



# 制冷系列 EC ( Enclosure Cooler )

该系列产品为满足汽车行业、饮料行业、通用设备行业以及电力行业等室外、室内的机柜的热管理需求而设计，可在5-55℃环境中持续保持机柜内温度维持在35℃左右，适应各种工况，适应多种电压规范。制冷机采用外循环正面出风，具有很高的通透性，出风口采用独特的百叶窗设计，有效的对热风进行导向，避免了冷热风短路而导致的冷热风交互恶性循环；蒸发端巧妙结构设计，保持了风水的独立两通道，极大降低了制冷机飞水而导致的危害机柜内电气元件的隐患；控制部分内置于制冷机内循环，数字化闭环温度控制系统精确控制柜内温度；制冷机内置部装风机、维护简单便捷。满足高端用户定制需求和空间、美观、性能的需求，可选用机柜门式制冷机，门式制冷机安装后与机柜浑然一体，达到完全的集成设计；不同工况下，可选不锈钢壳体，纳米涂层或特氟龙涂层，提高制冷机的防尘防腐蚀能力。

This series of products meet the heat management requirement of the cabinet outdoor and indoor conditions of the automobile industry, the beverage industry, the general equipment industry, and the electric power industry. The design of the cooling unit can keep the temperature of the cabinet at about 35℃ at 5-55℃ ambient temperature. It also adapts to various working conditions and various voltage specifications. The cooling unit adopts external circulation, and the front outlet has high permeability. The outlet adopts a unique louver design which effectively directs the hot air and avoids the vicious cycle of air caused by the short circuit of hot and cold wind. The ingenious structure design of evaporation end, keep wind and water independent two channels. The hidden danger of the electrical components in the cabinet caused by the cooling unit's flying water is greatly reduced. The control part is built in the inner cycle of the cooling unit, and the digital closed loop temperature control system can accurately control the temperature in the cabinet. The built-in fan of the cooling unit is simple and convenient to maintain. To meet the needs of high-end user customization and the demand for space, beauty and performance, we have door-mounted cooling unit. Door-mounted cooling unit can be installed together with the cabinet to achieve a complete integrated design. Under different conditions, we have the stainless-steel shell, nanoscale coating or Teflon coating, to improve the corrosion and dust resistance of cooling unit.



## 壁装制冷机 wall mounted cooling unit

NEW



CE

### 性能特点(Features)

- 正面出风，更大面积散热，高效制冷；
  - 两个完全独立的超长空气循环系统，提供最佳气体循环，防止粉屑，灰尘等有害腐蚀性气体的侵入；
  - 全新结构设计，控制电路独立布局，风水独立通道，冷凝水导流排放，增配CE可以达到冷凝水零排放；
  - 智能终端DCU，实现实时监控；
  - 两种安装方式选择：半内嵌、完全外挂
- Positive wind, greater area of heat dissipation, high efficiency refrigeration.
  - Two fully independent ultra-long air circulation systems that provide the best air cycle to prevent intrusion of harmful corrosive gases.
  - New structure design, independent layout of control circuit. Independent channel of wind and water. Condensate water has a separate pipe discharge.
  - Intelligent terminal DCU to realize real-time monitoring.
  - Two kinds of installation methods: embedded and external hanging installation.

ID.NO.	型号(半内嵌安装) Model(embedded)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200001	FCC320	320W	300x560x195mm	230 VAC/50Hz
36200021	FCC600	600W	300x720x230mm	230 VAC/50Hz
36200257	FCC825	825W	300x860x213mm	230 VAC/50Hz
36200041	FCC1200	1200W	400x950x213mm	230 VAC/50Hz
36200065/36200069	FCC1600	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200113/36200117	FCC2000	2000W	450x1250x246mm	230 VAC/380VAC/50Hz
363200227/36200281	FCC2500	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200161/36200165	FCC3500	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
36200209/36200213	FCC4200	4200W	485x1550x349mm	230 VAC/380VAC/50Hz
36200005	5FCC320	320W	300x560x195mm	230 VAC/50Hz
36200025	5FCC600	600W	300x720x230mm	230 VAC/50Hz
36200261	5FCC825	825W	300x860x213mm	230 VAC/50Hz
36200049	5FCC1200	1200W	400x950x213mm	230 VAC/50Hz
36200081/36200085	5FCC1600	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200129/36200133	5FCC2000	2000W	450x1250x246mm	230 VAC/380VAC/50Hz
36200293/36200297	5FCC2500	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200177/36200181	5FCC3500	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
36200225/36200229	5FCC4200	4200W	485x1550x349mm	230 VAC/380VAC/50Hz

ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200002	FCC320P	320W	300x560x195mm	230 VAC/50Hz
36200022	FCC600P	600W	300x720x230mm	230 VAC/50Hz



ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200258	FCC825P	825W	300x860x213mm	230 VAC/50Hz
36200045	FCC1200P	1200W	400x950x213mm	230 VAC/50Hz
36200073/36200077	FCC1600P	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200121/36200125	FCC2000P	2000W	450x1250x246mm	230 VAC/380VAC/50Hz
363200285/36200289	FCC2500P	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200169/36200173	FCC3500P	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
36200217/36200221	FCC4200P	4200W	485x1550x349mm	230 VAC/380VAC/50Hz
3620006	5FCC320P	320W	300x560x195mm	230 VAC/50Hz
36200026	5FCC600P	600W	300x720x230mm	230 VAC/50Hz
36200262	5FCC825P	825W	300x860x213mm	230 VAC/50Hz
36200053	5FCC1200P	1200W	400x950x213mm	230 VAC/50Hz
36200089/36200093	5FCC1600P	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200137/36200141	5FCC2000P	2000W	450x1250x246mm	230 VAC/380VAC/50Hz
36200301/36200305	5FCC2500P	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200185/36200189	5FCC3500P	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
362002233/36200237	5FCC4200P	4200W	485x1550x349mm	230 VAC/380VAC/50Hz

ID.NO.	型号(半内嵌安装) Model(embedded)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200309/36200313	TCS2500	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200375	TCS3000	3000W	550x1350x253mm	230 VAC/50Hz
36200193/36200197	TCS3500	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
36200241/36200245	TCS4200	4200W	485x1550x349mm	230 VAC/380VAC/50Hz
36200362	TCS5000	5000W	671x1384x314mm	230 VAC/50Hz/60Hz
36200375	TCS7500	7500W	710x1650x402mm	380 VAC/50Hz/60Hz

ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200017	TCS320P	320W	300x560x195mm	230 VAC/50Hz
36200037	TCS600P	600W	300x720x230mm	230 VAC/50Hz
36200273	TCS825P	825W	330x860x213mm	230 VAC/50Hz
36200061	TCS1200P	1200W	400x950x213mm	230 VAC/50Hz
36200105/36200109	TCS1600P	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200153/36200157	TCS2000P	2000W	450x1250x246mm	230 VAC/380VAC/50Hz
36200317/36200321	TCS2500P	2500W	450x1502x245mm	230 VAC/380VAC/50Hz
36200201/36200205	TCS3500P	3500W	485x1550x349mm	230 VAC/380VAC/50Hz
36200249/36200253	TCS4200P	4200W	485x1550x349mm	230 VAC/380VAC/50Hz

壁装制冷机 wall mounted cooling unit



性能特点(Features)

- 柜体内外空气循环完全隔绝，保持内循环的密封性，避免外界水气及灰尘的侵入；
- 防雨、防雷、防虫、防盗、防辐射，为户外柜带来最好的保障；
- 可在一定范围内设置所需温度，柜内温度实时显示；
- 内附485接口，配备本机功能检测及随时输送的功能；
- The inside and outside air circulation of the cabinet is completely cut off, maintaining the sealing of the internal circulation and avoiding the invasion of the outside water air and dust.
- Rain prevention, lightning protection, insect proof, anti-theft, radiation protection, the best protection for outdoor cabinets.
- The required temperature can be set in a certain range, and the temperature in the cabinet is displayed in real time.
- The 485 interface is attached, equipped with the function test and the function of delivery at any time.

ID.NO.	型号(半内嵌安装) Model(embedded)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
36200013	TCS320	320W	300x560x195mm	230 VAC/50Hz
36200033	TCS600	600W	300x720x230mm	230 VAC/50Hz
36200269	TCS825	825W	330x860x213mm	230 VAC/50Hz
36200057	TCS1200	1200W	400x950x213mm	230 VAC/50Hz
36200097/36200101	TCS1600	1600W	450x1250x246mm	230 VAC/380VAC/50Hz
36200145/36200149	TCS2000	2000W	450x1250x246mm	230 VAC/380VAC/50Hz

柜装制冷机 Ark outfit machine



性能特点(Features)

- 机柜式结构，外观优雅，结构牢固；
- 双压缩机均衡稳定控制系统；
- 人性化人机操控界面，自带可调温显，实时显示柜内温度；
- 下吸出风式风路设计，出风口无冷凝水；
- 适用于大型电气柜冷却，适合组柜并柜安装
- Large cooling output, consolidated design and cabinet-style structure
- Dual compressors guarantee the steady running.
- Humanity operating interface, real-time digital temperature display in adjustable setting.
- No condensate drain due to the downward drawn-in design of air path.
- Suitable for the cooling of large-size electrical cabinet and combined cabinet mounting.

ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200933/30200934	FCC5000CL/FCC5000CR	5000W	600x2054x500mm	380VAC/50Hz
30200932/30200935	FCC7500CL/FCC7500CR	7500W	800x2054x500mm	380VAC/50Hz
36200367	FCC5000C	5000W	650x1830x650mm	230 VAC/50Hz
36200368	FCC7500C	7500W	650x1830x650mm	380/415 VAC/50Hz
30200888	FCC12500C	12500W	800x1850x650mm	380/415 VAC/50Hz
30200925	FCC15000C	15000W	800x1850x650mm	380/415 VAC/50Hz
36200906	FCC20000C	20000W	800x1850x650mm	380/415 VAC/50Hz



## 壁装水冷制冷机 wall mounted cooling unit



### 性能特点(Features)

- 电柜内外空气循环完全隔绝，保持柜内的密封性，避免外界杂质进入柜内；
- 柜内温度可控，柜温实时显示；
- 附带485接口，可选4-20mA温湿度信号；
- 使用水冷板换式冷凝器，散热效果好，制冷效果比风冷高；
- 防护等级IP55，适用于极端的高粉尘，高湿度环境。
- The air circulation inside and outside the cabinet is completely isolated, keeping the sealing of the cabinet and avoiding external impurities entering the cabinet ;
- Temperature in cabinet can be controlled and real-time display of cabinet temperature ;
- With 485 interface, 4-20mA temperature and humidity signal can be selected.
- Using water-cooled plate exchanger condenser has better heat dissipation effect and higher refrigeration effect than air-cooled condenser;
- Protection grade IP55, suitable for extreme high dust, high humidity environment.

ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
35200196	ECW3200	3200W	485x1550x251mm	230 VAC/50Hz
35200197	ECW4300	4300W	485x1550x251mm	230 VAC/50Hz
35200198	ECW5000	5000W	485x1550x251mm	230 VAC/50Hz

## 门装制冷机(单门) Door mounted cooling unit (single door)



### 性能特点(Features)

- 与标准机柜的无缝兼容；
- 适合单门（600mm）标准柜的门安装方式；
- 通过铰链一卡即合式地装上门制冷机，达到浑然一体，隐蔽的效果；
- 模块化制冷核心，维护更趋简便快捷
- Seamless compatibility with standard cabinet
- For a single door cabinet door (600mm) mounted standard installation.
- With a hinged connection to install a door mounted cooling unit to achieve a seamless and hidden effect.
- Modular refrigeration core, quick and easy to maintain

ID.NO.	型号(半内嵌安装) Model(embedded)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200149	5FCC1100DA	1100W	592x1778x190mm	230 VAC/50/60Hz
30200150	5FCC1100DB	1100W	592x1978x190mm	230 VAC/50/60Hz
30200151	5FCC1500DA	1500W	592x1778x190mm	230 VAC/50/60Hz
30200152	5FCC1500DB	1500W	592x1978x190mm	230 VAC/50/60Hz

## 门装制冷机(侧板) Door mounted cooling unit (side panel)



### 性能特点(Features)

- 与标准机柜的无缝兼容；
- 适合单门（600mm）标准柜的门安装方式；
- 通过铰链一卡即合式地装上门制冷机，达到浑然一体，隐蔽的效果；
- 模块化制冷核心，维护更趋简便快捷
- Seamless compatibility with standard cabinet
- For a single door cabinet door (600mm) mounted standard installation.
- With a hinged connection to install a door mounted cooling unit to achieve a seamless and hidden effect.
- Modular refrigeration core, quick and easy to maintain

ID.NO.	型号 Model	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200175	5FCC1100SA	1100W	562x1797x190mm	230VAC/50/60Hz
30200176	5FCC1100SB	1100W	562x1997x190mm	230VAC/50/60Hz
30200177	5FCC1500SA	1500W	562x1797x190mm	230VAC/50/60Hz
30200178	5FCC1500SB	1500W	562x1997x190mm	230VAC/50/60Hz





## 顶装制冷机 Top mounted cooling unit



### 性能特点(Features)

- 外形简洁大方，适用于中小型电气柜的冷却；
- 纤巧外形，增配CE可以达到冷凝水零排放
- 自带可调温显，实时显示柜内温度；
- 对空气流的处理非常巧妙，表现出优越的性能
- It is simple and elegant in shape and is suitable for the cooling of medium electric cabinet.
- Delicate appearance, zero discharge of condensed water.
- Self-adjustable thermostat display and display the temperature of the cabinet in real time.
- The treatment of air flow is very ingenious, showing superior performance.

ID.NO.	型号 Model	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200010	FCC680T	680W	600x300x350mm	230VAC/50Hz
30200011	FCC825T	825W	600x300x350mm	230VAC/50Hz
30200012	FCC1100T	1100W	600x340x400mm	230VAC/50Hz
30200013	FCC1500T	1500W	600x340x400mm	230VAC/50Hz
30200014	FCC2000T	2000W	600x460x497mm	230VAC/50Hz
30200015	FCC2500T	2500W	600x460x497mm	230VAC/50Hz
30200016	FCC3200T	3200W	782x465x583mm	230VAC/50Hz

## 横装制冷机 Horizontally-mounted cooling unit



### 性能特点(Features)

- 与标准机柜的无缝兼容；
- 适合单门（600mm）标准柜的门安装方式；
- 通过铰链一卡即合式地装上门制冷机，达到浑然一体，隐蔽的效果；
- 模块式制冷核心，维护更趋简便快捷
- Seamless compatibility with standard cabinet
- For a single door cabinet door (600mm) mounted standard installation.
- With a hinged connection to install a door mounted cooling unit to achieve a seamless and hidden effect.
- Modular refrigeration core, quick and easy to maintain

ID.NO.	型号(半内嵌安装) Model(embedded)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200017	FCC225H	225W	490x300x175mm	230VAC/50Hz
30200018	FCC320H	320W	490x300x175mm	230VAC/50Hz
30200019	FCC680H	680W	590x430x176mm	230VAC/50Hz
30200020	FCC825H	825W	590x430x176mm	230VAC/50Hz

ID.NO.	型号(完全外挂安装) Model(external hanging installation)	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30200058	FCC225HP	225W	490x300x175mm	230VAC/50Hz
30200059	FCC320HP	320W	490x300x175mm	230VAC/50Hz
30200060	FCC680HP	680W	590x430x176mm	230VAC/50Hz
30200061	FCC825HP	825W	590x430x176mm	230VAC/50Hz

备注：如有不锈钢外壳要求，请在相应的型号后面加-B；如有不同电压等级要求，请与当地雷子克工程师联系。

## 压缩空气制冷器 Vortex cooler



CE

### 性能特点(Features)

- 以压缩空气为能量制冷的高科技产品；
- 压缩空气流经涡旋管后成冷，热两股气流。热气流通过涡旋管排气装置以稍高的压力排出，冷气流通过分流器导入到机箱的发热部位；
- 体积小，重量轻，无活动部件，紧凑结构；
- 安装简便，绝对的免维护，寿命高达25年；
- 满足石化行业或危险场合的2G/3G防爆要求
- Hi-tech product using ordinary compressed air as the cooling energy to create the cold air.
- After entering the vortex, compressed air splits into two streams-hot and cold. Hot air is discharged outside at a higher pressure in the air exhausting device, and cool air is directed to the parts in need of cooling.
- Compact structure, no movable parts, no chemical substance required, environmental-friendly.
- Easy installation, absolute maintenance free, long service life up to 25 years, high reliability.
- It particularly meets the anti-explosion requirement(2G/3G) in petro-chemical or other hazardous application field.

ID.NO.	型号 Model	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30500007	VT180	180W	28x240mm	0.23 m <sup>3</sup> /min
30500008	VT320	320W	28x240mm	0.42 m <sup>3</sup> /min
30500009	VT530	530W	28x240mm	0.71 m <sup>3</sup> /min
30500010	VT730	730W	28x240mm	0.85 m <sup>3</sup> /min
30500011	VT850	850W	28x240mm	1.13 m <sup>3</sup> /min
30500012	VT1500	1500W	28x240mm	1.42 m <sup>3</sup> /min

## 制冷系列 Enclosure cooler

ID.NO.	型号 Model	可用制冷量 Available cooling capacity	尺寸 WxHxD Size WxHxD	额定电压 Rated voltage
30500001	VT180C	180W	28x240mm	0.23 m <sup>3</sup> /min
30500002	VT320C	320W	28x240mm	0.42 m <sup>3</sup> /min
30500003	VT530C	530W	28x240mm	0.71 m <sup>3</sup> /min
30500004	VT730C	730W	28x240mm	0.85 m <sup>3</sup> /min
30500005	VT850C	850W	28x240mm	1.13 m <sup>3</sup> /min
30500006	VT1500C	1500W	28x240mm	1.42 m <sup>3</sup> /min

备注：型号后带C,配套气体干燥过滤器、温控器、电磁阀。



## 无线数据网关控制器 Wireless data gateway controller DCU GATE



### 性能特点(Features)

- 支持127个2.4G无线支点的单独通讯；
  - 支持RS485总线通讯；
  - 支持两路开关量控制输出；
  - 支持直流或交流电压输入，内置电压检测功能；
  - 采用四频GSM模块，支持全球GSM网络；
  - 集成USB接口，可随时现场配置单元内的参数
- Data separate communication support for 127 2.4G wireless pivot points
  - Support RS485 bus communication
  - Support two way switch quantity control output
  - Support DC or AC voltage input, built-in voltage detection function
  - The four frequency GSM module is used to support the global GSM network
  - Integrated USB interface, the parameters within the unit can be configured at any time.

	DCU GATE
宽电压工作范围(Wide voltage operating range)	DC/AC 9~50V 或 AC 100~250V
工作温度范围(Working temperature range)	-30°C~85°C
工作频率范围(Working frequency range)	2.400GHz~2.525GHz
发射功率可选择(Emissive power can be selected)	0dBm、-6dBm、-12dBm、-18dBm
数据传输速率支持(Data transmission rate support)	1Mbps、2Mbps



机柜环境控制选型软件