Power Technology incorporated

HELIUM-NEON POWER SUPPLY OPTIONS LIST

USE THE GUIDE BELOW TO IDENTIFY NECESSARY OPTIONS FOR HENE POWER SUPPLIES

Option #	Type	Description	Option Type	Material	AC/DC
AC POWER SUPPLY OPTIONS BELOW					
01	Amp Connector	For anode and cathode connection	Connectors	#859528-1	DC
02	Alden Connector	For anode and cathode connection	Connectors	#8102-F	DC
03	Alden Connector	pin connector. Customer must specify connections	Connectors	#8113-FP	DC
10	Positive Enable	Connect lead to positive ro turn unit on, open to turn unit off	Enable	white/red wire	DC
13	TTL Level Inhibit	open lead or connect to positive to turn unit on, connect to return to turn unit off. Can be controlled by TTL circuitry with proper interfacing.	Inhibit	white/violet wire	DC
14	TTL Level Enable	Connect lead to return to turn unit on, open to turn unit off (not compatible with option 16). Can be controlled by TTL circuitry with proper interfacing.	Enable	yellow wire	DC
16	Enable/Flasher	Connect lead to return to turn unit on, connect lead to positive to turn unit off (approx. 10uA leakage during shutdown), or open lead to cycle unit on and off at factory preset rate	Enable	white/orange wire	DC
17	Low Current Drain Standby Enable	<5uA Connect lead to positive to turn unit on, open to turn unit off.	Enable	white/yellow wire	DC
22	Current Adjust, External	Available with a maximum adjustment range of +/- 30% from a nominal point, limited by the operating capability of the model. Adjustment may be accomplished by two means: Either using a 2Kohm pot or by using a factory dual or triple calibration pot. - 10"	Calibration	orange wires	DC

23	Dual Calibration Reset	Cal. For two different operating currents ("A" model requires an extra lead +/- 24" green	Calibration		DC
25	Current Adjust, Internal	Available with a maximum adjustment range of +/- 30% from a nominal point, limited by the operating capability of the model. The 101 case must be open at both ends. (case "30" option)	Calibration		DC
30	Reverse Wire Exit	Switches the end of the power supply by which the Input/Output wires exit	Physical		DC
31	End Mounting Heatsink	Allows mounting holes to exit end of unit. Input/Output wires exit end of heatsink	Physical		DC
32	Opposite Wire Exit	The Input/Output wires exit opposite ends from each other	Physical		DC
37	Input Filter	This filter can dramatically reduce conducted emissions from the switching section of the power supply	Operating	choke	DC
38	Active Filter	For models not currently available this option can be engineered to a customer's specific needs. It may result in a larger case size. The reduction in the ripple will be dependent upon the laser tube used, power rating of the power supply, and the size re	Operating	low ripple	DC
39	Shunt Diode	For lower batter drain, the series reverse polarity protection diode may be changed to a shunt diode. This can increase efficiency up to 5%. A fuse should be used to protect the power supply from incorrect connection	Operating		DC
42	Increased Starting Voltage	Increases capability of the power supply 20 to 50% higher than what is specified	Operating		DC

43	Ballast Module	Typically a 82Kohm, 7W resistor encapsulated in a tube 0.42" in diameter by 2.0" long. Ballast must be less than three inches from the anode of the tube. The maximum power that can be dissipated in each moduler is 3.5W	Operating		DC
44	Negative High Voltage Output	The high voltage lead becomes a black 20KV lead	Operating		DC
46	CDRH Delay	For customers requiring a 3 to 5 second delay in the start of the laser tube after power has been applied to the power supply. The delay can be disabled by cutting the 1.5" loop	Operating	violet wire loop	DC
47	EMI Shielding	Contact the factory for more detailed information	Operating		DC
52	Increased Line Voltage	Input nominal voltage can increase up to 50% higher than the specified nominal with a +/- 10% line change capability	Operating		DC
53	Decreased Line Voltage	Input nominal voltage can decreased up to 25% lower than the specified nominal with a +/- 10% line change capability	Operating		DC
60	Bleeder Resistor	100Mohm resistor on output	Operating		DC
61	Open Circuit Shutdown	If laser tube does not start within 1second of the time voltage is applied, the power supply will shut down and must have input voltage removed to reset the latch circuit	Operating		DC

AC POWER SUPPLY OPTIONS BELOW					
03	Alden Connector	3-pin connector. Customer must specify connections	Connectors	#8113-FP	AC
A	Active Filter	For models not currently available this option can be engineered to a customer's specific needs. It may result in a larger case size. The reduction in the ripple will be dependent upon the laser tube used, power rating of the power supply, and the size re	Operating	low ripple	AC
B	CDRH Delay	For customers requiring a 3 to 5 second delay in the start of the laser tube after power has been applied to the power supply. The delay can be disabled by cutting the 1.5" loop	Operating	violet wire loop	AC
C	Current Adjust, External	Available with a maximum adjustment range of +/-30% from a nominal point, limited by the operating capability of the model. Adjustment may be accomplished by two means: Either using a 2Kohm pot or by using a factory dual or triple calibration pot - 10" le	Calibration	orange wires	AC
F	Decreased Line Voltage	Input nominal voltage can decreased up to 25% lower than the specified nominal with a +/- 10% line change capability	Operating		AC
H	Enable/Flasher	Connect red wire to +5VDC, black wire to return. Connect white/orange wire to return to turn unit on, connect lead to +5VDC to turn unit off (approx. 10uA leadage during shutdown), or open lead to cycle unit on and off at factory preset rate	Enable	white/orange wire	AC
J	Increased Starting Voltage	Increases capability of the power supply 20 to 50% higher than what is specified	Operating		AC

K	TTL Level Control	With white/red wire connected to +5VDC, connect white/black wire to return to turn unit on, open to turn unit off (not compatible with option H). Can be controlled by TTL circuitry with proper interfacing. Control circuitry requires 10mA minimum	Enable	white/red wire	AC
L	Ballast Module	Typically a 82Kohm, 7W resistor encapsulated in a tube 0.42" in diameter by 2.0" long. Ballast must be less than three inches from the anode of the tube. The maximum power that can be dissipated in each moduler is 3.5W	Operating		AC
M	Negative High Voltage Output	The high voltage lead becomes a black 20KV lead	Operating		AC
P	Reverse Wire Exit	Switches the end of the power supply by which the Input/Output wires exit	Physical		AC
R	Opposite Wire Exit	The Input/Output wires exit opposite ends from each other	Physical		AC
S	EMI Shielding	Contact the factory for more detailed information	Operating		AC
T	High Temperature	Enables the power supply to operate in ambient temperatures up to 80°C	Operating		AC
V	Open Circuit Shutdown	If laser tube does not start within 1second of the time voltage is applied, the power supply will shut down and must have input voltage removed to reset the latch circuit	Operating		AC
W	Bleeder Resistor	100Mohm resistor on output	Operating		AC
X	Current Adjust, Internal	Available with a maximum adjustment range of +/-30% from a nominal point, limited by the operating capability of the model	Calibration		AC

Y	Auxiliary Output	Contact the factory for more detailed information	Operating		AC
Z	Alden Connector	for anode and cathode connection	Connectors	#8102-F	AC

CHECK OPTION AVAILABILITY ON YOUR SPECIFIC HENE POWER SUPPLY
Y = YES | O = OBSOLETE | D = BUILT IN BY DEFAULT | CF/? = CONTACT FACTORY

	LEGACY (L-SERIES)										CURRENT GENERATION (SL-SERIES)									
Option	**L23101**	**L23110**	**L23111**	**L23106**	**L23120**	**L28101**	**L28110**	**L28111**	**L28120**	**L88**	**SL23101**	**SL23110**	**SL23111**	**SL23120**	**SL28101**	**SL28110**	**SL28111**	**SL28120**	**SL45**	**SL92**	**SL93**
01	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
02	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
03	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
10											Y	Y	?	Y	?	?	?	?	?		?
13																					
14											Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
16	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
17	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
22	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		y
23																					
25					Y				Y					Y							Y
30	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
31	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
32	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
37					D				D		Y	Y									
38	N	Y	Y	N	Y	N	Y	Y	Y	?	N	Y	Y	N	Y	Y	Y	Y	Y		Y
39	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y			
42																					
43	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
44																					

46	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
47	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
52	CF	CF	CF	N	CF	CF	CF	CF	CF		CF	CF	CF	CF	CF	CF	CF	CF			
53	CF	CF	CF	N	CF	CF	CF	CF	CF		CF	CF	CF	CF	CF	CF	CF	CF			
60											N	N	N	Y	N	N	N	Y	N		?
61	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
03	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
A	N	Y	Y	N	D	N	Y	Y	D	?											
B	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
C																					
F																					
H	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O
J																					
K																					
L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
M																					
P																					
R																					
S	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y
T																					
V																					
W																					
X																					
Y	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF		CF
Z	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y