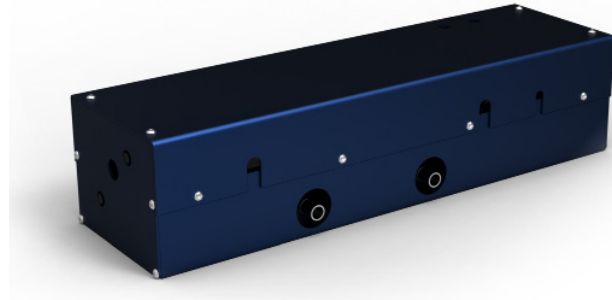


Laser Resonators

| Er:YAG |



PERFORMANCE PARTNERSHIP VALUE

Compact

Stable

Robust

Optimized
Performance

High Efficiency

Uniform Beam
Profile

Designed for optimal output performance in a small footprint, New Source Technology's optical resonators complete our product portfolio of critical laser components. Contained within each resonator are the highest quality components from industry leaders. We have designed a variety of standard resonators that can be seamlessly integrated into your system.

Optional features are available including Q-switched, fiber coupled, energy sensors, and alignment/aiming beams. Custom resonators can also be designed and manufactured based upon specific laser power requirements for fiber delivery or direct lasing.

New Source Technology, LLC (NST) is a California based limited liability company specializing in the design, manufacture, and/or distribution of optical sub-systems and critical laser components with emphasis on lamp pumped solid-state requirements in the cosmetic, surgical, and dental laser markets. We are able to offer solutions for Fiber-Coupled CTH:YAG, Q-Switched and Long Pulse Alexandrite, Q-Switched and Long Pulse Nd:YAG, CTH:YAG and Er:YAG resonator requirements. Although we offer a broad range of critical components related to lamp pumped solid-state lasers including PFN sub-assemblies, simmer/capacitor charging power supplies, and thermal management components, our strongest core competence is with laser optics, crystals, flash lamps, and our best-in-class pump chambers/cavities.

**NEW SOURCE
TECHNOLOGY** LLC

6678 Owens Drive, Suite 105, Pleasanton, CA, USA 94588
Ph: 925/462-6888 Fx: 925/462-8388
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40W Er:YAG Resonator

Performance Requirements

OUTPUT SPECIFICATIONS	
Model RES-2940-RR-01	
Power (Ave)	40W
Energy per Pulse (Max)	3.0J
Pulse Width	400µs
Rep Rate	
10Hz	3J
20Hz	2J
30Hz	1J

Subsystem Requirements

ELECTRICAL	
Power Supply	2KW, 900V capacitor-charging power supply
Power Supply Type	IGBT
Capacitance	22500µF
Operating Voltage Range	up to 900V
Pulse Width	400µs

COOLING	
Cooling Medium	DI Water
Cooling Water Temperature Range	20°C
Conductivity	< 20µS/cm
Optimum Cooling Water Flow	5 to 8 LPM
System Pressure	< 35psi

ENVIRONMENT	
Operating	18°C to 25°C

LAMP	
Input Lamp Energy	up to 100J
Pulse Width	400µs



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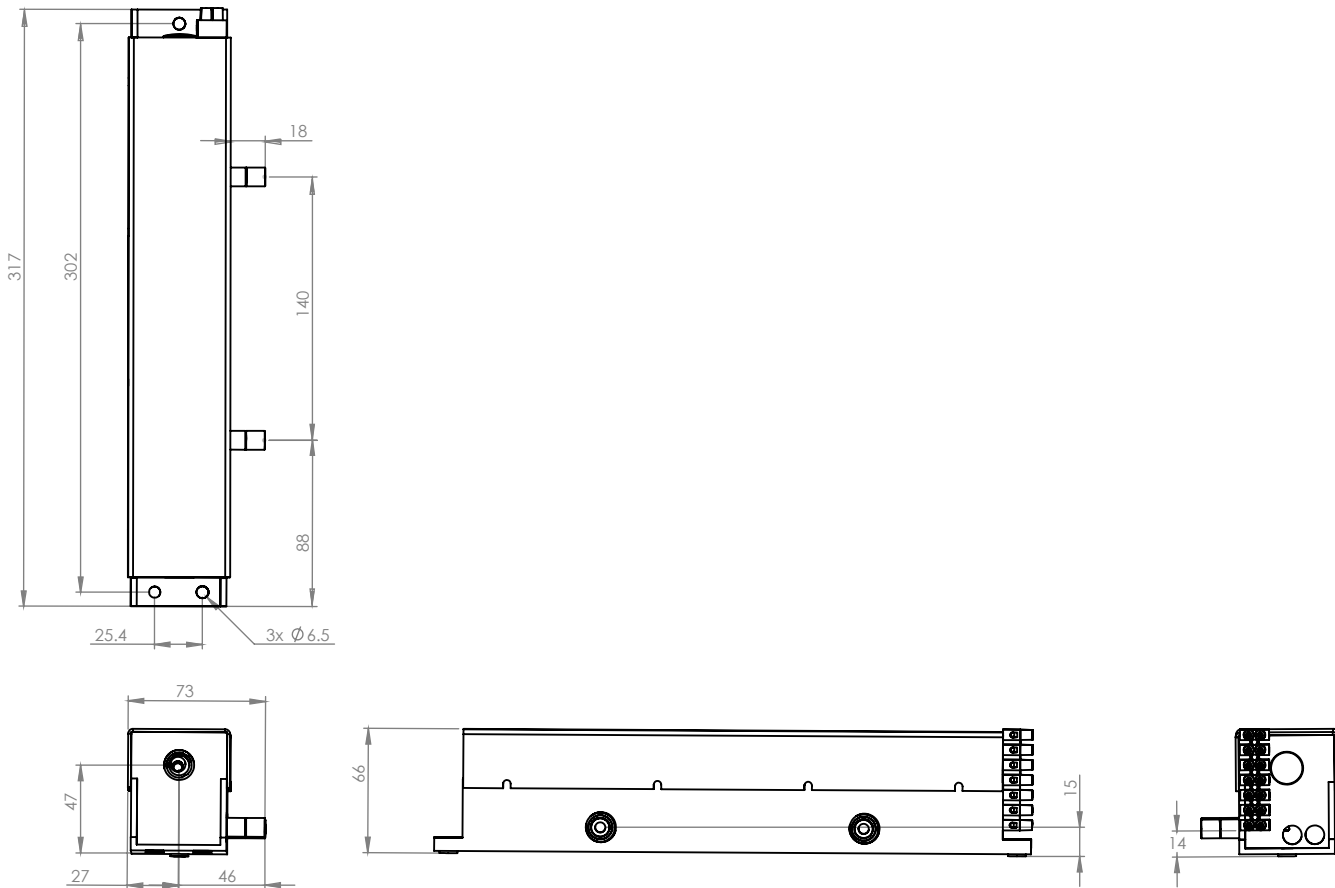
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40W Er:YAG Resonator

Resonator Interface

FEATURES	
External Trigger	
Interlocks	Shutter
Replaceable Protective Window	

Outline Drawings (in mm)



PREVENTIVE MAINTENANCE (LAMP)

Mean Time Between Replacement (MTBR)	$\geq 10M$ Pulses
Mean Time to Replace Lamp (MTTR)	≤ 30 Minutes
Lamp End of Life	80% Output Power
Quantity of Lamps per Resonator	One



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