

PSU-700 LASER POWER SUPPLY



1. SUMMARIZE

PSU-700 laser power supply is specially designed for CO₂ laser instrument to drive the laser tube less than 700mm in length. By taking into half-bridge high frequency, high voltage switching mode, in addition to our special current control technology, the PSU has wide input scope. The output current is good at current constant to match our CO₂ laser tubes. It is widely used in CO₂ laser instrument for the purpose of medical, engraving and cutting. Reference price: FOB China port: usd550/set

2. TECHNICAL SPECIFICATION

MODEL			PSU-700
INPUT	VOLTAGE		AC220V \pm 15%
	INRUSH CURRENT		DC220V — 28A
OUTPUT	START VOLTAGE		25KV
	OPERATING VOLTAGE		16KV
	OPERATING CURRENT(MAX)		20mA
ELSE	CONTRON SWITCH	INPUT VOLTAGE	0 ~ 5V TTL Control Signal
		PULSE WIDTH (MIN)	1ms
	ADVANCE OUTPUT CURRENT		1.5mA TYP
	OPERATING TEMPERTATURE		-10~45℃
	STORAGE TEMPERTATURE		-25~+75℃
	OVER VOLTAGE PROTECTION		> 25kV, CUT-OFF
	ELECTRICALLY ISOLATED I _{leak} =10mA, 1 min		INPUT-CASE/FG: 1500VAC; INSULATION RESISTANCE \geq 50MΩ Conform to GB4943、UL1950、IEC380 Requirement;
	ELECTROMAGNETIC COMPATIBLE		Conform to VDE0871 CLASS B, FCC CLASS B. Requirement.
STRUCTURE	SIZE		260 × 190 × 85 (mm)
	WEIGHT		5 Kg

3. PLUG MANUAL (see diagrammatic sketch)

- J1 : Power 220V AC input
- J2、JG: High voltage model block input
- J3 : 1: Join laser tube cathode 2: Join high voltage model block gray line
3: Join high voltage model block orange line
- J4 : 2 ~ 3: Join trigger key *1
- J5 : 1 ~ 2: Join water pump protection switch *2 3 ~ 4: TTL signal input *3
- J6 : Join 1K adjustable resistance, can change high voltage output current to regulate laser strong or weak and caving machine deep or shallow.

ANNOTATE:

*1 Trigger Key: push under, can through high voltage output (use debugging)

*2 Water Pump Protection Switch: can join the water pump, when the water pump has problem, it voluntarily stop power working.

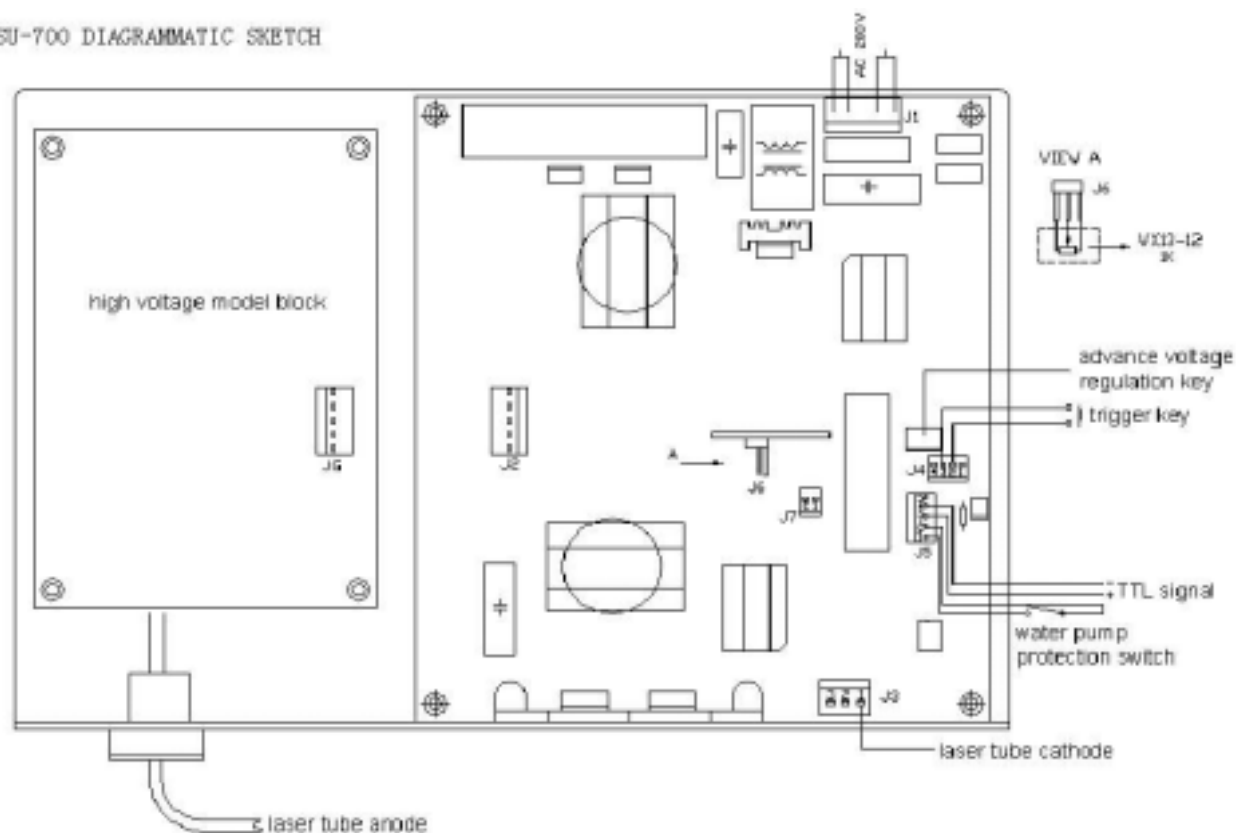
*3 TTL signal input: can join carving machine containing computer (If control signal is 12V, please series 2 ~3 K resistance to step-down the voltage then use it)

4. ATTENTION!

- Before exercise, check if the product is damaged during transport.
- Be sure that the PSU and laser tube is connected correctly
- Must keep the power join the earth well.
- Pay attention to the danger of High voltage and harm hanger of laser.
- working environment : the PSU must work under good air ventilation

5.DIAGRAMMATIC SKETCH

PSU-700 DIAGRAMMATIC SKETCH



PSU-1250D LASER POWER SUPPLY

1. SUMMARIZE

PSU-1250D laser power supply is specially designed for CO2 laser instrument to drive the CO2 laser tube length from 800mm to 1600mm . By taking into PWM half-bridge high frequency, high voltage switching mode, in addition to our special current control technology, the PSU has wide input scope. The output current is good at constant current to match our CO2 laser tubes . It is widely used in CO2 laser instrument for the purpose of medical, engraving and cutting.



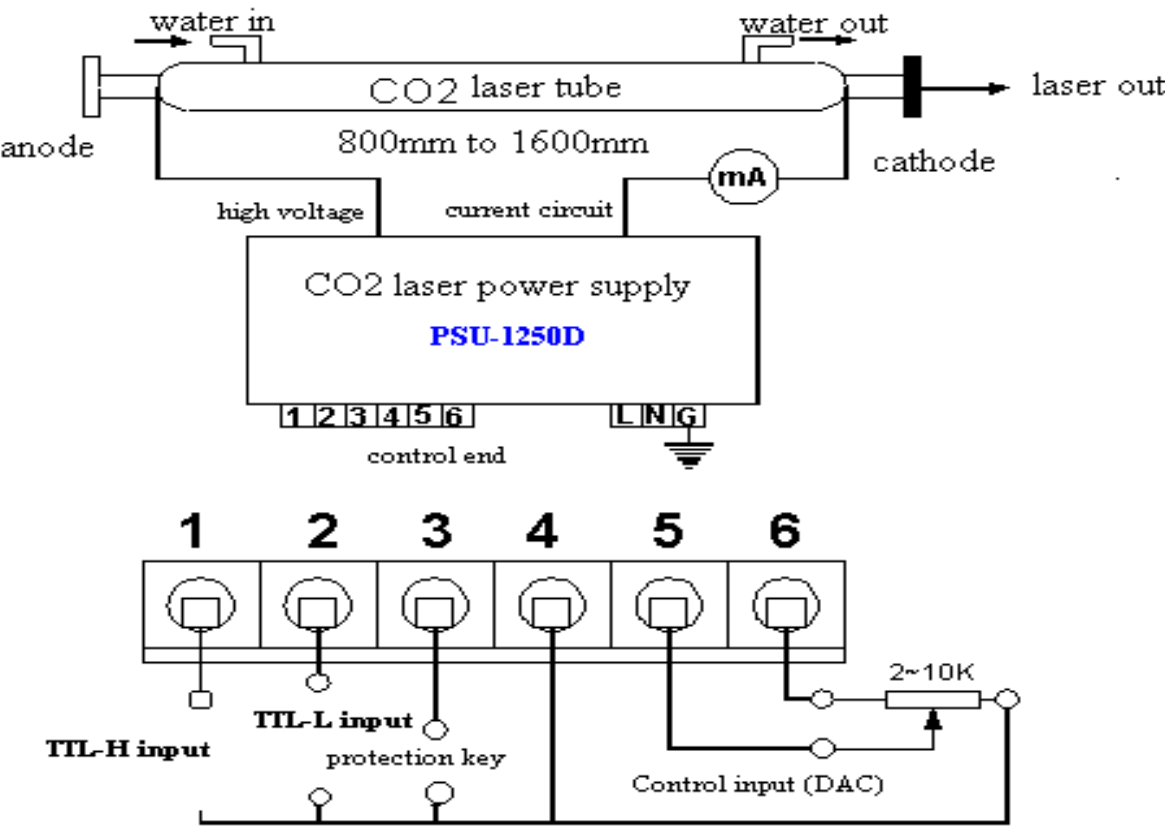
Reference price: FOB China port: usd700/set

2. TECHNICAL SPECIFICATION

MODEL			PSU-1250D
INPUT	VOLTAGE		AC220V \pm 15%(can be used as 110V if short circuited the 2 connects marked 110V and 220V in the PCB board .)
	INRUSH CURRENT		28A
OUTPUT	START VOLTAGE		30KV
	WORKING VOLTAGE		20KV
	SCOPE of CURRENT REGULATION		0 ~25mA
ELSE	CONTROL SWITCH	INPUT VOLTAGE	0~5V TTL Control Signal
		PULSE WIDTH (MIN)	0.5ms
	ADVANCE OUTPUT CURRENT		1mA TYP(available by connecting CZ2 marked on the PCB board)

		OPERATING TEMPERTATURE	-10~45℃
		STORAGE TEMPERTATURE	-25~+75℃
		OVER VOLTAGE PROTECTION	> 30kV, CUT-OFF
		ELECTRICALLY ISOLATED I leak=10mA, 1 min	INPUT-CASE/FG: 1500VAC; INSULATION RESISTANCE Conform to GB4943、UL1950、IEC380 Requirement;
		ELECTROMAGNETIC COMPATIBLE	Conform to VDE0871 CLASS B, FCC CLASS B. Requirement.
STRUCTURE	SIZE	235*208*100mm	
	WEIGHT	4Kg	

3. FUNCTION KEY MANUAL (see diagrammatic sketch)



Remarks: Key 1: TTL-H input Key 2: 2ESDV-03P, TTL-L input

You may use either key 1 or key 2 to control (decide) if there is voltage output

protection Key 3: 2ESDV-06P, signal from water pump to the PSU

Key 4: ground Key 5: Control input (DAC) : used to control the current output value from the PSU.

Key 6: REF 5V

TTL-H input (Key 1)	TTL-L input(Key 2)	Control input (DAC)	Laser output
No connection	Low (<0.3)	0~4V	Pmin~Pmax
	High(>3)	0~4V	0
Low (<0.3)	No connection	0~4V	0
High(>3)		0~4V	Pmin~Pmax
Protection key 3 : off		0~4V	0

remarks:

1: the fan will rotate simultaneously when there is current output.

2: -if short circuited point 1 and point 2 on connector CZ3, the PSU will provide line-controlled- current mode for accurate industrial processing but at longer response time .

-if short circuited point 2 and point 3 on connector CZ3 , the PSU will provide peak-controlled- current mode for quicker response time.

-the PSU is set at peak-controlled- current mode at the factory.

3: advance voltage is optional

4: in case the PSU and the laser tube does not match each other , pls try series-connect a resistance of 30—50K/50W in the high voltage circuit