

Power Supply Options for Helium-Neon Lasers



Key Features

- Highly regulated, constant-current output
- Complete fault protection
- Exceptional direct current (DC) stability
- Typical conversion efficiency >85%
- Compact, rugged packaging
- Exceptional lifetime

Applications

- For use with JDSU helium-neon laser heads and tubes

Compliance

- TÜV EN 60-950
- UL1950
- CUL

All JDSU helium-neon power supplies provide a highly regulated constant current output, allowing for excellent optical stability and performance.

The power supply automatically adjusts laser tube voltage to maintain a fixed discharge current. A CDRH time delay is active on all power supplies, and may be defeated on power supply modules. All power supplies have complete fault protection and can withstand output short circuits, output open circuits, or arc-to-ground conditions. Power supplies are available for 100, 115, 200, 230 V AC, and 12 V DC operation, with efficiencies greater than 85 percent.

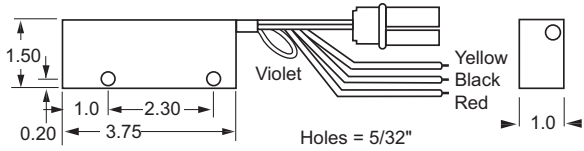
Complete laser systems are made by combining a 1100 or 1600 series laser head with the appropriate 1200 series power supply. Laser systems meet Center for Devices and Radiological Health requirements and display logotypes describing CDRH classification and operating limits.

2

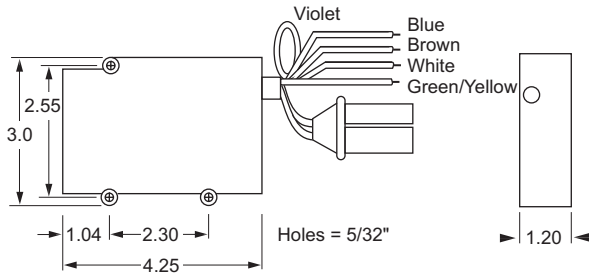
Power Modules

(Specifications in inches unless otherwise noted. All power supply modules incorporate 12-inch high voltage cables with standard connector and 12-inch flying lead inputs.)

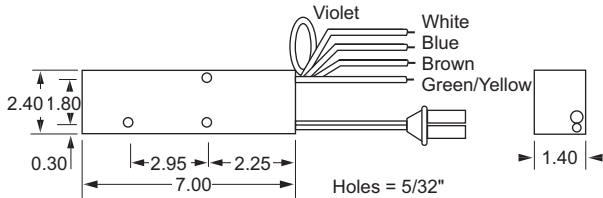
Model 101T



Model 314T

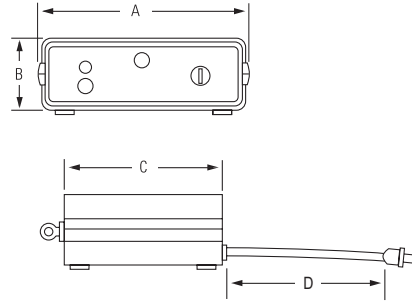


Model 380T



Model 1200 Series Power Supply

(Specifications in inches unless otherwise noted.)



	A	B	C	D
120x	8.1	2.5	6.30	-
121x	8.5	3.0	9.25	-
12xx-1	-	-	-	72
12xx-2	-	-	-	2.5 m
12xx-3	-	-	-	72

Power Supply Module Input Wiring Information

Wire Color	115/230 V AC Versions		100/200 V AC Versions		12 V DC Versions
	115 V AC	230 V AC	100 V AC	200 V AC	
Blue	Open circuit	230 V AC (neutral)	-	-	-
Brown	115 V AC (line)	230 V AC (line)	-	-	-
White	115 V AC (neutral)	Open circuit	-	-	-
Green/Yellow	Earth ground	Earth ground	Earth ground	Earth ground	-
Violet	CDRH loop	CDRH loop	CDRH loop	CDRH loop	CDRH loop
Red	-	-	100 V AC (line)	200 V AC (line)	-
Red	-	-	NC	200 V AC (neutral)	12 V DC
Yellow	-	-	100 V AC (neutral)	N/C	-
Black	-	-	-	-	Ground

Notes: Other power supply solutions may be available for OEM applications. Contact your local JDSU sales representative for more information. Model 1200 series lab style power supplies include emission indicator, key switch, keys, fusing, and detachable line cord. All 100 and 300 series power supply modules require appropriate fusing. Laser power supplies generate dangerous voltages and must be configured properly for safe operation. All power supplies carry a minimum of TÜV EN 60-950, UL1950, and CUL approvals. All products shipped standard with 12-inch high voltage cable, 12-inch input leads, and flying leads on inputs.

3

100 and 300 Series Power Supply Modules for Red HeNe Lasers

Model #	Input	For Operation of Laser Tubes and Heads																
		098-(0,2)	098-3	1001/3	1007/8	1018	1022	1025	1037	102-(3,4)	196-(2,4)	1101/3	1107/8	1122	1125	1135	1137	1144/45
101T-1250	DC	x			x								x					
101T-1700	DC		x	x		x				x	x	x						
101T-1800	DC						x						x					
101T-2300	DC							x	x					x			x	
314T-1250	AC	x			x								x					
314T-1700	AC		x	x		x				x	x	x						
314T-1800	AC						x						x					
314T-2300	AC							x	x					x			x	
380T-3100	AC														x			
380T-3800	AC																	x

1200 Series CDRH Laboratory Power Supplies for Red HeNe Lasers

Model #	Input	For Operation of Laser Heads								
		102-(3,4)	196-(2,4)	1101/3	1107/8	1122	1125	1135	1137	1144/45
1201-(1,2,3)	AC	x	x	x						
1202-(1,2,3)	AC							x		x
1205-(1,2,3)	AC					x				
1206-(1,2,3)	AC							x		
1216-(1,2,3)	AC								x	
1218-(1,2,3)	AC									x

Laboratory and Module Power Supplies for Green, Yellow, and Orange HeNe Lasers

Model #	Input	For Operation of Laser Heads							
		1652	1653	1654	1673	1674	1677	1679	
101T-2300A	DC	x	x	x				x	x
101T-2700A	DC					x		x	
314T-2300A	AC	x	x	x				x	x
314T-2700A	AC					x		x	
1207- (1,2,3)	AC	x	x	x				x	x
1208- (1,2,3)	AC					x		x	

Input Voltage Options

Models 314T and 380T power supplies are provided with a 115/230 V AC input. For 100/200 V AC versions, add “100 V” to the end of the part number when ordering.

All DC power supplies are provided with a 12 V DC input.

For 1200 series laboratory supplies, specify the desired input voltage by adding the appropriate dash number to the model number when ordering:

- '-1' for 115 V AC
- '-2' for 230 V AC
- '-3' for 100 V AC

4

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: 101T-1250

Warranty

JDSU helium-neon laser systems are warranted to be free of defects in workmanship and materials for twelve months from the date of shipment.

Regulatory Compliance

The products listed in this data sheet comply to one or more of the following regulatory standards, and may display one or more of the safety labels shown below. Contact your local JDSU sales representative for additional information on specific products or configurations.



All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. JDSU reserves the right to change at any time without notice the design, specifications, function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDSU makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDSU for more information. JDSU and the JDSU logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. ©2005 JDS Uniphase Corporation. All rights reserved. 10138845 Rev. 003 12/05 HENEPS.DS.CL.AE