



Cabinet Cooling&Data Cooling& Battery Cooling

Service: Telecom / Industrial / Energy



Cytech

Chen Tong Yuan Technology

Cytech is a professional precision cooling and thermal control equipment supplier, providing complete and diversified cooling and thermal control solutions for telecom equipment, industrial equipment, power grid and medical precision environment.

The products cover telecom cabinet and data room air conditioners, cabinet heat exchangers, industrial air conditioners, semiconductor refrigerators, precision constant temperature and humidity air conditioners, low-temperature and ultra-low-temperature refrigerators and other related products.

Cytech is a technology-led company with a professional R&D team and rich practical application experience, which can quickly provide more and better customized services and characteristic products; the experienced design team can not only provide standard products, but also provide customers with fast customized services to meet the needs of different customers.

Cytech is skilled in applying thermal analysis and CFD software, and is committed to providing high-quality products and services through excellent design and management.

Cytech is led by design innovation, adheres to the integration of quality and cost, makes distinctive products, and is committed to becoming a trustworthy supplier that can provide win-win, innovative, and highly practical solutions.



Cabinet Air Conditioner-AC220V 50Hz Type



Outdoor cabinet air conditioner achieves heat absorption refrigeration through compression refrigeration, transferring the heat emitted by the equipment inside the cabinet to the outside of the cabinet in a closed environment. The high temperature, dust and other dirty gases outside the cabinet will not enter the interior, thus solving a series of problems caused by fan heat dissipation. The interior of the cabinet can always maintain an ideal temperature environment of around 30-35°C, effectively ensuring the stability of electronic equipment.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Nominal cooling capacity(W) (L35/L35)	Power consumption(W)(L35/L35)	Heater (W)(option)	Internal air flow (m3/h)	Refrigerant	Noise (dbA)
CYAC103-2	220VAC 50Hz	300	170	500	100	R134a	56
CYAC104-2	220VAC 50Hz	400	215	500	110	R134a	56
CYAC105-2	220VAC 50Hz	500	280	500	120	R134a	56
CYAC110-2	220VAC 50Hz	1000	430	1000	230	R134a	62
CYAC112-2	220VAC 50Hz	1200	498	1000	240	R134a	62
CYAC113-2	220VAC 50Hz	1300	532	1000	260	R134a	63
CYAC115-2	220VAC 50Hz	1500	600	1000	300	R134a	63
CYAC120-2	220VAC 50Hz	2000	745	1000	500	R134a	63
CYAC125-2	220VAC 50Hz	2500	846	2000	560	R134a	63
CYAC130-2	220VAC 50Hz	3000	1240	2000	720	R134a	63
CYAC135-2	220VAC 50Hz	3500	1360	2000	1250	R134a	63
CYAC150-2	220VAC 50Hz	5000	2000	2000	2300	R134a	63

Cabinet Air Conditioner-AC220V 60Hz Type



Outdoor cabinet air conditioner achieves heat absorption refrigeration through compression refrigeration, transferring the heat emitted by the equipment inside the cabinet to the outside of the cabinet in a closed environment. The high temperature, dust and other dirty gases outside the cabinet will not enter the interior, thus solving a series of problems caused by fan heat dissipation. The interior of the cabinet can always maintain an ideal temperature environment of around 30-35°C, effectively ensuring the stability of electronic equipment.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Nominal cooling capacity(W) (L35/L35)	Power consumption(W)(L35/L35)	Heater (W)(option)	Internal air flow (m3/h)	Refrigerant	Noise (dbA)
CYAC103-2	220VAC 60Hz	300	170	500	100	R134a	56
CYAC104-2	220VAC 60Hz	400	215	500	110	R134a	56
CYAC105-2	220VAC 60Hz	500	280	500	120	R134a	56
CYAC110-2	220VAC 60Hz	1000	430	1000	230	R134a	62
CYAC112-2	220VAC 60Hz	1200	498	1000	240	R134a	62
CYAC113-2	220VAC 60Hz	1300	532	1000	260	R134a	63
CYAC115-2	220VAC 60Hz	1500	600	1000	300	R134a	63
CYAC120-2	220VAC 60Hz	2000	745	1000	500	R134a	63
CYAC125-2	220VAC 60Hz	2500	846	2000	560	R134a	63
CYAC130-2	220VAC 60Hz	3000	1240	2000	720	R134a	63
CYAC135-2	220VAC 60Hz	3500	1360	2000	1250	R134a	63

Cabinet Air Conditioner-AC110V 60Hz Type



Outdoor cabinet air conditioner achieves heat absorption refrigeration through compression refrigeration, transferring the heat emitted by the equipment inside the cabinet to the outside of the cabinet in a closed environment. The high temperature, dust and other dirty gases outside the cabinet will not enter the interior, thus solving a series of problems caused by fan heat dissipation. The interior of the cabinet can always maintain an ideal temperature environment of around 30-35°C, effectively ensuring the stability of electronic equipment.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Nominal cooling capacity(W) (L35/L35)	Power consumption(W)(L35/L35)	Heater (W)(option)	Internal air flow (m3/h)	Refrigerant	Noise (dbA)
CYAC103-2	110VAC 60Hz	300	170	500	100	R134a	56
CYAC104-2	110VAC 60Hz	400	215	500	110	R134a	56
CYAC105-2	110VAC 60Hz	500	280	500	120	R134a	56
CYAC110-2	110VAC 60Hz	1000	430	1000	230	R134a	62
CYAC112-2	110VAC 60Hz	1200	498	1000	240	R134a	62
CYAC113-2	110VAC 60Hz	1300	532	1000	260	R134a	63
CYAC115-2	110VAC 60Hz	1500	600	1000	300	R134a	63

Cabinet Air Conditioner-DC48V Type



Outdoor cabinet air conditioner achieves heat absorption refrigeration through compression refrigeration, transferring the heat emitted by the equipment inside the cabinet to the outside of the cabinet in a closed environment. The high temperature, dust and other dirty gases outside the cabinet will not enter the interior, thus solving a series of problems caused by fan heat dissipation. The interior of the cabinet can always maintain an ideal temperature environment of around 30-35°C, effectively ensuring the stability of electronic equipment.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Nominal cooling capacity(W) (L35/L35)	Power consumption(W)(L35/L35)	Heater (W)(option)	Internal air flow (m3/h)	Refrigerant	Noise (dbA)
CYDC105-1	-48VDC(DC-44 ~-59V)	500	180	500	150	R134a	60
CYDC106-1	-48VDC(DC-44 ~-59V)	600	200	500	150	R134a	60
CYDC110-1	-48VDC(DC-44 ~-59V)	1000	295	500	450	R134a	65
CYDC115-1	-48VDC(DC-44 ~-59V)	1500	495	500	450	R134a	65
CYDC120-1	-48VDC(DC-44 ~-59V)	2000	710	1000	700	R134a	69
CYDC130-1	-48VDC(DC-44 ~-59V)	3000	1000	1000	900	R134a	69
CYDC140-1	-48VDC(DC-44 ~-59V)	4000	1350	1000	1100	R134a	72

Cabinet TEC Cooler



TEC coolers are made using the Peltier effect of semiconductor materials. The so-called Peltier effect refers to the phenomenon where one end absorbs heat and the other end releases heat when a direct current passes through a thermocouple composed of two semiconductor materials.

Features:

- IP55
- Working temperature: -40°C To 70°C
- No compressor, maintenance free
- LED display
- Adapt to various work environments

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Nominal cooling capacity(W) (L35/L35)	Power consumption(W) (L35/L35)	OPERATING TEMP °C
A10HA1E	DC12V , DC24V, DC48V	100	95	-10°C~+70°C
A20HA1E	DC12V , DC24V, DC48V	200	230	-10°C~+70°C
A30HA1E	DC24V, DC48V	300	410	-10°C~+70°C
A50HA1E	DC48V	500	700	-10°C~+70°C
A70HA1E	DC48V	700	1100	-10°C~+70°C

Cabinet Heat Exchanger



Enclosure heat exchanger, also known as cabinet cooler, is a device designed to regulate the temperature inside the casing of electrical or electronic equipment through a heat exchanger.

Features:

- IP55
- Working temperature: -40°C To 60°C
- No compressor, maintenance free
- LED display
- Adapt to various work environments

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W/K)	Power consumption(W)	Heater (W)(option)	Internal air flow (m3/h)	Weight (KG)	Noise (dbA)
H08NA0E	48VDC±20%	80	70	1000	470	17	65
H12NA0E	48VDC±20%	120	180	1000	620	32	69
H18NA0E	48VDC±20%	180	330	1000	980	45	69
H26NA0E	48VDC±20%	260	400	1000	1650	65	70

Combined Air Conditioner & Heat Exchanger



The cabinet air conditioner integrated with heat exchanger is especially designed for telecom cabinet, battery cabinet, industrial control cabinet, with functions of auto cooling system and auto heat exchange first for electronic equipments in reliable operation, which can make a good environment to reduce equipments failure rate.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W&W/K)	Power consumption(W)	Heater (W)(option)	Weight (KG)	Noise (dbA)
AE15HA4E	1~220VAC ± 15%/50Hz & 48VDC±20%	1500W&80W /K	600W&70W	1000W	26	65
AE25HA4E	1~220VAC ± 15%/50Hz & 48VDC±20%	2500W&100 W/K	850W&200W	1000W	45	65
AE30HA4E	1~220VAC ± 15%/50Hz & 48VDC±20%	3000W&120 W/K	1150W&210W	2000W	65	65

BTS Air Conditioner (Floor Split type)



Data center precision air conditioner in the computer room is a special air conditioner designed for the modern electronic equipment room. Its working accuracy and reliability are much higher than those of ordinary air conditioners. As we all know, computer equipment and SPC exchange products are placed in the computer room.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG) Indoor unit/Outdoor unit	Noise (dbA) Indoor unit/Outdoor unit
CY-A03NA	3 Phase AC 380V±15%	7500	2600	2000	135/30	55dB(A)/ 60dB(A)
CY-A05NA	3 Phase AC 380V±15%	12500	4200	3000	200/46	57dB(A)/ 60dB(A)
CY-A06NA	3 Phase AC 380V±15%	15000	5300	4000	215/55	58dB(A)/ 60dB(A)
CY-A08NA	3 Phase AC 380V±15%	20000	6500	6000	231/116	60dB(A)/ 60dB(A)
CY-A16NA	3 Phase AC 380V±15%	40000	11500	8000	475/230	65dB(A)/ 65dB(A)

BTS Cooling (Air Conditioner&Free Cooling)



Data center precision air conditioner in the computer room is a special air conditioner designed for the modern electronic equipment room. Its working accuracy and reliability are much higher than those of ordinary air conditioners. As we all know, computer equipment and SPC exchange products are placed in the computer room.

Features:

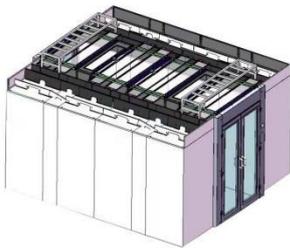
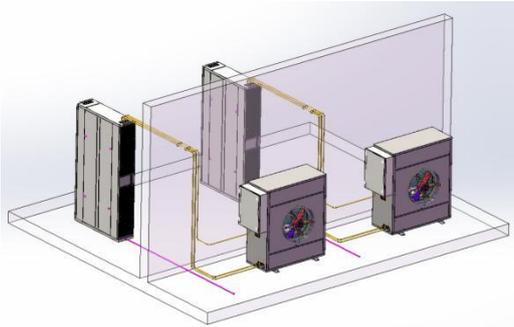
- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG)	Noise (dbA)
CY-A30NA	3~400VAC ± 10%/50Hz	10500	4500	6000	170	72dB(A)
CY-A50NA	3~400VAC ± 10%/50Hz	17500	7500	8000	190	72dB(A)
CY-A60NA	3~400VAC ± 10%/50Hz	21000	8500	9000	210	72dB(A)
CY-A100N A	3~400VAC ± 10%/50Hz	35000	18000	16000	350	72dB(A)

BTS Cooling (In Row Air Conditioner)



Inter row air conditioning is a device placed between server cabinets, where the heat source directly dissipates heat. Precision air conditioning in inter row computer rooms belongs to a type of air conditioning in computer rooms, which is a horizontal air supply unit. Inter row computer room air conditioning is specifically designed for communication room columns and is mainly used in high heat density data centers. Due to the increasing heat dissipation of servers or communication equipment used in data centers, traditional air conditioning cooling methods can no longer meet the temperature and humidity

requirements of equipment. In order to achieve efficient cooling of equipment and avoid local overheating, cold air must enter the interior of the equipment for heat dissipation. At this time, cold and hot channel isolation or closed cold and hot channels can effectively control short circuits caused by cold and hot air flow.

Features:

- IP55
- Working temperature: -30°C To 45°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG)	Noise (dbA)
CY-A25NA	3~380Vac-3Ph+N/50Hz	25000	7100	3000	210kg/60kg	69dB(A)/65dB(A)
CY-A45NA	3~380Vac-3Ph+N/50Hz	45000	9900	6000	270kg/90kg	69dB(A)/65dB(A)

Energy Storage Cooling(Embedded Mount Type)



Embedded energy storage air conditioner is a precision air conditioner designed specifically for energy storage battery compartments and containers, with active cooling and heating functions, creating a good temperature environment for the reliable operation of electronic devices and lithium batteries, and reducing equipment failure rates.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG)	Noise (dbA)
CY-A30NA	1~230V±15%/50Hz	3000	1300	2000	45	69dB(A)
CY-A50NA	1~230V±15%/50Hz	5000	1900	3000	50	69dB(A)
CY-A75NA	1~230V±15%/50Hz	7500	2700	3000	75	69dB(A)
CY-A100NA	1~230V±15%/50Hz	10000	3850	6000	100	69dB(A)
CY-A125NA	3~380V±15%/50Hz	12500	4800	6000	120	69dB(A)
CY-A150NA	3~380V±15%/50Hz	15000	5800	9000	130	69dB(A)
CY-A200NA	3~380V±15%/50Hz	20000	7600	9000	150	69dB(A)

Energy Storage Cooling(Wall Mount Type)



Wall mount energy storage air conditioner is a precision air conditioner designed specifically for energy storage battery compartments and containers, with active cooling and heating functions, creating a good temperature environment for the reliable operation of electronic devices and lithium batteries, and reducing equipment failure rates.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG)	Noise (dbA)
CY-A75NA	1~230V±15%/50Hz	7500	2800	3000	120	69dB(A)
CY-A100NA	1~230V±15%/50Hz	10000	3850	6000	140	69dB(A)
CY-A120NA	1~230V±15%/50Hz	12000	4800	6000	150	69dB(A)
CY-A150NA	3~380V±15%/50Hz	15000	6500	6000	180	69dB(A)
CY-A200NA	3~380V±15%/50Hz	20000	8500	9000	210	72dB(A)
CY-A350NA	3~380V±15%/50Hz	35000	18000	15000	350	72dB(A)

Energy Storage Cooling(Top Mount Type)



Top mount energy storage air conditioner is a precision air conditioner designed specifically for energy storage battery compartments and containers, with active

cooling and heating functions, creating a good temperature environment for the reliable operation of electronic devices and lithium batteries, and reducing equipment failure rates.

Features:

- IP55
- Working temperature: -40°C To 55°C
- High efficiency rotary compressor
- LED display
- Heater(option)

Application:

- Telecommunication
- Wireless
- Solar energy
- Transmission Terminals
- Transportation

Model	Voltage	Cooling capacity(rated) (W)	Power consumption(W)	Heater (W) (option)	Weight (KG)	Noise (dbA)
CY-A30NA	1~230V±15%/50Hz	3000	1150	1000	38	63dB(A)
CY-A40NA	1~230V±15%/50Hz	4000	1550	2000	48	63dB(A)
CY-A50NA	1~230V±15%/50Hz	5000	1950	3000	56	63dB(A)
CY-A125NA	3~380V±15%/50Hz	12500	4900	6000	150	69dB(A)
CY-A150NA	3~380V±15%/50Hz	15000	6500	9000	180	69dB(A)
CY-A200NA	3~380V±15%/50Hz	20000	8500	9000	210	72dB(A)

Energy Storage Cooling(Liquid Cooling Type)



The air-cooled chiller is an integrated product developed by our company specifically for heat dissipation in the energy storage (such as battery) industry.

The applicable scenarios are as follows:

- The batteries inside the energy storage container generate a lot of heat.
- The equipment inside the energy storage container is sensitive to environmental

temperature.

System principle

Energy storage system air-cooled chiller consists of a refrigeration system and a coolant circulation system, and the system principle is shown in the figure:

The Energy Storage System chiller is currently a popular direction for power battery thermal management. It utilizes the performance of coolant with large heat capacity and the ability to remove excess heat from the battery system through circulation to achieve suitable working temperature conditions for battery packs. The basic components of the liquid cooling system include: liquid cooling plate, liquid cooling unit (heater optional), liquid cooling pipeline (including temperature sensor, valve), high and low voltage wiring harness; cooling liquid (ethylene glycol aqueous solution), etc.

Model	CY-ESSC5	CY-ESSC8	CY-ESSC15	CY-ESSC40
Rated Voltage(V)	380AC \pm 15% 50HZ			
Cooling capacity(KW)	8	8	15.2	45.6
Heating load(KW)	2	2	6.5	6.5
Rated power(KW) W15/L35	2.4	3	11.5	20.5
Refrigerant	R407C/8.0kg	R407C/8.0kg	R407C/8.0kg	R407C/8.0kg
IP grade	IP20	IP20	IP20	IP20
Weight	115Kg	115Kg	500Kg	540Kg