

G9A Control cabinet

light load control cabinet



Functional Features

- Using a split design**
The electrical cabinet is mainly divided into a power room and a control room. The power room primarily houses heat-generating components, using multiple groups of fans+duct design to ensure good heat dissipation for these components. The control room is isolated from the power room to prevent dust and oil contamination, ensuring cleanliness in the control from being affected by dust and oil, which could lead to abnormal operation.
- Multiple sets of anti-interference components**
Power filters, isolation transformers, and dual-switch power supplies are used to ensure the stable and reliable operation of the control cabinet.
- Built-in safety emergency stop board**
Using imported forced-disconnection relays, dual-circuit emergency stop is provided externally. When any emergency stop button is pressed, the power circuit and servo unit are simultaneously and immediately processed to forcibly stop the robot's movement, thereby achieving safe emergency stop.
- Collision softening**
When the anti-collision signal is effective, the system and driver respond simultaneously, quickly softening the attitude axis to avoid damage to the body and welding gun.
- Automatic external power-on function**
Ensure that the operator's line of sight is diverted away from the robot to safeguard the operator's personal safety.
- Energy-saving mode**
Effectively reduce standby energy consumption. At the same time, prevent personnel from accidentally entering the robot area during standby status, which can cause injury.
- Equipped with a three-phase transformer, isolated at 380V and 200V, the power supply is more stable. It also contains a three-phase filter, effectively isolating external interference and preventing internal interference from being output.
- Dual power supply design to avoid internal power interference.

G9A CABINET TECHNICAL INDEX

Model	CRP-G9A-CD60D-CRA9	
Teaching pendant	Touch Panel, Emergency Stop Button, Mode Selector Switch, Safety Switch, Quick Keypad	
	C-type TP, standard 6m cable	E-type TP, standard 6m cable
	8-inch TFT-LCD touch panel	5.7-inch TFT-LCD touch panel
Size weight	290(W)×220(H)×110(T)mm, 1.3kg	150(W)×370(H)×80(T)mm, 1.29kg
	550(W)×725(H)×425(D)mm, 90kg	
Protective structure	Control front compartment IP54, cooling rear compartment IP20, front and rear compartment isolation, unlocked cabinet door disconnect main power	
Cooling method	Forced air cooling	
Environmental parameters	Storage temperature: -10°C~65°C	
	Use temperature: 0~45°C	
	Relative humidity: 20%~85%RH (no condensation)	
	Altitude: ≤2000m	
	Corrosion: no corrosive gases and liquids	
Power supply	Place of use: indoor, ventilated, non-confined	
	Three-phase AC380V ±10%, 50/60Hz	
Connection cable	Power cord standard 3m, interconnecting cable standard 5m	
Grounding	Must have protective earth (PE)	
System configuration	Main Frequency: 1.6GHz, Memory: DDR4L 1333MHz 2GByte, Hard Disk: 8G EMMC, UPS: 7S	
	Digital I/O interface, 24-channel NPN input/24-channel output, output voltage 24V, output current 8-channel relay 3A, 16 way transistor 200mA	
Hardware interface	4-channel 0~10V analog output, 12-bit precision.	
	2 encoder signal interfaces, 5V encoder power supply	
	2-channel 100Mbps network (1 channel occupied by the demonstrator), 2-channel Gigabit network can be expanded according to customer requirements	
	2-way RS485, 2-way CAN2.0	
	1 USB2.0 for cabinet door pane	
Robot safety	3 workstation box interface	
	Cabinet door emergency stop, external emergency stop, anti-collision, servo STO	
EMC Test standards	IEC 61000-6-2:2016	
Communication protocols	ModbusRTU, ModbusTCP	
Operating mode	Teach, reproduce, remote	
	Point-to-point, linear interpolation, circular interpolation, gate motion	
Command system	Motion, Logic, Process, Arithmetic	
Coordinate system	Joint coordinates, Cartesian coordinates, User coordinates, Tool coordinates, World coordinates	
Software package	Handling / Palletizing / Vision / Tracking / Background Tasks / Servo Collision / Soft Float / Chinese Programming	Arc Welding / Spot Welding / Laser Welding / Pendulum Arc / Arc Tracking / Expert database / servo collision / torch collision / Chinese programming
	Built-in PLC, power failure regeneration, encoder interface (support synchronous belt)	
Other	Standard configuration 6 axes (external axes are optional, maximum extension of external axes is 6 axes)	
Number of control axis	Six-axis low load series (handling) Six-axis low load series (welding)	
Supported body model		

Dimensions of the electrical cabinet

