

空调控制器

Air conditioning controller

CCI-301-037A空调智能控制器——智能温控中枢，全场景互联

CCI-307-01A Smart Air Conditioning Controller - Intelligent Temperature Control Hub, Fully Connected Across All Scenarios

凹凸区间词条

空调智能控制器Intelligent air conditioning controller

空调控制器

CCI-301-037A 空调智能控制器，是基于凹凸区间科技（武汉）有限公司自主研发的300系列控制器，其中300系列的307类控制器定义为高低温空调控制器，适用于高低温空调控制方案，广泛用于移动式野战指挥舱，远洋雷达监测站，港口智能行吊电气设备间，舰炮/岸防炮温控系统，舰载船舶卫星天线等空调的控制。

CCI-301-037A intelligent air conditioning controller is based on the 300 series controller independently developed by Concave-Convex Interval Technology (Wuhan) Co., Ltd. The 307 type controller of the 300 series is defined as a high and low temperature air conditioning controller, suitable for high and low temperature air conditioning control schemes, and widely used in the control of air conditioning systems in mobile field command cabins, ocean radar monitoring stations, port intelligent crane electrical equipment rooms, shipboard artillery/coastal defense artillery temperature control systems, and ship-borne satellite antennas.

选择凹凸区间空调控制器，就是选择未来！

Choosing a concave convex interval air conditioning controller is choosing the future!

赋能传统高低温空调智能，让每一个设备都创造价值！

Empower traditional high and low temperature air conditioning with intelligence, enabling every device to create value!

5大核心卖点，打造智能控制新标杆

5 core selling points, creating a new benchmark for intelligent control

1. 军工级抗恶劣环境

宽温域运行（-30℃至70℃），IP66防护等级，抗盐雾、防腐蚀，不惧飓风、高湿、震动冲击，确保舰船、户外设备长期稳定运行。

2. 毫秒级动态温控精度

采用自适应PID算法，±0.5℃高精度控温，实时响应温度波动，守护精密电子设备（如卫星天线）的核心安全。

3. 多场景智能兼容

支持制冷/加热双模式自动切换，内置10种设备驱动协议，一键匹配压缩机、风机、加热器等复杂系统，部署效率提升40%。

4. 超强电气防护

隔离式电路设计，抗电磁干扰（EMC 4级），浪涌保护（IEC 61000-4-5），适应船舶电网波动，杜绝设备宕机风险。

5. 零下低温冷启动

专利化霜技术与低温启动保障，-25℃极寒环境下仍可快速激活系统，突破高寒港口、远洋舰艇的温控瓶颈。

1. Military-grade resistance to harsh environments

Operating within a wide temperature range (-30℃ to 70℃), with an IP66 protection level, it is resistant to salt spray and corrosion, and can withstand hurricanes, high humidity, vibration, and shock, ensuring long-term stable operation for ships and outdoor equipment.

2. Millisecond-level dynamic temperature control accuracy

Utilizing the adaptive PID algorithm, it achieves high-precision temperature control within ±0.5℃, responds to temperature fluctuations in real-time, and safeguards the core safety of precision electronic equipment such as satellite antennas.

3. Multi-scenario intelligent compatibility

Support automatic switching between cooling and heating modes, with 10 built-in device driver protocols. One-click matching for complex systems such as compressors, fans, and heaters, boosting deployment efficiency by 40%.

4. Superior electrical protection

Isolated circuit design, anti-electromagnetic interference (EMC Level 4), surge protection (IEC 61000-4-5), adaptable to shipboard power grid fluctuations, and eliminating the risk of equipment downtime.

5. Cold start at sub-zero temperature

With patented defrosting technology and low-temperature startup guarantee, the system can be quickly activated even in an extremely cold environment at -25℃, breaking through the temperature control bottleneck in high-altitude ports and ocean-going vessels.

凹凸区间空调控制器·应用推介

Convex and Concave Interval Air Conditioning Controller · Application Promotion



移动式野战指挥舱

越野级抗震控温，沙漠高温与雪域严寒中守护指挥系统核心设备，决胜瞬息战场。



舰炮/岸防炮温控系统

稳定炮控电子舱温度，防止精密瞄准系统因高温失效或低温凝露，提升武器战备响应速度。



港口智能行吊电气设备间

40米高空作业舱四季如春，抵御码头冬寒夏热，保障控制设备的正常运行及操作精度。



远洋雷达监测站

极地科考船雷达罩恒温控制，消除冰霜覆盖风险，确保探测系统全天候运行。



舰载卫星通信天线

为甲板卫星天线提供恒温舱体，对抗海上高湿盐雾与烈日暴晒，保障卫星信号零中断传输。

空调控制器应用系统图

Application System Diagram of Air Conditioning Controller



空调控制器基础功能

Basic functions of air conditioning controller



RS485通讯



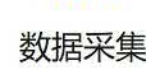
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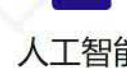
应用可编程



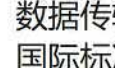
远程管理



数据采集



人工智能



数据传输
国际标准



端口扩展

空调控制器接口及配件

Air conditioning controller interface and accessories

1

DC电源

2

切换开关

3

状态信号灯

4

网口座

5

机身及上盖

6

RS485接口

7

下盖

8

固定孔

空调控制器规格

Specification of air conditioning controller

序号	名称	描述	内容
1	供电	DC24V	√
2	网络信息	状态信号灯	2
3	RS485	总线通讯信号灯	2
4	数据信息	数据信号灯	3
5	DI输入	输入状态灯	6
6	DO输出	输出状态灯	6
7	防护等级	IP68	√
8	故障/告警	故障/告警信息灯	2

空调控制器安装及尺寸

Installation and size of air conditioning controller



132×103×3 mm

单位

毫米

材质

钢塑

表面

烤漆

安装

螺钉面板

凹凸区间官方技术服务热线

Official technical service hotline for concave convex intervals



18827333960

凹凸区间产品选型说明

Selection instructions for concave convex interval products

型号解读：

CCI-301-037 空调控制器

型号

控制器系列

凹凸区间武汉公司