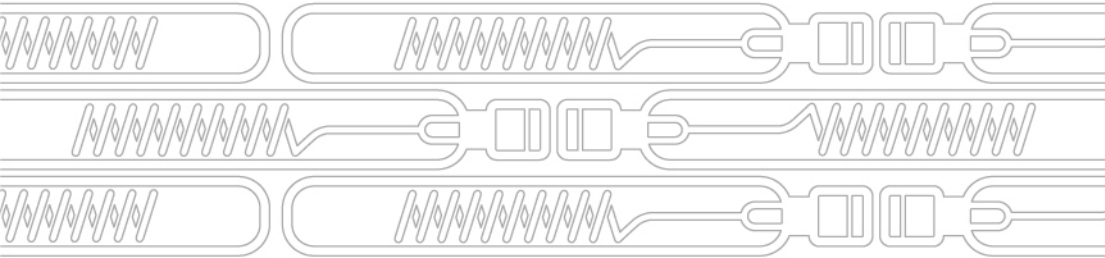


# Power Supply for CO<sub>2</sub> Laser Tube User Manual



**24H 4008 500 005**

<http://www.bjefr.com>

# Power Supply for CO<sub>2</sub> Laser Tube

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## Main Features

☆Better adaptability: built-in active PFC circuit to achieve higher power factor and meet the global universal input voltage range (AC90-250V,47/63Hz), effectively resist the influence of large changes in grid voltage on the output current.

☆More powerful power: in the entire input voltage range, the maximum current is guaranteed to be constant.

☆Adopting patented technology shell: which meets industrial product standards, is beautiful, durable, and has excellent heat dissipation performance.

☆Equipped with LCD display: digital display of the current size; light indicator, light signal, water protection signal can indicate normal and faulty signals; integrated potentiometer can manually adjust the current.

☆The laser power control is simple: it can be controlled by 0~5V analog signal or 5V PWM signal.

☆Safer to use: It has an open circuit protection function, which significantly improves the life of the power supply and laser.

☆More stable performance: the newly developed improved current control method, the light is more stable, and the compatibility is better.

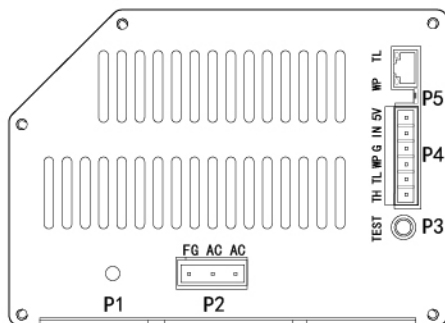
☆Good compatibility: it can perfectly match most of the 50W-150W CO<sub>2</sub> lasers at home and abroad.

☆Equipped with manual light emission test button: convenient to test the laser tube and power supply, and easy to maintain.

## Specifications

ITEM	PS-N80	PS-N100	PS-N150
Input voltage	AC90-250V		
AC frequency	47-63Hz		
Max input power	600W	650W	900W
Max input current (90V input)	5.5A	6A	8A
Max output voltage	40kV	45kV	55kV
Max output current	28mA	32mA	38mA
Efficiency	≥90% (full load)		
MTBF(mean time between failure)	≥10000 Hours		
Response speed	≤1mS ( the time from the signal is given to output current reaches 90% of set current )		
Withstand voltage	input-output, input-shell:AC1500V 10mA 60s;		
Working environment	Temperature (-10~40) °C , Relative Humidity:≤90%		
Cooling	Force Air cooling		
Matching laser tube power	50-80W	80-120W	130-180W
Dimension L*W*H(mm)	235*144*104	278*144*104	330*144*104
Weight (KG)	2.15kg	2.45kg	3.2kg
Color	Silver		

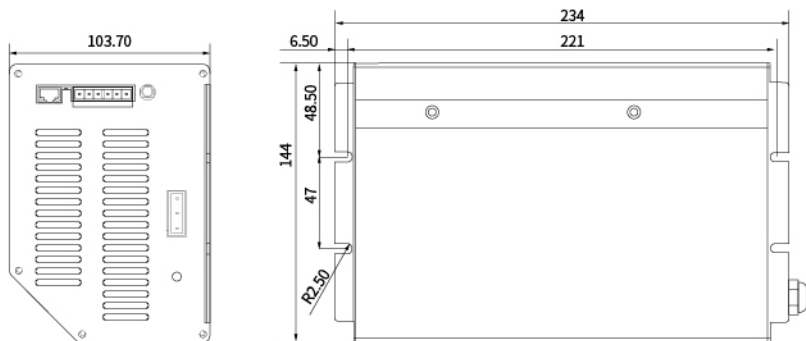
## Interface Definition



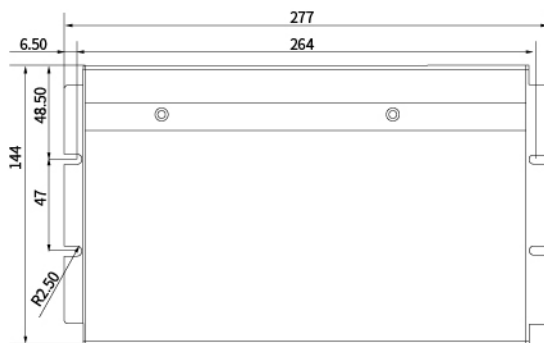
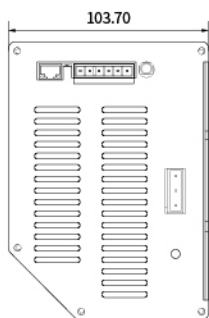
P1	High voltage indicator	
P2	FG	Grounded ↓
	AC	AC input
P3	Test button	
P4	TH	High level control input
	TL	Low level control input
	WP	Water protection
	G	Control place
	IN	Power control input
	SV	5V Output
P5	RJ-45 interface switch	

P4 interface definition		
TH	Input signal	Laser on/off control, laser on when high level( $\geq 3V$ ), laser off when low level( $\leq 0.3V$ )
TL	Input signal	Laser on/off control, laser off when high level( $\geq 3V$ ), laser on when low level( $\leq 0.3V$ )
WP	Input signal	Laser on/off control, laser off when high level( $\geq 3V$ ), laser on when low level( $\leq 0.3V$ )
G	Signal ground	This terminal must be connected with outer shell and control board of machine properly.
IN	Power signal	Laser power control terminal, control with 0-5V analog signal or 5V PWM signal
5V	Output	5V output, max output current is 20mA
P5 interface definition		
P5	RJ-45 switch	please switch the button to RJ-45 side if use display. If not please switch the button to opposite.

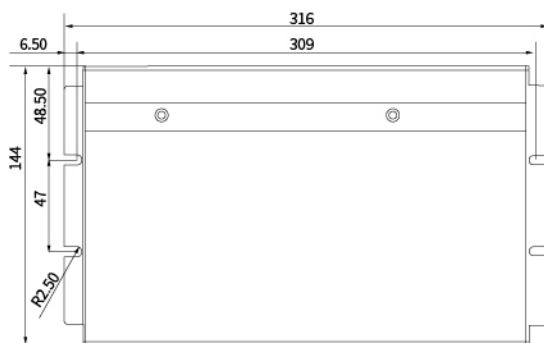
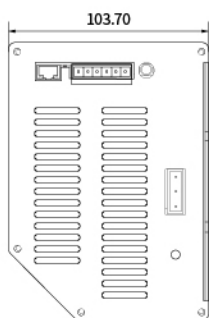
## Dimensions



PS-N80



PS-N100



PS-N150