

Datasheet

Middle Frequency / Bipolar Pulse Generator HXB 900 – HXB 1400



Cabinet – Front view



Mains Controller MC 8 and
Pulse Generator Display PD 1
Master Display MD 4

The Middle Frequency / Bipolar Pulse Generator HXB 900 – HXB 1400 combines large power, compact design and very fast arc suppression in a stable cabinet. This bipolar pulse generator is specially designed for reactive coating processes for cathodes up to four meters in length. The automatic symmetrization of the cathode power and the power ratio controller for asymmetric pulse power (up to 10: 90 %) optimizes the coating quality and prolongs the target lifetime. The generator recognizes all relevant process parameter fully automatically, and constantly adjusts its arc detection and arc suppression. To start the operation or to make a target change, it is not necessary to make any adjustments by hand. Powerful water cooling guarantees the highest reliability even in non-air-conditioned environments.

★ Highlights

- ★ Output power 90 kW – 140 kW
- ★ Water cooling
- ★ Reactive coating processes for cathodes up to 4 meters in length
- ★ Automatic symmetrization of cathode power
- ★ Power ratio controller for asymmetric pulse power (up to 10 : 90 %)
- ★ Fully automatic arc management (0.3 mJ / kW)
- ★ Automatic power compensation up to 2000 arcs / sec
- ★ Process reproducibility better 2 %

Datasheet

Variants

Type	DC-Output			Order-No.
HXB 900	20 kHz	+ / - 800 V	90 kW	14Z210
HXB 1050	20 kHz	+ / - 800 V	105 kW	14Z020
HXB 1200	20 kHz	+ / - 800 V	120 kW	14Z030
HXB 1400	20 kHz	+ / - 800 V	140 kW	14Z040

Options and Accessories - detailed Information see Datasheet "Accessories"

Type	Order-No.
Control Interfaces	
AS4 - analogue for U-, I- or P-Control	01Y001
AS4F - analogue for U-, I- or P-Control, fast Data Transfer	01Y021
AS6 - analogue for U-, I-, P-Limit Specification	01Y061
Profibus DP	01Y160
EtherCAT®	01Y170
RS232/485	01Y181
Indications	
Master Display MD 4 for up to 4 devices in parallel operation	50Y261
Pulse Generator Display PD 1	50Y280
Miscellaneous	
Supply connectors from top	04Y310
Line Voltage 3 x 400 V (default)	10Y022
Line Voltage 3 x 440 V	10Y025
Line Voltage 3 x 480 V	10Y030

Datasheet

Technical Data

	HXB 900	HXB 1050	HXB 1200	HXB 1400
Operational Data				
Output Power	90 kW	105 kW	120 kW	140 kW
Output Voltage *	+ / - 800 V	+ / - 800 V	+ / - 800 V	+ / - 800 V
Output Current *	180 A	210 A	240 A	280 A
Control	Current, voltage or power controlled or voltage controlled with ignition automatic			
Operation Mode	External via control interface			
Output Accuracy	+ / - 1 % of nominal value for current, voltage and power			
Power Ratio	10 to 90 % or automatic symmetrization			
Pulse Frequency	20 kHz, fixed			
Pulse Off Time	2 µs to 20 µs (automatic setting)			
Principle of Operation	Bipolar			
Arc Suppression	Automatic parameter setting			
Quenching Time	< 2 µs			
Arc-Energy	< 0.3 mJ / kW			
Mains Input Connection				
Line Voltage	3 x 400 V, + / - 10 %, 50/60 Hz, PE, (Option: 3 x 440 V or 3 x 480 V)			
Fusing	3 x 160 A	3 x 200 A	3 x 224 A	3 x 250 A
Mains Cable	4 x 50 mm ²	4 x 70 mm ²	4 x 95 mm ²	4 x 95 mm ²
Power Consumption	100 kVA	118 kVA	135 kVA	155 kVA
Pulse Output Connection				
DC-cable JZ-600-Y-CY	3 x JZ-600-Y-CY, 24 x 1.5 mm ²		4 x JZ-600-Y-CY, 24 x 1.5 mm ²	
Output inductance	max. 10 µH			

*other voltage and current ranges on request

Datasheet

Technical Data

	HXB 900	HXB 1050	HXB 1200	HXB 1400
Cooling System				
Water Cooling	Flow, > 15 l / min, 4 to 8 Bar, < 40° C		Flow, > 20 l / min, 4 to 8 Bar, < 40° C	
Water Connection	1" female thread			
Water Cooling Capacity	6 kW	7.4 kW	9 kW	9 kW
Drain	10 mm tube			
Compressed Air	4 – 8 bar, 10 mm tube			
Air Cooling	Built-in fan, maximum ambient temperature 40° C			
Air Cooling Capacity	0.9 kW		1.1 kW	
Mechanical Data				
Size (without water connections and plugs)	Cabinet, Height: 1800 mm (33 HU), Width: 600 mm, Depth 830 mm			
Weight (without Packaging)	430 kg		500 kg	

We are happy to help!

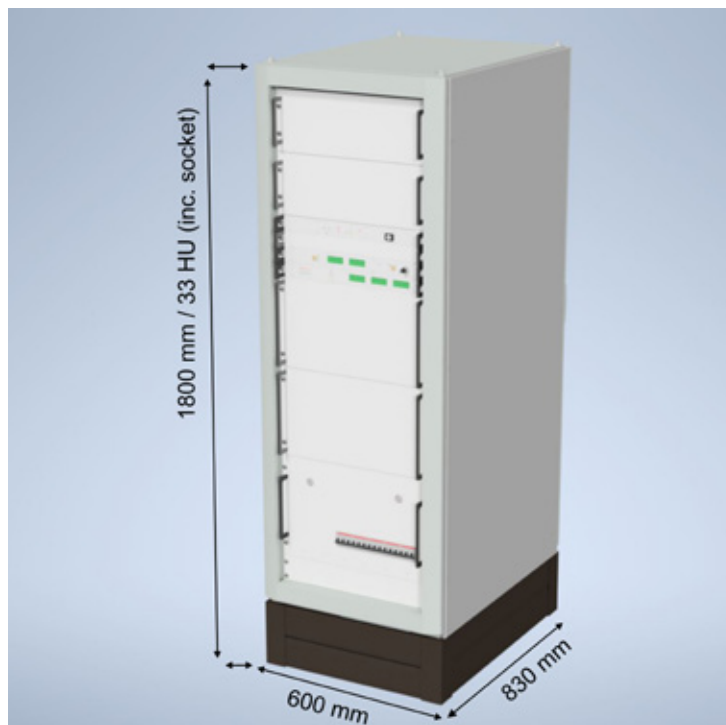
ADL Analoge & Digitale Leistungselektronik GmbH
Bunsenstraße 30 · D-64293 Darmstadt
www.adl-gmbh.com

Customer Support

Tel. +49 (0) 6151 86072-41 or -42
Fax +49 (0) 6151 86072-75
E-Mail: sales@adl-gmbh.com

Datasheet

Dimensions



Exemplary illustration for cabinets HX..., front panel and rear view can differ, nevertheless, dimensions are the same.

© 2022 ADL Analoge & Digitale Leistungselektronik GmbH. All rights reserved.

ADL products are constantly improved. ADL therefore reserves the right to make technical changes without prior notice or obligation. To the best of our knowledge, the information contained in this product presentation (short version) is the most accurate available as the date of the current edition. The information is not binding.

We are happy to help!

ADL Analoge & Digitale Leistungselektronik GmbH
Bunsenstraße 30 · D-64293 Darmstadt
www.adl-gmbh.com

Customer Support

Tel. +49 (0) 6151 86072-41 or -42
Fax +49 (0) 6151 86072-75
E-Mail: sales@adl-gmbh.com