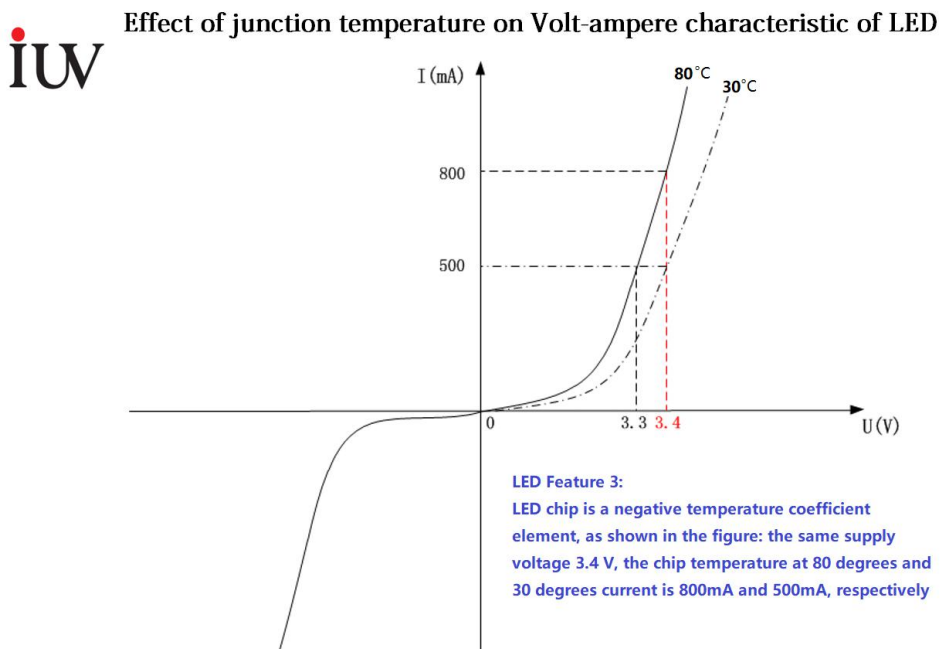
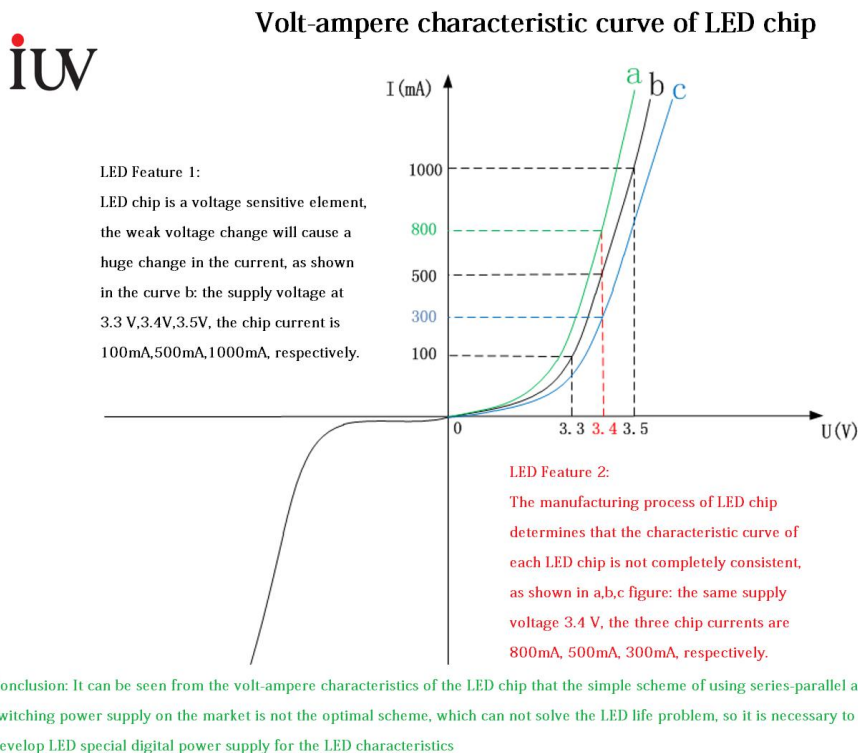


LED UV Curing System

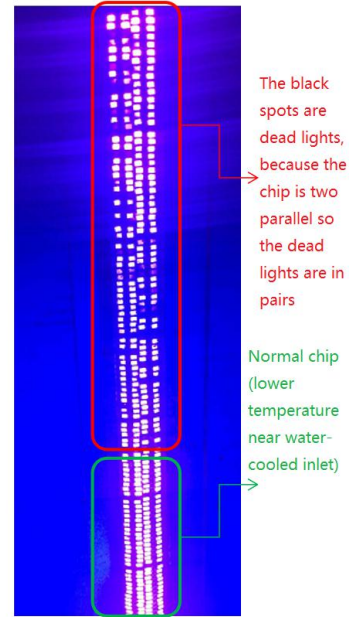
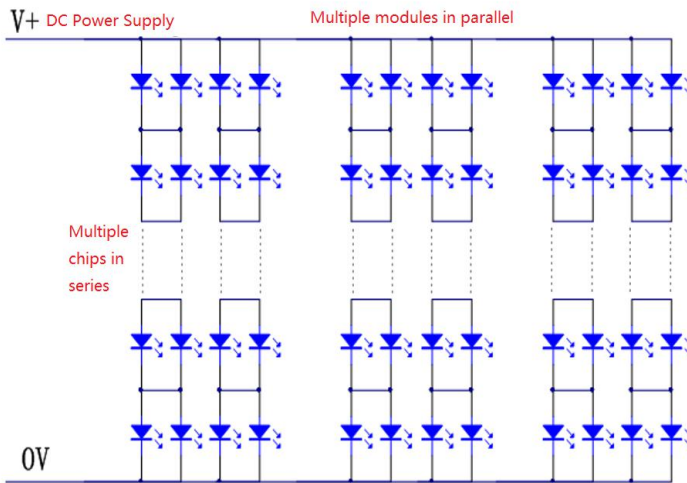


1、 Volt-ampere characteristic of LED chip



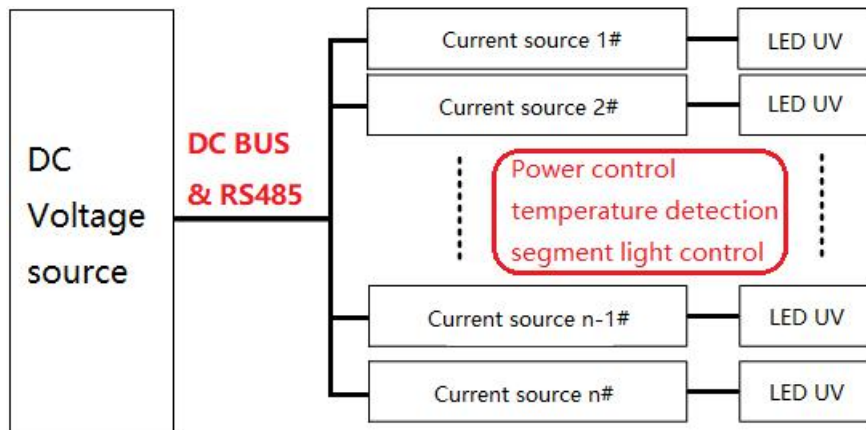


Disadvantages of LED Modules Using Serial Parallel



Because of the lack of power supply design capability, most brands buy general-purpose power supply on the market. LED module design is based on the purchased supply voltage and current reverse design module, so they all use series and parallel operation mode. However, because of the LED volt-ampere characteristics and temperature characteristics (chip consistency and temperature variation), the current distribution in series-parallel mode is inconsistent, high-current chip is first burned down because of high temperature, the burned chip is either short-circuited other chip, or disconnected to increase the current of other bypass chip, the current increase and accelerate the other chip burning, Therefore, it is necessary to use single-channel series and self-developed constant-current source to guarantee the life of the LED chip.

2、 IUV-LED curing system control scheme



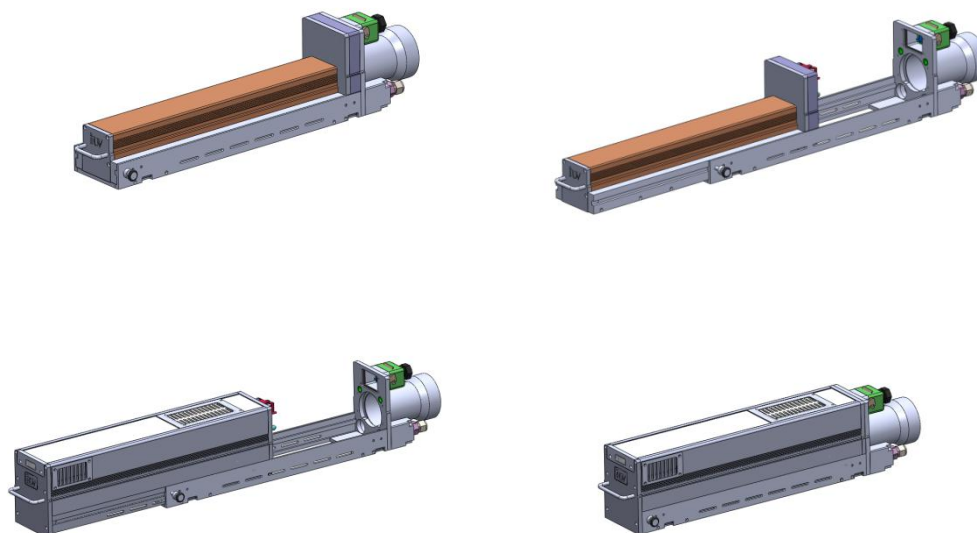
3、 Product technical parameters

LED	
Type specification of product	IUV-SuperPlus
Effective width of LED	330~1020mm
Rated power of LED (one unit)	2.5~10KW
Wave length of LED	365nm/385nm/395nm

Optimum curing distance of LED	5~8mm
Accuracy of power regulation (LED)	Continuous 1%-100%
Type of cooling (LED)	Water cooling mode, maximum guarantee LED life
Packaging of LED	Aluminum Nitride Ceramic COB(Chips on Board) packaging, reduce the thermal resistance, maximum guarantee LED life
LED chip	Korea's latest high-power vertical chip
Ultraviolet energy density(LED)	15~25W/cm ²
LED automatic width adjustment function	UV equipment has the function of automatic detection of paper width and paper position, LED can achieve many levels of automatic control according to the sensor (with the material position automatically light up, without the material position automatically closed), more effectively save energy and reduce the material temperature
Input Power	Three-phase 340~380V 50HZ/60HZ
	800mm*600mm*1250mm(LWH)
Power Supply of LED	Independent research of constant current power supply, to ensure that the current of each LED chip is consistent
Power protection	Surge voltage protection、 short-circuit protection、 earth leakage protection
Effective width of mercury lamp	330~1020mm
Rated power of mercury lamp (one unit)	5~25KW
Accuracy of power regulation (mercury lamp)	Continuous 15%-100%
LED and mercury lamp interchange function	The system can automatically identify the type of lamp, automatically switch between power supply and cooling, can easily cope with the complex process of Flexo printing curing system requirements
Power protection	Surge voltage protection、 short-circuit protection、 earth leakage protection

4、 Hybrid mercury lamps and LED interchange

With the development of ultraviolet light emitting diode (LED-UV) semiconductor technology and the enhancement of energy saving and environmental protection consciousness, mercury lamp will be replaced by LED technology. LED curing has obvious technical advantages, but it needs ink support to play LED best curing and energy saving effect. during the period of alternating old and new technologies, mercury lamps still retain a certain vitality, and mercury lamps in some special printing processes are still irreplaceable. LED-UV and conventional mercury lamps exist simultaneously in the same curing system for the purpose of saving energy and environmental protection and ensuring the printing process. To solve this problem IUV a simple switching function of mercury lamp and LED is designed. With the same light box base, the same power supply, the same air cooling and water cooling device, the system software will automatically identify the LED-UV or mercury lamp and automatically switch the mode of power supply and cooling if the LED and mercury lamp box core are switched.



5、IUV curing system operating screen

Main Screen 10:17:28

Status	UV ON/OFF	Power %	Temp °C	Width	Manual
LAMP RUN	1 ON	50	32	320	↓ ↑
LED RUN	2 ON	20	32		
LED RUN	3 ON	20	32		
LED RUN	4 ON	20	32		
LED RUN	5 ON	20	32		
LAMP RUN	6 ON	50			
LAMP RUN	7 ON	50			

System Normal System Normal

System status, LED Temperature, LED Lighting Area Control, Manual Power Control

Parameter Screen 10:41:33

Driver Power Monitor				
Num	Power	Voltage	Current	Status
LED	3000	460	6.52	0
UV1	2500	450	5.56	0
UV6	2500	450	5.56	0
UV7	2500	450	5.56	0

Compressor Monitor

- Compressor TempSetting(°C): 23.0 °C
- Compressor Water Temp(°C): 22.5 °C
- Compressor Status: RUN
- Water Level: Flow Low
- Power Error
- Temp High
- NTC Open
- NTC Short
- Cooler Low
- Compressor H
- Compressor L

Power Status Monitor, Printing Machine Sync Speed, Power regulation mode, chiller monitor

6、 Application cases



NanJing GeRun OMET X4(Hybrid system)



BeiJing DeJi OMET X6(Hybrid system)



SuZhou JiangTian OMET X4(Hybrid system)



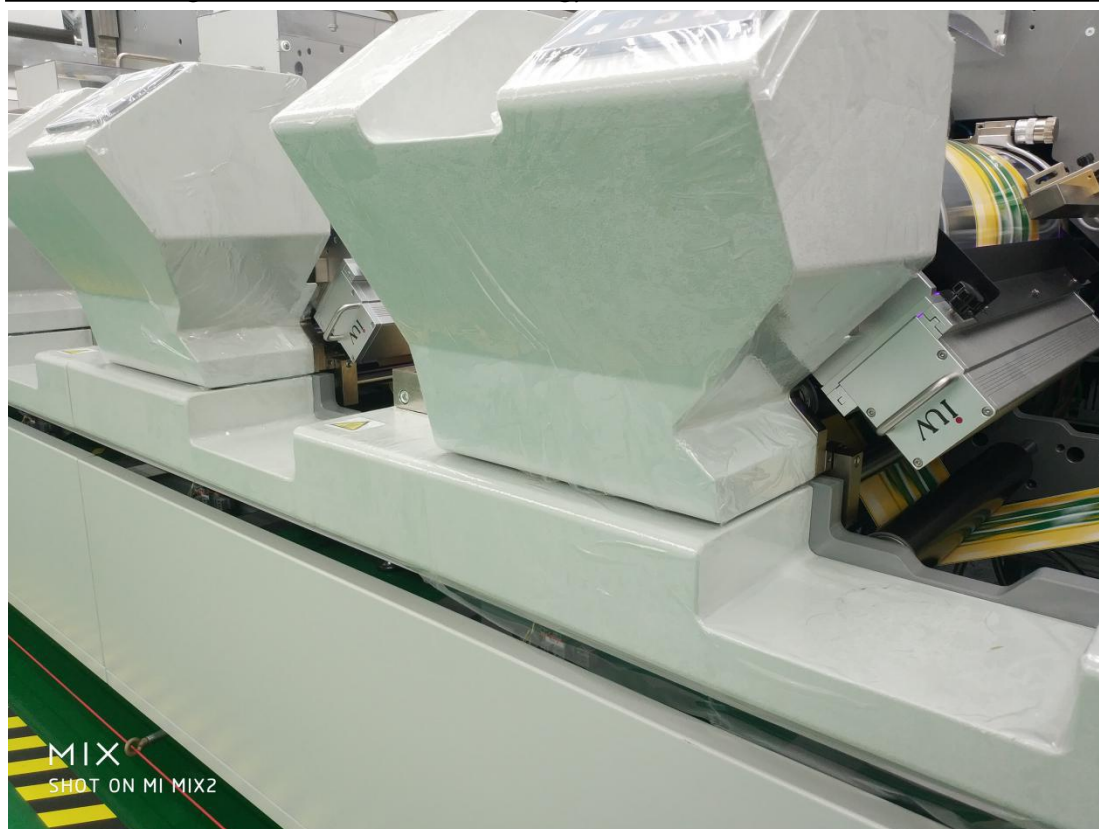
SuZhou OMET Factory IFLEX Machine(Hybrid system)



SuZhou Tian Jie BOBST M5(2 sets Hybrid systems)



SuZhou JiangTian BOBST M5(7 sets Hybrid systems)



GuangZhou HuShi BOBST M5(Hybrid system)



ShanTou JiXiang BOBST M1(Hybrid system)



MIX
SHOT ON MI MIX2

ShangHai LingMin WEIGANG Flexo(Hybrid system)



DongGuan Tian Chi ZhongJing Flexo&offset(Hybrid system)



DongGuang BENGGRAPHIC FLEXO(Hybrid system)



GuangZhou Dowell Flexo(Hybrid system)