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SH Series Sealed-off CO₂ Lasers

The SH series sealed-off CO₂ laser consists of glass and intra-cavity configuration. The laser is DC-excited with water cooling. They are widely used in medical and industrial laser systems.



Model	Tube size (mm)	Max. power (W)	Stability (%)	Trigger voltage (kV)	Operation voltage (kV)	Operation current (mA)	Power supply
CO2-SH-200-34	φ34x200	3	<5	5.5	3-3.5	5-6	CO2-SH-P1
CO2-SH-280-34	φ34x280	5	<5	6.5	4-4.5	6-7	CO2-SH-P1
CO2-SH-300-34	φ34x300	8	<5	7	5-5.5	7-9	CO2-SH-P1
CO2-SH-350-34	φ34x350	12	<5	8	6-7	8-12	CO2-SH-P1
CO2-SH-400-34	φ34x400	15	<5	9.5	7.5-8	11-13	CO2-SH-P1
CO2-SH-420-34	φ34x420	16	<5	10	8-9	13-14	CO2-SH-P1
CO2-SH-450-34	φ34x450	18	<5	11	8-9	13-15	CO2-SH-P1
CO2-SH-500-34	φ34x500	21	<5	12	8-9.5	14-16	CO2-SH-P1
CO2-SH-550-34	φ34x550	23	<5	13	9-10	15-17	CO2-SH-P1
CO2-SH-600-50	φ50x600	30	<5	14	10-10.5	15-18	CO2-SH-P1
CO2-SH-800-50	φ50x800	35	<10	18	11-12	18-22	CO2-SH-P1
CO2-SH-845-50	φ50x845	40	<10	18	11-12	18-22	CO2-SH-P1
CO2-SH-1000-50	φ50x1000	50	<10	21	14-15	18-22	CO2-SH-P1
CO2-SH-1200-55	φ55x1200	60	<10	21	14-16	18-22	CO2-SH-P2
CO2-SH-1400-55	φ55x1400	70	<10	21	14-16	18-22	CO2-SH-P2
CO2-SH-1600-55	φ55x1600	80	<10	30	25	25	CO2-SH-P2
CO2-SH-1800-55	φ55x1800	100	<10	30	25	25	CO2-SH-P2

Other specifications:

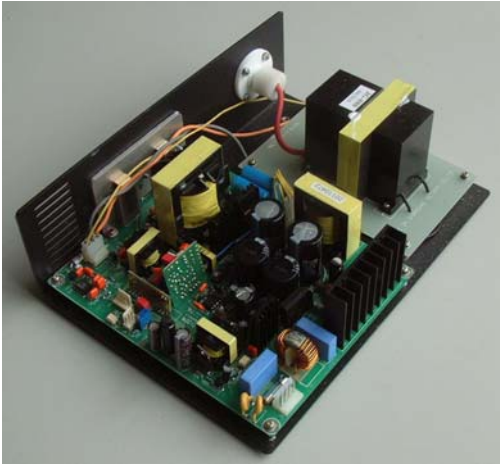
1. Beam diameter: 4-5mm;
2. Beam divergence: <10mrad;
3. Warranty: >4months

Option:

Suction water pump HQB-3900

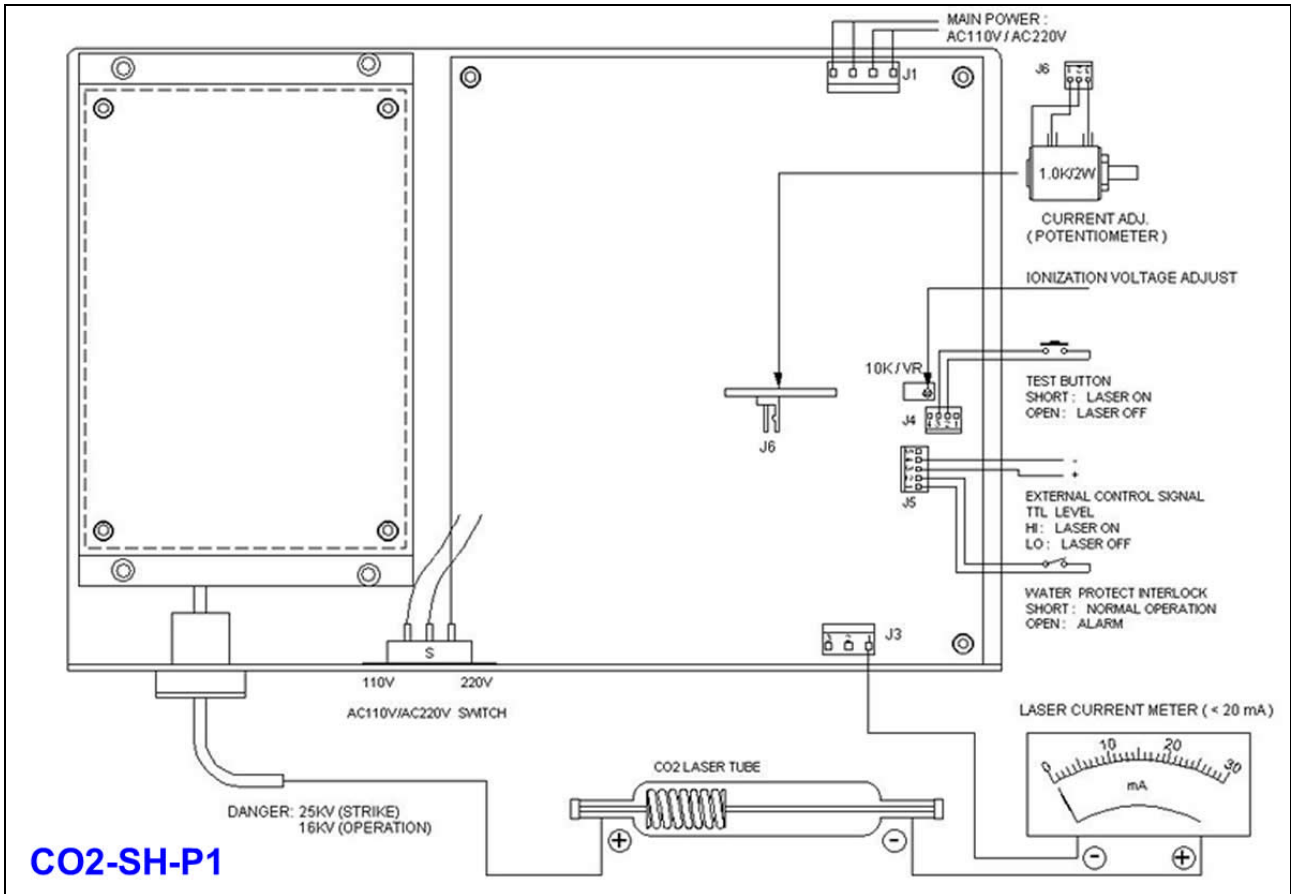
CO₂ Laser Power Supply

The switching power supplies are specially designed for CO₂ laser tubes. PWM switching mode and current-regulated method are employed. The power supply is suitable for the CO₂ lasers for medical, engraving and cutting applications.



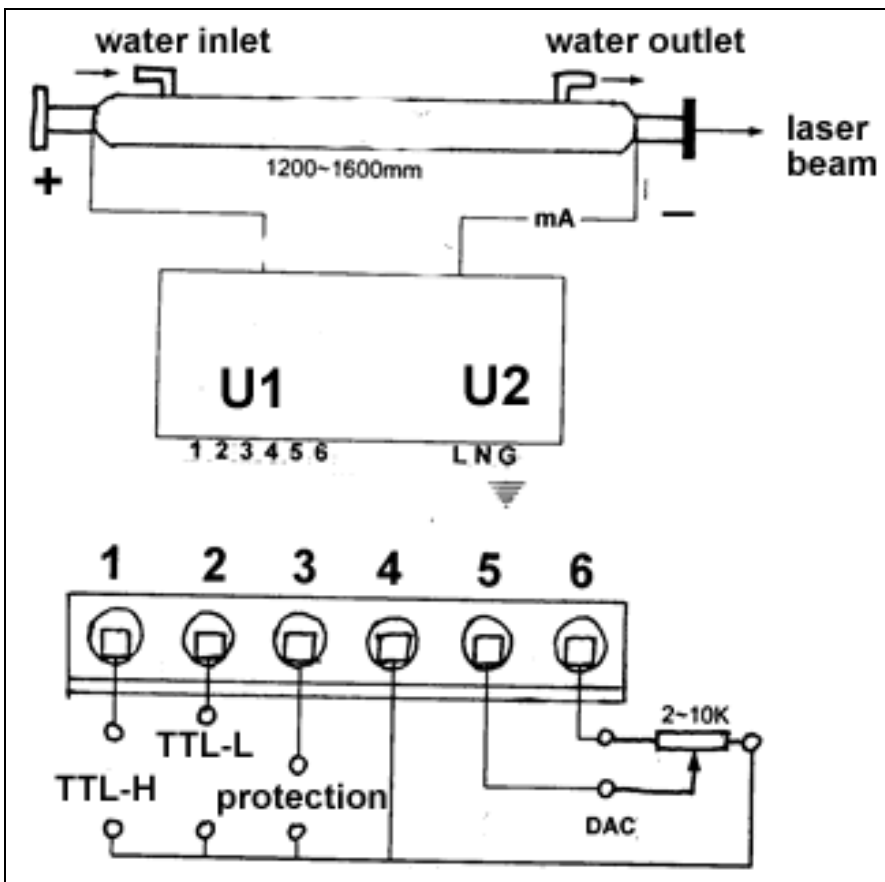
Technical Specifications

Model		CO2-SH-P1	CO2-SH-P2
Input	Voltage	94-127VAC or 187-253VAC $\pm 15\%$, 50Hz	
	Surge	DC220V-28A	
Output	Trigger voltage	20kV	30kV
	Operation voltage	15kV	20kV
	Operation current	18mA	24mA
	Max. operation current	20mA	25mA
	Over voltage protection	Automatic switch off if >25kV	
	Over current protection	yes	
External control input	Voltage	0-5V, TTL level	
	Minimum pulse width	0.5ms	
Test	Input terminal vs ground	2000VAC	
	Insulation resistance	>50M Ω	
	Standards	<ul style="list-style-type: none"> • GB4943, UL1950, IEC380 • VDE0871 class B, FCC class B 	
Others	Operation temp.	-10 - +45°C	
	Store temp.	-25 - +75°C	
	Dimension (mm)	260x190x85	235x208x100
	Weight	5kg	6kg
	Driven laser tube length	$\leq 1000\text{m}$	1200mm-1800mm



CO2-SH-P1

Schematic of CO2-SH-P1



Schematic of CO2-SH-P2

Suction Water Pump

The water pump is used for sealed-off CO2 lasers. The pump is placed in a water container so that the water can be pumped to the CO2 lasers and then cool the laser tubes. There is no compressor or condensing unit required for SH series CO2 lasers.

Specifications:

Model: HQB-3900

Height (pressure): 3.9meter

Flow rate: 3500 liter/hour

Weight: 2.8kg

Electricity: 220VAC, 50/60Hz, 100W

