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BOYARD SYSTEMS CO., LTD.

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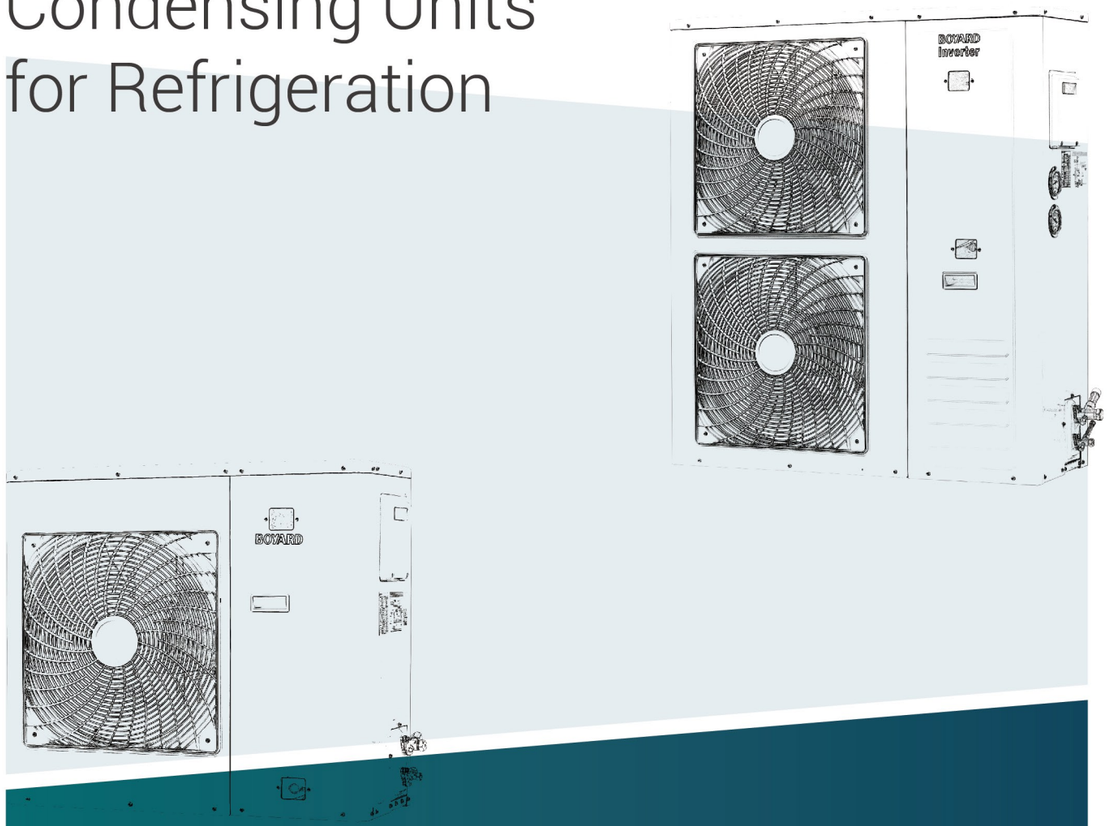
Outdoor Condensing Units for Refrigeration



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The product line includes both fixed-speed and inverter-driven units, with a horsepower range from 1 to 12 HP.

Compatible with compressors from multiple brands.

Standard equipment includes a microprocessor control board and sight glass for convenient field debugging.

High energy efficiency, with inverter series delivering over 25% energy savings.

Features an optimized and upgraded condenser that reduces refrigerant charge requirements while increasing heat exchange surface area by over 20% compared to similar market products, enabling reliable operation in ambient temperatures up to 48°C.

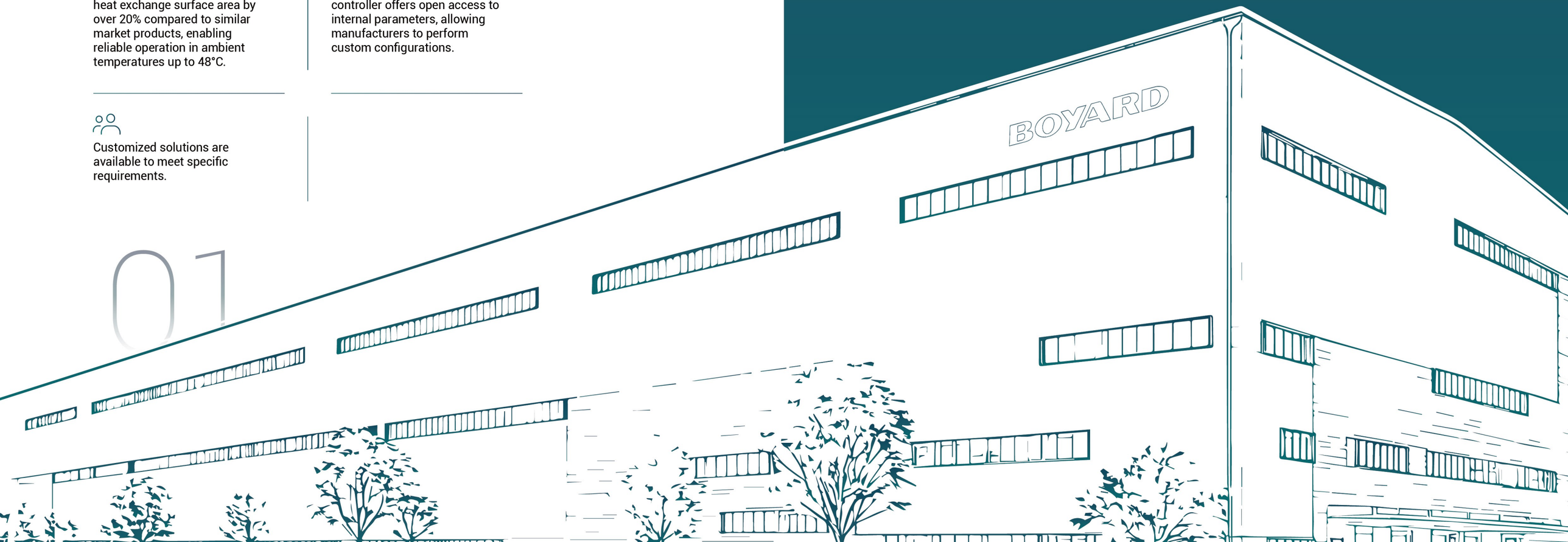
Flexible control strategies: frequency can be regulated based on target temperature or low-pressure setpoints. The controller offers open access to internal parameters, allowing manufacturers to perform custom configurations.

Customized solutions are available to meet specific requirements.

01

02

Boyard's remote outdoor condensing units stand out due to their advanced features and customization options. They offer both fixed and variable frequency units, with horsepower ranging from 1 to 12HP, catering to diverse cooling needs. The optimized condenser design reduces refrigerant charging and increases the heat exchange area by 20% compared to similar products. Boyard units operate effectively in a wide ambient temperature range, from -25°C to 48°C for LBP and -15°C to 48°C for MBP units. Boyard supports customization to meet specific customer requirements, ensuring tailored solutions for various applications. Boyard's outdoor condensing units offer superior cooling efficiency, energy savings, flexibility, and reliability for commercial refrigeration needs.



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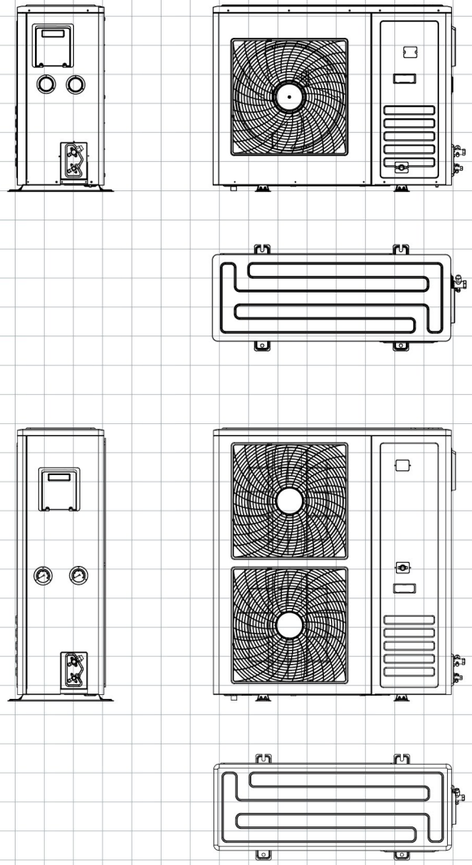
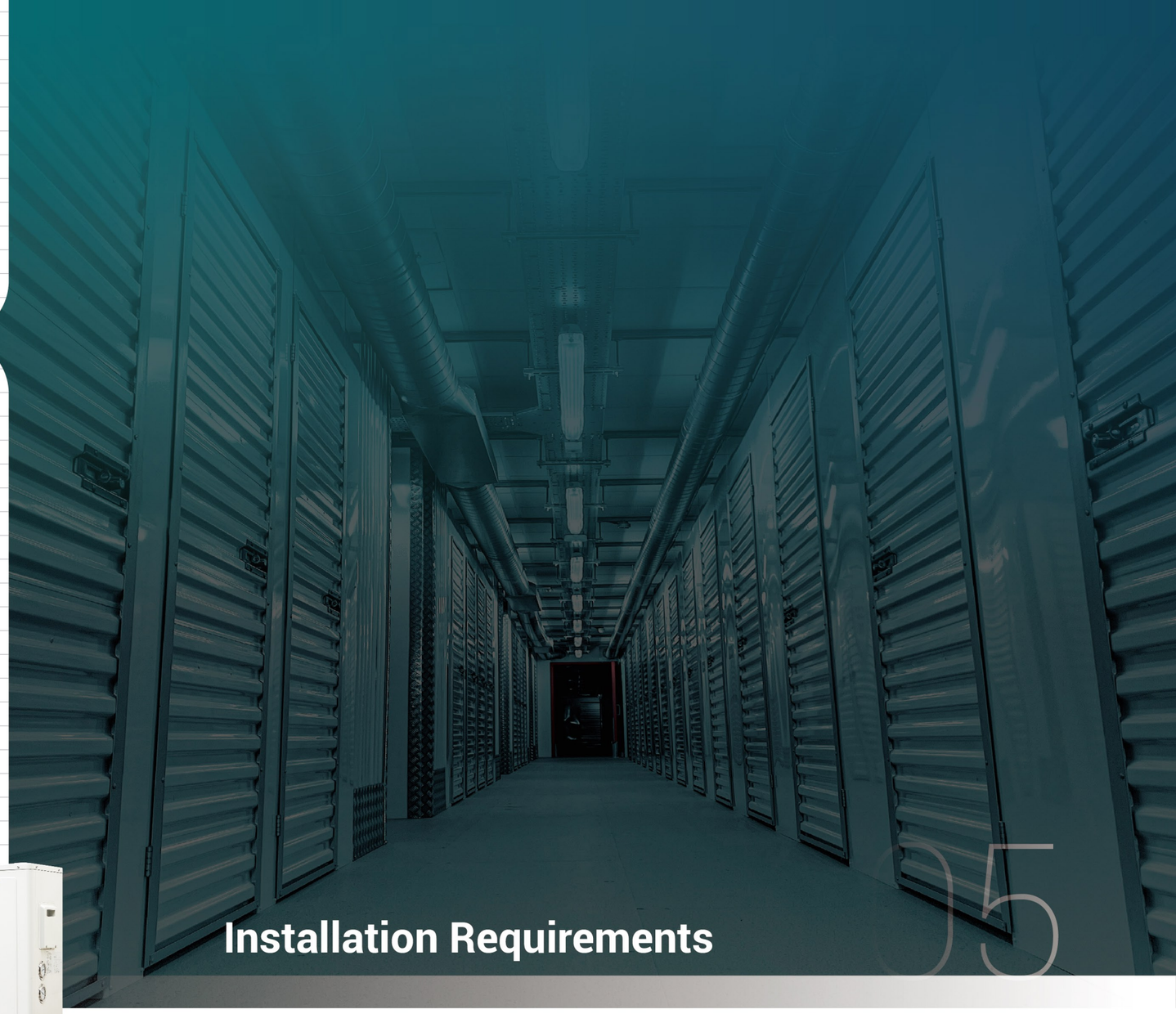
Personalization Options

- Oil Separator
- Liquid Line Solenoid Valve
- Accumulator
- Crankshaft Heating Belt
- Sound Attenuation Kit
- XGE Fan Speed Controller

Standard Configuration

- Hermetic high-efficiency compressor
- Power supply specifications: 220–230V/1PH/50Hz/60Hz or 380–400V/3PH /50Hz
- Condenser
- Condenser Fan
- Receiver
- Pressure Switch
- Oil Pressure Gauge
- Oil Sight Glass
- Service Valve
- Filter-Drier
- AC Contactor
- Microcomputer Control Board





Installation Requirements

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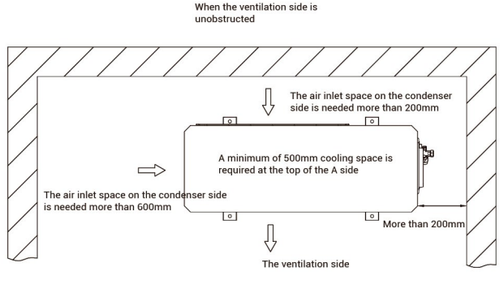

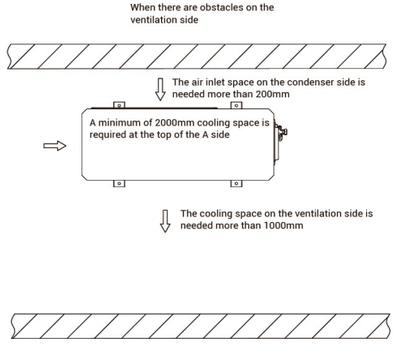

Unit Appearance

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1-3HP Fixed Frequency MBP/LBP Outdoor Condensing Unit

Model		BYGF-010-QXD-SEDP-10	BYGF-015-QXD-SEDP-10	BYGF-020-QXD-SEDP-10	BYGF-025-QXD-SEDP-10	BYGF-030-QXD-SEDP-10	BYGF-030-QXD-SMDP-10
Power Supply		1PH 220V/50Hz					3PH 380V 50Hz
HP Compressor		1 HP	1.5 HP	2 HP	2.5 HP	3 HP	3 HP
Refrigerant		R404A / R448A / R449A / R454C / R455A					
Refrigerant Max.(Kg)		1.5	2.0	3.0	3.0	3.5	3.5
Evap Temp.(°C)		-40~-5					
Ambient Temp.(°C)		-20~43		-15~46			
Standard Configuration	Compressor	QXD-16K	QXD-23K	QXD-30K	QXD-36K	TXSD456KS	TXSD456F
	Pressure Controller (Mpa)	Diaphragm type high pressure switch and low pressure switch. The low pressure switch used to control compressor operation must be the SAGINOMIYA brand.					
	Fam Motor	40W*1				65W*1	
	Reservoir	0.8L			2.5L		
	Sight Glass	3/8					
	Oil Pressure Gauge	High pressure gauge and low pressure gauge					
	Dryer Filter	083S					
	Check Valve	Φ19*110				SR-10	
Personalization Options	Oil Separator	0.2L		BLR/A-W 55833			
	Solenoid Valve	3/8					
	Crankshaft Heating Belt	27W		35W			
Electric Control	AC Contactor	18/01				25/01	18/01
	Control Board	Phase sequence protection and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, fault code alarm output, and fan start-stop control.					
Pipe(mm)	Gas Inlet OD	1/2"(12.7)			5/8"(15.88)		
	Liquid Outlet OD	1/4"(6.35)		3/8"(9.53)			
Product Dimension(mm)		900*350*610			1015*420*850		
Installation Dimension(mm)		500*320			580*385		
R404A Cooling Capacity(W)	Evap Temp.(°C)	Test Conditions: GB/T 21363-2018 Ambient Temp.:32°C Subcooling Temp.:0°C					
	-40	530	670	880	980	1365	1365
	-35	700	870	1100	1280	1625	1625
	-30	800	980	1350	1650	2060	2060
	-25	970	1230	1550	1950	2485	2485
	-20	1220	1500	2000	2350	3100	3100
	-15	1550	1770	2400	2800	3550	3550
	-10	1750	2250	2800	3500	4525	4525
	-5	2000	2600	3150	4000	5440	5440

2-8HP Variable Frequency MBP/LBP Outdoor Condensing Unit

Model		BYGF-020-QXL-SZDP	BYGF-030-QXL-SZDP	BYGF-040-QXL-SZDP	BYGF-060-HIL-SZDP	BYGF-080-HIL-SZDP
Power Supply		1PH 220V 50/60 Hz /3PH 380V 50/60 Hz			3PH 380V 50/60 Hz	
Inverter Control Scheme		Frequency control based on the thermostat or low-pressure signal.				
HP Compressor		2 HP	3 HP	4 HP	6 HP	8 HP
Refrigerant		R404A / R448A / R449A / R454C / R455A				
Evap Temp.(°C)		-40~-5				
Standard Configuration	Pressure Controller (Mpa)	Diaphragm type high pressure switch Low pressure sensor or low pressure switch				
	Reservoir	1.1L	1.6L	2.2L	6L	
	Dryer Filter	083S		084S		165S
	Sight Glass	3/8		1/2"		5/8"
	Oil Pressure Gauge	High pressure gauge and low pressure gauge				
	Oil Separator	BLR/A-W 55833		BLR/A-W 55824		
	Accumulator	1L		2.8L		3.0L
	Liquid Valve	Liquid injection solenoid valve or electronic expansion valve				
Electric Control	Variable Frequency Control Function	Compressor inverter control, electronic expansion valve control, condenser fan control, defrost control, high and low pressure protection, liquid injection control, discharge temperature protection, current protection, and fault code output.				
Pipe(mm)	Gas Inlet OD	5/8"(15.88)		3/4"(19.05)	7/8"(22.22)	
	Liquid Outlet OD	3/8"(9.53)		1/2"(12.7)		5/8"(15.88)
Product Dimension(mm)		1015*420*850		1180*490*860	1200*490*1250	
Installation Dimension(mm)		580*385		640*440		
Personalization Options	Solenoid Valve	3/8"(9.53)		1/2"(12.7)		5/8"(15.88)
	Crankshaft Heating Belt	35W		40W		
R404A Cooling Capacity(W)	Evap Temp.(°C)	Test Conditions: GB/T 21363-2018 Ambient Temp.:32°C Subcooling Temp.:0°C				
	-40	920	1365	1980	3000	4550
	-35	1150	1625	2460	3670	5420
	-30	1350	2060	3070	4500	6450
	-25	1650	2485	3820	5500	7670
	-20	2100	3100	4680	6750	9150
	-15	2460	3550	5650	8250	10800
	-10	2920	4525	6700	10000	13000
	-5	3250	5440	7900	12300	15300

2-13HP Fixed Frequency MBP Outdoor Condensing Unit

Model		BYGF-020-ZBM-SMDP	BYGF-030-ZBM-SMDP	BYGF-040-ZBM-SMDP	BYGF-050-ZBM-SMDP	BYGF-060-ZBM-SMDP	BYGF-070-ZBM-SMDP	BYGF-080-ZBM-RMDP	BYGF-100-ZBM-RMDP	BYGF-130-ZBM-RMDP
Power Supply		3PH 380V 50Hz								
HP Compressor		2 HP	3 HP	4 HP	5 HP	6 HP	7 HP	8 HP	10 HP	13 HP
Refrigerant		R404A / R448A / R449A / R454C / R455A								
Evap Temp.(°C)		-20~10								
Ambient Temp.(°C)		-15~48								
Standard Configuration	Compressor	ZB15KQE	ZB21KQE	ZB29KQE	ZB38KQE	ZB45KQE	ZB48KQE	ZB58KQE	ZB76KQE	ZB95KQE
	Pressure Controller (Mpa)	Diaphragm type high pressure switch and low pressure switch. The low pressure switch used to control compressor operation must be the SAGINOMIYA brand.								
	Fan Motor	65W*1			65W*2		90W*2	550W		460W*2
	Reservoir	2.5L			4L		6L	10L	12L	14L
	Dryer Filter	083S			084S			165S		
	Sight Glass	3/8			1/2"			5/8"		
	Oil Pressure Gauge	High pressure gauge and low pressure gauge								
	Liquid Valve	Liquid injection solenoid valve or electronic expansion valve								
	Crankshaft Heating Belt	40W						90W		
Electric Control	AC Contactor	18/01						25/01		
	Control Board	Phase sequence protection and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, fault code alarm output, and other functions.								
Pipe(mm)	Gas Inlet OD	5/8"(15.88)			3/4"(19.05)	7/8"(22.22)		1 1/8"(28.58)	1 3/8"(34.93)	
	Liquid Outlet OD	3/8"(9.53)			1/2"(12.7)			5/8"(15.88)		
Product Dimension(mm)		1015*420*850			1015*420*1250			1000*810*1230		1400*810*1230
Installation Dimension(mm)		580*385						450*760		900*760
Personalization Options	Oil Separator	BLR/A-W 55833			BLR/A-W 55824			BLR/A-W 55855		BLR/A-W 55877
	Refrigeration Solenoid Valve	3/8"(9.53)			1/2"(12.7)			5/8"(15.88)		
	Accumulator	1L			3.5L			7L		
	Crankshaft Heating Belt	40W						90W		
R404A Cooling Capacity(W)	Evap Temp.(°C)	Test conditions: GB/T 21363-2018 Ambient Temp.:32°C Subcooling Temp.:0°C Suction Temp.:18°C								
	-20	2250	3500	4800	6050	7100	7750	9000	12200	14800
	-15	2770	4250	5750	7250	8500	9350	11100	15000	18300
	-10	3360	5050	6850	8650	10100	11100	13300	17500	22000
	-5	4000	6000	8100	10200	12000	13100	18800	21000	26000
	0	4750	7000	9500	12000	14000	15400	18500	24700	30200
	5	5500	8150	11000	13900	16400	18000	21500	28700	35100

2-12HP Fixed Frequency LBP Outdoor Condensing Unit

Model			BYGF-020-ZSL-SMDP	BYGF-030-ZSL-SMDP	BYGF-040-ZSL-SMDP	BYGF-050-ZSL-SMDP	BYGF-060-ZSL-SMDP	BYGF-075-ZFL-SMDP	BYGF-080-ZFL-RMDP	BYGF-100-ZFL-RMDP	BYGF-120-ZFL-RMDP
Power Supply			3PH 380V 50Hz								
HP Compressor			2 HP	3 HP	4 HP	5 HP	6 HP	7.5 HP	8 HP	10 HP	12 HP
Refrigerant			R404A / R448A / R449A / R454C / R455A								
Evap.Temp.(°C)			-40~-5								
Ambient Temp.(°C)			-15~48								
Standard Configuration	Compressor	ZSI Series	ZSI 06KQE	ZSI 09KQE	ZSI 11KQE	ZSI 15KQE	ZSI 18KQE	/	/	/	/
		ZF Series	ZF 06KQE	ZF09 KQE	ZF13 KQE	ZF15 KQE	ZF18 KQE	ZF25KQE	ZFI36KQE	ZFI50KQE	ZFI59KQE
	Pressure Controller (Mpa)		Diaphragm type high pressure switch and low pressure switch. The low pressure switch used to control compressor operation must be the SAGINOMIYA brand.								
	Fam Motor		65W*1			65W*2		90W*2	550W		460W*2
	Reservoir		2.5L			4L		6L	10L	12L	14L
	Dryer Filter		083S			084S			165S		
	Sight Glass		3/8			1/2"			5/8"		
	Oil Pressure Gauge		High pressure gauge and low pressure gauge								
	Liquid Valve		Liquid injection solenoid valve or electronic expansion valve								
	Accumulator		1L			3.5L			7L		
	Crankshaft Heating Belt		40W						90W		
Electric Control	AC Contactor		18/01						25/01		
	Control Board		Phase sequence protection and phase loss protection, discharge temperature protection, liquid injection control, condenser fan speed control, fault code alarm output, and other functions.								
Pipe(mm)	Gas Inlet OD		5/8"(15.88)			3/4"(19.05)	7/8"(22.22)		1 1/8"(28.58)	1 3/8"(34.93)	
	Liquid Outlet OD		3/8"(9.53)			1/2"(12.7)			5/8"(15.88)		
Product Dimension(mm)			1015*420*850			1015*420*1250		1200*490*1250	1000*810*1230		1400*810*1230
Installation Dimension(mm)			580*385					640*440	450*760		900*760
Personalization Options	Oil Separator		BLR/A-W 55833			BLR/A-W 55824			BLR/A-W 55855		BLR/A-W 55877
	Refrigeration Solenoid Valve		3/8"(9.53)			1/2"(12.7)			5/8"(15.88)		
R404A Cooling Capacity(W)	Evap Temp.(°C)		Test Conditions: GB/T 21363-2018 Ambient Temp.:32°C Subcooling Temp.:0°C Suction Temp:18°C								
	-40		1120	1520	2170	2640	3250	4050	5600	7800	9500
	-35		1400	1900	2720	3350	4100	5000	6900	9200	11200
	-30		1710	2530	3650	4500	5420	6750	8350	11100	13500
	-25		2070	2800	4100	5050	6050	7500	9900	13500	17200
	-20		2250	3370	4800	6050	7100	8730	11500	16000	19500
	-15		2770	3900	5750	7250	8500	10700	13500	18800	23000
	-10		3360	4750	6850	8650	10100	12900	16000	22000	26500
	-5		4000	5600	8100	10200	12000	18200	18000	25100	30000