

SIRUBA

SL-600 FEATURES

 高林股份有限公司
KAULIN MFG. CO., LTD.

由於對產品的改良及更新，本產品型錄中之產品規格及外觀的修改恕不事先通知！
The specification and/or appearances of the equipment described in this catalogue are subject to change without previous notice because of modification.

AUG. 2024

SL-600

Industrial Sewing Machine Smart Servo Motor
工業用縫紉機智能驅動單元

SIRUBA
銀箭牌

特點

FEATURES

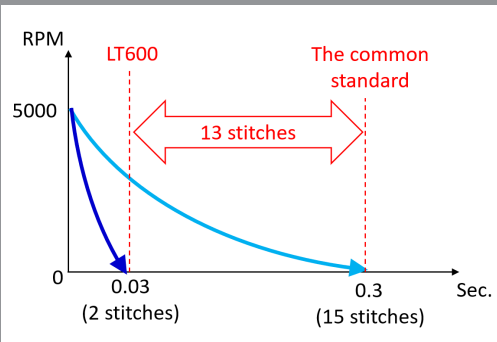
- 1 SCMS Structure:** Connecting various functional modules by serial communication, which realize edge computing, the trend of modern control technology. It has great flexibility, which can be upgraded by the demand. Infinite functional expansion is only limited by MCU computing power.
 - 2 Working Status Digitalization:** The sewing machine's real-time information can be extracted during sewing operation, which can be the original data of the IoT. The preset values include motor temperature, sewing speed, number of completed pieces, accumulated working hours, etc. Other values can also be retrieved according to customer requirements, such as the accumulated stitches or working time to calculate the due time of maintenance, providing reminders or alarms.
 - 3 Excellent Performance of Acceleration and Deceleration:** It has the best acceleration and deceleration performance in the industry, from 0 to 5000 rpm in 0.1 seconds, and from 5000 to 0 rpm in 0.03 seconds, realizing several SCMS advanced functions.
 - 4 Exquisite Drive Technology:** The power conversion efficiency can reach 85%~90%, the effect of energy saving is 1.2 times of the level of the industry, and it will not get hot during long-term operation.
 - 5 Cooling System:** The fan works independently according to the temperature of the motor. If an optional sensor is added into the sewing machine, the fan can also work according to the overall cooling requirements.
 - 6 User Friendly Interface:** The setting parameters are informatized, and the setting operation is more intuitive with the "SiRUBA Star" button.
 - 7 Continuously Expanding Advanced Functions:** support for general automatic thread trimmer interlock stitch machine. Also, customized functions are on demands (such as: thread breakage brake, deceleration or micro-lifting during sewing over thick area, semi-auto hemming, etc.)
- 1 SCMS系統架構：**以序列通訊串聯各別的功能模組，實現邊緣運算的現代控制技術潮流，彈性大，使用者可依需求改變而無痛升級，可無限擴充，潛力無窮。
 - 2 工作狀態數據化：**縫紉機在使用中，相關的即時資訊可以擷取出來，做為IoT物聯網的原始數據。預設的數值有馬達溫度、運轉速度、完成件數、累計工作時數等，也可以依客戶需求，擷取其他數值，例如以累計針數或以累計工作時間，計算維修保養的到期時間，提供預報或提醒。
 - 3 優異的加減速性能：**具有業界最強的加減速性能，由0到5000rpm 為0.1秒，由5000到0 rpm 為0.03秒，實現多項SCMS先進功能。
 - 4 精湛的驅動技術：**電能轉換效率可達85%~90%，節能省電的效果為業界1.2倍，長時間運轉不發燙。
 - 5 冷卻系統：**獨立運作的風扇，依馬達降溫的需求而運轉，若再於縫紉機內加裝溫度感測器，風扇也可依整體的降溫需求進行運轉。
 - 6 友善介面：**設定參數訊息化，搭配「SiRUBA Star」按鍵，操作更直覺。
 - 7 持續擴充的先進功能/ 產品線：**支援常規自動切線三針車，並可客製新功能 (例如：斷線剎停、過骨降速、遇厚微抬、半自動下擺...等)，將陸續增加支援其他機型，如平車，拷克等。




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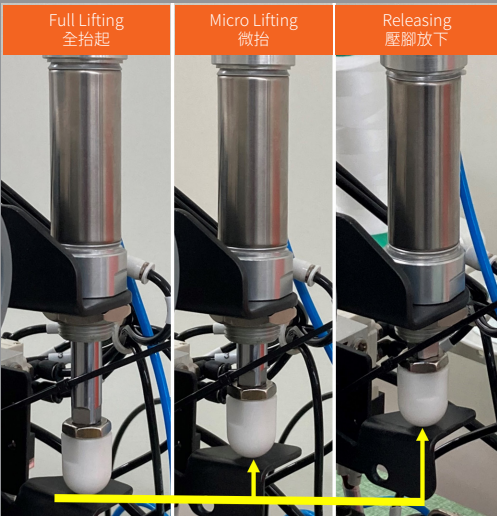
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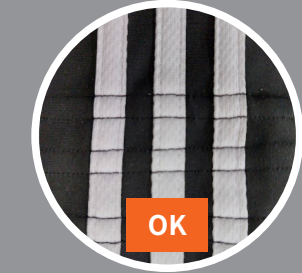
10x Performance of Super Braking is the basis of the advanced functions, such as thread breakage brake, deceleration during sewing over thick portion..., etc.

10 倍強的剎車性能，是過骨降速、斷線剎停...等先進功能的基礎。



Micro Lifting (Pneumatic) When sewing over the tapes or thicker areas, the presser foot senses the change and then slightly rises immediately. It avoids the sewing defect and increase sewing efficiency.

遇厚微抬 (氣動式) 在車縫過骨或段差部位時，壓腳可感應厚度變化，依設定高度，微量抬升壓腳。可有效避免車縫不良的情形，增加工作效率。



Thread Breaking Brake When the thread breakage is detected, it can be stopped immediately to prevent the trouble of thread wrapping into the looper thread take-up cam.

當偵測到斷線發生時，可立即剎停，避免縫線纏內控線凸輪。



APP (android), Touch Screen (optional) Optional Wi-Fi or Bluetooth module connects to the IoT for bidirectional information transmission. With the APP, smart phone can monitor the status of the sewing machine and remote setting. The system has a lot of information (ref. the specification) to feed to MES.

APP (安卓版), 觸控螢幕 (選配) 可選配 Wi-Fi 或藍芽模組，連結 IoT 物聯網進行雙向資訊傳輸，並可以智慧型手機監控縫紉機狀態，或進行遠端設定。系統有豐富的資訊 (請詳規格表)，提供您的MES擷取使用。

控制器產品編碼

CONTROLLER PRODUCT CODE

SL-600 -1 01 08 - MHG - 0 / C

Series Name	Power	Motor	Machine Head	Advanced Function	Network	Touch Screen
型號	電源	匹配馬達	縫紉機	進階功能	連網	觸控面板
	1: 220V, 1P 2: 110V, 1P 3: 220V, 3P	01: SiRUBA 1 st G 02: 賀欣 (相容) 03: SiRUBA 2 nd G	01: W600P 02: C007KP 03: EX, MX	ACS: Auto Tub. Neck BL: Auto Back Latch MHG: Auto Hemming	0: 無 W: Wi-Fi B: Bluetooth	_: Non/ 無 E: English C: Chinese/ 中文

規格

SPECIFICATIONS

	Item	項目	Value / 數值	Remark / 備註
Motor/ Power 馬達/電源	Motor	馬達	400W 600W 800W	Max. 7000rpm Max. 6000rpm Max. 4500rpm
	Power	電壓	200~240 VAC, 1 ø	
Basic Function 基本功能	Needle Up/ Down	停針上/下	V	Needle positioning quick setting 停針位置參數化快速設定
	Soft Start	慢速起縫	V	
	Presser Foot Lifting	壓腳提升	V	
	Trimmer / Wiper	切線/掃線	V	
	Constant Stitch	定針縫	V	
	Waste Suction	吸布屑	V	For left / right fabric trimmer 左/右切刀機型
Monitor 監控	Cycle Sewing	循環針數顯示	V	
	Sewing Speed	轉速顯示	V	
	Maintenance	保養提示	V	
	Working Time	工作時數累計	V	
	Finished Piece	完成件數累計	V	
	Machine Temperature	機器工作溫度顯示	V	Sensor Required 需搭配感測器
	Error Code	故障顯示	V	
	Touch Screen	觸控螢幕	Optional / 選配	
Advanced Function 進階功能	APP for Management	工廠管理APP	Optional / 選配	Require Android smart phone and Bluetooth module 需搭配安卓手機與加裝藍芽通訊模塊
	Thickness Brake	過骨降速功能	Optional / 選配	Require sensor and function module 需搭配感測器, 安裝模塊
	Micro Lifting	遇厚微抬功能	Optional / 選配	Require sensor and function module 需搭配感測器, 安裝模塊
	Thread Breaking Brake	斷線停車功能	Optional / 選配	Require sensor and function module 需搭配感測器, 安裝模塊
	Semi-Auto Hemming	半自動下擺功能	Optional / 選配	Require sensor and function module 需搭配感測器, 安裝模塊
I/O 訊號	Digital Signal I/O port	數位訊號輸入/ 輸出埠	12	2 are assigned as PWM output, 3 are assigned as analog input. (Remark 1) 其中2個可被規劃為PWM輸出, 3個可被規劃為類比訊號輸入(註1)
	1. PWM Output (Analog Output)	1. PWM輸出埠 (類比訊號輸出埠)	2 (1)	1 of the 2 PWM ports can be assigned as an analog output
	2. Analog Input	2. 類比訊號輸入埠	3	PWM其中一個可被規劃為類比訊號輸出
	Serial Communication port	串列通訊埠	3	Can be assigned as RS232, Bluetooth, Wi-Fi interface (Remark 2) 可規劃為RS232、藍芽、Wi-Fi介面 (註2)
Safety Protection 安全保護	Over Voltage	過電壓保護	V	
	Overcurrent / Overload	過電流 / 過載保護	V	
	Overheating	過熱保護	V	

Remark 1: The digital signal I/O ports can be used with various digital switches (e.g., optical sensor), analog sensors, functional modules (e.g., stepper motors) or encoders.
Remark 2: If more digital signal I/O ports are required, the serial communication port can be used for unlimited expansion within the computing power of the CPU.
註1：數位訊號輸入/ 輸出埠 可搭配各種數位開關 (例如電眼)、類比感測器、功能驅動模塊 (例如馬達或步進馬達)或編碼器使用。
註2：若需更多數位訊號輸入/輸出埠，可在CPU 運算能力內，以串列通訊埠進行無限量擴充。