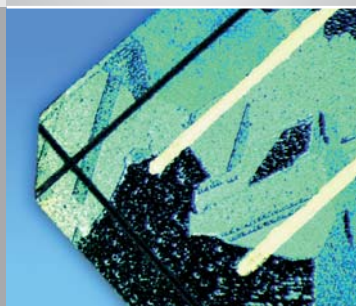


PowerLine F Series

Fiber lasers for a wide
range of micro and
marking applications



WE
THINK
LASER

PowerLine F 20/30/50 Series

Laser systems optimized for micro and marking applications

The PowerLine F series is available in different configuration levels: as pure OEM beam source, in combination with a supply unit including a main supply unit and a safety shutter, as well as a laser beam source and ready-to-use marking system. 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 is operated in pulse mode at frequencies from 50 kHz to 200 kHz. The emitted average laser power can be set using the fiber amplifier. The PowerLine F 50 is 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

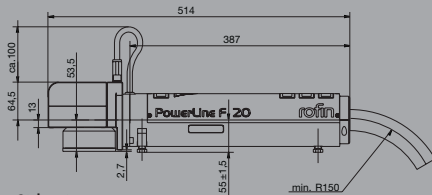


PowerLine FL OEM

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LASER

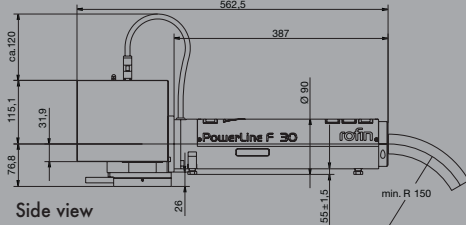
	PowerLine F 20	PowerLine F 30	PowerLine F 50
Laser head			
Wavelength (nm):	1065 +/- 5	1065 +/- 5	1063 +/- 7
Pulse frequency (kHz):	20 - 100	30 - 100	50 - 200
Laser dimensions:	length 387, Ø 90	length 387, Ø 90	length 544, Ø 100
Laser weight (kg):	5	5	6
Ingress protection:	IP 54	IP 54	IP 54
Marking unit			
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)
Galvo dimensions (L x W x H, mm):	100 x 77 x 77.5	167 x 118 x 200	167 x 118 x 200
Galvo weight (kg):	1.5	2.7	2.7
Ingress protection:	IP 54	IP 54	IP 54
Supply unit and PC (19")			
Supply unit dimensions (D x W x H, mm):	460 x 19" x 3 rack units	460 x 19" x 3 rack units	460 x 19" x 3 rack units
Supply unit weight (kg):	20	20	20
PC dimensions (D x W x H, mm):	479 x 19" x 2 rack units	479 x 19" x 2 rack units	479 x 19" x 2 rack units
PC weight (kg):	10	10	10
Software:	Windows XP, embedded, DVD RW, USB 2.0, LAN	Windows XP, embedded, DVD RW, USB 2.0, LAN	Windows XP, embedded, DVD RW, USB 2.0, LAN
Power supply:	100 - 240 VAC, 50/60 Hz	100 - 240 VAC, 50/60 Hz	100 - 240 VAC, 50/60 Hz
Power consumption supply unit (VA):	approx. 330	approx. 390	approx. 470
Ingress protection:	IP 20	IP 20	IP 20
Operating temperature °C:	15 - 35	15 - 35	15 - 35
Air flow 19" unit (m³/h):	approx. 250	approx. 250	approx. 250
Air flow 19" PC (m³/h):	approx. 80	approx. 80	approx. 80

Laser head and galvo PowerLine F 20



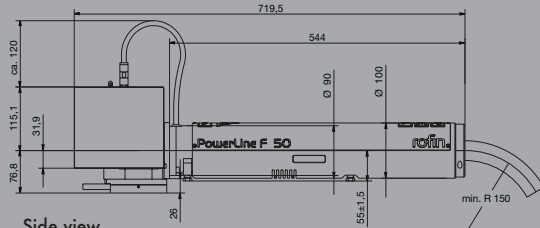
Side view

Laser head and galvo PowerLine F 30



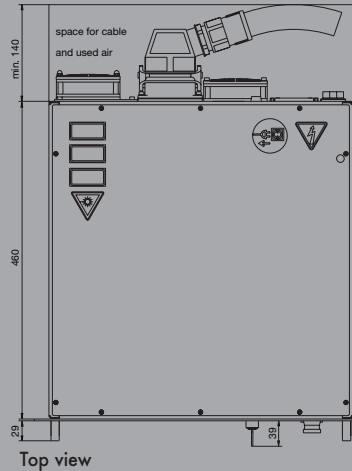
Side view

Laser head and galvo PowerLine F 50

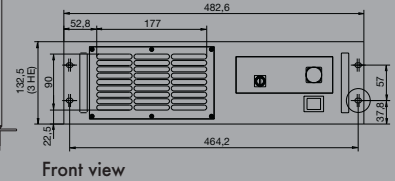


Side view

Supply unit PowerLine F 20/30/50

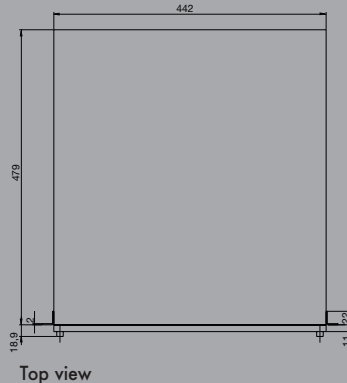


Top view

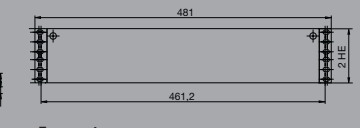


Front view

PC PowerLine F 20/30/50



Top view

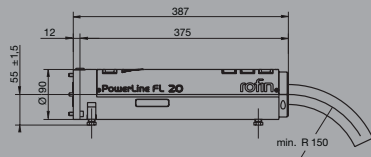


Front view

	PowerLine FL 20	PowerLine FL 30	PowerLine FL 50
Laser head			
Wavelength (nm):	1065 +/- 5	1065 +/- 5	1063 +/- 7
Pulse frequency (kHz):	20 - 100	30 - 100	50 - 200
Laser dimensions:	length 380 Ø 90	length 380 Ø 90	length 544, Ø 100
Laser weight (kg):	5	5	6
Ingress protection:	IP 54	IP 54	IP 54
Supply unit (19")			
Supply unit dimensions (D x W x H, mm):	460 x 19" x 3 rack units	460 x 19" x 3 rack units	460 x 19" x 3 rack units
Supply unit weight (kg):	20	20	20
Power supply:	100 - 240 VAC, 50/60 Hz	100 - 240 VAC, 50/60 Hz	100 - 240 VAC, 50/60 Hz
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 (m³/h):	approx. 250	approx. 250	approx. 250

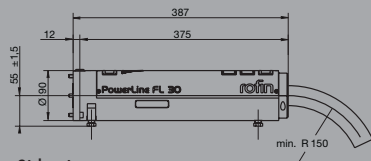
Different integration stages from laser beam source to ready-to-use fiber laser marker.

Laser head PowerLine FL 20



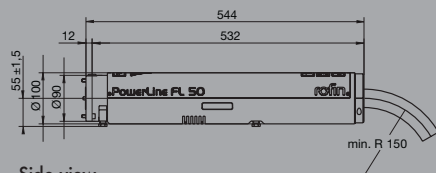
Side view

Laser head PowerLine FL 30



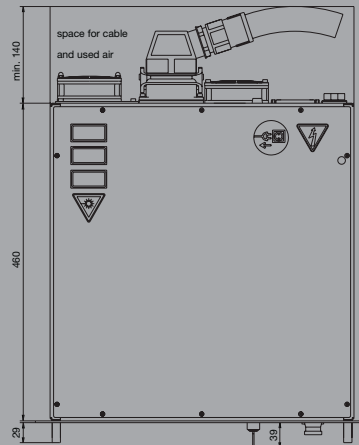
Side view

Laser head PowerLine FL 50

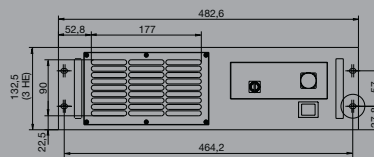


Side view

Supply unit PowerLine FL 20/30/50



Top view



Front view

PowerLine FL OEM 20/30

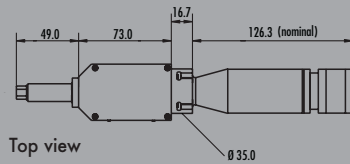
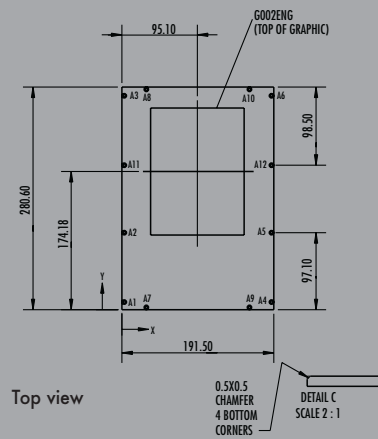
Laser

Wavelength (nm):	1065 +/-5
Pulse frequency (kHz):	20 - 100/30 - 100
Laser dimensions (L x W x H):	284 x 195 x 95
Laser weight (kg):	5.7
Power supply (V):	24 +/-2
Power consumption supply unit (VA):	approx. 230 (PowerLine FL OEM 20); approx. 290 (PowerLine FL OEM 30)
Ingress protection:	IP 20

Supply unit (19") - option

Supply unit dimensions (D x W x H, mm):	460 x 19" x 3 rack units
Supply unit weight (kg):	20
Power supply:	100 - 240 VAC, 50/60 Hz
Power consumption supply unit (VA):	approx. 230 (PowerLine FL OEM 20); approx. 290 (PowerLine FL OEM 30)
Ingress protection:	IP 20
Operating temperature °C :	15 - 35
Air flow 19" unit (m³/h):	approx. 250

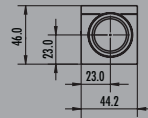
Laser PowerLine FL OEM 20/30



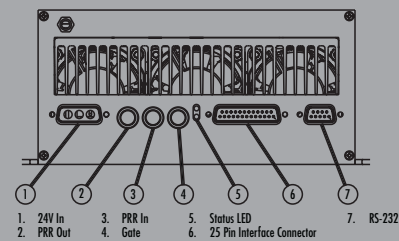
Top view



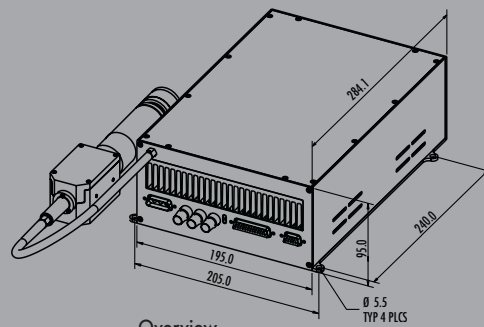
Side view



Front view



Rear view



Overview

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MACRO