

Datasheet

Bipolar Pulse Generators SD 151, SD 301 and SD 351 with reverse pulse



SD 151 rear view



SD 351 rear view

In combination with an ADL DC power supply, the pulse generators SD 151 / SD 301 and SD 351 generate unipolar pulses with a reverse pulse for faster discharge of the cathode. In combination with reverse pulses, the extremely fast, fully automatic arc suppression reduces the arc energy by approx. 50 % – in comparison to a pulse generator without reverse pulse (SD 150 / SD 300). The generators work with a fixed frequency of 20 kHz. Thus, with an external signal generator, this frequency can be varied in a range of 1 kHz up to 40 kHz. Up to eight pulse generators can be interconnected for automatic synchronization via control cables. The new electronics contained in SD 151, SD 301 and SD 351 compensate for delay times, so that even if the high voltage outputs are connected in parallel, no master oscillator is necessary for exact synchronization.

★ Highlights

- ★ Reverse pulse
- ★ Output power 15 kW, 30 kW, 35 kW
- ★ Parallel operation up to 280 kW with automatic synchronization
- ★ Automatic arc suppression
- ★ Air cooling
- ★ Compact design, 1/2 19" - 3 HU
- ★ Floating Output

We are happy to help!

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Variants

Type	Pulse Output			Order-No.
SD 151	20 kHz	800 V	15 kW	11Z020
SD 301	20 kHz	800 V	30 kW	11Z040
SD 301/500	20 kHz	500 V	30 kW	11Z047
SD 351	20 kHz	800 V	30 kW	11Z055

Options and Accessories - detailed Information see Datasheet "Accessories"

Type	Order-No.
Indications	
Status LEDs (default)	-
Connectors	
SD 151 Connector Set X1/X6 Harting straight	03Y050
SD 151 Connector Set X1/X6 Harting angled	03Y070
SD 300 Connector Set X1/X6 Harting straight	03Y060
SD 300 Connector Set X1/X6 Harting angled	03Y080
Oscillators	
Test Oscillator OT 40	50Y401
Master Oscillator OMV	50Y410
Master Oscillators OM 1, OM 2, OM 3	50Y421 50Y422 50Y423

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Technical Data

	SD 151	SD 301	SD 301/500	SD 351
Operational Data				
Input Voltage	Max. 800 V DC		Max. 500 V DC	Max. 800 V DC
Output Current	38 A	70 A	80 A	70 A
Output Power	15 kW (DC-Output power of power supply)	30 kW (DC-Output power of power supply)		35 kW (DC-Output power of power supply)
Pulse Frequency	20 kHz, fixed (externally adjustable from 1 kHz up to 40 kHz)			
Break Time	2 μs			2 μs (externally adjustable from 2 μs up to 10 μs depending on frequency)
Principle of Operation	Unipolar with reverse pulse			
Arc Suppression	Automatic parameter setting			
Arc Quenching Time	< 2 μs			
Arc Energy	< 0.3 mJ / kW at 3 μH output inductance			
Indications	Status LEDs			
DC-Input / Pulse-Output				
Input Cable JZ-600-Y-CY	2 x 6 mm²	2 x 16 mm²	2 x 25 mm²	2 x 16 mm²
Output Cable JZ-600-Y-CY	2 x 6 mm²	2 x 16 mm²	2 x 25 mm²	2 x 16 mm²
Maximum Cable Length	5 m (between pulse generator and cathode)			
Output Inductance	Max. 10 μH (cable + cathode)			
Auxiliary Voltage	24 V DC + / - 10 %, 1 A	24 V DC + / - 10 %, 1.2 A		
Cooling system				
Air Cooling	Built-in fan, maximum ambient temperature 40° C			



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Technical Data

	SD 151	SD 301	SD 301/500	SD 351
Mechanical Data				
Size (without Plug)	Width: 167 mm, Height: 127 mm, Length 474 mm	Width: 218 mm (1/2 19"), Height: 130 mm (3 HU), Length: 645 mm		
Weight (without Packaging)	10 kg	18 kg		
Compatible with the following Power Supplies:	GX 50 – GX 150 (Except all ver- sions over 800 V or over 38 A)	HX 150 - HX 300 (Except all ver- sions over 800 V or over 70 A)	HX 150 - HX 300 (Except all ver- sions over 800 V)	HX 150 - HX 350 (Except all ver- sions over 800 V or over 70 A)
	Only with interface X4P for pulse generators			

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Dimensions

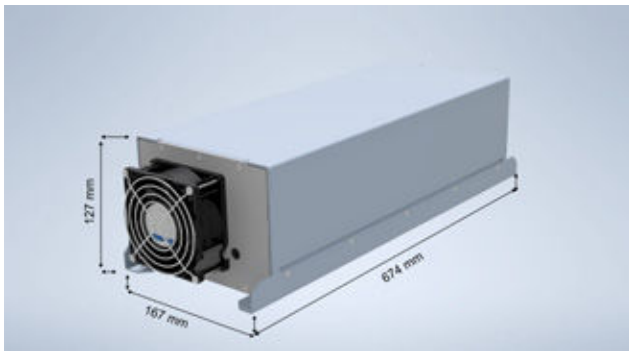


Illustration SD 151, front view

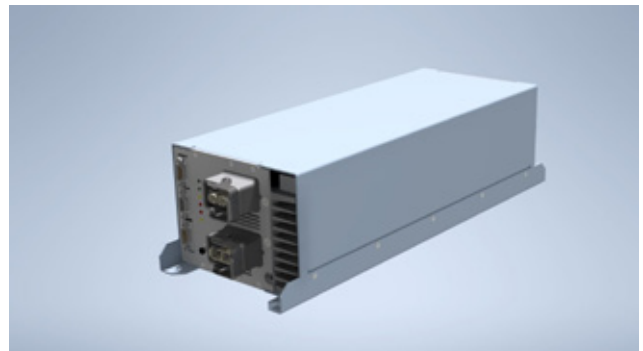


Illustration SD 151, rear view

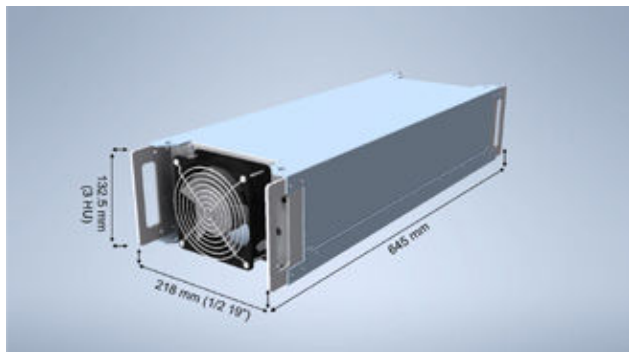


Illustration SD 301 and SD 351, front view

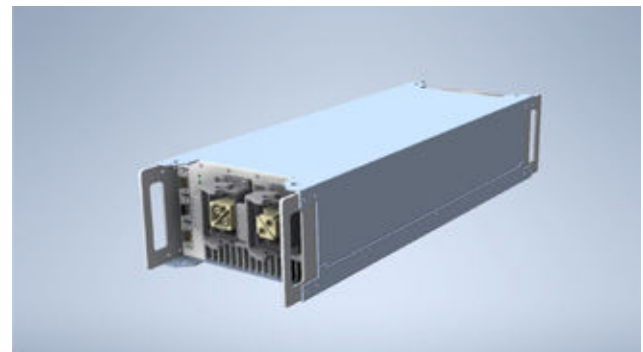


Illustration SD 301 and SD 351, rear view

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