

Inverter Dc Welding Power Supply

Item Number: DH12



Introduction

Inverter DC welding power supply delivers 3000A controlled output, 4KHz response, dual-pulse programming, current monitoring, and GO NG quality signals for precise resistance welding operations.

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Application	Description	Key Benefit
Battery tab welding	Joins conductive tabs to battery cell terminals or related current-collection components using a programmed resistance welding sequence.	Two-stage current, adjustable slopes, and current-result judgment support controlled joining of battery-related conductive parts.
Battery busbar and interconnect welding	Supports resistance welding of electrical interconnects and busbar-related assemblies used in battery module and pack manufacturing.	Eight selectable welding conditions help teams change between validated interconnect processes efficiently.
Plated component welding	Processes workpieces with plated surfaces where the surface layer can affect energy delivery and welding behavior.	The two-stage energization function is specifically positioned to help address plated-workpiece welding requirements.
Electrical contact manufacturing	Welds electrical contacts, terminals, and conductive hardware that require controlled current delivery and verified process output.	Constant-current load control and GO/NG monitoring provide a structured basis for repeatable process checks.
Precision metal assembly	Applies resistance welding to small metal assemblies where spatter control and programmed current transitions are important.	Adjustable upslope and downslope functions help shape the welding sequence and suppress spatter.
Electronics hardware fabrication	Supports the joining of conductive components in production equipment, fixtures, and electrical hardware assemblies.	Fast 4KHz inverter response supports high-quality welding control with programmable timing stages.
Materials research welding trials	Enables laboratories and development teams to evaluate welding profiles across different materials, coatings, and joint configurations.	Detailed time settings and two current stages allow systematic adjustment of the welding cycle.
Automated welding stations	Integrates into production cells that require a discrete welding-quality output for downstream handling or external control.	Open-collector GO/NG result output provides a specified interface for process-status signaling.

Parameter	Specification
Site-facing identifier	DH12
Equipment type	Inverter welding power supply with built-in inverter transformer
Input power supply	AC 220V±10% 50/60Hz
Operating temperature	0°C~+50°C
Operating humidity	90% or less
Maximum output current	3000A
Control frequency	4KHz
Control method	Primary current detection static current control method
Cooling method	Forced-air cooling
Maximum duty cycle	20%(3000A)
Welding transformer output	Maximum current 3000A; no-load voltage 8.5V

Parameter	Specification
Welding condition setting	8MODE (MODE 0, 1, 2, 3, 4, 5, 6, 7)
Current 1 setting range	800~5000A
Current 2 setting range	800~5000A
Welding current detection function	Freely set monitoring range of set current: $\pm 3 \sim \pm 9\% \pm N$
Current judgment logic	Outputs GO when actual welding current is within the set current; outputs NG when actual welding current exceeds the set current
Judgment-result output method	Open collector output
Judgment-result output rating	DC 30V 200mA MAX
Display	20 x 4-line LCD displaying welding information and welding parameters
Squeeze time SQUE	0-999ms
Current 1 upslope U1	0-49ms; included in Current 1 I1
Current 1 I1	0-99ms
Current 1 downslope D1	0-49ms
Cooling time COOL	0-99ms
Current 2 upslope U2	0-49ms; included in Current 2 I2
Current 2 I2	0-99ms
Current 2 downslope D2	0-49ms
Hold time HOLD	0-999ms
Dimensions	195(W)*280(H)*450(D)m/m
Weight	19KG