



# Rigel i1200E

## 1200W High Power, Diode Pumped, Short Pulse Laser

A 1.2 kW, Q-switched, DPSS laser, delivering high average power and high peak power at 1064 nm, unpolarised. With a well proven rugged head design, state of the art universal control system architecture and simple synchronisation with OEM equipment and process lines, this platform is ideally suited to high volume industrial applications.



Rigel i800E

**Rigel i1200E**

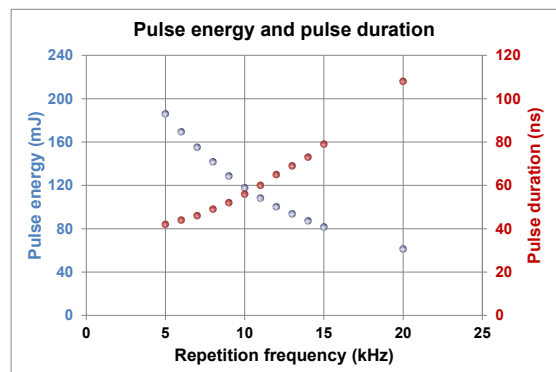
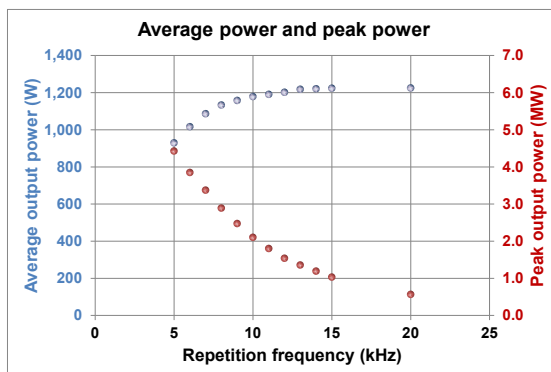
Rigel i1600E

### Features

- Pulse Energy Up To 180 mJ
- $M^2 = 30$
- Excellent Stability
- Condition Monitoring
- Fibre Delivery (Round Or Square)
- Optional Computer Controlled Attenuation
- Optional Repetition Frequency Optimisation

### Applications

- Material Processing
- Photovoltaic Processing
- Thin Film Removal
- Rapid Laser Patterning
- Extreme Ultraviolet (EUV) Generation





## Typical Laser Performance

Pulse Repetition Freq. (kHz)	5	10	15	20
Average Power (W)	930	1170	1200	1220
Pulse Energy (mJ)	186	117	80	61
Pulse Duration (ns)	42	60	80	105
Divergence (mrad, 1/e <sup>2</sup> FA)	9			
M <sup>2</sup>	30			
Power Stability (% , 1σ)	0.3			
Typical Fibre Core (μm)	Contact PPL			

## Facility Requirements

Supply Voltage	3-phase N+E, 400 VAC (±10%)
Supply Frequency	50 or 60 Hz
Nominal Power Consumption	23 kVA
Cooling Water	50 litres/min at 11 - 17°C
Gas Purge	Clean Dry Air (Grade N5.0, <1 ppm THC)
Laser Dimensions	1988 x 1657.6 x 927.4 mm
Environmental Conditions	Temp 15 - 50°C and RH <60% (90% max, non condensing)

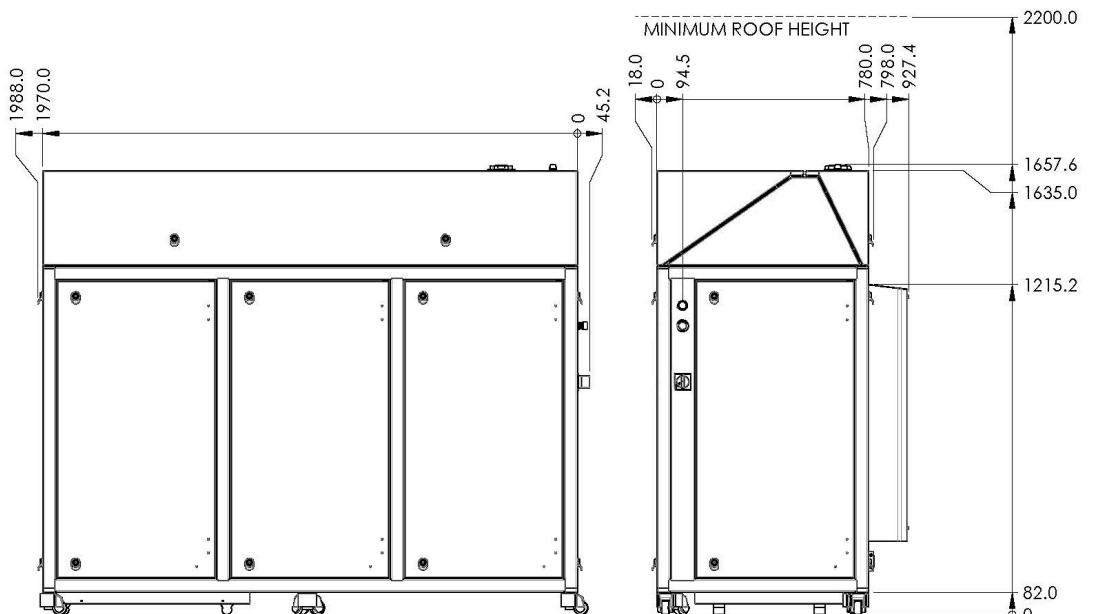
Specifications subject to change without notice.

Rigel i800E

Rigel i1200E

Rigel i1600E

## Dimensions



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

Doc No: 069-0066-1