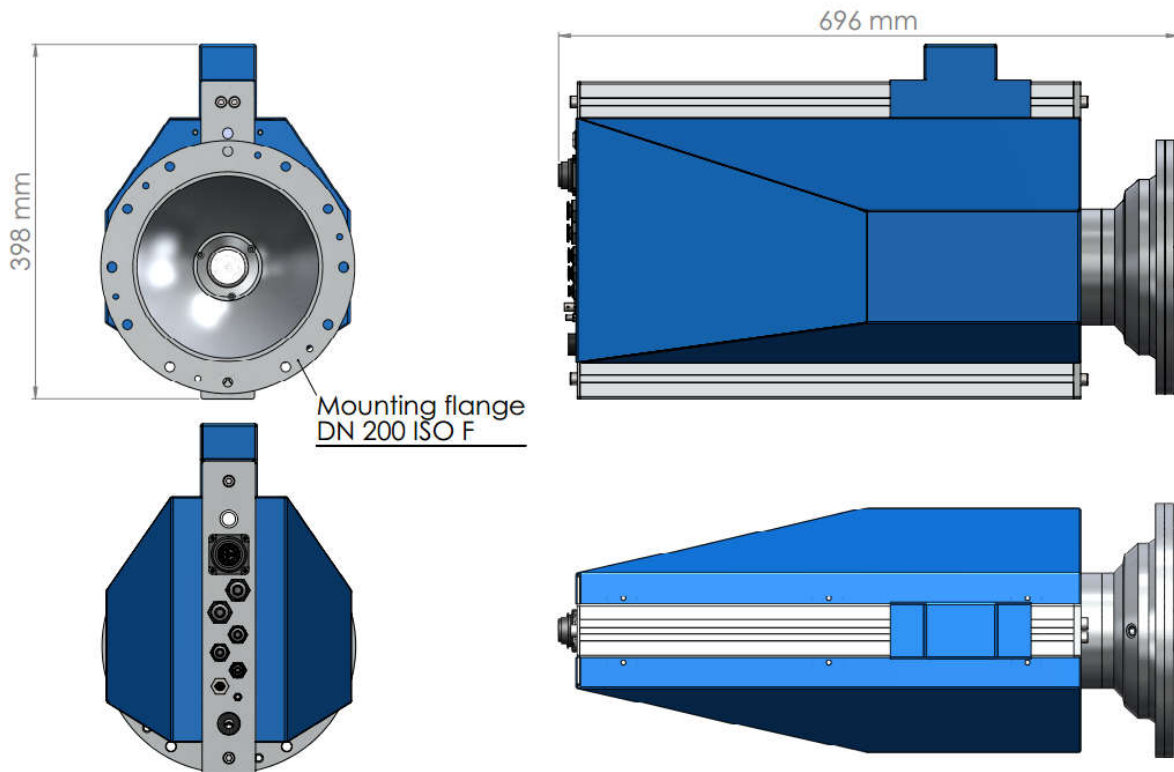
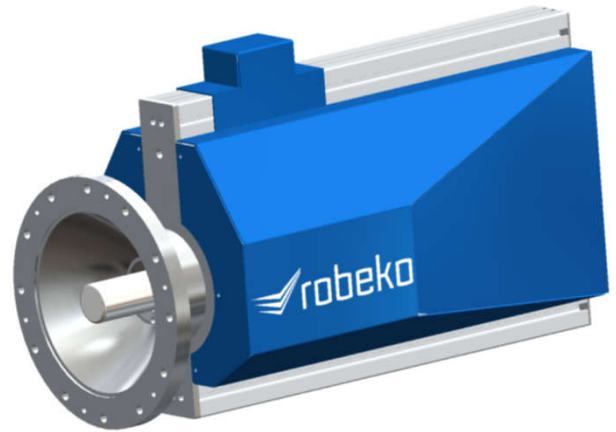


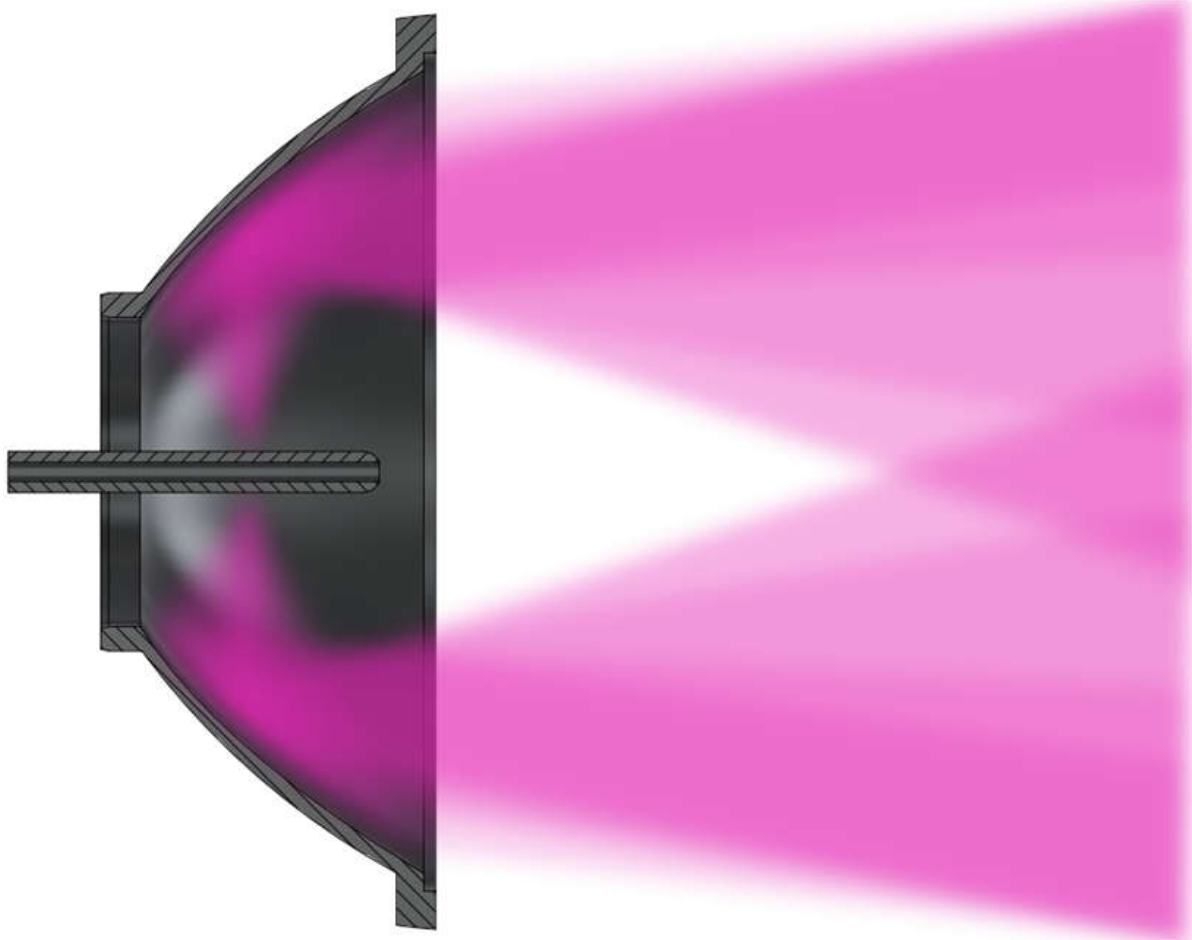
## General Description

- Filament free and gridless Plasma Source
- Uniform directional beam profile
- Very low ion energy (for epitaxial film growth)
- Compatible with adjacent processes e.g. sputtering
- Microwave power coupling
- Standard mounting flange geometries
- Use multiple sources as array to cover larger substrates
- Complete scope of delivery including generator and power cable
- Applicable in batch and in line systems
- Optional magnetic plasma localization module allows adjustable plasma position and concentration of the full power in a small volume close to the substrate
- Integrated gas bar option
- Different power supplies:
  - Power: 1, 2, 3 kW
  - Control interface: Analog 0-10V, CAN Bus



## Working Principle

The parabolic reflector collects and redirects radiation emitted by the microwave antenna. This leads to a broader beam directed into the process chamber

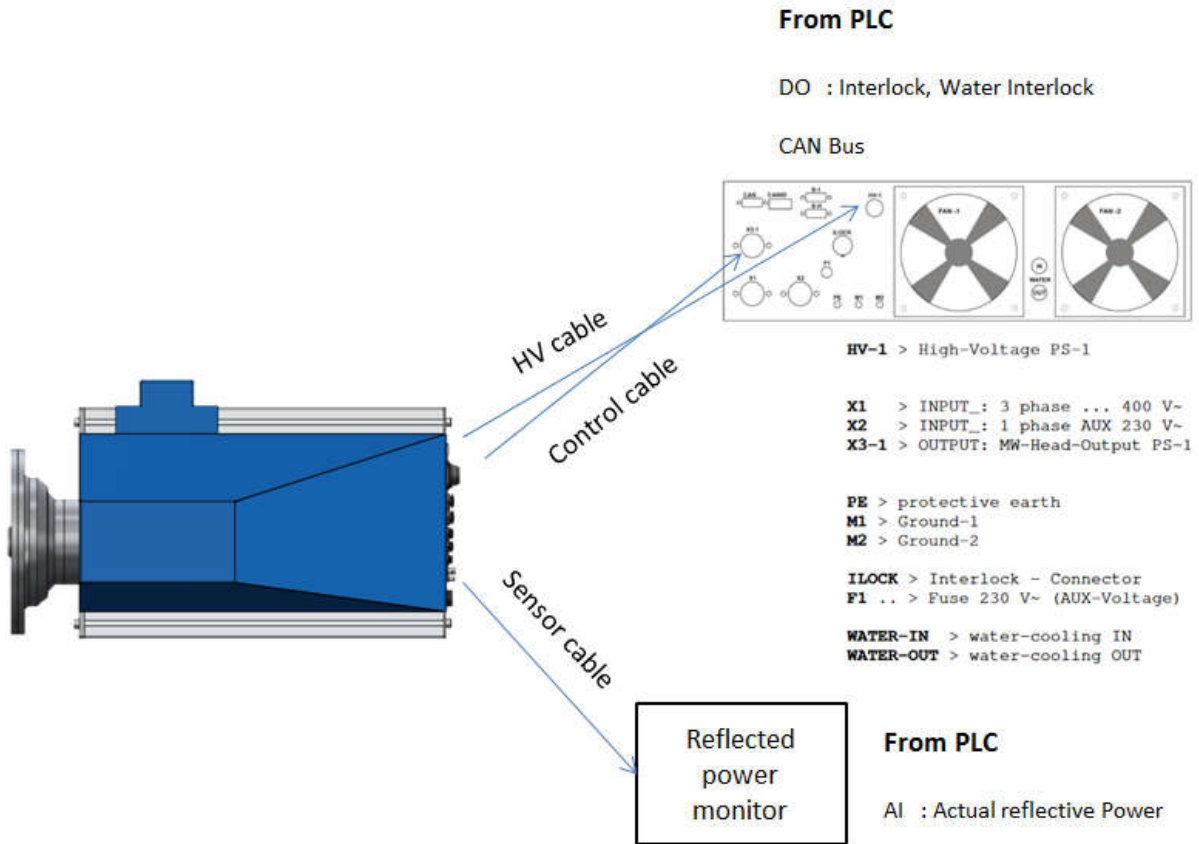


## Technical Data

Source materials	Stainless steel / Aluminum / Quartz / BN
Frame material	Aluminum
Housing material	Painted steel
Mounting flange	Compatible with DN ISO-200 ISO-F.
Cooling water:	3 bar inlet, open outlet.
Fitting:	8 mm push-to-pull, 2 l/min
Fitting:	10 mm push-to-pull, 3,8 l/min
Compressed air:	4 – 8 bar
Fitting:	6 mm push-to-pull
Weight:	40 kg for single source

## Technical Data

### CAN Bus Control: MIRO-200-CI-VA-P20 / -P30



### Power Supply

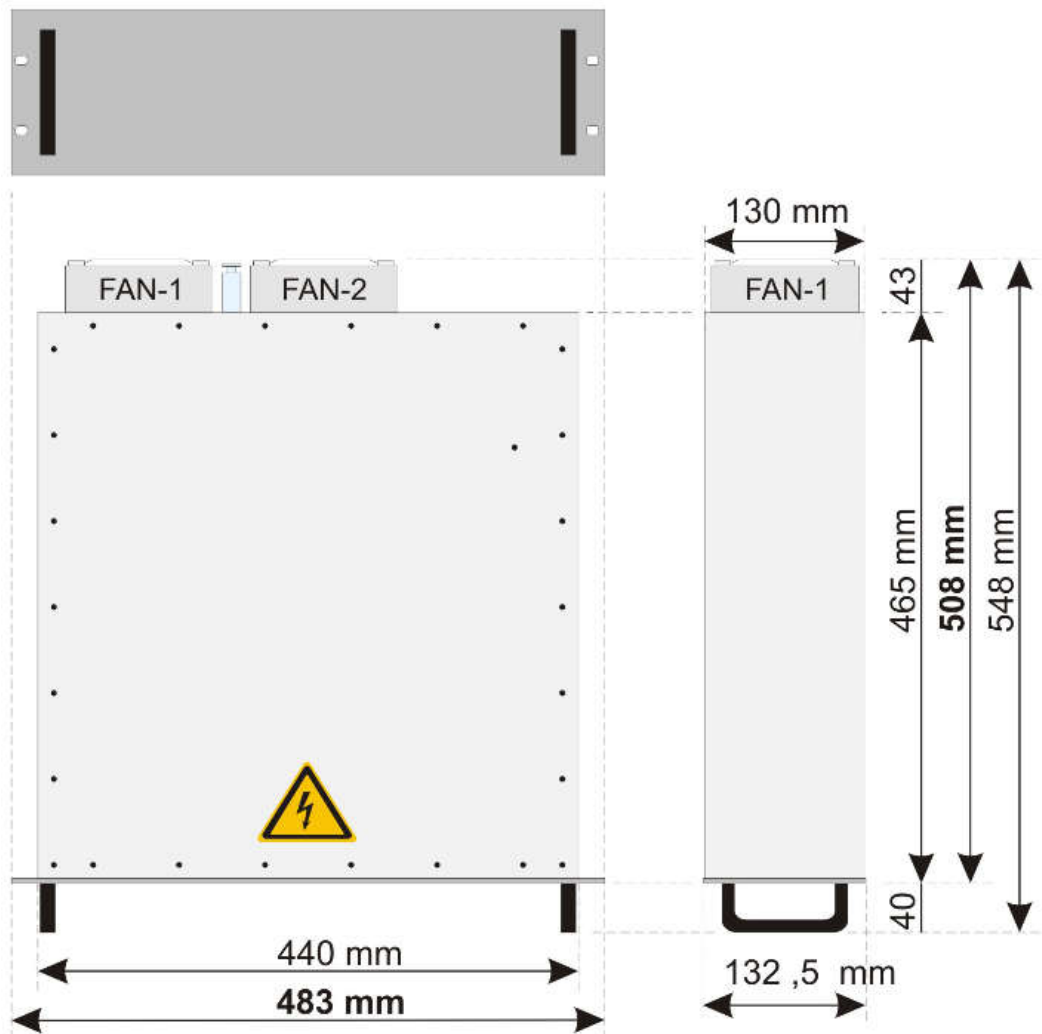
Input Voltage	3x 400V~ +/- 10 % / 47 – 63 Hz, 3 phase
Input current	< 7,5 A rms / phase @ full load
Input (auxiliary) Voltage	1x 230V~ +/- 10 % / 47 – 63 Hz, 1 phase
Input (auxiliary) current	< 2 A rms @ 230 Vac @ full load
Input Protection	3-phase-Fuse must be provided externally: 3-ph Fuse 10A T (time lag), 400V~
Input Protection	1-ph-Fuse/automatic circuit breaker implemented in device – positioned on back-side: 1-ph Fuse 2A T (time lag), 230 V~
Output Power	1x 2000 W / 3000 W HF-Power continuous
Output current ripple	Standard Ripple
Output polarity	– 4.900 V to – 5.300 V, negative in respect to ground
Harmonic Distortion	Meets EN 61000-3-2 for class A
Transient overvoltage	Meets EN 61000-4-4 for class B
EMI Filtering	Meets EN 55022 for class B
Environment	INDOOR USE only
Operation Temperature	5° C to 40° C
Water Fitting	10 mm push-to-pull, 3,8 l/min

## Technical Data

CAN Bus Control: MIRO-200-CI-VA-P20 / -P30

Dimension L x W x H      548 x 483 x 132.5 mm  
19'' rack (plug-in-case)  
3 rack-units height

Weight (approximately)    15,5 kg



### Reflected Power Monitor

Input Voltage

24 Vdc, 25 mA