

PARTNER BRANDS

Webasto

Haier *Carrier*

Panasonic

DOMETIC

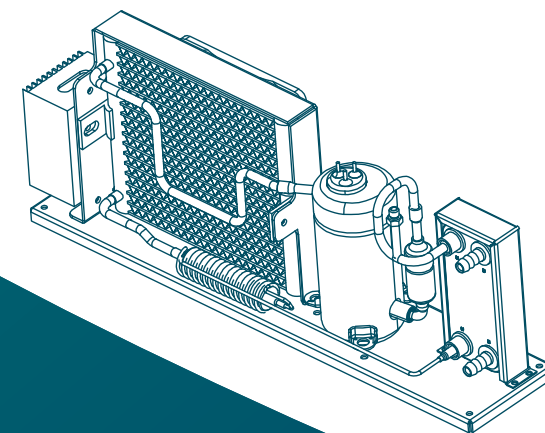
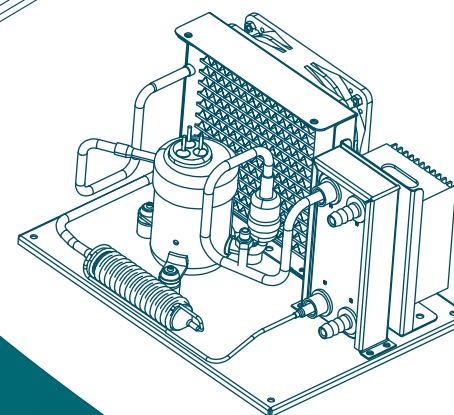
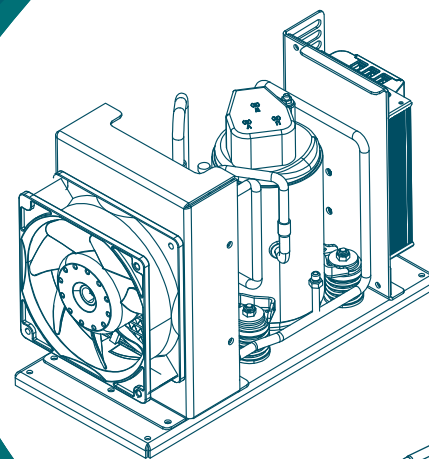
Eberspächer

THERMO KING

DAIKIN

Bergstrom

DC & AC MINI-CHILLER CATALOG



BOYARD SYSTEMS CO., LTD.

✉ sales@boyard.com

🌐 www.boyard.com

BOYARD



ABOUT BOYARD

Boyard, formerly Zhejiang Boyang, is a pioneer and the innovator of rotary compressors and systems for refrigeration, cooling and heat pump applications. Founded in 2001, the company has established its global reputation for highly differentiated, high quality rotary compressors with a low-vibration twin-cylinder technology.

In recent years, the global demand for Boyard's compressors has grown immensely alongside industry demands. These demands include energy-efficient cooling systems in semiconductor-testing and processing cooling, more compact and durable refrigeration for mobile applications, and HVAC cooling solutions for medical and personal comfort applications.

Recognized for pioneering rotary compressor technology in commercial and mobile refrigeration, Boyard is consistently trusted by OEM customers. Boyard continues to expand its global presence to address ever-changing customer-needs for stationary and mobile refrigeration equipment, and ultimately save energy and cost for its customers.



MILESTONES



• ISO9001 • ISO14001 • IATF16949

WHY BOYARD



TRUSTED COMPANY

- Boyard designs and manufactures own compressors and systems
- Audit or plant tour is welcomed, online tour available
- Provide HVAC solution to Haier Carrier
- Trusted by global brands such as Haier Carrier, Panasonic, Daikin, and Webasto



OEM/ODM CUSTOMIZATION

- Boyard provides fast and reliable customization and validation service
- Online meetings available



FAST DELIVERY

- Sample within 30 days
- Order delivery within 30 days



WARRANTY ASSURANCE

- 24 months warranty
- Post-sales technical services



TURNKEY TECHNICAL SERVICES

- Systems customization and simulation
- Validation test: Capacity/ NVH
- Controller matching and testing
- Mainboard matching service



MANUFACTURING CAPACITY

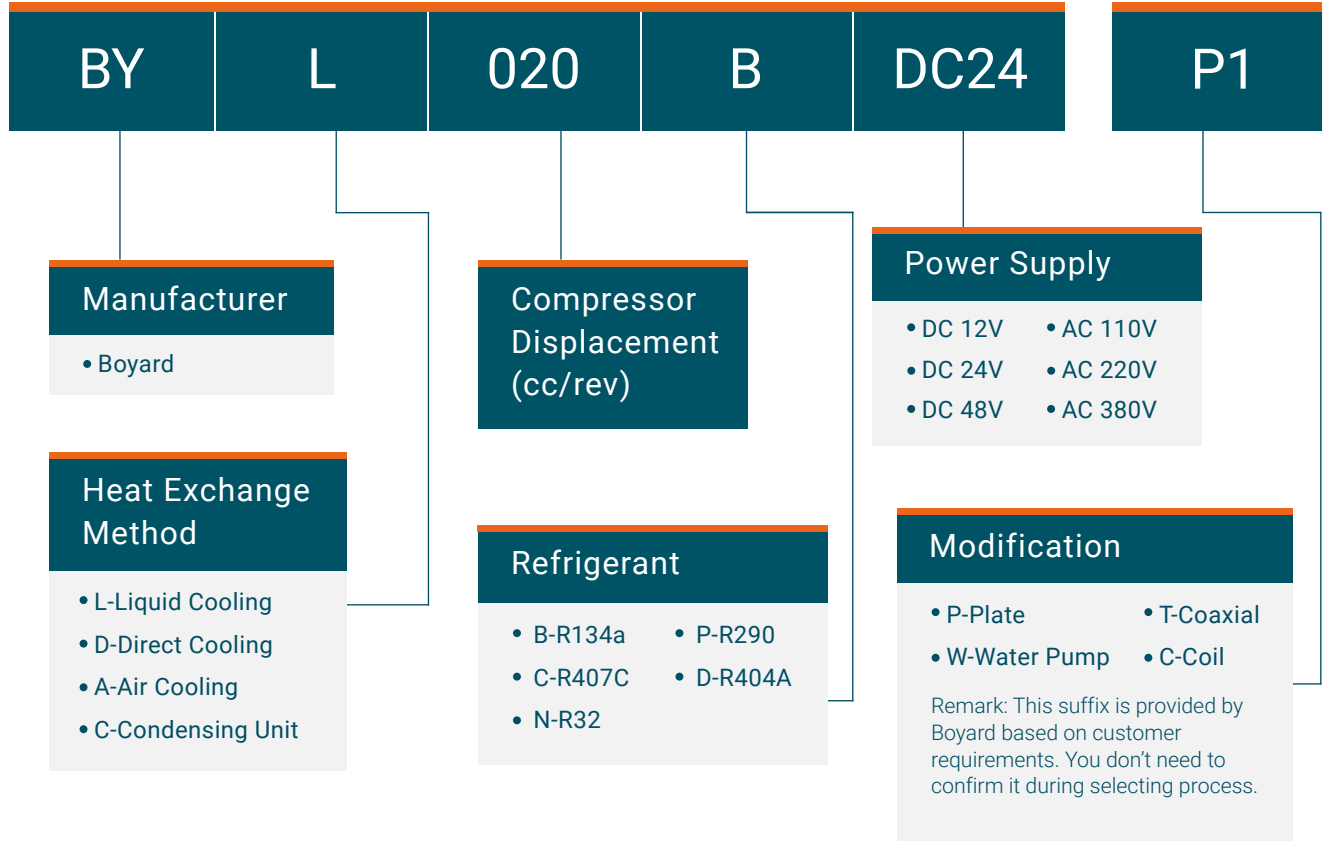
- ISO9001 & ISO16949 Certifications



REFRIGERATION & HVAC

- 3rd decades since entering HVAC industry
- Deep expertise in most demanding cooling applications such as medical, process cooling, and commercial refrigeration

NOMENCLATURE



PRODUCT APPLICATION



MEDICAL



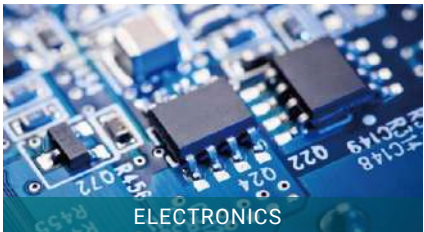
LASER



EV



LIFE SCIENCE



ELECTRONICS

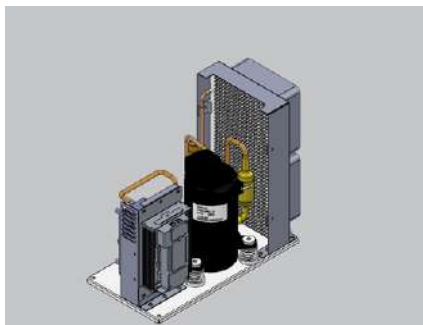


BATTERY

CUSTOMIZATION FOR YOUR APPLICATION NEEDS



1 Customer input - Fill the requirements



2 Draft Design



3 Communication and Modification



4 Prototype



5 Sample within 30 Days



6 Quality Assurance



7 Mass Production

TESTING CAPABILITY



Endurance Testing



Cooling Capacity Testing



Performance Testing

TECHNICAL STRENGTH



Three-dimensional Design Model
Computer aided design system includes: Solid Works, Catia, Solid Edge, AutoCAD



Machine Design
Motion analysis and design simulation



Finite Element Analytical Model
Structural analysis to achieve optimal function values



Mould flow Analysis
An analysis used to determine the characteristics of plastic parts



Rapid Prototyping
Quickly achieve art to part functionality



Thermal Energy System Demonstration
Predict the heating and cooling effects of air conditioning systems



CFD (Computational fluid dynamics analysis)
Prediction of air flow and heat exchange in air conditioning units and ducts



COOLING CAPACITY RANGE

Refrigerant	Heat Exchange method	Power Supply	Displacement (cc/rev)	Cooling Capacity																
				100W	200W	300W	400W	500W	600W	700W	800W	900W	1000W	1100W	1200W	1300W	1400W	1500W	1600W	1700W
R134a	Liquid Cooling Direct Cooling Air Cooling Condensing Unit	DC12V	2.0																	
			3.0																	
			4.0																	
			7.5																	
			11.6																	
		DC24V	2.0																	
			3.0																	
			4.0																	
			7.5																	
			11.6																	
			15.0																	
		DC48V	2.0																	
			3.0																	
			4.0																	
			7.5																	
			11.6																	
			15.0																	

PRODUCT FEATURES



Cooling Methods

- Direct expansion
- Liquid chiller
- Air chiller



Quiet Operation

- Special design features to minimize vibration and noise
- Twin-cylinder DC compressors available for larger capacity



Compact and efficient

- Designed for limited space
- Variable-capacity cooling with DC Micro-Compressor



DC & AC Power

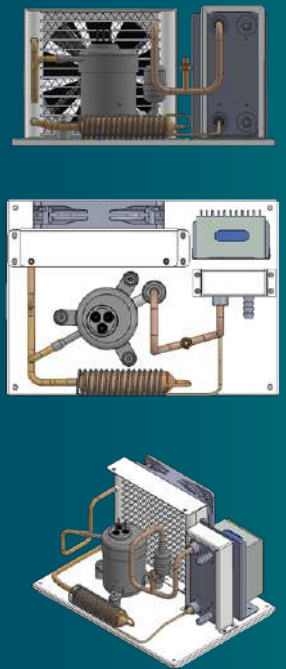
- DC 12V, DC 24V, DC 48V, DC 96V, DC 312V
- AC 220V 50 Hz, 115V 60Hz



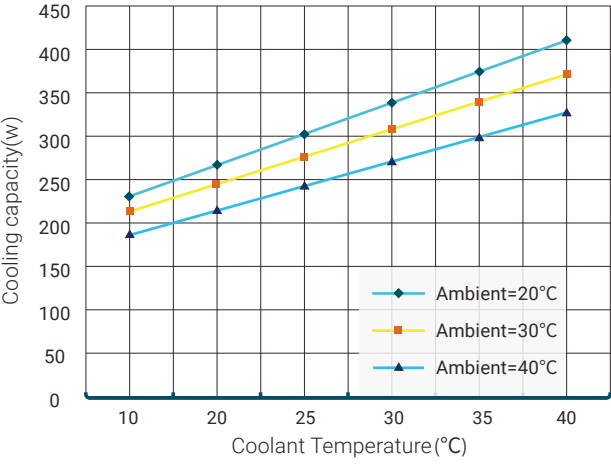
High reliability

- Risk prevention design philosophy
- 20 years HVAC system manufacturing experience
- Strict 100% inline test of performance and leakage
- Strict components sourcing

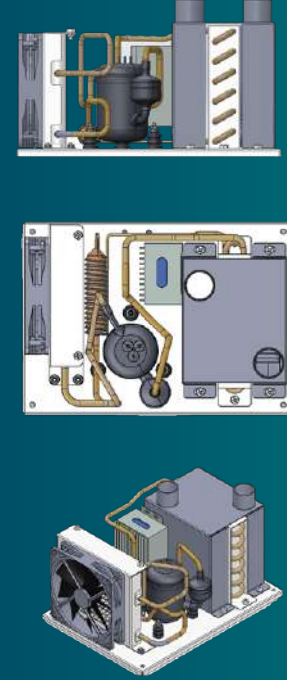
MINI LIQUID CHILLER



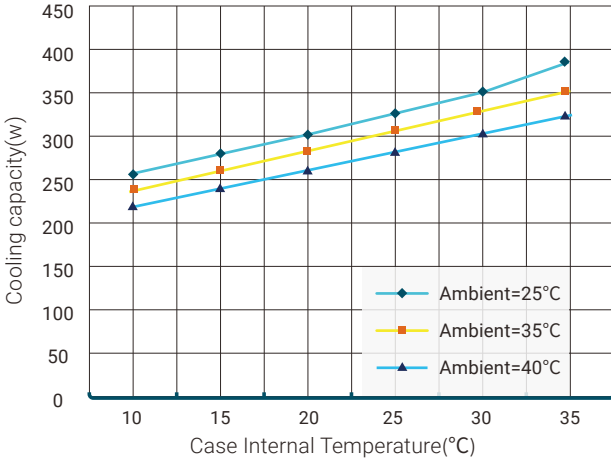
Specifications	BYL020BDC24
Compatible Fluids	Water, Water/Glycol Mix
Coolant Temperature	0°C~50°C
Maximum Power Draw	216W
Voltage	DC 24V
Maximum Current	9A
Noise	<50dBA
Dimensions	250×180×138mm
Orientation	<30°
Weight	2.8Kg
Operating Ambient Temperature	0°C~50°C
Storage Temp	-20°C~50°C



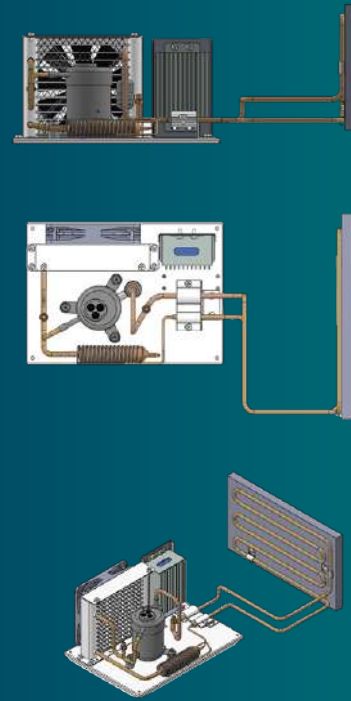
MINI AIR CONDITIONER



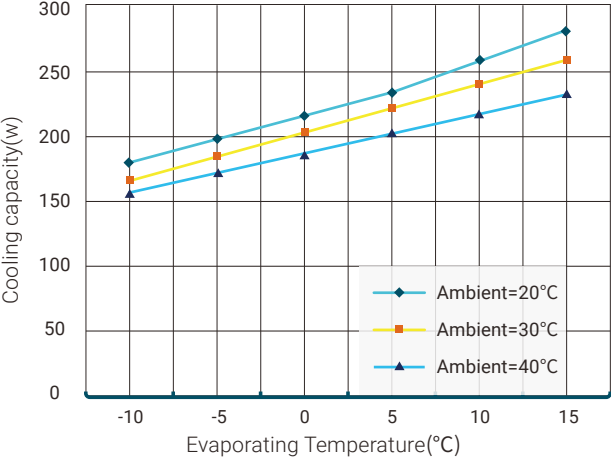
Specifications	BYA020BDC24
Refrigerant	R134a
Temperature Range	0°C~50°C
Maximum Power Draw	240W
Voltage	DC 24V
Maximum Current	10A
Noise	<50dBA
Dimensions	280×200×170mm
Orientation	<30°
Weight	7Kg
Operating Ambient Temperature	0°C~50°C
Storage Temp	-20°C~50°C



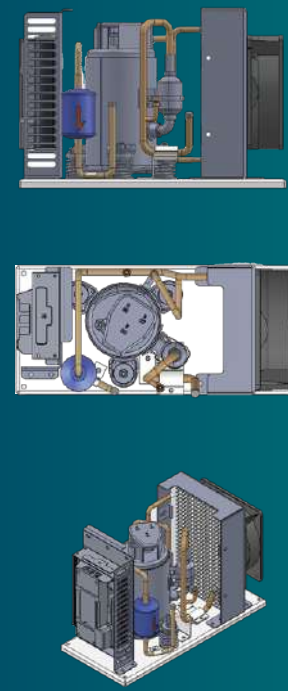
MINI DIRECT EXPANSION UNIT



Specifications	BYD020BDC24
Refrigerant	R134a
Temperature Range	-15°C~25°C
Maximum Power Draw	216W
Voltage	DC 24V
Maximum Current	9A
Noise	<50dBA
Dimensions	250×180×138mm
Orientation	<30°
Weight	5Kg
Operating Ambient Temperature	0°C~50°C
Storage Temp	-20°C~50°C



MINI CONDENSING UNIT



Specifications	BYC075BDC24
Refrigerant	R134a
Maximum Power Draw	300W
Voltage	DC 24V
Maximum Current	13A
Noise	<50dBA
Dimensions	350×160×235mm
Orientation	<30°
Weight	10Kg
Operating Ambient Temperature	0°C~50°C
Storage Temp	-20°C~50°C

