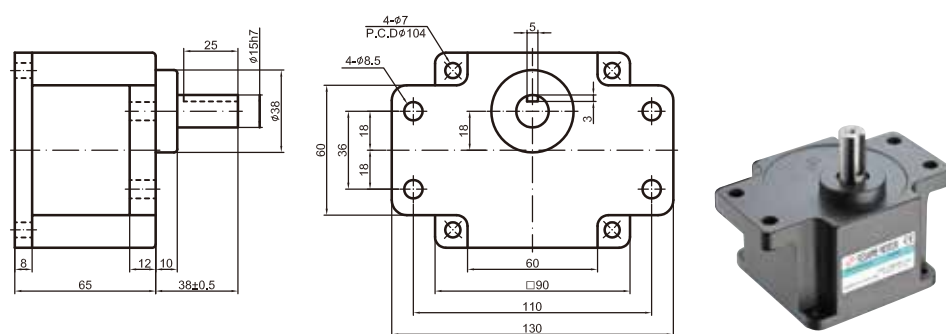
■ 5 GX□KB 減速機/ SPEED REDUCER



■ 5GX10XK 中間減速機/ INTERMEDIATE SPEED REDUCER

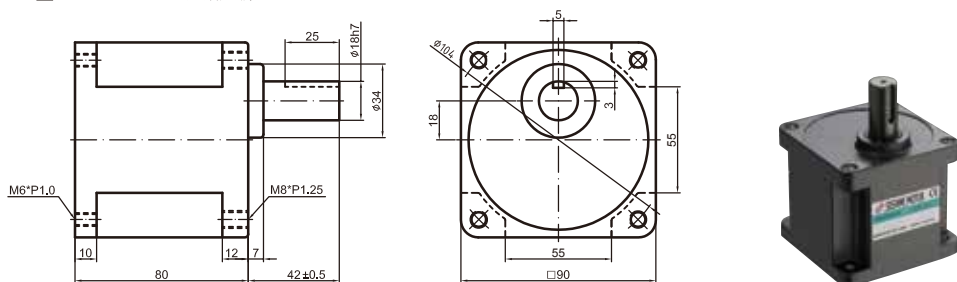


■ 5 GX□K 減速機/ SPEED REDUCER



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

■ 5 GX□KBH 重力減速機/ GRAVITY FORCE TYPE REDUCER



迴轉速/ SPEED(rpm)	30	20	15	10	9	7.5
減速比/ SPEED REDUCTION RATIO 50HZ	50	75	150	150	-	200
減速比/ SPEED REDUCTION RATIO 60HZ	60	90	180	120	200	-
最大容許轉矩/ (kgf.cm) MAX. TORQUE	350	350	350	350	350	350

說明：

1. 減速機品名中□放入減速比。
2. 迴轉速是以馬達的同步轉速為基準(50 HZ : 1500rpm , 60Hz : 1800rpm)除以減速比；實際迴轉速應依負載之大小減少2%~20%。
3. 標示■的減速機旋轉方向與馬達方向相反，其他則與馬達同方向。
4. 齒箱使用注意事項及說明：減速機中若有金屬或異物仍勉強與馬達組合，將會使齒輪受傷而產生異常音，及減少減速機使用壽命，也可能發生意外，請特別注意。
5. 齒箱與馬達結合一定要核對編碼是否正確，否則無法組裝。

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.

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。

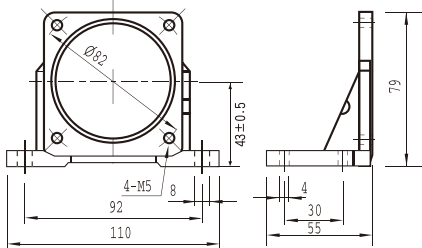
COMPONENTS

零組件類

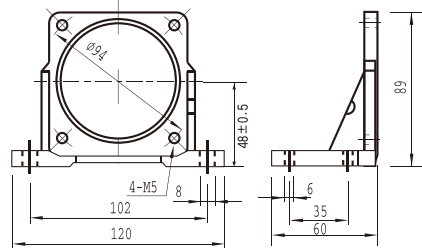
馬達安裝用L型腳座/ L TYPE BASE BRACKET FOR MOTOR INSTALLATION



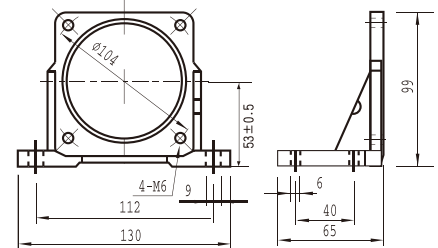
PAL-3N (□70mm用)



PAL-4N (□80mm用)

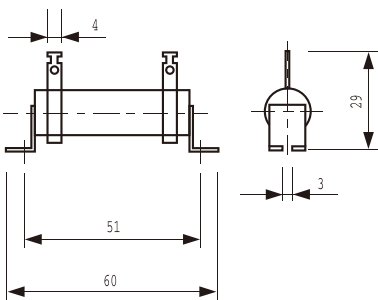


PAL-5N (□90mm用)

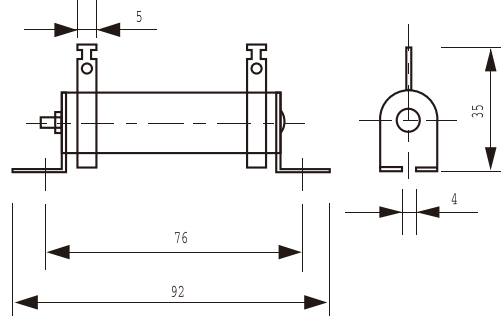


電子式剎車回路用外部電阻器/ EXTERNAL RESISTOR FOR ELECTRONIC BRAKE CIRCUITS

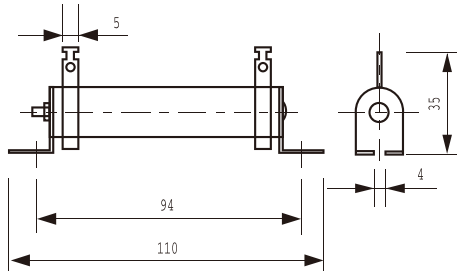
DDR10W10Ω J (10瓦/10歐姆)



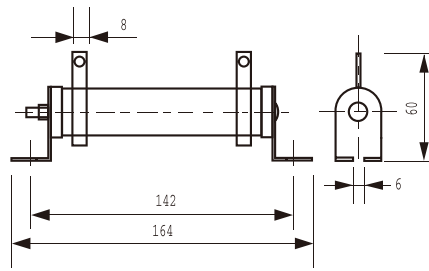
DDR20W20Ω J (20瓦/20歐姆)



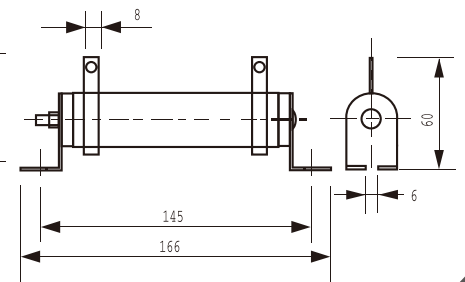
DDR30W20Ω J (30瓦/20歐姆)



DDR50W50Ω J (50瓦/50歐姆)

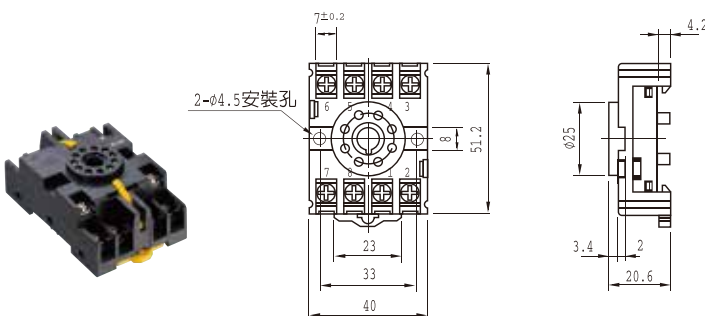


DDR80W50Ω J (80瓦/50歐姆)

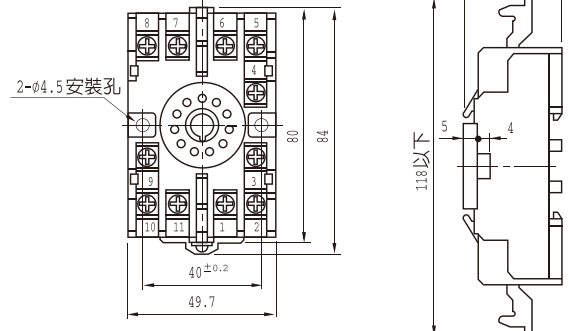


露出型腳座/ EXTENDED BASE BRACKET

PF-083A腳座 (8腳用)



11-PFA腳座 (11腳用)



泛用型馬達
GENERAL PURPOSE MOTOR

速度控制型馬達
SPEED CONTROLLED MOTOR

控制器
CONTROLLER

煞車馬達
BRAKE MOTOR

離合煞車馬達
CLUTCH BRAKE MOTOR

轉矩馬達
TORQUE MOTOR

減速機
SPEED REDUCER

零組件類
COMPONENTS