

G15A control cabinet

Control cabinets for medium and large loads



The Introduction and Features of Electrical Cabinet

- 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.
- Configure a safety emergency stop panel independent of the control system, using imported forced-break relays to provide dual-circuit emergency stop externally, ensuring the reliability of the emergency stop.
- Automatic external power-on function
Ensure that operators can control the robot while their line of sight is shifted or away from the robot, thereby safeguarding the personal safety of the operators.
- 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.
- Using a three-phase 380V power supply directly, it saves the transformer and reduces costs.
- Equipped with a three-phase filter, effectively isolating external interference and preventing internal interference from being output.
- Add a USB port to the cabinet door, allowing program import and export without opening the cabinet door.
- New door detection function added; power cannot be supplied if the door is not closed, avoiding the impact of dust entering due to unclosed cabinet doors on the control system.
- Built-in reactor, to prevent power surges from impacting the control system.
- Built-in UPS power supply, to avoid the impact of emergency stops and power outages on the robot's reducer.
- High output power, capable of driving a load of 50-220kg.

G15 CABINET TECHNICAL INDEX

Model	CRP-G15A-CDH80B
Teaching pendant	Touch Panel, Emergency Stop Button, Mode Selector Switch, Safety Switch, Quick Keypad
	C-type Teaching pendant, standard 6m cable
	8-inch TFT-LCD touch panel
Size & weight	290(W)×220(H)×110(T)mm, 1.3kg
	630(W)×905(H)×400(D)mm, 120kg
	Control front compartment IP54, cooling rear compartment IP20, front and rear compartment isolation, unlocked cabinet door disconnect main power
Protective structure	Forced air cooling
Cooling method	Storage temperature: -10~65°C
Environmental parameters	Use temperature: 0~45°C
	Relative humidity: 20~85%RH (no condensation)
	Altitude: ≤2000m
	Corrosion: no corrosive gases and liquids
	Place of use: indoor, ventilated, non-confined
Power supply	Three-phase AC380V ±10%, 50/60Hz
Connection cable	Power cord standard 3 meters, interconnecting cable standard 5 meters
Grounding	Must have protective earth (PE)
System configuration	Main Frequency: 1.6GHz, Memory: DDR4L 1333MHz 2GByte, Hard Disk: 8G EMMC, UPS: 7S
Hardware interface	Digital I/O interface, 24-channel NPN input/24-channel output, output voltage 24V, output current 8-channel relay 3A, 16-channel transistor 200mA
	4-channel 0~10V analog output, 12-bit precision.
	2 encoder signal interfaces, 5V encoder power supply
	2-way 100Mbps network (1-way for tutor), 2-way Gigabit network can be extended according to customers' requirements.
	2-way RS485, 2-way CAN2.0
Robot safety	3 station box interfaces
EMC Test standards	Cabinet door emergency stop, external emergency stop, anti-collision, servo STO
Communication protocols	IEC 61000-6-2:2016
Operating mode	Standard: ModbusRTU master/slave, ModbusTCP master/slave, EtherCAT master Options: PROFINET slave, EtherCAT slave, EtherNet/IP slave, CC-Link IE Field slave
	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
Other	Built-in PLC, regeneration in case of power failure, encoder interface (synchronous belt support).
Number of control axis	Standard configuration 6 axes (external axes are optional, the maximum expansion of external axes 6 axes)
Supported body model	Six-axis medium and large load series.

*Please note that it is easy to condense when the temperature drops and the humidity rises.

Dimensions of the electrical cabinet

