



Including MCC Software



## Features

- 2 x Synchronized pulse channels
- Intuitive software control (MCC Software)
- Output modes: DC, UP+, UP- and BP
- Free Pulse Pattern generator
- Symmetric pulse output
- Arc suppression less than 2  $\mu$ s
- 4 x Synchron trigger output
- 2 x Trigger input
- Max. 1000 V pulse output per channel
- Max. 500 A pulse output per channel
- Integrated control of two DC Units
- Reconfigurable for 1000A pulse peak output

## Applications

- HiPIMS
- HiPIMS + MF
- HiPIMS + Bias

	SIPP 2000 - 10 - 500 - D		SIPP 2000 - 20 - 500 - D	
	Channel A	Channel B	Channel A	Channel B
AC Input (controller)	230VAC 50/60Hz +/-10% PE			
DC Input Voltage	1000 VDC	1000 VDC	1000 VDC	1000 VDC
DC Input Current	10 A	10 A	20 A	20 A
DC Input Power	5 KW	5 KW	10 KW	10 KW
Pulse Output Power	+/- 500 KW (peak)	+/- 500 KW (peak)	+/- 500 KW (peak)	+/- 500 KW (peak)
Pulse Output Voltage	+/-1000 V (max)	+/-1000 V (max)	+/-1000 V (max)	+/-1000 V (max)
Pulse Output Current	+/-500A (max) $\leq$ 2kHz +/-100A (max) $\leq$ 50kHz	+/-500A (max) $\leq$ 2kHz +/-100A (max) $\leq$ 50kHz	+/-500A (max) $\leq$ 2kHz +/-100A (max) $\leq$ 50kHz	+/-500A (max) $\leq$ 2kHz +/-100A (max) $\leq$ 50kHz
Pulse Time Conditions	UP+; UP-; BP	UP+; UP-; BP	UP+; UP-; BP	UP+; UP-; BP
HiPIMS ON Times +/-	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s
HiPIMS OFF Times +/-	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s	$\geq$ 20 $\mu$ s
HiPIMS Frequency Conditions	$\sum$ (TON+/- and Toff+/-) $\geq$ 500 $\mu$ s Peak Pulse Current $\leq$ +/-500A		$\sum$ (TON+/- and Toff+/-) $\geq$ 500 $\mu$ s Peak Pulse Current $\leq$ +/-500A	
MF ON Times +/-	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s
MF OFF Times +/-	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s	$\geq$ 5 $\mu$ s
MF Frequency Conditions	$\sum$ (TON+/- and Toff+/-) $\geq$ 20 $\mu$ s Peak Pulse Current $\leq$ +/-100A		$\sum$ (TON+/- and Toff+/-) $\geq$ 20 $\mu$ s Peak Pulse Current $\leq$ +/-100A	
COM	Optional: RS485; Profibus;		Optional: RS485; Profibus;	
User Interface	24VDC IN / Out		24VDC IN / Out	
Trigger Input	1x +/- 5V	1x +/- 5V	1x +/- 5V	1x +/- 5V
Trigger Output	4x +/- 5V		4x +/- 5V	
DC Power Supply Interface	2x ADL GmbH AS6.1		2x ADL GmbH AS6.1	
Cooling	Water / forced Air		Water / forced Air	
min. Water Flow Rate	$\geq$ 3.5l/min		$\geq$ 3.5l/min	
max. Water pressure	$\leq$ 6bar		$\leq$ 6bar	
19" Dimensions H / W / D	16HE (712mm) / 440mm / 690mm		16HE (712mm) / 440mm / 690mm	
Net Weight	102kg		102kg	

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