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**BOYARD**

BOYARD SYSTEMS CO., LTD.

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## MONOBLOCK & PACKAGED REFRIGERATION UNITS

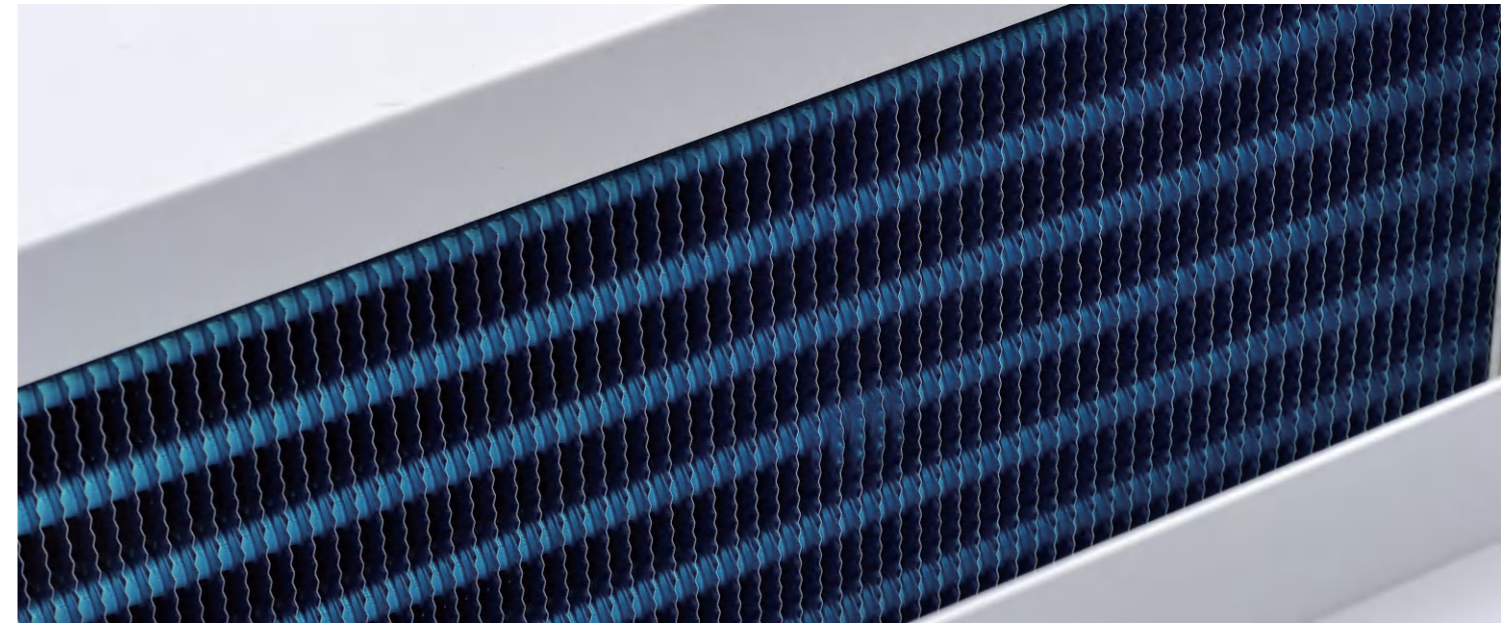
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# Introduction



Boyard's monoblock packaged condensing systems are designed for commercial walk-in cooler and freezer cold rooms. Boyard offers both fixed and variable frequency units, with horsepower ranging from 1 to 3HP, catering to various cooling needs. The monoblock systems feature easy installation with a plug-and-play design, eliminating the need for welding or refrigerant charging. Throttling control is managed by an electronic expansion valve, and defrosting is handled by a four-way valve, with the defrosting scheme either scheduled or done as required. Boyard's monoblock packaged condensing systems provide efficient, reliable, and flexible cooling solutions for commercial applications. For specific requirements, Boyard customizes the systems quickly to meet unique needs.



## Features

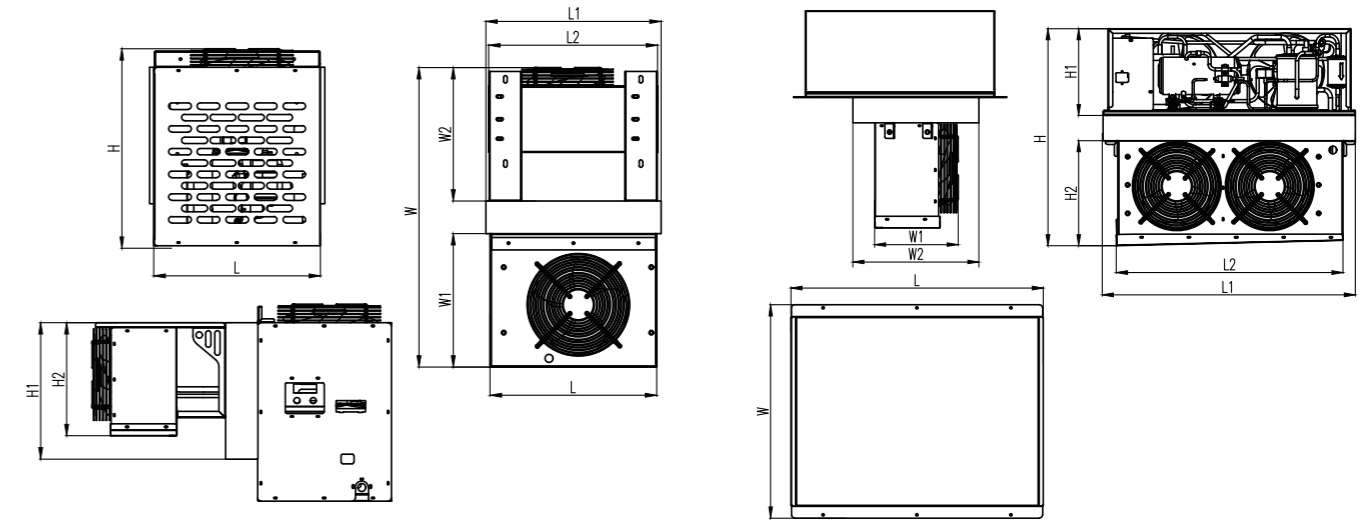
- The product line includes fixed-speed units and inverter-driven monoblock units, with horsepower ranging from 1 to 3 HP.
- The inverter monoblock units enable rapid cooling and precise temperature control of the cold storage within  $\pm 0.5^{\circ}\text{C}$ .
- Compatible with refrigerants including R290, R404A, R448A, R449A, and R454C.
- Operational within an evaporating temperature range of  $-40^{\circ}\text{C}$  to  $+5^{\circ}\text{C}$ .
- Simple installation with plug-and-play functionality; no on-site welding or refrigerant charging required.
- Utilizes electronic expansion valves for throttling control.
- Employs a four-way valve for hot gas defrosting, with defrost modes selectable between timed defrost or on-demand defrost.
- Supports self-evaporation of condensate water.





## Unit Appearance

The default thickness of cold storage panels is 80mm, which can be adjusted according to customer requirements.



## Standard Configuration

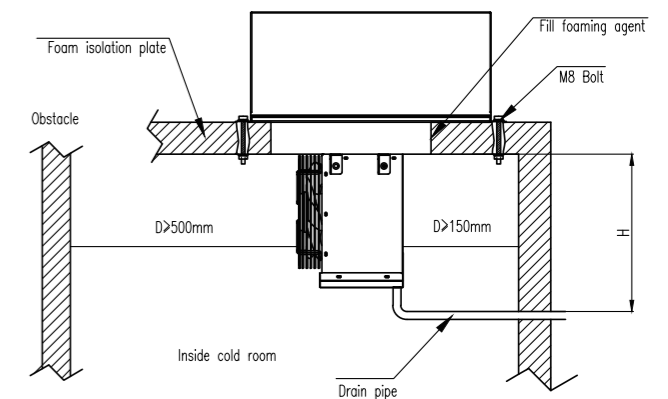
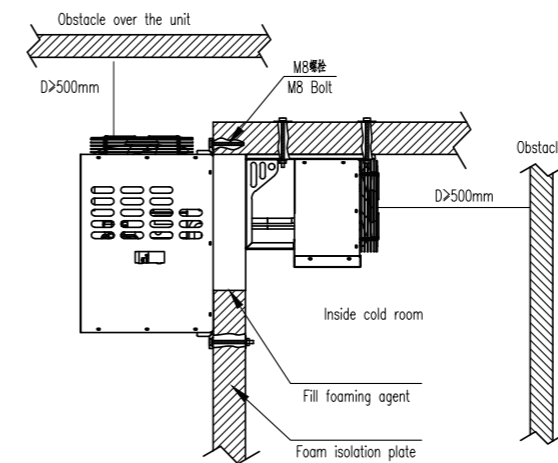
- Hermetic high-efficiency compressor
- Power supply specifications: 220–230V/1PH/50Hz/60Hz or 380–400V/3PH /50Hz
- Air-cooled condenser with axial fans
- Electronic control panel
- Electronic expansion valve or thermostatic expansion valve
- Liquid line filter
- Pressure-controlled condenser fan speed regulator
- 5-meter standard pre-wired harness

## Personalization Options

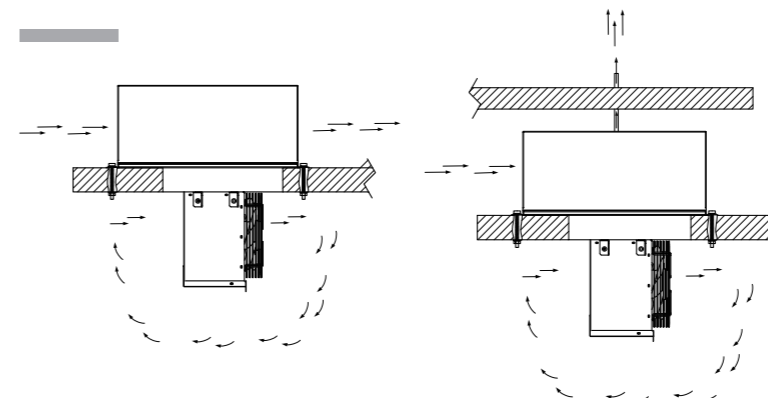
- Inverter compressor or fixed-speed compressor
- Oil separator
- Condensation method: Water-cooled (optional)
- Door microswitch connection cable
- Cold storage light and bulb assembly
- Heater cable for door switch (for low-temperature models)
- Condensate evaporation tray
- Visual and audible alarm
- Remote control panel (for single unit)
- Crankshaft heating belt

## Installation

1. The thickness of the cold storage panels must not be less than 75mm.
2. The gap between the unit and the cold storage panels must be filled with foam agent.



## Air Flow



The airflow of the Monoblock unit is composed of the flow from the condensing section and the evaporating section. If equipped with a centrifugal fan, the condensing part—thanks to the differently configured blades compared to the axial fan version—can direct the airflow through a duct toward a specific direction to prevent excessive heating of the surrounding environment.

# Applications



# Unit Details



# Technical Data



## Wall-Mounted Units -Variable Frequency

Model	BYGY-010-QXD-RZDP	BYGY-015-QXD-RZDP	BYGY-020-QXD-RZDP	BYGY-030-QXD-RZDP	BYGY-040-QXD-RZDP	BYGY-010-QXD-RZPP	BYGY-015-QXD-RZPP	BYGY-020-QXD-RZPP	
Refrigerant	R449A / R448A / R454C / R455A / R404A					R290			
Power Supply	1PH 220V 50/60Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)								
Cooling Capacity [W]	Te=-7°C, Tsuc=18°C, Ta=32°C	2065	2675	3435	4740	6090	1840	2300	2685
	Te=-25°C, Tsuc=5°C, Ta=32°C	950	1245	145	2060	2655	900	1175	1350
Applicable storage capacity [m³]	Working Temp +2°C	12	18	25	40	50	12	18	25
	Working Temp -18°C	5	8	12	20	25	5	8	12

## -Fixed Frequency

Model	BYGY-010-QXD-REDP	BYGY-015-QXD-REDP	BYGY-020-QXD-REDP	BYGY-030-QXD-REDP	BYGY-005-QXD-REPP	BYGY-010-QXD-REPP	BYGY-015-QXD-REPP	BYGY-020-QXD-REPP	
Refrigerant	R449A / R448A / R454C / R455A / R404A					R290			
Power Supply	1PH 220V 50/60Hz								
Cooling Capacity [W]	Te=-7°C, Tsuc=18°C, Ta=32°C	1790	2030	3045	4620	575	1640	1830	2795
	Te=-25°C, Tsuc=5°C, Ta=32°C	820	945	1350	2055	290	830	910	1380
Applicable storage capacity [m³]	Working Temp +2°C	12	18	25	40	4	12	18	25
	Working Temp -18°C	5	8	12	20	1.5	5	8	12



## Top-Mounted Units -Variable Frequency

Model	BYGD-010-QHD-SZDP	BYGD-015-QHD-SZDP	BYGD-020-QHD-SZDP	BYGD-030-QHD-SZDP	BYGD-010-QHD-SZPP	BYGD-015-QHD-SZPP	BYGD-020-QHD-SZPP	
Refrigerant	R449A / R448A / R454C / R455A / R404A				R290			
Power Supply	1PH 220V 50/60Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)							
Cooling Capacity [W]	Te=-7°C, Tsuc=18°C, Ta=32°C	2060	2690	3445	4745	1840	2300	2685
	Te=-25°C, Tsuc=5°C, Ta=32°C	950	1245	1450	2060	900	1175	1350
Applicable storage capacity [m³]	Working Temp +2°C	12	18	25	40	12	18	25
	Working Temp -18°C	5	8	12	20	5	8	12

## -Fixed Frequency

Model	BYGD-010-QHD-SEDP	BYGD-015-QHD-SEDP	BYGD-020-QHD-SEDP	BYGD-030-QHD-SEDP	BYGD-010-QHD-SEPP	BYGD-015-QHD-SEPP	BYGD-020-QHD-SEPP	
Refrigerant	R449A / R448A / R454C / R455A / R404A				R290			
Power Supply	1PH 220V 50Hz				1PH 220V 50/60Hz			
Cooling Capacity [W]	Te=-7°C, Tsuc=18°C, Ta=32°C	1785	2015	3035	4610	1640	1830	2795
	Te=-25°C, Tsuc=5°C, Ta=32°C	820	945	1350	2055	830	910	1380
Applicable storage capacity [m³]	Working Temp +2°C	12	18	25	40	12	18	25
	Working Temp -18°C	5	8	12	20	5	8	12

# Specifications and Configurations

## R448A/R449A/R454C MBP/LBP Variable Frequency Wall-Mounted Monoblock

Model		BYGY-010-QXD-RZDP	BYGY-015-QXD-RZDP	BYGY-020-QXD-RZDP	BYGY-030-QXD-RZDP	BYGY-040-QXD-RZDP		
Nominal Input (W)		1120	1465	2020	2610	3200		
Power Supply		1PH 220V 50/60 Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)						
Refrigerant		R449A / R448A / R454C / R455A / R404A						
Max Running Current (A)		6.2	10.5	13.5	16.5	20.0		
Evap.Temp (°C)		-40~-5						
Ambient Temp (°C)		-20~43						
Standard Configuration	Compressor (Model)		JXSD150Z312	KXSD203Z312	KXSD300Z312	KXSD300Z312	TXSD456Z312	
	Condenser	Style		Copper tube fin condenser or microchannel condenser				
		Fan Motor	Diameter*Quantity(mm)	φ300*1	φ300*1	φ300*1	φ300*2	φ300*2
			Air Flow (m <sup>3</sup> /hr)	1800/2000	1800/2000	1800/2000	3600/4000	3600/4000
	Evaporator	Style		Copper tube fin evaporator				
		Fan Motor	Diameter*Quantity(mm)	φ250*1	φ300*1	φ300*1	φ300*2	φ300*2
			Air Flow (m <sup>3</sup> /hr)	1100/1250	1800/2000	1800/2000	3600/4000	3600/4000
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Low pressure sensor			
	Accumulator		/	650cc	1L			
	Reservoir		2L					
	Sight Glass		3/8"					
	Oil Extractor		TDW-4808S		BLR/A-W 55833			
	Filter Drier		083S					
	Check Valve		3/8"					
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve					
	Liquid Injection Valve		1/4"					
	Four-way Valve		SHF7		SHF9			
	Defrosting Heating Element		350W		500W			
Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m				
Electric Control	AC Contactor		18/01					
	Air Switch		2P NXB-63 D32					
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions					
	Variable Frequency Control		Compressor frequency control, Electronic expansion valve control, Condensing fan control, Evaporating fan control, Defrosting control, High and low pressure protection, Spray protection, Exhaust temperature protection, Current protection and Fault code output.					
Dimension (mm)	Length(mm)		525	685	855	875		
	Width(mm)		825	885	925	945		
	Height(mm)		705		730	760		
R449A Cooling Capacity (W)	Evap.Temp (°C)		Ambient Temp:32°C Subcooling Temp:0°C					
	-40		485	695	820	1130	1440	
	-35		595	860	1045	1345	1780	
	-30		755	1035	1225	1705	2185	
	-25		950	1245	1450	2060	2655	
	-20		1325	1775	2115	2910	3715	
	-15		1595	2105	2585	3335	4505	
	-10		1880	2490	3100	4250	5465	
	-5		2180	2770	3690	5110	6585	

## R290 MBP/LBP Variable Frequency Wall-Mounted Monoblock

Model		BYGY-010-QXD-RZPP	BYGY-015-QXD-RZPP	BYGY-020-QXD-RZPP		
Nominal Input (W)		750	1175	1410		
Power Supply		1PH 220V 50/60 Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)				
Refrigerant		R290				
Max Running Current (A)		5.5	7.5	9.5		
Evap.Temp (°C)		-40~-5				
Ambient Temp (°C)		-20~43				
Standard Configuration	Compressor (Model)		JXSP150Z312	KXSP203Z312	KXSP300Z312	
	Condenser	Style		Copper tube fin condenser or microchannel condenser		
		Fan Motor	Diameter*Quantity(mm)	φ300*1	φ300*1	φ350*1
			Air Flow (m <sup>3</sup> /hr)	1800/2000	1800/2000	2500/2800
	Evaporator	Style		Copper tube fin evaporator		
		Fan Motor	Diameter*Quantity(mm)	φ250*1	φ300*1	φ300*1
			Air Flow (m <sup>3</sup> /hr)	1100/1250	1800/2000	1800/2000
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Low pressure sensor	
	Accumulator		/	650cc		
	Sight Glass		3/8"			
	Oil Extractor		TDW-4808S		BLR/A-W 55833	
	Filter Drier		083S			
	Check Valve		3/8"			
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve			
	Liquid Injection Valve		1/4"			
	Four-way Valve		SHF7			
	Defrosting Heating Element		350W		500W	
	Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m	
Electric Control	AC Contactor		18/01			
	Air Switch		2P NXB-63 D32			
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions			
	Variable Frequency Control		Compressor frequency control, Electronic expansion valve control, Condensing fan control, Evaporating fan control, Defrosting control, High and low pressure protection, Spray protection, Exhaust temperature protection, Current protection and Fault code output.			
Dimension (mm)	Length(mm)		525	685		
	Width(mm)		825	885		
	Height(mm)		705			
R290 Cooling Capacity (W)	Evap.Temp (°C)		Ambient Temp:32°C Subcooling Temp:0°C			
	-40		500	710	865	
	-35		630	855	990	
	-30		755	980	1190	
	-25		900	1175	1350	
	-20		1045	1510	1755	
	-15		1400	1850	2160	
	-10		1750	2150	2520	
	-5		1900	2400	2790	

## R448A/R449A/R454C MBP/LBP Variable Frequency Top-Mounted Monoblock

Model		BYGD-010-QHD-SZDP	BYGD-015-QHD-SZDP	BYGD-020-QHD-SZDP	BYGD-030-QHD-SZDP		
Nominal Input (W)		1100	1425	1920	2530		
Power Supply		1PH 220V 50/60 Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)					
Refrigerant		R449A / R448A / R454C / R455A / R404A					
Max Running Current (A)		6.2	10.5	13.5	16.5		
Evap.Temp (°C)		-40~-5					
Ambient Temp (°C)		5~43					
Standard Configuration	Compressor (Model)		JHSD150Z312	KHSD203Z312	KHSD300Z312	KHSD300Z312	
	Style		Copper tube fin condenser or microchannel condenser				
	Condenser	Fan Motor	Diameter*Quantity(mm)	φ230*2(EC)	φ230*2(EC)	φ230*3(EC)	φ230*4(EC)
			Air Flow (m <sup>3</sup> /hr)	730*2/750*2	730*2/750*2	730*3/750*3	730*4/750*4
	Evaporator	Fan Motor	Style				
			Copper tube fin evaporator				
	Evaporator	Fan Motor	Diameter*Quantity(mm)	φ250*1	φ250*1	φ300*1	φ300*2
			Air Flow (m <sup>3</sup> /hr)	1100/1250	1100/1250	1800/2000	3600/4000
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Low pressure sensor		
	Oil Extractor		TDW-4808S	BLR/A-W 55833			
	Accumulator		650cc		1L		
	Reservoir		1.1L		2L		
	Sight Glass		3/8"		3/8"		
	Filter Drier		083S		083S		
	Check Valve		3/8"		3/8"		
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve				
	Liquid Injection Valve		1/4"				
	Four-way Valve		SHF7		SHF9		
	Defrosting Heating Element		350W		500W		
	Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m		
Electric Control	AC Contactor		18/01				
	Air Switch		2P NXB-63 D32				
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions				
	Variable Frequency Control		Compressor frequency control, Electronic expansion valve control, Condensing fan control, Evaporating fan control, Defrosting control, High and low pressure protection, Spray protection, Exhaust temperature protection, Current protection and Fault code output.				
Dimension (mm)	Length(mm)		840	940	1350		
	Width(mm)		676				
	Height(mm)		695	830			
R449A Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C				
	-40		485	695	820	1130	
	-35		595	860	1045	1345	
	-30		755	1035	1225	1705	
	-25		950	1245	1450	2060	
	-20		1325	1775	2115	2910	
	-15		1595	2105	2585	3335	
	-10		1880	2490	3100	4250	
	-5		2180	2770	3690	5110	

## R290 MBP/LBP Variable Frequency Top-Mounted Monoblock

Model		BYGD-010-QHD-SZPP	BYGD-015-QHD-SZPP	BYGD-020-QHD-SZPP		
Nominal Input (W)		740	1145	1310		
Power Supply		1PH 220V 50/60 Hz (3PH 380V 50/60Hz, 3PH 200V 50/60Hz, 3PH 220V 50/60Hz)				
Refrigerant		R290				
Max Running Current (A)		5.5	7.5	9.5		
Evap.Temp (°C)		-40~-5				
Ambient Temp (°C)		5~43				
Standard Configuration	Compressor (Model)		JHSP150Z312	KHSP203Z312	KHSP300Z312	
	Style		Copper tube fin condenser or microchannel condenser			
	Condenser	Fan Motor	Diameter*Quantity(mm)	φ230*2(EC)	φ230*2(EC)	φ230*3(EC)
			Air Flow (m <sup>3</sup> /hr)	730*3/750*2	730*3/750*2	730*3/750*3
	Evaporator	Fan Motor	Style			
			Copper tube fin evaporator			
	Evaporator	Fan Motor	Diameter*Quantity(mm)	φ250*1	φ250*1	φ300*1
			Air Flow (m <sup>3</sup> /hr)	1100/1250	1100/1250	1800/2000
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Low pressure sensor	
	Oil Extractor		TDW-4808S	BLR/A-W 55833		
	Accumulator		650cc		1L	
	Sight Glass		3/8"		3/8"	
	Filter Drier		083S		083S	
	Check Valve		3/8"		3/8"	
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve			
	Liquid Injection Valve		1/4"			
	Four-way Valve		SHF7		SHF9	
	Defrosting Heating Element		350W		500W	
	Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m	
	Electric Control	AC Contactor		18/01		
Air Switch		2P NXB-63 D32				
Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions				
Variable Frequency Control		Compressor frequency control, Electronic expansion valve control, Condensing fan control, Evaporating fan control, Defrosting control, High and low pressure protection, Spray protection, Exhaust temperature protection, Current protection and Fault code output.				
Dimension (mm)	Length(mm)		840	940		
	Width(mm)		676			
	Height(mm)		695	830		
R290 Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C			
	-40		500	710	865	
	-35		630	855	990	
	-30		755	980	1190	
	-25		900	1175	1350	
	-20		1045	1510	1755	
	-15		1400	1850	2160	
	-10		1750	2150	2520	
	-5		1900	2400	2790	

## R448A/R449A/R454C MBP/LBP Fixed Frequency Wall-Mounted Monoblock

Model		BYGY-010-QXD-REDP	BYGY-015-QXD-REDP	BYGY-020-QXD-REDP	BYGY-030-QXD-REDP		
Nominal Input (W)		1120	1465	2020	2800		
Power Supply		220V 50/60 Hz					
Refrigerant		R449A / R448A / R454C / R455A / R404A					
Max Running Current (A)		6.2	10.5	13.5	16.0		
Evap.Temp (°C)		-40~-5					
Ambient Temp (°C)		5~43					
Standard Configuration	Compressor (Model)		KXSD176KS	KXSD203KS	TXSD329KS	TXSD456KS	
	Condenser	Style		Copper tube fin condenser or microchannel condenser			
		Fan Motor	Diameter*Quantity(mm)	φ300*1	φ300*1	φ350*1	φ300*2
			Air Flow (m³/hr)	1800/2000	1800/2000	2500/2800	3600/4000
	Evaporator	Style		Copper tube fin evaporator			
		Fan Motor	Diameter*Quantity(mm)	φ250*1	φ300*1	φ300*1	φ300*2
			Air Flow (m³/hr)	1100/1250	1800/2000	1800/2000	3600/4000
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Diaphragm type low pressure switch		
	Accumulator		650cc		1L		
	Reservoir		2L				
	Filter Drier		083S				
	Check Valve		SR-08		SR-10		
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve				
	Liquid Injection Valve		1/4"				
	Four-way Valve		SHF7		SHF9		
	Defrosting Heating Element		350W		500W		
	Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m		
	Electric Control	AC Contactor		18/01*2			
Air Switch		2P NXB-63 D32					
Fixed Frequency Control		Control via operation panel, phase sequence and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, evaporator fan control, defrost control, high/low pressure protection, fault code alarm output.					
Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions					
Dimension (mm)	Length(mm)		525	685	855		
	Width(mm)		825		925		
	Height(mm)		705			730	
R449A Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C				
	-40		455	485	770	1145	
	-35		595	595	960	1365	
	-30		690	745	1165	1730	
	-25		820	945	1350	2055	
	-20		1150	1320	1960	2895	
	-15		1470	1575	2315	3150	
	-10		1650	1850	2755	4225	
	-5		1880	2165	3275	4940	

## R290 MBP/LBP Fixed Frequency Wall-Mounted Monoblock

Model		BYGY-005-QXD-REPP	BYGY-010-QXD-REPP	BYGY-015-QXD-REPP	BYGY-020-QXD-REPP		
Nominal Input (W)		350	780	950	1400		
Power Supply		220V 50/60 Hz					
Refrigerant		R290					
Max Running Current (A)		2.2	5.5	7.5	9.5		
Evap.Temp (°C)		-40~-5					
Ambient Temp (°C)		5~43					
Standard Configuration	Compressor (Model)		JXP058KS	KXSP176KS	KXSP203KS	KXSP329KS	
	Condenser	Style		Copper tube fin condenser			
		Fan Motor	Diameter*Quantity(mm)	φ230*1	φ250*1	φ300*1	φ350*1
			Air Flow (m³/hr)	740	925	1800	2500
	Evaporator	Style		Copper tube fin evaporator			
		Fan Motor	Diameter*Quantity(mm)	φ200*1	φ250*1	φ250*1	φ300*1
			Air Flow (m³/hr)	400	925	925	1800
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Diaphragm type low pressure switch		
	Filter Drier		052S		083S		
	Check Valve		/		SR-06		
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve				
	Four-way Valve		/		SHF7		
	Defrosting Heating Element		250W*2		350W		500W
	Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m		
	Electric Control	AC Contactor		18/01 *2			
		Air Switch		2P NXB-63 D32			
		Fixed Frequency Control		Control via operation panel, phase sequence and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, evaporator fan control, defrost control, high/low pressure protection, fault code alarm output.			
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions				
Dimension (mm)	Length(mm)		285	450	600	700	
	Width(mm)		880		920		
	Height(mm)		580		730		
R290 Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C				
	-40		160	465	500	790	
	-35		210	605	645	980	
	-30		245	700	725	1200	
	-25		290	830	910	1380	
	-20		365	1055	1105	1780	
	-15		470	1345	1315	2100	
	-10		525	1505	1665	2500	
	-5		605	1730	1930	3000	

## R448A/R449A/R454C MBP/LBP Fixed Frequency Top-Mounted Monoblock

Model		BYGD-010-QHD-SEDP	BYGD-015-QHD-SEDP	BYGD-020-QHD-SEDP	BYGD-030-QHD-SEDP		
Nominal Input (W)		1030	1180	1900	2670		
Power Supply		220V 50Hz					
Refrigerant		R449A / R448A / R454C / R455A / R404A					
Max Running Current (A)		6.2	8.0	12.0	16.0		
Evap.Temp (°C)		-40~-5					
Ambient Temp (°C)		5~43					
Standard Configuration	Compressor (Model)		KHSD176KS	KHSD203KS	THSD329KS	THSD456KS	
	Condenser	Style		Copper tube fin condenser			
		Fan Motor	Diameter*Quantity(mm)	φ230*2(EC)	φ230*2(EC)	φ230*3(EC)	φ230*4(EC)
			Air Flow (m³/hr)	730*2	730*2	730*3	730*4
	Evaporator	Style		Copper tube fin evaporator			
		Fan Motor	Diameter*Quantity(mm)	φ250*1	φ250*1	φ300*1	φ300*2
			Air Flow (m³/hr)	1100	1100	1800	1800*2
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Diaphragm type low pressure switch		
	Accumulator		650cc		1L		
	Reservoir		1.1L		2L		
	Filter Drier		083S				
	Check Valve		SR-06				
	Thermostatic Expansion Valve		068Z3430				
	Liquid Injection Valve		1/4"				
	Four-way Valve		SHF7		SHF9		
	Defrosting Heating Element		350W		500W		
Defrosting Heating Belt		25W/m, 1.5m		25W/m, 3m			
Electric Control	AC Contactor		18/01*2		25/01+18/01		
	Air Switch		2P NXB-63 D32				
	Fixed Frequency Control		Control via operation panel, phase sequence and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, evaporator fan control, defrost control, high/low pressure protection, fault code alarm output.				
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions				
Dimension (mm)	Length(mm)		840	940	1350		
	Width(mm)		676				
	Height(mm)		695	830			
R449A Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C				
	-40		455	485	770	1145	
	-35		595	595	960	1365	
	-30		690	745	1165	1730	
	-25		820	945	1350	2055	
	-20		1150	1320	1960	2895	
	-15		1470	1575	2315	3150	
	-10		1650	1850	2755	4225	
-5		1880	2165	3275	4940		

## R290 MBP/LBP Fixed Frequency Top-Mounted Monoblock

Model		BYGD-010-QHD-SEPP	BYGD-015-QHD-SEPP	BYGD-020-QHD-SEPP		
Nominal Input (W)		740	1145	1310		
Power Supply		220V 50/60Hz				
Refrigerant		R290				
Max Running Current (A)		5.5	7.5	9.5		
Evap.Temp (°C)		-40~-5				
Ambient Temp (°C)		5~43				
Standard Configuration	Compressor (Model)		KHSP176KS	KHSP203KS	THSP329KS	
	Condenser	Style		Copper tube fin condenser		
		Fan Motor	Diameter*Quantity(mm)	φ230*2(EC)	φ230*2(EC)	φ230*3(EC)
			Air Flow (m³/hr)	730*2	730*2	730*3
	Evaporator	Style		Copper tube fin evaporator		
		Fan Motor	Diameter*Quantity(mm)	φ250*1	φ250*1	φ300*1
			Air Flow (m³/hr)	1100	1100	1800
	Pressure Controller (Mpa)		Diaphragm type high pressure switch		Diaphragm type low pressure switch	
	Accumulator		650cc		1L	
	Sight Glass		3/8"			
	Filter Drier		083S			
	Check Valve		SR-06			
	Expansion Valve		Electronic Expansion Valve / Thermostatic Expansion Valve			
	Liquid Injection Valve		1/4"			
	Four-way Valve		SHF7			
	Defrosting Heating Element		350W	500W		
Defrosting Heating Belt		25W/m, 3m				
Electric Control	AC Contactor		18/01 *2			
	Air Switch		2P NXB-63 D32			
	Fixed Frequency Control		Control via operation panel, phase sequence and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, evaporator fan control, defrost control, high/low pressure protection, fault code alarm output.			
	Configurable Functions		Cold storage light, door switch, Wi-Fi or 4G temperature controller and other functions			
Dimension (mm)	Length(mm)		800	940		
	Width(mm)		676			
	Height(mm)		695	830		
R290 Cooling Capacity (W)	Evap.Temp(°C)		Ambient Temp:32°C Subcooling Temp:0°C			
	-40		465	500	790	
	-35		605	645	980	
	-30		700	725	1200	
	-25		830	910	1380	
	-20		1055	1105	1780	
	-15		1345	1315	2100	
	-10		1505	1665	2500	
-5		1730	1930	3000		