

Datasheet

Bipolar Pulse Generator GXB 50



Front view



Rear view

The Bipolar Pulse Generator GXB 50 generates a square-wave AC voltage for plasma excitation between two cathodes. A 5 kW-DC power supply is already integrated, so that no external DC power supply is necessary. The generator works with a fixed frequency of 22.5 kHz. Pulse-on time and pulse-off time are automatically controlled and not preset as determined parameters. A special current ratio controller calculates the power of both half-waves and regulates them on the basis of Pulse Width Modulation (PWM) in a pre-defined proportion. The Bipolar Pulse Generator is equipped with automatic arc suppression. The parameters for trip level and break times are automatically adjusted to the specific processes.

Programming by the user is not necessary at all!

★ Highlights

- ★ Output power 5 kW, AC
- ★ DC- and Pulse Generator in one unit
- ★ Current ratio controller
- ★ Automatic arc handling
- ★ Water cooling
- ★ Very compact design in 1/2 19"-housing, 3 HU

We are happy to help!

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Variants

Type	AC-Output			Order-No.
GXB 50	20.5 kHz	+ / - 800 V	5 kW	11Z080

Options and Accessories - detailed Information see Datasheet "Accessories"

Type	Order-No.
Control Interfaces	
AS4 - analogue for U-, I- or P-Regulation	01Y001
AS4F - analogue for U-, I- or P-Regulation, fast Data Transfer	01Y021
AS6 - analogue for U-, I-, P-Limit Specification	01Y061
Profibus DP	01Y160
EtherCAT®	01Y170
RS232/485	01Y181
Indications	
GXB Display (included in delivery)	-
Connectors	
GXB-50 Connector Set X1/X2 Harting straight	03Y220
GXB-50 Connector Set X1/X2 Harting angled	03Y240
Water Connection Festo	04Y100
Water Connection Walther (default)	04Y400
Walther Couplings straight	04Y420
Walther Couplings angled	04Y440
Miscellaneous	
19" Mounting set Duo-GXB	03Y091
19"-Mounting set Single-GXB	03Y093
Remote Control RC 4	06Y401

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Technical Data

Middle Frequency / Bipolar Pulse Generator GXB 50	
Operational Data	
Output Power	5 kW
Output Voltage	+ / - 800 V
Output Current	+ / - 12 A
Automatic Balancing	Current ratio controller with pulse width modulation
Pulse Frequency	22.5 kHz, fixed
Parallel Circuit (Master-Slave)	no
External Synchronization	no
Arc Suppression	Automatic parameter setting
Quenching Time	< 2 μ s
Break Time	2 to 20 μ s
Arc Energy	< 0.3 mJ / kW at an output inductance of 3 μ H
Output Inductance	max. 10 μ H (cable + cathode)
Indications	3 ½ digit display for current, voltage and power
Control	Current, voltage or power controlled or voltage controlled with ignition automatic
Operation Mode	External via control interface
Set Point	0 ... 100 % of nominal value for current, voltage or power
Output Accuracy	+ / - 1 % of nominal value for current, voltage and power
Mains Input Connection	
Line Voltage	3 x 400 V, + / - 10 %, 50/60 Hz, PE
Fusing	external 3 x 16 A
Mains Cable	4 x 1.5 mm ²
Mains Connector (X2)	Harting Han-Modular Compact
Power Consumption	Ca. 6 kVA
AC-Output Connection	
AC-Cable JZ-600-Y-CY	2 x 2.5 mm ²



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Technical Data

Cooling System	
Water Cooling	Flow > 1.5 l / min, 2 to 8 Bar, < 40° C
Water Connection	Walther CT-003 (Option: Festo KQ2 10 mm)
Water Cooling Capacity	300 W
Air Cooling	Built-in fan, maximum ambient temperature 40° C
Air Cooling Capacity	100 W
Fan Noise Emission	$L_{pA} < 70$ dB (A)
Mechanical Data	
Size (without Plug)	Width: 216 mm (½ 19"), Height: 130 mm (3 HU), Length 520 mm
Weight (without Packaging)	22 kg

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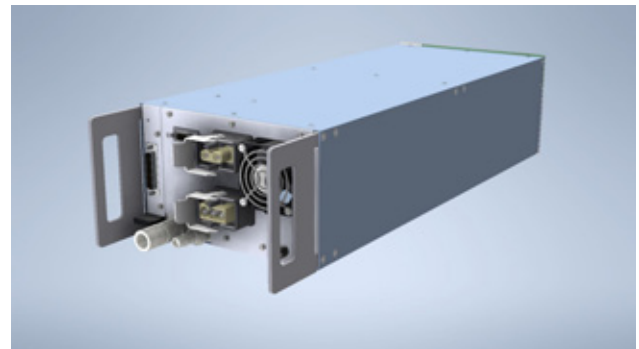
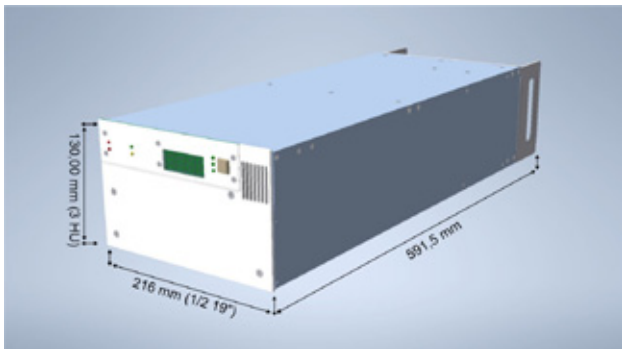
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Dimensions



Exemplary illustration, front panel and rear view can differ, depending on device type, nevertheless, dimensions are the same.

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