



# Rigel u90

## 90W High Power, Diode Pumped, Short Pulse, UV Laser

A Q-switched, intra-cavity frequency tripled laser, delivering high average powers up to 90 W in a linearly polarised multi-mode beam at a wavelength of 355 nm. With a well proven rugged head design, state of the art control system architecture, simple synchronisation with OEM equipment and process lines, this platform is ideally suited to high volume industrial applications.

Rigel u90

Rigel u180



### Features

- Pulse Energy Up To 9 mJ
- $M^2 < 30$
- Excellent Power Stability
- GUI Controlled
- Single, Linearly Polarised Output
- Upgradable Configuration to 180 W

### Applications

- Material Processing
- Photovoltaic Processing
- Thin Film Removal
- Laser Lift Off (LLO)
- Annealing
- Surface Cleaning

UCS: “**Universal Control System**” is shown above. It includes a System Controller, Temperature Controller, RF Driver and Heat Exchanger.



## Typical Laser Performance

Pulse Repetition Freq. (kHz)	10
Average Power (W)	90
Pulse Energy (mJ)	9
Pulse Duration (ns)	75
M <sup>2</sup>	<30
Power Stability (% , 1 $\sigma$ )	<2.5

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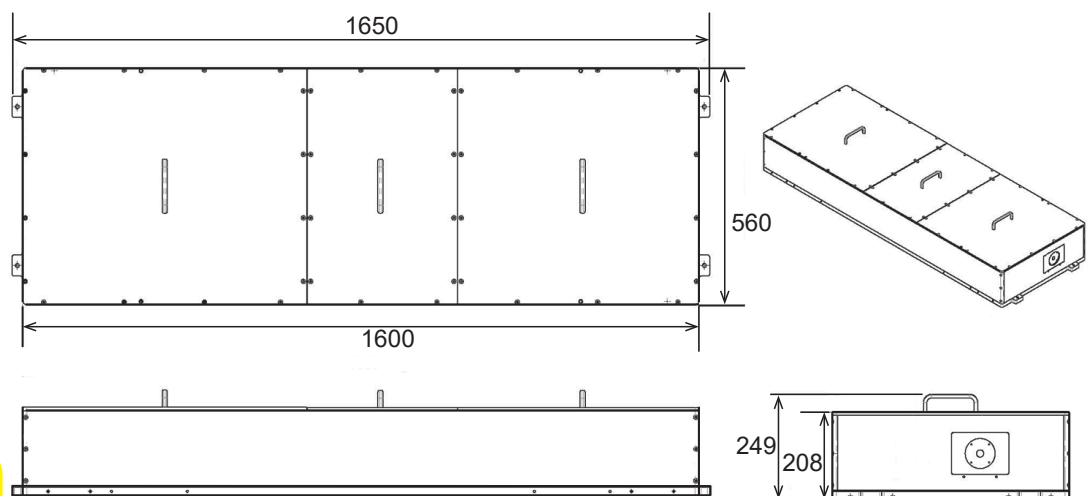
Rigel u180

## Facility Requirements

Supply Voltage	3-phase N+E, 220 or 400 VAC ( $\pm 10\%$ )
Supply Frequency	50 or 60 Hz
Nominal Power Consumption	9 kVA
Cooling Water	40 litres/min at 11 - 17°C
Gas Purge	Clean Dry Air (Grade N5.0, <1 ppm THC)
Laser Dimensions	1650 x 560 x 249 mm
Control Rack Dimensions	1195 x 600 x 970 mm (h w d)
Environmental Conditions	Temp 15 - 32°C and RH <60% (90% max, non condensing)

Specifications subject to change without notice.

## Dimensions



LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT

ANDRITZ Powerlase may make improvements and/or changes in the products described herein at any time without notice.

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