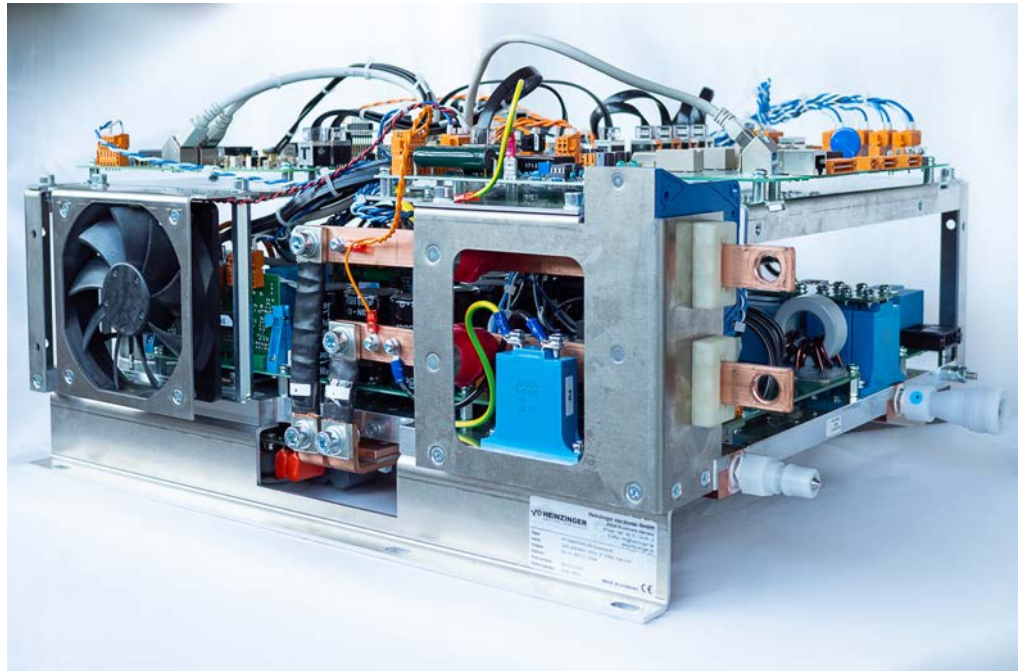# MAGNET POWER SUPPLIES

Magnet power on the highest performance level.

MPS Flexible.

Highlights:

- For inductive loads
- Standard-Configuration or possibility of cascading
- Flexible combination of DC-output current/voltage
- Slim Design
- Water cooling
- Ethernet Interface

Magnet-Power supplies are adapted for inductive loads and where the regulation behavior is optimized accordingly. To cover the challenging customer requirements and applications, BNC offers the possibility to cascade the available basis components to ensure flexibility on the highest level.

Beside control, regulation and current measurements – the required combination of current and voltage can be performed at customers needs.

Flexibility has the highest prio-rity and is combined with a slim and cost-optimized design.

Ethernet Interface and waterco-oling are standard as well as 19" housing, where the components including infrastructure are installed.

Differing or additional customer requirements can be considered independently.

Parameter			
	U	I	P
Quadrupole	26V	130A	3.5kW
	26V	260A	7kW
	60V	220A	13kW
	tbd		
Dipole	120V	125A	15kW
	150V	90A	13kW
	tbd		

(Quadrupole rows: 6HE; Dipole rows: max. 12 PS)

Standard / Basis:
Ethernet, Water cooling, Rack-Montage (19")

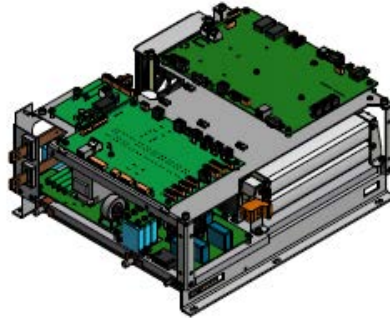Currently available configuration (Stand: Oct. 2021)

MAGNET POWER SUPPLIES

Magnet power on the highest performance level.
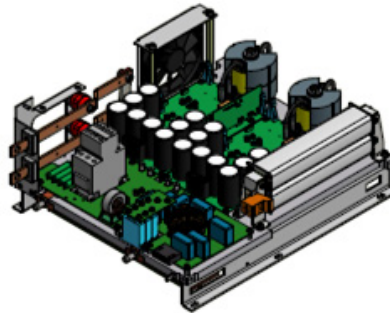
Exampel of configuration:

MPS basis-components and power-stage #1:

- Mains rectifier
- current regulation
- power stage control
- current measurement
- PS #1 with 7.5 kW output-power
- Ethernet-Interface (remote control IF)
- Customer-Interface (e.g. USB, LCU)

MPS power-stage #2:

- PS #2 with 7.5 kW output-power

MPS power-stage #3 .... #12

- up to 12 power-stages within one rack (19")
- aproxx. 100 kW

specific parameters, overview:

Mains Input:	Supply Voltage	400/480V ±10 %, 50/60 Hz
Precision:	Current Accuracy	<10ppm
	Current Ripple	<10ppm
	Current Stability	<10ppm/hour
Dynamic:	di/dt	>300A/sec. (up to 100kA/sec.)
Efficiency:		>90 %
Operation:	local	LCU – Local Control Unit
	remote	Ethernet Interface
Cooling:	Water-Cooling	also for deionized water
Customer IF:	Magnet Readback	magnet errors, magnet water errors, etc.

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HIGH VOLTAGE BUT SMART