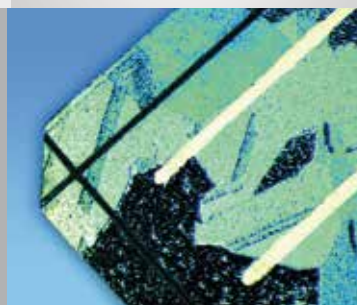
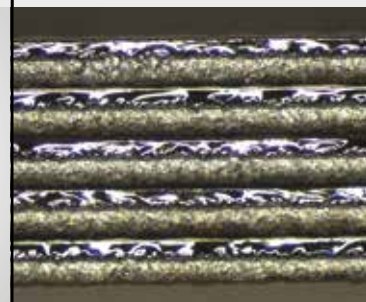


## PowerLine F Series

Fiber lasers for a wide  
range of micro and  
marking applications



WE  
THINK  
LASER

## PowerLine F 20/30/50/100 Series

### Laser systems optimized for micro and marking applications

The 20 watts and 30 watts pulsed fiber lasers from ROFIN deliver 1 mJ pulse energy with a fast turn-on time and high peak power over a wide range of repetition rates. This maximizes production throughput and process capability. With its single-mode beam quality, the fiber laser can produce ultra-fine, crisp marks every time.

The PowerLine F 50 and F 100 are operated in pulse modes at frequencies up to 200 kHz. The emitted average laser power can be set using the fiber amplifier. The PowerLine F 50 and F 100 are perfectly suitable for high-speed marking, scribing, edge isolation, structuring and cutting applications.

The space-efficient design of the PowerLine F series facilitates integration into existing production environments. A flexible optical fiber connects the very compact laser head with the supply unit where the laser beam is being generated. The diode-pumped laser source excels in high diode life and allows efficient operation with minimum maintenance and with reduced total operating costs

#### Your benefits

- low total operating costs
- different power ranges
- suitable for marking, scribing, edge isolation, structuring and cutting
- various integration stages



PowerLine F



PowerLine FL

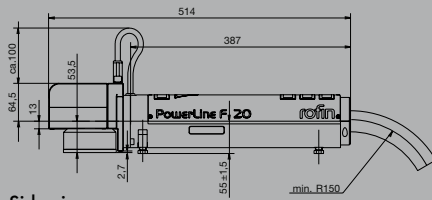


PowerLine FL OEM

WE  
THINK  
LASER

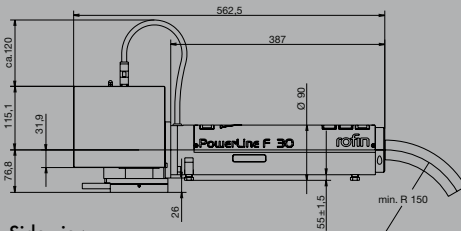
	<b>PowerLine F 20</b>	<b>PowerLine F 30</b>	<b>PowerLine F 50/F 100</b>
<b>Laser head</b>			
Wavelength, typ. (nm):	1064	1064	1064
Power range (W):	20	30	50/100
Pulse frequency (kHz):	20 - 100	30 - 100	F 50: 50 - 200 F 100: 5.1 - 200
Laser dimensions:	length	length 387, Ø 90	length 594, Ø 90
Laser weight (kg):	approx. 5.5	approx. 5.7	approx. 8.6
Ingress protection:	IP 54	IP 54	IP 54
<b>Marking unit</b>			
Field size (mm):	120 x 120	120 x 120	120 x 120
Focal distance (mm):	160 (other on request)	160 (other on request)	160 (other on request)
Ingress protection:	IP 54	IP 54	IP 54
<b>Supply unit and PC (19")</b>			
Supply unit dimensions (W x D x H, mm):	19" x 460 x 3 rack units	19" x 460 x 3 rack units	F 50: 19" x 460 x 3 rack units F 100: 19" x 460 x 4 rack units
Supply unit weight (kg):	approx. 23.5	approx. 23.5	approx. 28
PC dimensions (W x D x H, mm):	19" x 479 x 2 rack units	19" x 479 x 2 rack units	19" x 479 x 2 rack units
PC weight (kg)	10	10	10
Software:	Windows embedded 2009, Windows embedded Standard 7	Windows embedded 2009, Windows embedded Standard 7	Windows embedded 2009, Windows embedded Standard 7
Power supply:	115 - 240 VAC, +/-10% VAC, 50/60Hz	115 - 240 VAC, +/-10% VAC, 50/60Hz	115 - 240 VAC, +/-10% VAC, 50/60Hz
Power consumption supply unit (VA+PC):	approx. 330	approx. 390	F 50: approx. 470, F 100: approx. 570
Ingress protection:	IP 20	IP 20	IP 20
Operating temperature °C:	15 - 35	15 - 35	15 - 35
Air flow 19" unit (m <sup>3</sup> /h):	approx. 130	approx. 130	F 50: 130, F 100: 170

**Laser head and galvo PowerLine F 20**



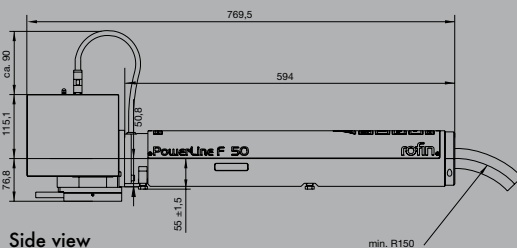
Side view

**Laser head and galvo PowerLine F 30**



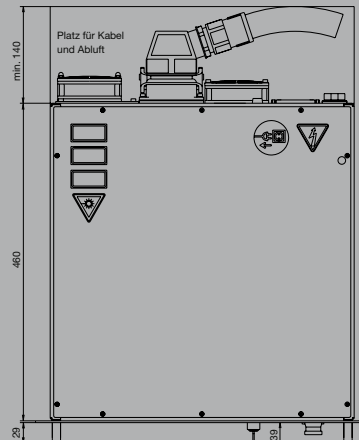
Side view

**Laser head and galvo PowerLine F 50/F 100**

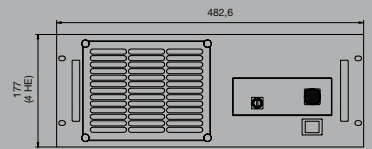


Side view

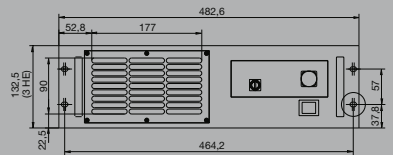
**Supply unit PowerLine F 20/30/50/100**



Top view

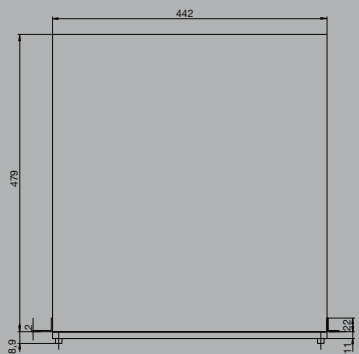


Front view PowerLine F 100

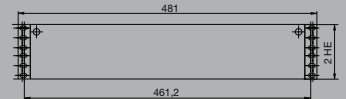


Front view PowerLine F 20/30/50

**PC PowerLine F 20/30/50/100**



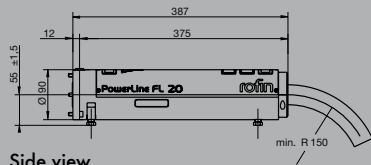
Top view



Front view

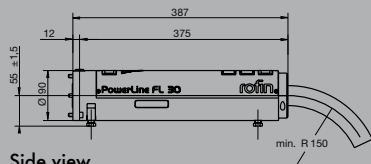
	<b>PowerLine FL 20</b>	<b>PowerLine FL 30</b>	<b>PowerLine FL 50</b>
<b>Laser head</b>			
Wavelength, typ. (nm):	1064	1064	1064
Power range (W):	20	30	50
Pulse frequency (kHz):	20 - 100	30 - 100	50 - 200
Laser dimensions:	length 387, Ø 90	length 387, Ø 90	length 594, Ø 100
Laser weight (kg):	approx. 5.5	approx. 5.7	approx. 8.6
Ingress protection:	IP 54	IP 54	IP 54
<b>Supply unit (19")</b>			
Supply unit dimensions (W x D x H, mm):	19" x 460 x 3 rack units	19" x 460 x 3 rack units	19" x 460 x 3 rack units
Supply unit weight (kg):	approx. 23.5	approx. 23.5	approx. 23.5
Power supply:	115 - 240 VAC, +/-10% VAC, 50/60Hz	115 - 240 VAC, +/-10% VAC, 50/60Hz	115 - 240 VAC, +/-10% VAC, 50/60Hz
Power consumption supply unit (VA):	approx. 230	approx. 290	approx. 370
Ingress protection:	IP 20	IP 20	IP 20
Operating temperature °C :	15 - 35	15 - 35	15 - 35
Air flow 19" unit (m <sup>3</sup> /h):	approx. 130	approx. 130	approx. 130

#### Laser head PowerLine FL 20



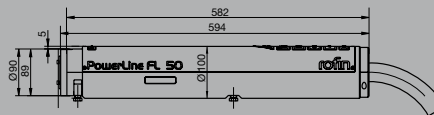
Side view

#### Laser head PowerLine FL 30



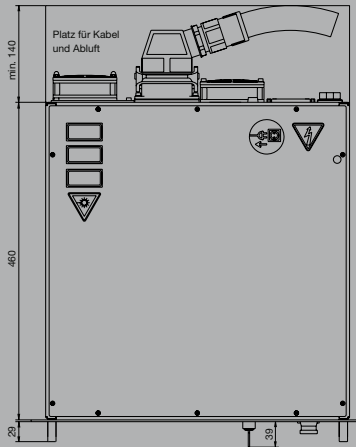
Side view

#### Laser head PowerLine FL 50

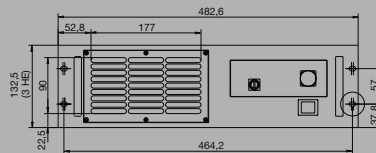


Side view

#### Supply unit PowerLine FL 20/30/50



Top view



Front view

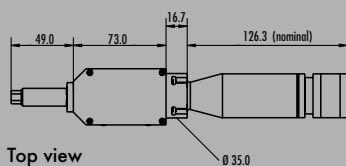
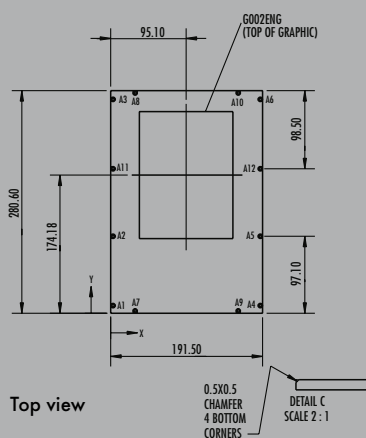
**PowerLine FL OEM 20/30**

**Laser**

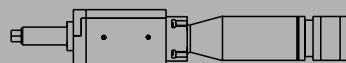
Wavelength, typ. (nm):	1064
Power range (W):	20, 30
Pulse frequency (kHz):	20 - 100/30 - 100
Dimensions supply unit (W x D x H):	215 x 284 x 95
Weight (kg):	approx. 5.7
Power supply (V):	124 +/-1
Current consumption @ 24 VDC (A):	< 8 (PowerLine FL OEM 20); < 10 (PowerLine FL OEM 30)
Ingress protection:	IP 20

Different integration stages from laser beam source to ready-to-use fiber laser marker.

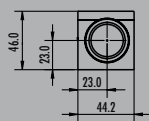
**Laser PowerLine FL OEM 20/30**



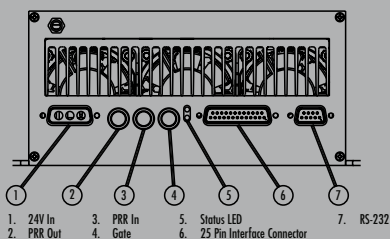
Top view



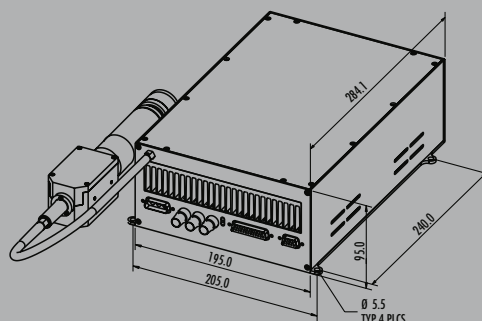
Side view



Front view



Rear view



Overview

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