



# Rigel u180

PRELIMINARY

## 180W High Power, Diode Pumped, Short Pulse, UV Laser

A Q-switched, intra-cavity frequency tripled laser, delivering high average powers up to 180 W in an unpolarised 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.

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### ● Features

- Pulse Energy Up To 18 mJ
- $M^2 < 30$
- Excellent Power Stability
- GUI Controlled
- Dual Polarized Outputs
- Single Unpolarized Output

### ● 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)	180
Pulse Energy (mJ)	18
Pulse Duration (ns)	75
M <sup>2</sup>	<30
Power Stability (% , 1 $\sigma$ )	<2.5

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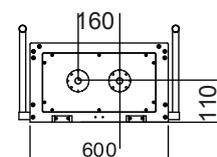
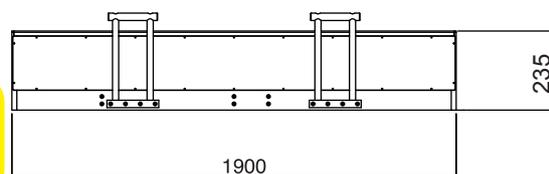
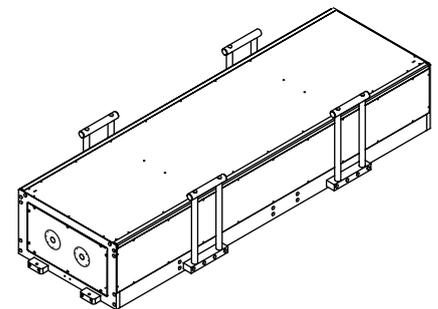
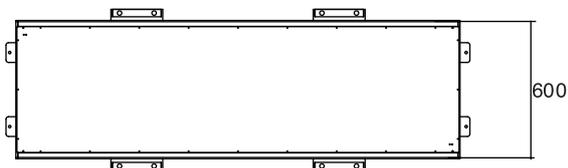
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## Facility Requirements

Supply Voltage	3-phase N+E, 220 or 400 VAC ( $\pm 10\%$ )
Supply Frequency	50 or 60 Hz
Nominal Power Consumption	18 kVA
Cooling Water	40 litres/min at 11 - 17°C
Gas Purge	N2 or Air (Grade N5.0, <1 ppm THC)
Laser Dimensions	1900 x 600 x 235 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

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