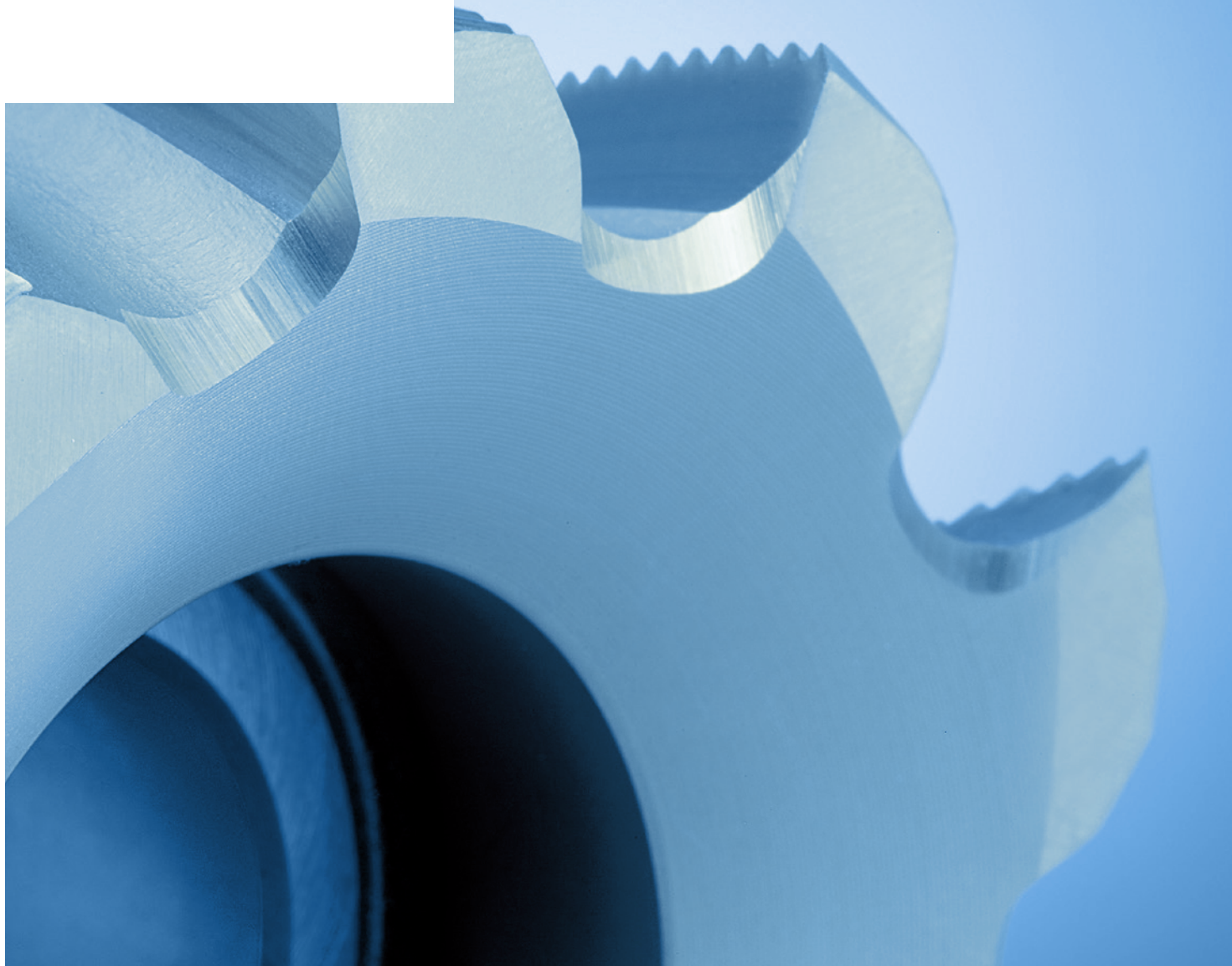


Series 3000 (G2)

TruPlasma Arc
TruPlasma DCLV



Experience the essence of productivity.
TRUMPF Hüttinger DC power for exceptional hard coatings.



Excelling in tough environments. TruPlasma Arc Series 3000 (G2). TruPlasma DCLV Series 3000 (G2).

The TruPlasma Arc Series 3000 (G2) power supplies are specially designed for cathodic arc sputtering applications such as hard and decorative coatings. Their high dynamic current regulation has been optimized for these processes. And applications with similar requirements (such as ion implantation), adding the benefit of superior performance. The FPGA and DSP based regulation circuits used in the TruPlasma Arc Series 3000 represent superior control technology. Set-point accuracy is as high as $\pm 1\%$ and a repeatability of $\pm 0.2\%$ ensures consistent and reproducible results. Digital feedback and advanced analysis routines provide continuous recognition and monitoring of actual plasma status. Allowing for the enhanced management of various hard coating processes.

TruPlasma Arc Series 3000 (G2) provides an output current of 225 amperes (A). Individual outputs of unit can be operated in parallel to increase current or to achieve redundancy. Outputs might be also connected in series in order to comply with plasma source application requirements. This feature allows future system upgrades to higher power levels, effortlessly and with a minimum amount of setup time. A small footprint and an excellent power density save valuable floor space. The TruPlasma Arc Series 3000 (G2) is equipped with all standard data interfaces. Utilizing state-of-art, switch-mode power conversion technology, the generators operate at high efficiency. Resulting in less heat dissipation and lower operation costs. Due to their small size and water cooling, these generators can be easily integrated into new or existing systems. The TruPlasma DCLV Series 3000 (G2) is equipped with powerful ignition circuit, dedicated for demanding plasma source systems.

Features

- Triple output in compact enclosure
- Special power and control design for superior current stability
- Built-in ignition circuit
- Fast FPGA and DSP control for stable arcs at all current levels
- Wide current range offering, for a variety of applications
- Simultaneous voltage, current and power regulation
- 100 % water cooled

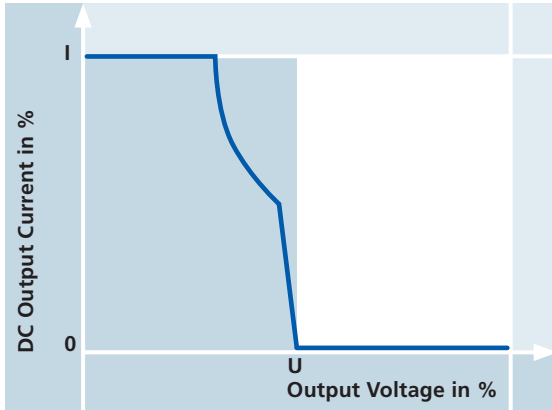
Benefits

- Flexible platform for various applications
- Ensuring consistent process conditions
- Facilitates arc ignition control and shortens initialization time
- Time savings through stable operation and reduced need for interaction
- Single source approach reduces training and setup time when expanding process range
- Cross parameter control capability minimizes adjustment time

TruPlasma Arc Series 3000 (G2)



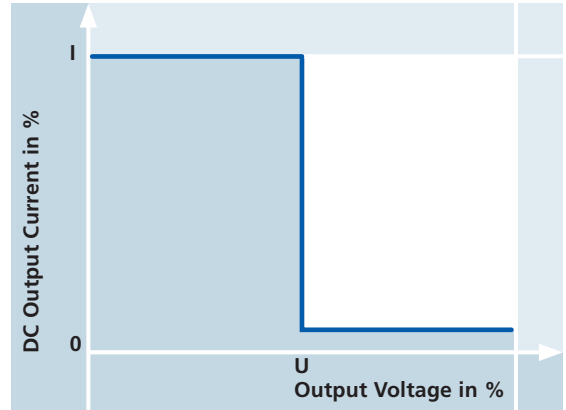
V/I Diagram



TruPlasma DCLV Series 3000 (G2)



V/I Diagram



Output Parameters	
Output Current	3 x 225 A, 2 x 225 A
Output Voltage	70 V, 90 V
Output Power	3 x 10 kW, 2 x 10 kW
Regulation Modes	Current, Power, Voltage
Efficiency	90 %
Operation Duty Cycle	100 %
Regulation Line ± 10 %	Accuracy ± 1 %
Load 10 % – 90 %	Repeatability ± 0.2 %
Ignition (Capability) ¹⁾	600 V
Output Polarity	Floating

1) Dual output unit.

Output Parameters	
Output Current	250 A
Output Voltage	100 V
Output Power	25 kW
Regulation Modes	Current, Power, Voltage
Efficiency	90 %
Operation Duty Cycle	100 %
Regulation Line ± 10 %	Accuracy ± 1 %
Load 10 % – 90 %	Repeatability ± 0.2 %
Ignition (Capability)	800 V / 15 A / 6 kW
Output Polarity	Floating

Input Parameters

Line Voltage	3 x 380 – 400 Vac
Line Frequency	50 / 60 Hz

Cooling Specifications

Cooling System	Water
Cooling Water Temperature	+10 °C to +35 °C

Environmental Specifications

Ambient Temperature	+5 °C to +35 °C operating -25 °C to +55 °C storage
Max. Humidity	80 % non condensing
Max. Operating Altitude	2 000 m above sea level ²

2) Special high altitude versions available upon request.

Interfaces

Analog / Digital	25-pin Sub-D
RS 232	9-pin Sub-D
RS 485 / Profibus	9-pin Sub-D
Profinet / EtherCat / Modbus³	2 x RJ45

3) Optionally available.

Dimensions (W x H x D)

TruPlasma Arc / DCLV	482 mm (19") x 133 mm (3U) x 790 mm
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Weight

TruPlasma Arc 3150 / 3200	60 kg
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