

Intermediate Frequency Inverter DC Spot (Convex) Welder





Spot welder Laser welder Welding automation

Founded in 2006, PDKJ Technology is a professional supplier of welding automation solutions. The company has passed the ISO9001 international quality management system certification, has more than 70 officially authorized and applied national patents, and a number of core technologies in the welding field fill the technical gap at home and abroad. It is a national high-tech enterprise. Over the past 18 years, PDKJ Technology has provided products and services to nearly 9000 users worldwide in the field of welding automation. PDKJ brand spot welder laser welding machines are popular in more than 30 countries and regions around the world. In the future, we will continue to create lifelong value for users worldwide in the field of welding automation.



PDKJ, BORN FOR METAL WELDING

High Power ▪ Intermediate Frequency ▪ DC output current

Intermediate Frequency Inverter DC Spot (Convex) Welder

DTB-80 DTB-160 DTB-240 DTB-280 DTB-340 DTB-450



Energy saving, power saving, high efficiency, low operating cost, and high welding quality.

Product overview: The medium frequency inverter DC spot welding machine converts the power frequency (50Hz) AC to the medium frequency (1000Hz) DC output. The time resolution is higher than that of the power frequency, the control accuracy is also improved, and the output current is not affected by the change of the secondary output circuit. It has high thermal efficiency, large output power rate and better welding quality. Compared with the traditional power frequency welding machine, inverter medium frequency DC welding will be efficient and energy-saving. It is a technological revolution breakthrough in the field of resistance welding.

Welding Advantages of PDKJ Intermediate Frequency Inverter DC Spot Welder



1 Easy to operate

No skill training required, easy to operate, and easy to master for beginners.

2 Design life 20 years

It is designed for the lifespan of 20 years, with over 100000 hours of intensive work and aging testing in industrial laboratories.

3 Good quality

The surface of the welding spot has few oxidation and deformation, even without any marks, and the welding is firm and has good quality.

4 Widely used

Metal cabinets, automotive components, fasteners, electronic components, instruments and meters, battery spot welding, hardware spot welding, electrical switches, terminal wires, wire mesh, mesh baskets, etc.

5 Fast welding speed

High power, fast dotting speed, short time consumption, high welding efficiency.

6 Customized

Can be customized fixtures, electrode arms, electrode holders, and electrode heads of different sizes for different product work-pieces, and can customize highly automated welding equipment and production lines.



The entire series of products have been recognized by the China Intellectual Property Office and have obtained patent certificates.

Parameters of PDKJ Intermediate Frequency Inverter DC Spot Welder (1)



Parameter	DTB-80	DTB-160	DTB-240
Rated capacity	80KVA	160KVA	240KVA
Input power	3Φ 380V	3Φ 380V	3Φ 380V
Short-circuit current	25KA	35KA	50KA
Duty cycle	20%	20%	20%
Control mode	Primary / Secondary constant current	Primary / Secondary constant current	Primary / Secondary constant current
Inverter frequency	1000HZ	1000HZ	1000HZ
Maximum pressure	6000N	6000N	12000N
Electrode stroke	80mm	80mm	100mm
Cooling water flow	12L/min	12L/min	14L/min
Welding ability / Aluminum	2.0+2.0mm	2.5+2.5mm	3.0+3.0mm
Welding ability / Carbon steel	2.5+2.5mm	3.0+3.0mm	4.0+4.0mm
Arm extension size	500 x 250mm	500 x 250mm	500 x 350mm
Electrode arm size	φ59 x 173mm	φ59 x 173mm	φ74 x 195mm
Electrode holder size	φ24.6 x 180mm	φ24.6 x 180mm	φ31.6 x 250mm
Electrode head size	φ16 x 50mm	φ16 x 50mm	φ20 x 60mm
Weight	336kg	384kg	733kg
Overall dimension	1180 x 750 x 1830mm	1180 x 750 x 1830mm	1200 x 870 x 2070mm

Parameters of PDKJ Intermediate Frequency Inverter DC Spot Welder (2)



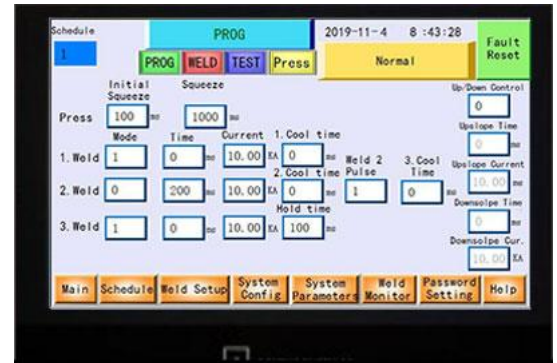
Parameter	DTB-280	DTB-340	DTB-450
Rated capacity	280KVA	340KVA	450KVA
Input power	3Φ 380V	3Φ 380V	3Φ 380V
Short-circuit current	65KA	80KA	100KA
Duty cycle	20%	20%	20%
Control mode	Primary / Secondary constant current	Primary / Secondary constant current	Primary / Secondary constant current
Inverter frequency	1000HZ	1000HZ	1000HZ
Maximum pressure	12000N	12000N	12000N
Electrode stroke	100mm	100mm	100mm
Cooling water flow	14L/min	16L/min	20L/min
Welding capacity / Aluminum	3.5+3.5mm	4.0+4.0mm	5.0+5.0mm
Welding capacity / Carbon steel	4.5+4.5mm	5.0+5.0mm	6.0+6.0mm
Arm extension size	500 x 350mm	500 x 350mm	500 x 350mm
Electrode arm size	φ74 x 195mm	φ74 x 195mm	φ74 x 195mm
Electrode holder size	φ31.6 x 250mm	φ31.6 x 250mm	φ31.6 x 250mm
Electrode head size	φ20 x 60mm	φ20 x 60mm	φ20 x 60mm
Weight	820kg	900kg	980kg
Overall dimension	1205*870*2140mm	1205*870*2140mm	1205*870*2140mm

Characteristics of PDKJ Intermediate Frequency Inverter DC Spot Welder (1)



1 PDKJ MFDC Controller

The intermediate frequency welding controller and current closed-loop control can control the actual welding current at high speed. The output current is DC, and the current is smooth, the inductance reactance is zero. The working frequency is 1000Hz, and the time control accuracy is 1ms. The welding program can achieve multiple welding functions such as preheating, welding, and tempering to achieve complex welding functions. Humanized design, can save multiple welding presets.



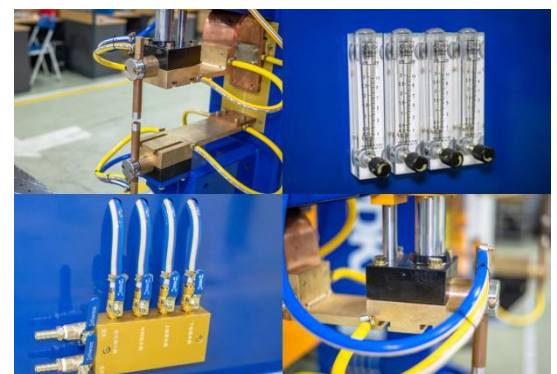
2 LCD touch screen

The interface is simple and beautiful, and the operation is simple. Multi language switching between Chinese and English, with clear welding parameters at a glance. Cooperate with preset functions to achieve fast welding.



3 Water cooling circulation system

Transparent and intuitive water flow meter for easy observation and adjustment of cooling water flow. PDKJ customized anti-corrosion and anti-aging soft water pipes have a long service life and prevent water leakage accidents. Stable and appropriate temperature can improve welding quality and speed.



4 Thickened and stable body design

The body is designed with a high-strength thickened steel plate mechanical structure, which is stable and rigid, ensuring that the body does not vibrate during welding, and large welded work-pieces do not shake. The high-strength corrosion-resistant nano coating body can ensure machine quality and ultra long service life. And it won the Red Dot, known as the "beautiful spot welder".



Characteristics of PDKJ Intermediate Frequency Inverter DC Spot Welder (2)



5 Pure copper transformer

The transformer of PDKJ is made of pure copper for both primary and secondary poles, with a high conductivity magnetic core and high-quality epoxy resin poured inside. It has good insulation performance and stable performance, and is packaged in a stainless steel shell, with a compact and beautiful appearance. The rectifier component adopts high-power ABB diodes, with stable performance and high efficiency, making it the most reliable heart of PDKJ spot welding machine.



6 Precision and flexible welding platform

The welding platform adopts high conductivity brass material with the copper content of 85%, integrated electrode voltage mechanism, short gas path, compact structure, fast reaction speed, and more convenient installation and maintenance. The stroke between electrodes is adjustable, which can greatly improve the welding speed. Internally, it adopts water-cooled circulation for heat dissipation, and can quickly replace welding fixtures and electrode heads.



7 R&D Pneumatic system

The seventh generation pressure stabilizing cylinder developed specifically for welding has fast response speed, high pressure resistance, and long service life, meeting the needs of high-speed welding. The cylinder directional valve adopts SMC/Airtag triple body, with fast response speed and large flow rate, meeting the requirements of high-speed management.



8 Safe and reliable circuit system

The body comes with an LS air switch, and the circuit design fully complies with the humidity breakdown voltage standard for electrical equipment air gaps. The body is equipped with an emergency stop button. All electrical designs strictly comply with safety standards from China, the European Union, and North America.



Cooling component of spot welding machine



Stainless steel water tank and water pump (optional)

Large capacity water tank, stainless steel shell for heat dissipation, combined with high-power water pump, using room temperature water circulation cooling. This standard cooling component can meet welding operations with general strength. Maintaining the spot welding machine at the optimal working temperature can improve welding quality and accuracy, and extend the service life of the machine. It's recommended to use spot projection welding machine with power less than 160KVA for optional.

When the temperature is below 0°C, please use antifreeze.

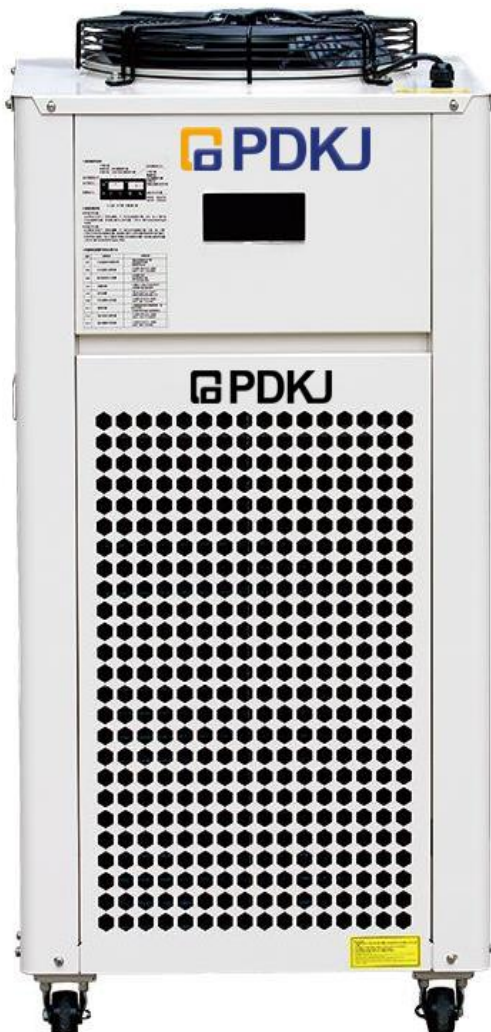


Industrial grade chiller (optional)

1. Vertical top air outlet design, easy installation and maintenance.
2. High quality brand refrigeration components, with a control accuracy of $\pm 1.0\text{ }^{\circ}\text{C}$ to $\pm 3.0\text{ }^{\circ}\text{C}$;
3. Stainless steel multi-stage centrifugal pump and stainless steel water tank, PVC connection material, no worry of rust;
4. Multiple alarm protection functions and providing passive signal output;
5. Independently developed and produced bilingual intelligent temperature controllers in Chinese and English, with various settings and fault prompt functions, making operation simple and convenient;
6. The pure water filtration protection device ensures the safe operation of the equipment;

This advanced cooling component can meet ultra-high strength welding work. Maintaining the spot welding machine at the optimal working temperature can improve welding quality and accuracy, and extend the service life of the machine. It's recommended to use 170KVA spot projection welding machine for optional.

When the temperature is below 0 °C, please use antifreeze.



Welding Automation and Non-standard Customized welding equipment



Since 2006, PDKJ has designed and completed numerous cases of welding automation and production lines. It is a leading enterprise in automation technology in Dongguan, focusing on automatic welding in the fields of laser welding and Electric resistance welding. More than 3000 high-end users around the world have witnessed the common use.

Part of classic automation cases of PDKJ:

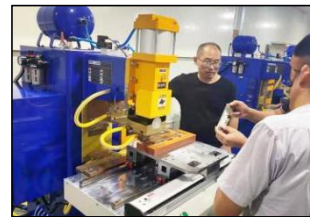
Anzhao Oil Heater Production Line, BYD Copper Wire Terminal Welding Machine, Leite Automobile Radiator Aluminum Parts Spot Welding Machine, Feng's Wire Mesh Welding Machine, Hettich Slide Rail Welding Machine, Qixin Side Furnace Medium Frequency Welding Machine, Huayangtong Door Plate Code Reinforcement Welding Machine, CRRC Copper Wire Welding Machine, Chongqing Linglong Small Chassis Automation Welding Machine, Nanjing Qiangli Laser Automation Production Line, etc.



Customized electric heating wire automatic spot welding machine



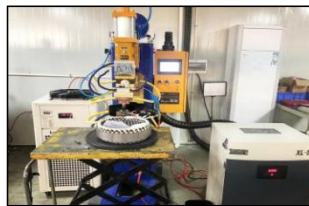
Customized precision parts automatic spot welding machine



Customized copper precision parts automatic spot welding machine



Customized automatic roller welding machine for oil cement



Customized copper terminal wire automatic intermediate frequency spot welding machine



Customized XY axis chassis automatic spot welding machine



Customized copper precision parts automatic spot welding machine



BYD customized double-sided car bracket spot welding machine



Xy axis chassis automatic spot welding machine



Customized precision parts automatic spot welding machine



Upper and lower cylinder spot welding machine



Double head automatic spot welding machine



Galvanized plate chassis automatic spot welding machine



The enhanced mid frequency spot welding machine was customized for customers



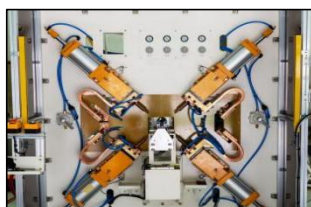
Professional welding machine for Automatic door panels



Double head reinforcing rib automatic spot welding machine



Nut automatic feeding welding machine



Automobile shock absorber linkage automatic spot welding machine



Fan blade automatic welding machine



Automatic welding machine for car subframe

The service and after-sales service of PDKJ

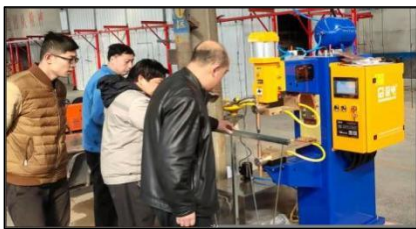


PDKJ is renowned in the field of welding equipment worldwide for its high-quality products and professional pre-sales, in sales, and after-sales services.

PDKJ's pre-sale, in sale and after-sales services. Include but are not limited to:

Welding sample for free, Free welding process consultation, Free welding speed improvement plan and evaluation, Customization of non-standard welding equipment, Consultation and customization of welding & automation production line, Usage training of welding equipment, Process guidance for after-sales welding samples, Production welding fixture, Accessories of welding machine, Machine debugging on production site, Consultation and estimation of welding automation solutions, Welding equipment maintenance, Welding equipment overhaul, Welding parameter guidance, Welding assistance of remote video.

On-site training of customer's factory



Packing list for spot welding machine

Item	Product Name	Qty.	Unit	Remarks
1	Intermediate Frequency Inverter DC Spot (Convex) Welder	1	Unit	Std. config
2	Water tank and water pump / Chiller	1	Set	Optional
3	Installation tools	1	Set	Std. config
4	Standard electrode head (Flat & Pointed)	3	Set	Std. config
5	Certificate of conformity	1	Copy	Std. config
6	Packing list	1	Copy	File
7	Acceptance form	1	Copy	File
8	Warranty card	1	Copy	File
9	Delivery note	1	Copy	File
10	Operation Instructions	1	Copy	File

Machine display



Welding fixture



Welding Part



Foot switch



HD screen



Emergency Stop

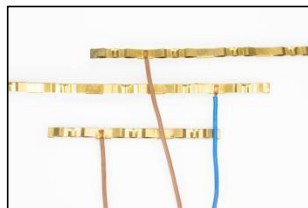


Display of welding samples



Application: Especially suitable for welding of metal materials such as aluminum, copper, galvanized sheet, carbon steel, nickel, tungsten, high-temperature enameled wires, soft connections, and inductance coils.

It is widely used in the welding of metal products such as automobile and auto parts manufacturing, new energy power battery, photoelectric communication, Electric light, compressor, hardware, furniture, kitchenware, etc.



Factory site of PDKJ spot welding machine

Note: For the safety of customer information, the customer name is not marked.



Delivery site of PDKJ spot welding machine



Enterprise Advantages

PDKJ, Born for metal welding



01

National level high-tech enterprise, 76 intellectual property rights and invention patents, ISO9001, CCC, CE, FC, CSA etc.



02

Strong team, serving over 3500 enterprises in over 30 countries and regions currently.



03

Strict quality control, equipment do all inspection before delivery, 6000 square meter factory.



04

Customer service system, quick response, Complete pre-sales, in sales, and after-sales services, free welding sample.

Customer Witness

Used and witnessed by over 3000 high-end customers worldwide



Use site of IF spot welder



Robot laser welding workshop



Site of automobile spot welding shop



Application of spot welding machines in automobile



Site of precision spot welder



Application of multi axis galvanometer laser welding



Delivery site of laser welder



Platform type spot welding machine applied in sheet metal factory



Cooperative partner

The world's top 500 customers list : Tesla, Ningde Times, Foxconn, Flextronics, Amphenol, China Aerospace, CRRC, State Grid, China Building Materials, Foxlink International, Huawei, Apple, Cisco, Philips, Samsung, Hitachi, Mitsubishi, Sanyo, ABB, Schneider, TDK, Panasonic, Toshiba, Sony, HP, Dell, Siemens, Quanta Computer, Midea, Gree, Haier, Lenovo, Ericsson, LG, Fujitsu, Maersk ThyssenKrupp, Boeing, Airbus, Bosch, Toshiba, Wistron, Daimler, BMW, Honda, Toyota, GM, Ford, Suzuki, Guangzhou Automobile, Nissan, Volkswagen, Mazda, BAIC, Renault, Geely, Dongfeng, Hyundai, etc.

Key customers in China : BYD, Xiaopeng Automobile, Ideals, TCL, Skyworth, Changhong, Vantage, Galanz, Easter, Xinwangda, Galaxy Electronics, Guangdong Changying, Kedali, Jingquanhua, Kaizhong, David, Haozhi, Lianying, Dongfang Electric Heating, Jiali Group, Jinde Group, Xuji, China Railway, Sinosteel, Sany Heavy Industry, Fuhua Heavy Industry, Anhui Keda, Zhongheng Electric, Baiyun Electric, Chuanyi Co., Ltd., Tongda Automobile, Wanbao, Haima, Haihong Dadihe, Kaite, Jinjin, Liansu, Conghua Sheet Metal, Hongxun Elevator, Ningbo Wanjin, Yihe Precision, Dingtong Precision, Delta, Yidong, Yangtian, Longguang, Jingliang, Guangdi, Poly, Bailiwenyi, Junpeng, Lianli, Goldsmith Technology, Xinda Gaofan, Yijia Home, Hefeng Furniture, Shenglan Technology, etc .



Products of PDKJ

1. Hand-held Fiber Laser Welder with Automatic Wire Feeding
2. Intermediate Frequency Inverter DC Spot Welder
3. High-power Intermediate Frequency Inverter DC Spot Welder
4. Platform Type Medium Frequency Inverter Spot Welder
5. Desktop IF Inverter Precision Spot Welder
6. Desktop AC Precision Spot Welder
7. Customizing Various Types of Automated Welding Machines
8. Robot Welding System

Application Industry

1. Transportation equipment industry
2. Electronic and electrical manufacturing industry
3. Hardware sheet metal manufacturing industry
4. Communication and electrical manufacturing industry
5. New energy application industry
6. Furniture and kitchenware manufacturing industry
7. Motor compressor industry
8. Mechanical wire network industry, etc

Factory photos



Honors and Patents (82)





Technology drives the future, quality changes the world

The quality that can be used for 20 years



WhatsApp



Website



YouTube

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