



Rigel i1600E

1600W High Power, Diode Pumped, Short Pulse Laser

A 1.6 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

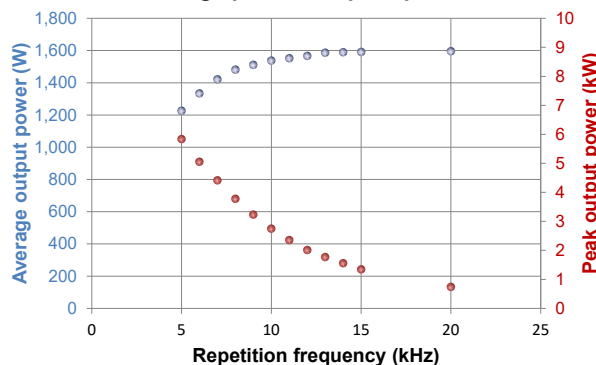
Features

- Pulse Energy Up To 250 mJ
- $M^2 = 30$
- Excellent Stability
- Condition Monitoring
- Fibre Delivery (Round Or Square)
- Optional Computer Controlled Attenuation
- Optional Repetition Frequency Optimisation

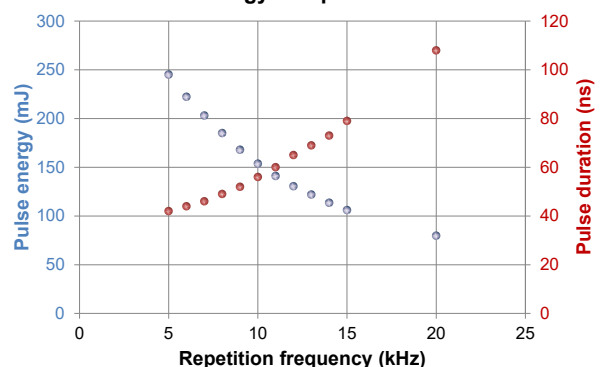
Applications

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

Average power and peak power



Pulse energy and pulse duration





Typical Laser Performance

Pulse Repetition Freq. (kHz)	5	10	15	20
Average Power (W)	1250	1500	1550	1580
Pulse Energy (mJ)	250	150	103	79
Pulse Duration (ns)	42	60	80	105
Divergence (mrad, 1/e ² FA)	12			
M ²	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	29 kVA
Cooling Water	60 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)

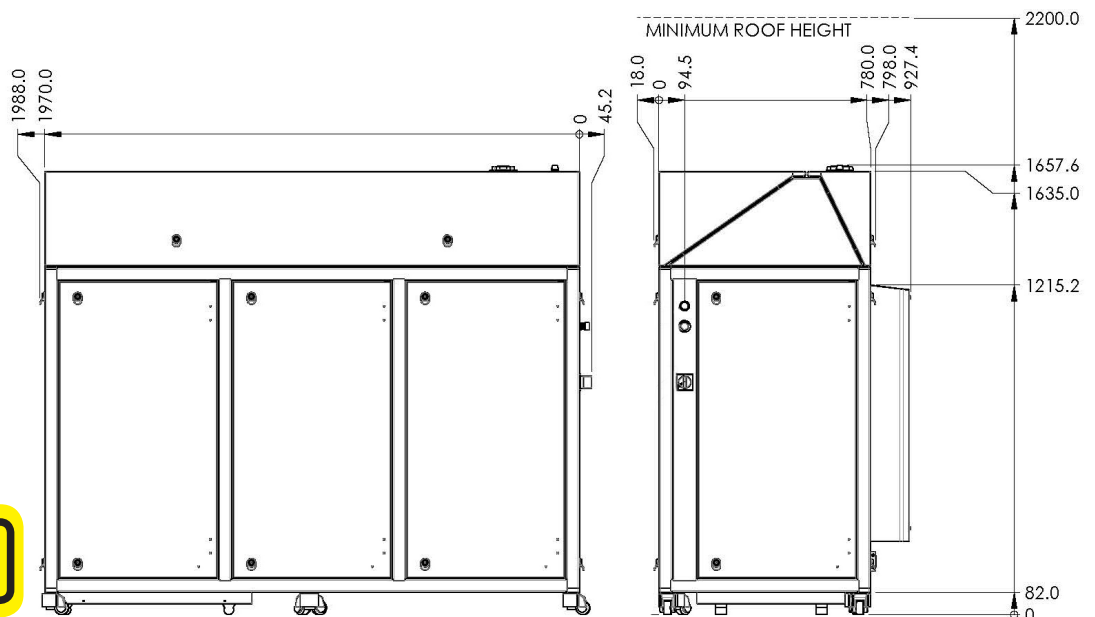
Specifications subject to change without notice.

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: 069-0067-1

Powerlase Photonics Ltd, Units 3 & 4, Meadowbrook Industrial Estate, Maxwell Way,
 Crawley, West Sussex. RH10 9SA United Kingdom.

Tel: +44 (0) 1293 456222 Fax: +44 (0) 1293 456235 Email: sales@powerlase-photonics.com