

# 瑞士航太級馬達介紹

## Introduction to Swiss DC motor



- 瑞士原裝低慣量、低衝擊、低鬆動馬達  
瑞士專利馬達耗電、衝擊、慣量只有市售馬達1/10。對細小螺絲扭力精準度以及防止螺絲鬆動,特別有效。
- 無碳粉溢出設計馬達適用於3C產業  
超薄、超輕多功能,為電子產業設計主流,電子產品均內藏IC設計,而一般市售馬達均有碳粉溢出污染。所以一般有碳粉電動起子無法適用於電子無塵環境。
- Its motor, made and imported from Switzerland, is characterized with low inertia and low impact.  
Switzerland patented motor, its power consumption, impact and insert momentum are 1/10 of the conventional motors. Very effective for tightening the fine screws with precise torque and loosening free.
- Its motor does not generate any carbon particle over flow, so its motor is suitable to be used in the 3C industry.  
The electronic products will become thinner, lightweight and multifunctional; most electronic products have one or more IC components. Other brands of motors on the market are not suitable to be used in the 3C industry because they generate carbon particles.



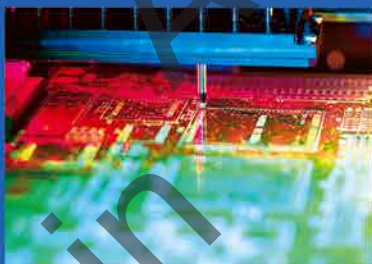
### Pumps and ventilators

Blood pumps  
Axial blowers



### Optics and precision mechanics

Lens adjustment  
Levelling equipment  
Beamers



### Semi-conductor industry / EDP / telecommunications

SMT fitting machines  
Feeders



### Cash and ticket dispenser

labeling machines  
credit card readers



### Measuring and control technology

precision scales  
measuring devices



# 瑞士航太級低慣量、低衝擊馬達電動起子 / 氣吸式電動起子

瑞士馬達保證3年1000萬次  
3C產業最佳選用品



## Swiss aviation grade motor, low inertia and low impact electric screwdriver / Vacuum pick up electric screwdrivers

低壓直流馬達驅動型 (附電源控制器)

Low voltage DC motor driving (with controller)



可訂製ESD防靜電型

ESD type is available for ordering.



### 特點 Feature

#### ● 超迷你精準耐用長壽命設計

直徑Φ26mm全長158mm世界最小體積，重量只有187g、耗電6W，全機六只傳動軸承，徹底降低機械磨耗，更能提高扭力精準度及降低起子頭搖擺度。

#### ● 終生使用設計，一支抵用他牌數支

三年1000萬次以上終生耐用性設計，瑞士馬達至少可連續運轉2萬小時(約可使用10年以上)。並搭配長壽命設計可達1000萬次白金煞車開關裝置。

#### ● 本產品可適用於無塵室，並通過SGS無塵室CLASS-10等級測試。

#### ● The electric screwdriver is very compact, accurate and durable.

Design not only in the most compact body of diameter 26mm, overall length 158mm and weight 187g but the lowest power consumption 6w in the world. The 6 bearing are inbuilt in the hammer casing to reduce the anvil friction and bit vibration and to improve the output torque precision.

#### ● The electric screwdriver can last through a lifetime; it outlasts several electric screwdrivers of other brand.

The everlasting durability is designed with 10 million times in use in three years (The Switzerland patented motor permits continued operation at least 20,000 hours (about 10 years operation). The service life of the contact point withstands 10 million on and off contacts.

#### ● This product can be used in the clean room. It has passed SGS Clean room Class-10 test.

### 槓桿式 Lever start type · 快速式 High speed type (S) · 氣吸式 Vacuum pick up type (A)

| 機種名<br>Model No.       | 輸出扭力範圍<br>Torque range |           | 適用電源控制器<br>Available controller        | 無載轉速(±10%)<br>No Load Speed (rpm)        | 適用螺絲<br>Available screw |                         |
|------------------------|------------------------|-----------|----------------------------------------|------------------------------------------|-------------------------|-------------------------|
|                        | kgf-cm                 | lbf-in    |                                        |                                          | 機械牙徑 Machine screw Φ    | 自攻牙徑 Tapping screw Φ    |
| ASA-S1000M ASA-S1000MA | 0.15~1.0               | 0.13~0.87 | APS-201B<br>APS-301B<br>AM-55<br>AM-65 | 150-300<br>350-500<br>150-300<br>350-500 | 1.0~1.8mm / 0.04~0.07in | 0.6~1.4mm / 0.02~0.05in |
| ASA-S2000M ASA-S2000MA | 0.3~2.0                | 0.26~1.7  | APS-301B<br>AM-65                      | 650-1000                                 | 1.0~2.2mm / 0.04~0.09in | 1.0~2.0mm / 0.04~0.08in |
| ASA-S2500M ASA-S2500MA | 0.4~3.0                | 0.35~2.6  | APS-301B<br>AM-65                      | 450-700                                  | 1.0~2.6mm / 0.04~0.10in | 1.0~2.0mm / 0.04~0.08in |
| ASA-2000M ASA-2000MS   | 0.3~2.0                | 0.26~1.7  | APS-301B<br>AM-65                      | 450-700 700-1000                         | 1.0~2.2mm / 0.04~0.09in | 1.0~2.0mm / 0.04~0.08in |
| ASA-2000MA ASA-2000MSA | 0.3~2.0                | 0.26~1.7  | APS-301B<br>AM-65                      | 450-700 700-1000                         | 1.0~2.2mm / 0.04~0.09in | 1.0~2.0mm / 0.04~0.08in |
| ASA-3000M ASA-3000MS   | 0.5~5.0                | 0.43~4.3  | APS-301B<br>AM-65                      | 400-600 700-1000                         | 1.0~2.6mm / 0.04~0.10in | 1.0~2.3mm / 0.04~0.09in |
| ASA-3000MA ASA-3000MSA | 0.5~5.0                | 0.43~4.3  | APS-301B<br>AM-65                      | 400-600 700-1000                         | 1.0~2.6mm / 0.04~0.10in | 1.0~2.3mm / 0.04~0.09in |
| ASA-4000M ASA-4000MS   | 1.0~6.0                | 0.87~5.2  | APS-301B<br>AM-65                      | 400-600 700-1000                         | 1.4~2.6mm / 0.06~0.10in | 1.4~2.3mm / 0.06~0.09in |
| ASA-4000MA ASA-4000MSA | 1.0~6.0                | 0.87~5.2  | APS-301B<br>AM-65                      | 400-600 700-1000                         | 1.4~2.6mm / 0.06~0.10in | 1.4~2.3mm / 0.06~0.09in |

### 適用電源控制器 Available controller

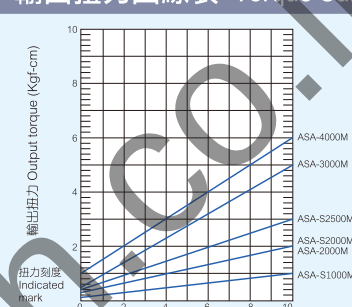
| 外觀<br>Outline | 機種名<br>Model No.                        | 工作電壓(AC)<br>Operating vol. | 輸出電壓(DC)<br>Output vol.       | 體積(mm)<br>Dimension | 重量(g)<br>Weight | 可操作起子數<br>Drivable | 安規認可<br>Approval by              |
|---------------|-----------------------------------------|----------------------------|-------------------------------|---------------------|-----------------|--------------------|----------------------------------|
|               | APS-201B                                | 100~240V                   | 9~19V<br>可調式<br>(Adjustable)  | 164X64X42           | 300             | 1 screwdriver      | CB,CE,<br>UL(CUL),<br>ROHS,REACH |
|               | APS-301B<br>軟式啟動<br>(Soft start)        | 100~240V                   | 20~30V<br>可調式<br>(Adjustable) | 164X64X42           | 300             | 1 screwdriver      | CB,CE,<br>UL(CUL),<br>ROHS,REACH |
|               | AM-55                                   | 100~240V                   | 9~15V<br>可調式<br>(Adjustable)  | 172X84X61           | 450             | 1 screwdriver      | CB,CE,<br>UL(CUL),<br>ROHS,REACH |
|               | AM-65                                   | 100~240V                   | 20~30V<br>可調式<br>(Adjustable) | 172X84X61           | 450             | 1 screwdriver      | CB,CE,<br>UL(CUL),<br>ROHS,REACH |
|               | AP3<br>氣吸式<br>(For vacuum pick up type) | 115V / 230V                | 24~30V<br>可調式<br>(Adjustable) | 200X120X94          | 2998            | 1 screwdriver      | —                                |

### 槓桿式尺寸圖 Dimension

|                                    |                                       |                                 |                                      |
|------------------------------------|---------------------------------------|---------------------------------|--------------------------------------|
| ASA-S1000M, ASA-S2000M, ASA-S2500M | ASA-S1000MA, ASA-S2000MA, ASA-S2500MA | ASA-2000M, ASA-3000M, ASA-4000M | ASA-2000MA, ASA-3000MA, ASA-4000MA   |
|                                    |                                       |                                 |                                      |
| 54.5<br>Φ26<br>158                 | 88.5<br>Φ26<br>198                    | 60<br>208                       | 72.5<br>Φ19<br>Φ36.5<br>Φ27.2<br>242 |

Unit : mm

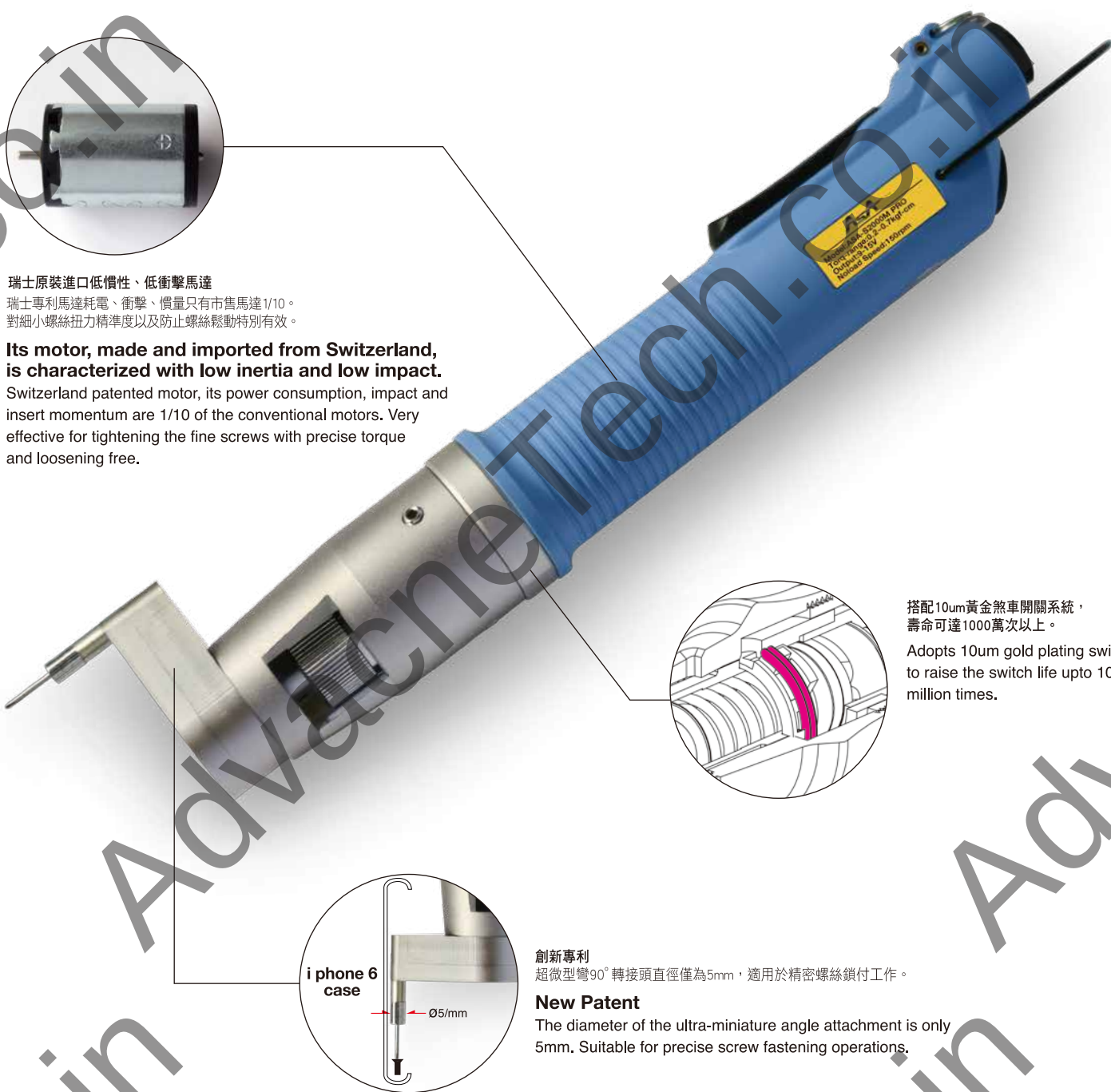
### 輸出扭力曲線表 Torque Curve



# ASA® 瑞士馬達電動起子 (彎90°轉接頭) Swiss motor electric screwdrivers (Angle attachment)

超微型彎90°轉接頭 (業界唯一獲得Apple認證的產品，並使用於iPhone及iPad生產線)

Ultra-miniature angle attachment (The only one which wins the identification of APPLE Company among all other competitors in business and being applied to IPHONE & IPAD's production line.)



瑞士原裝進口低慣性、低衝擊馬達

瑞士專利馬達耗電、衝擊、慣量只有市售馬達1/10。  
對細小螺絲扭力精準度以及防止螺絲鬆動特別有效。

**Its motor, made and imported from Switzerland, is characterized with low inertia and low impact.**

Switzerland patented motor, its power consumption, impact and insert momentum are 1/10 of the conventional motors. Very effective for tightening the fine screws with precise torque and loosening free.

搭配10um黃金煞車開關系統，  
壽命可達1000萬次以上。

Adopts 10um gold plating switch  
to raise the switch life upto 10  
million times.

創新專利

超微型彎90°轉接頭直徑僅為5mm，適用於精密螺絲鎖付工作。

**New Patent**

The diameter of the ultra-miniature angle attachment is only 5mm. Suitable for precise screw fastening operations.

