Cooling Specialist

Wall Mounted Monoblock Refrigeration Unit

1. Product Models

Product	Model Name	Compressor	Horse Power	Refrigerant	Power Supply
Monoblock	RG-BYTCN10EL	Inverter Sanyo	1HP	R404a	220V~240V 50Hz~60Hz
Monoblock	RG-BYTCN20EL	Inverter Sanyo	2HP	R404a	
Monoblock	RG-BYTCN30EL	Inverter Sanyo	3HP	R404a	
Monoblock	RG-BYTCN40EL	Inverter Sanyo	4HP	R404a	

- Eco-Friendly R290.
- Quiet Operation (<60dB).
- Temp. Range: -40°C to -5°C.
- Pre-Charged with Refrigerant.
- Power Supply: 220V~240V / 50Hz~60Hz .
- Cooling Capacity: 2,500W to 10,000W (up to 34,100Btu).
- Brand Sanyo inverter compressor for efficient performance.
- Includes hot gas and electric heating for efficient defrosting.
- Easy-to-use control panel for simple monitoring and adjustments.
- Comes with HP & LP switches and a filter dryer for added reliability.
- Suitable for both refrigeration (+2°C to +8°C) and freezing (-40°C ~ -18°C).

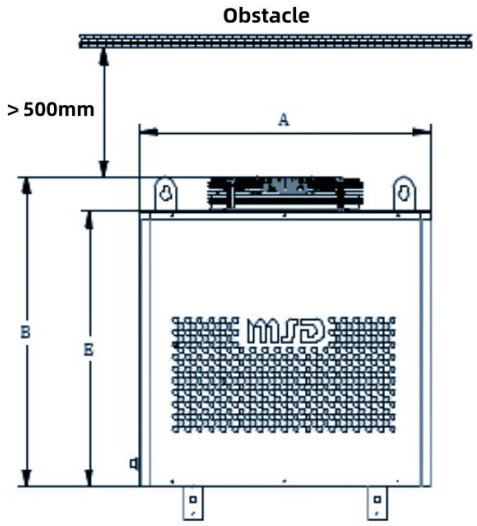
Volume recommendation - Cold room:

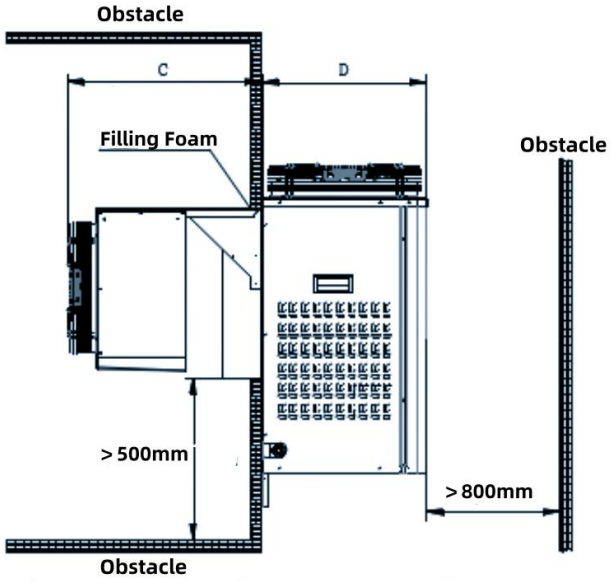
- RG-BYTCN10EL (1HP), refrigerated 0℃~8℃ (<12m³), frozen -25℃~-18℃ (<7m³).
- RG-BYTCN20EL (2HP), refrigerated 0℃~8℃ (<25m³), frozen -25℃~-18℃ (<15m³).
- RG-BYTCN30EL (3HP), refrigerated 0℃~8℃ (<40m³), frozen -25℃~-18℃ (<25m³).
- RG-BYTCN40EL (4HP), refrigerated 0℃~8℃ (<55m³), frozen -25℃~-18℃ (<35m³).

2. Product Specification

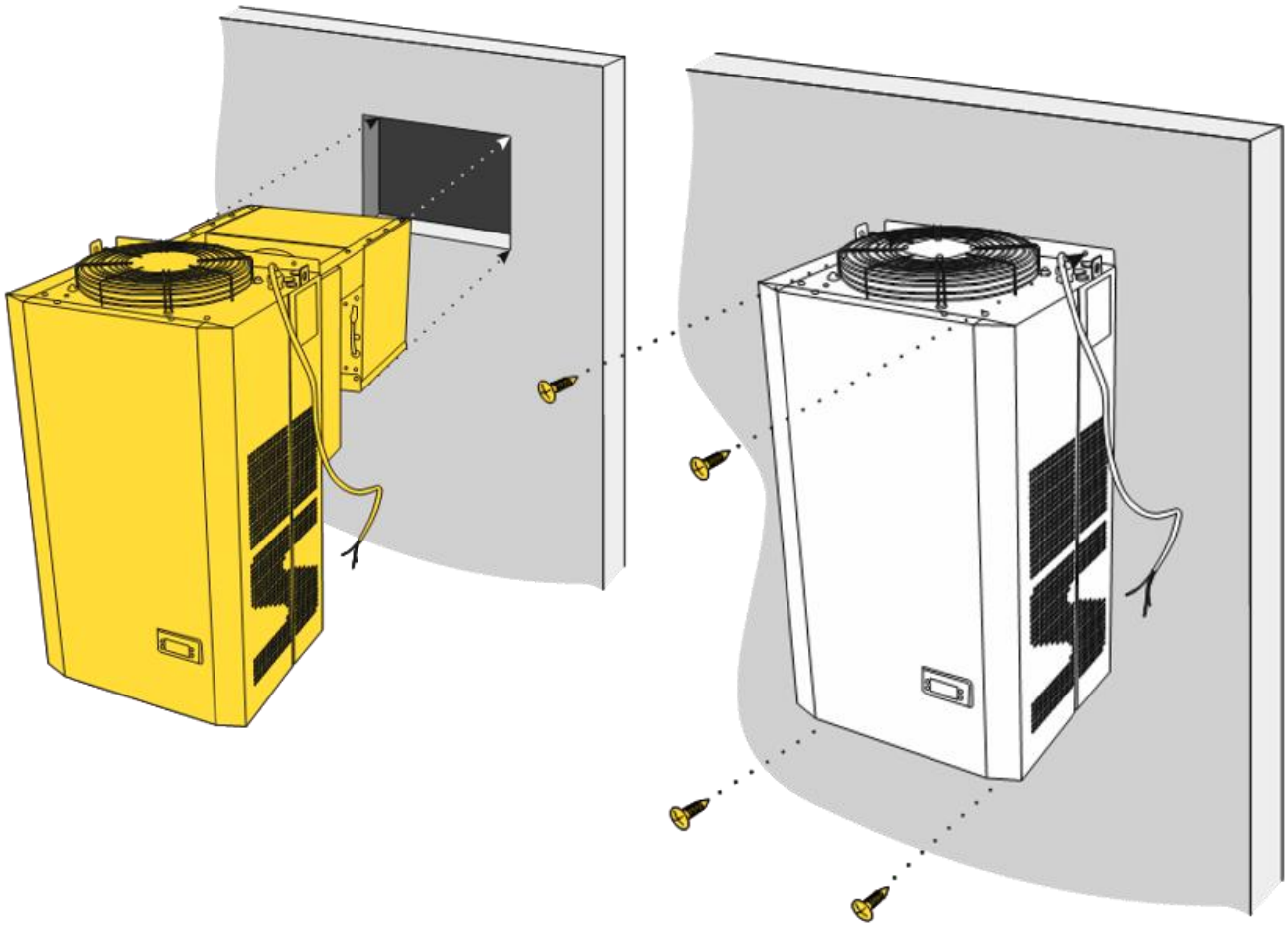
WALL-MOUNTED MONOBLOCK INVERTER UNIT					
MODEL		**RG-BYTCN10EL**	**RG-BYTCN20EL**	**RG-BYTCN30EL**	**RG-BYTCN40EL**
HORSEPOWER (HP)		1 HP	2 HP	3 HP	4 HP
POWER SUPPLY		SINGLE PHASE, 220V/50HZ ~ 220V/60HZ			
EVAP. TEMP. RANGE (°C)		-40°C ~ -5°C			
AMBIENT TEMP. (°C)		-7°C ~ 43°C			
REFRIGERANT		R404A			
MAX RUN CURRENT(A)		5	9	13	18
RATED INPUT POWER		780	1550	2260	3200
COMPRESSOR		SANYO INVERTER COMPRESSOR			
COMPRESSOR MODEL		C-6RVN63L0B	C-7RVN113L0B	C-7RVN153L0B	C-RZ420L4BAL
SPEED RANGE		30HZ ~ 80HZ			
DEFROST		HOT GAS			
PRESSURE CONTROL		HIGH PRESSURE SWITCH / LOW PRESSURE SWITCH			
CONDENSER FAN MOTOR	POWER(W)	120	150	120	150
	QTY(PCS)	1	1	2	2
EVAPORATOR FAN MOTOR	POWER(W)	80	120	80	120
	QTY(PCS)	1	1	2	2
EXTERNAL DIMENSION	LENGTH ±3 (mm)	600	720	925	1025
	WIDTH ±3(mm)	710	890	890	980
	HEIGHT ±3 (mm)	710	825	825	950
NET WEIGHT(KGS)		71 KG	82 KG	105 KG	150 KG
REFRIGERATION CAPACITY	EVAP. TEMP.(°C)	COOLING CAPACITY: W AMBIENT TEMP.: 32°C SPEED: 70HZ			
	-35	760	1520	2050	2840
	-25	820	2300	3230	4050
	-15	1560	3050	4350	5800
	-5	2250	4280	6850	9100

3. How and where to install the unit



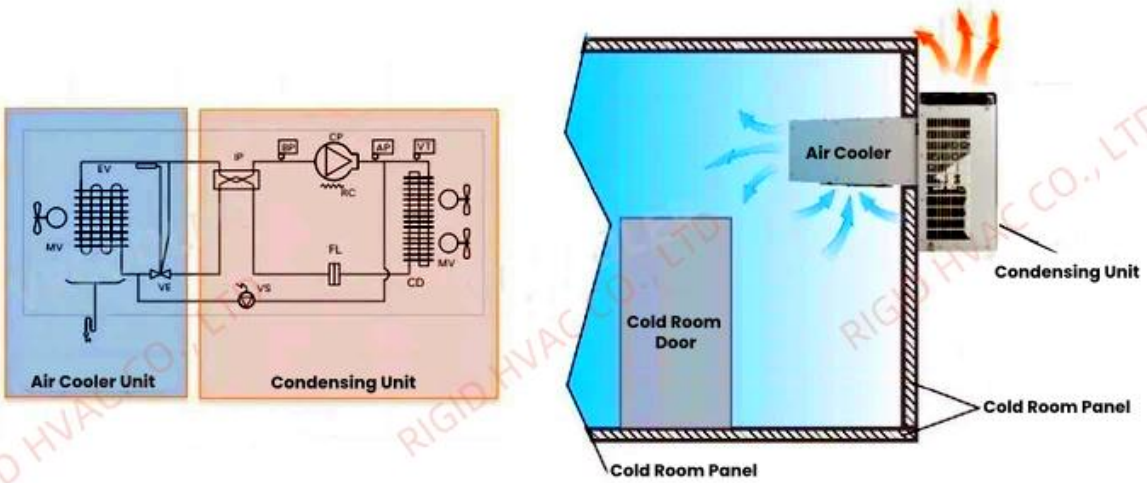


Model	A	B	C	D	E
RG-BYTCN1OEL	600	710	450	360	630
RG-BYTCN2OEL	720	920	500	410	770
RG-BYTCN3OEL	920	950	550	410	770
RG-BYTCN4OEL	1020	950	570	460	770



4. Installation Example

Wall-mounted Monoblocks



5. Installation Instruction

Step 1: Prepare the Wall Opening

Measure and Mark the appropriate area on the wall where the unit will be installed. Ensure the opening is large enough to accommodate the evaporator section of the monoblock unit. The dimensions of the opening should align with the specifications provided in the unit manual. Recommended minimum dimensions for the opening: Refer to the unit's technical manual.

Step 2: Position the Unit

Lift and Position the monoblock unit against the wall. The evaporator side should be inserted into the wall opening. Align the Condensing and Evaporating Sections: The evaporator part of the unit will be inside the cold room, while the condensing part remains on the outside. Check the Condenser Placement: Ensure that the condenser has enough clearance (at least 500mm from any obstacles) to allow for proper airflow and heat transfer.

Step 3: Secure the Unit

Use screws to secure the unit to the wall. Make sure the unit is firmly attached to avoid vibrations or potential damage.

Step 4: Electrical Connection

Attach the unit’s power cables to the designated power supply (220V240V / 50Hz60Hz). Ensure that all electrical connections match the wiring diagram provided in the manual.Properly ground the unit to prevent electrical hazards.

Step 5: Refrigerant Check and Start-Up

The unit comes pre-charged with refrigerant, so no additional refrigerant is needed. Before turning on the system, check for any possible refrigerant leaks around connections and seals. Switch on the unit and monitor its operation.

Step 6: Temperature and Defrosting Setup

Adjust the thermostat and set the desired temperature range according to the application (e.g., +2°C to +8°C for refrigerated storage or -18°C for freezing). Ensure that the defrosting mechanism (hot gas or electric heating) is functioning properly.

6. Do's and Don'ts for Installing the Units

Do's:

1. Do Install in a Well-Ventilated Area

Ensure the area around the unit, especially the condenser side, has good ventilation and is free from obstacles to allow for efficient heat dissipation.

2. Do Follow Manufacturer Guidelines

Always refer to the manufacturer’s installation manual for specific details regarding dimensions, electrical wiring, refrigerant types, and maintenance procedures.

3. Do Use Proper Tools

Use the correct tools for installation, such as screwdrivers, a power drill for mounting, and appropriate electrical connectors.

4. Do Ground the Unit Properly

Ensure that the unit is correctly grounded to avoid electrical hazards or damage to the equipment.

5. Do Check for Refrigerant Leaks

Before turning the unit on, check for refrigerant leaks around the connections to ensure system efficiency and safety.

6. Do Ensure Proper Clearance

Maintain adequate clearance (minimum 500mm) around the condenser for sufficient airflow.

7. Do Perform Regular Maintenance

After installation, regularly check the unit for maintenance, including cleaning filters, checking refrigerant levels, and ensuring proper defrost cycles.

8. Do Use Proper Power Supply

Ensure the power supply is within the required voltage range (220V240V) and frequency (50Hz60Hz) to prevent electrical issues.

9. Do Check Temperature Settings

Set the correct temperature range for the cold room or freezer to ensure proper storage conditions for your goods.

10. Do Test the System Before Full Operation

After installation, test the unit to ensure it’s cooling properly and the defrost function is working.

Don'ts:

1. Don’t Overload the Unit

Avoid overloading the cold room or freezer beyond the recommended storage capacity, as it may affect the unit's performance.

2. Don’t Install Near Heat Sources

Keep the unit away from direct heat sources like ovens, stoves, or direct sunlight, can cause it to overheat and reduce efficiency.

3. Don’t Block the Condenser Airflow

Never block or obstruct the airflow around the condenser unit. Proper ventilation is key for efficient heat dissipation.

4. Don’t Use the Unit Without Grounding

Never use the unit without proper grounding as it could result in electrical shock or damage.

5. Don’t Install on Uneven Surfaces

Ensure the unit is installed on a stable and level surface to avoid vibration, noise, or performance issues.

6. Don’t Use Incorrect Refrigerants

The unit comes pre-charged with refrigerant. Never attempt to use a different refrigerant, as this could damage the system.

7. Don’t Install Without Professional Help (If Needed)

If you are not familiar with refrigeration systems, it’s recommended to have a professional technician install the unit.

8. Don’t Forget to Test the Unit After Installation

Don’t skip the testing phase; always verify that the unit is operating correctly before using it for cold storage.

9. Don’t Forget to Check for Leaks

After installation, never skip the leak-checking process, as undetected refrigerant leaks can affect efficiency.

10. Don’t Ignore Safety Precautions

Always wear the appropriate safety gear during installation and handling to avoid any risk of injury.

7. A Wide Range of Applications