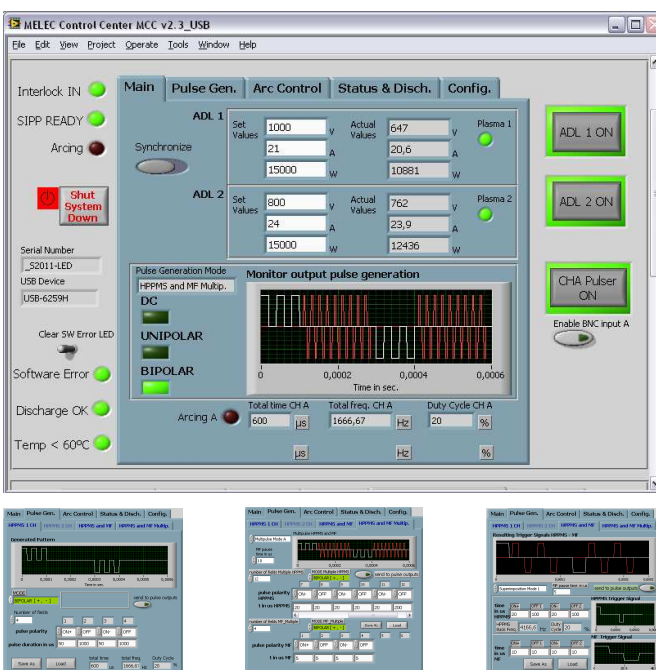
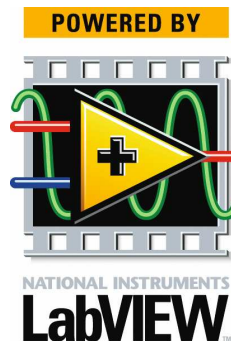




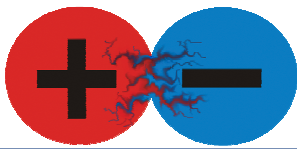
SIPP2000 – USB – Version HiPIMS Pulse Power Controller



Features:

- Full control of **HPPMS Pulse Unit**
 - Interactively **configurable Pulse Waveform**
 - Saving and Loading of Pulse Waveforms
 - Freely adjustable ARC Management
 - Monitoring of all status signals
- Synchronized Pulse Generation output for external triggering of additional MF unit
- Full control of **ADL GmbH DC-Units** or alternatively **PNCL DUAL® DC-Units**
 - **Symmetric ON-OFF** of two DC-Units
 - Set Point for **voltage, current and power**
 - Reading of DC-Unit working parameters
- Industrial security functions
- Control software runs on Windows XP computers via USB 2.0 (see unit documentation for minimal requirements)

Patent pending



Datasheet SIPP – USB – Version HiPIMS

SIPP2000USB_...	...10_1000_S	...20_1000_S	...30_1000_S
AC Input-Pulser only	230 V, 50/60 Hz, ±10%, PE	230 V, 50/60 Hz, ±10%, PE	230 V, 50/60 Hz, ±10%, PE
DC Input Power (average)	10 kW ; 1000 V floating potential (+ ; -)	20 kW ; 1000 V floating potential (+ ; -)	30 kW ; 1000 V floating potential (+ ; -)
Max. DC Output Power	10kW	2 x 10 kW = 20 kW	2 x 15 kW = 30 kW
Max. DC Output Voltage	1000 V	1000 V	1000 V
Max. DC Output Current	10 A DC max @1000 V	20 A DC max @1000 V	30 A DC max @1000 V
Pulse Output Power	+/- 1000 kW (peak)	+/- 1000 kW (peak)	+/- 1000 kW (peak)
Pulse Output Voltage	+/- 1000 V (max.)	+/- 1000 V (max.)	+/- 1000 V (max.)
Pulse Output Current	+/- 1000 A (max.)	+/- 1000 A (max.)	+/- 1000 A (max.)
Arc Suppression	≤ 2 μs	≤ 2 μs	≤ 2 μs
ARC Level Adjustment	+ / - (0 - 1000 A)	+ / - (0 - 1000 A)	+ / - (0 - 1000 A)
ARC delay time	adj. ≥ 30 μs	adj. ≥ 30 μs	adj. ≥ 30 μs
Operation Frequency	≤2 kHz (max.)	≤ 2 kHz (max.)	≤ 2 kHz (max.)
Cooling Capability	Air & Water	Air & Water	Air & Water
Water Rate	≥ 3.5 L / min.	≥ 3.5 L / min.	≥ 3.5 L / min.
Water Pressure	≥1,5 kg /cm ²	≥1,5 kg /cm ²	≥1,5 kg /cm ²
Water Temperature	≤ 25 °c	≤ 25 °c	≤ 25 °c
19" Dimensions: H / W / D	16 HE (712 mm) / 440 mm / 690 mm	16 HE (712 mm) / 440 mm / 690 mm	16 HE (712 mm) / 440 mm / 690 mm
Single Component Dimensions	12 HE Pulse Unit	12 HE Pulse Unit	12 HE Pulse Unit
	4 HE Unit-Controller	4 HE Unit-Controller	4 HE Unit-Controller
Net Weight	102 kg	102 kg	102 kg
DC Power supply Interface	2 x ADL GmbH AS6.1	2 x ADL GmbH AS6.1	2 x ADL GmbH AS6.1
	AE PNCL® USER PORT (alternative)	AE PNCL® USER PORT (alternative)	AE PNCL® USER PORT (alternative)
Built in security feature: DISCHARGE	24 V; 200 mA external control signal	24 V; 200 mA external control signal	24 V; 200 mA external control signal
Trigger OUTPUTS	4 x BNC	4 x BNC	4 x BNC
Trigger INPUTS	2 x BNC	2 x BNC	2 x BNC

Pulse Time Conditions	ON-Times +/-	OFF-Times +/-	HPPMS Frequency Conditions
Modes: UP+ ; UP- ; BP	Ton ^{+/-} ≥ 20 μs	Toff ^{+/-} ≥ 20 μs	∑ (Ton ^{+/-} and Toff ^{+/-}) ≥ 500μs (2 kHz)