



Spot Welding Cabinet

Part of the SpotPack offer



Designed for high performance spot welding

ABB offers a compact and flexible Spot Welding Cabinet that is ready to fulfill your most demanding requirements. The Spot Welding Cabinet is a member of the IRC5 controller family and an integrated part of ABB's robot system. Its design ensures high quality and high performance spot welding.

Adaptable for different demands

The Spot Welding Cabinet offers a modular design of components to meet your specific demands. "One unit fits all", as the Spot Welding Cabinet can be equipped with options for controlling either pneumatic or electric servo welding guns, whether robot carried or stationary mounted.

In addition, the modularity supports options for both AC and MFDC welding with weld controllers delivered from Bosch.

Seamless integration with robot controller

The Spot Welding Cabinet was developed in parallel with the IRC5 robot controller, which ensure that the interface for control signal is well defined and tested before delivery.

Furthermore, the Spot Welding Cabinet has the same design and modular concept as all other IRC5 cabinets, enabling flexible planning and optimized shop floor layout.

Serviceability for High Uptime

The Spot Welding Cabinet is designed for rapid and efficient service and maintenance, giving you less downtime. High mean time between failure (MTBF) and a short mean time to repair (MTTR) gives you a high uptime. In addition, standard spare parts are delivered within 24 hours via ABB's global distribution network.

Main Features

- **Tested and validated before delivery** - Minimal customer engineering required and a condition for secure and prompt start of production.
- **Modularity** - Its modular design allows for changes to the welding application or production layout late in the project.
- **Efficient workshop layout** - Compact and uniform design minimize floor space usage and the low height enables excellent visibility into the robot cell.
- **Optimization of process time** - The spot welding software with integrated diagnostics and statistics optimizes process time.
- **Common components** - Fewer spare parts required as many components can be used in different spot welding applications.



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TECHNICAL DATA

WELD TIMER TYPE	Weld timer alternatives		
	Bosch Compact AC	Bosch Basic AC	Bosch Basic MFDC
Bosch PST 610E, Integrated 95 kVA Thyristor capacity, 400V to 480V, 50/60Hz, 130A (rated), Air cooled	X		
Bosch PST 6100, Integrated 100 kVA Thyristor capacity, 400V to 600V, 50/60Hz, 130A (rated), Air cooled		X	
Bosch PSI 6100, MF inverter max 20kA, 400V to 480V, 50/60Hz, 1 kHz MF frequency 110A (rated), Air cooled			X
Primary KSR	X		
Secondary KSR		X	X

POWER CIRCUIT

Breaker ABB T1N 3p (160AIEC), integrated thermal(110A-160A and magnetic release (36kA at 415V). Standard delivery	X	X	X
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CONTROL CIRCUIT

Power 24 V DC (and 115/240 V AC for option weld contactor)	X	X	X
Safety signals	X	X	X
DeviceNet field bus for weld timer communication		X	X
24 V Digital I/O for weld timer communication	X		
Serial link cable for option Bosch weldtimer interface	X	X	X
Shielded cables for process signals	X	X	X

OPTIONS (for details see Product Specification)

Bosch weldtimer interface (teach pendant programming interface)	X	X	X
Earth fault protection		X	X
Weld contactor		X	X
Forced air cooling	X	X	X
Water and Air unit interface	X	X	X
Stationary weld gun interface		X	X

CABINET FEATURES

- IP Class IP54
- Max ambient temperature 45°C
- Modular design.

For complementary information about the complete SpotPack offer, see separate data sheet.

