

SPECIFICATIONS

Model	PUHY-HP200YHM-A(-BS)	PUHY-HP250YHM-A(-BS)	PUHY-HP400YSHM-A(-BS)	PUHY-HP500YSHM-A(-BS)
Power source	22.4	3-phase 4-wire 380-400-415V 50/60Hz	28.0	45.0
Cooling capacity (Nominal)	*1 kW	22.4	24.100	38.700
	*1 kcal/h	19,300	20,100	33,200
	*1 BTU/h	76,400	95,500	153,500
Temp. range of cooling	Indoor W.B.	15-24°C(59-75°F)	15-24°C(59-75°F)	15-24°C(59-75°F)
	Outdoor D.B.	-5-43°C(23-109°F)	-5-43°C(23-109°F)	-5-43°C(23-109°F)
	D.B.	-5-43°C(23-109°F)	-5-43°C(23-109°F)	-5-43°C(23-109°F)
Heating capacity (Nominal)	*2 kW	21.500	27.100	43.000
	*2 kcal/h	18,500	22,900	36,200
	*2 BTU/h	75,300	107,500	170,600
Temp. range of heating	Indoor W.B.	15-27°C(59-81°F)	15-27°C(59-81°F)	15-27°C(59-81°F)
	Outdoor D.B.	-25-15.5°C(-13-60°F)	-25-15.5°C(-13-60°F)	-25-15.5°C(-13-60°F)
	D.B.	-25-15.5°C(-13-60°F)	-25-15.5°C(-13-60°F)	-25-15.5°C(-13-60°F)
Indoor unit connectable	Model / Quantity	P15-P250 / 1-17	P15-P250 / 1-21	P15-P250 / 1-34
Sound pressure level (measured in anechoic room)	dB(A)	56	57	59
Refrigerant piping diameter	Liquid pipe (mm(in.))	12.7(1/2") Braze	12.7(1/2") Braze	15.88(5/8") Braze
	Gas pipe (mm(in.))	19.05(3/4") Braze	22.2(7/8") Braze	28.58(1-1/8") Braze
Set Model				
Model	*3 Type x Quantity	Propeller fan x 1		PUHY-HP200YHM-A(-BS) PUHY-HP250YHM-A(-BS) PUHY-HP400YSHM-A(-BS) PUHY-HP500YSHM-A(-BS)
FAN	Air flow rate	m ³ / min	225	225
		L/s	3,750	3,750
		cfm	7,945	7,945
Compressor	Control, Driving mechanism	Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
	External static press.	Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)	0 Pa (0 mmH ₂ O)
External finish	Type x Quantity	Pre-coated galvanized steel sheets		Pre-coated galvanized steel sheets
	Manufacture	AC&R Works, MITSUBISHI ELECTRIC CORPORATION		AC&R Works, MITSUBISHI ELECTRIC CORPORATION
	Starting method	Inverter		Inverter
External dimension HxWxD	Motor output	kW	5.3	5.3
	Case heater	kW	0.045	0.045
	Lubricant		MEL32	MEL32
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15MPa (601 psi)		High pressure sensor, High pressure switch at 4.15MPa (601 psi)
	Inverter circuit (COMP. / FAN)	Over-heat protection, Over-current protection		Over-heat protection, Over-current protection
	Compressor	Over-heat protection		Over-heat protection
Refrigerant	Fan motor	Thermal switch		Thermal switch
	1/2" x original charge	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)	R410A x 9.0kg (20lbs)
	Control	LEV and HIC circuit		LEV and HIC circuit
Net weight	kg(lbs)	220(486)	220(486)	220(486)
Heat exchanger		Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube
HIC circuit (HIC: Heat Inter-Change)		Copper pipe, tube-in-tube structure		Copper pipe, tube-in-tube structure
Pipe between unit and distributor	Liquid pipe (mm(in.))	9.52(3/8") Flare	9.52(3/8") Flare	9.52(3/8") Flare
	Gas pipe (mm(in.))	19.05(3/4") Braze	22.2(7/8") Braze	22.2(7/8") Braze
Defrosting method		Auto-defrost mode (Reversed refrigerant circle)		Auto-defrost mode (Reversed refrigerant circle)
Optional parts		Joint: CMY-Y102S-G2 Header: CMY-Y104/108/1010-G		Outdoor Twinning kit: CMY-Y100VBK2 Joint: CMY-Y102S-L-G2, CMY-Y202-G2 Header: CMY-Y104/108/1010-G

* Due to continuing improvement, above specifications may be subject to change without notice.

- Notes:
- Nominal cooling conditions (subject to JIS B8615-1)
Indoor: 27°C DB/19°C WB (81°F DB/66°F WB), Outdoor: 35°C DB (95°F DB)
Pipe length: 7.5m (24-9/16ft.), Level difference: 0m (0ft.)
 - Nominal heating conditions (subject to JIS B8615-1)
Indoor: 20°C DB (68°F DB), Outdoor: 7°C DB/6°C WB (45°F DB/43°F WB)
Pipe length: 7.5m (24-9/16ft.), Level difference: 0m (0ft.)
 - External static pressure option is available (30Pa, 60Pa / 3.1mmH₂O, 6.1mmH₂O).



FM33568 / ISO 9001:2000

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

ISO Authorization System
The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

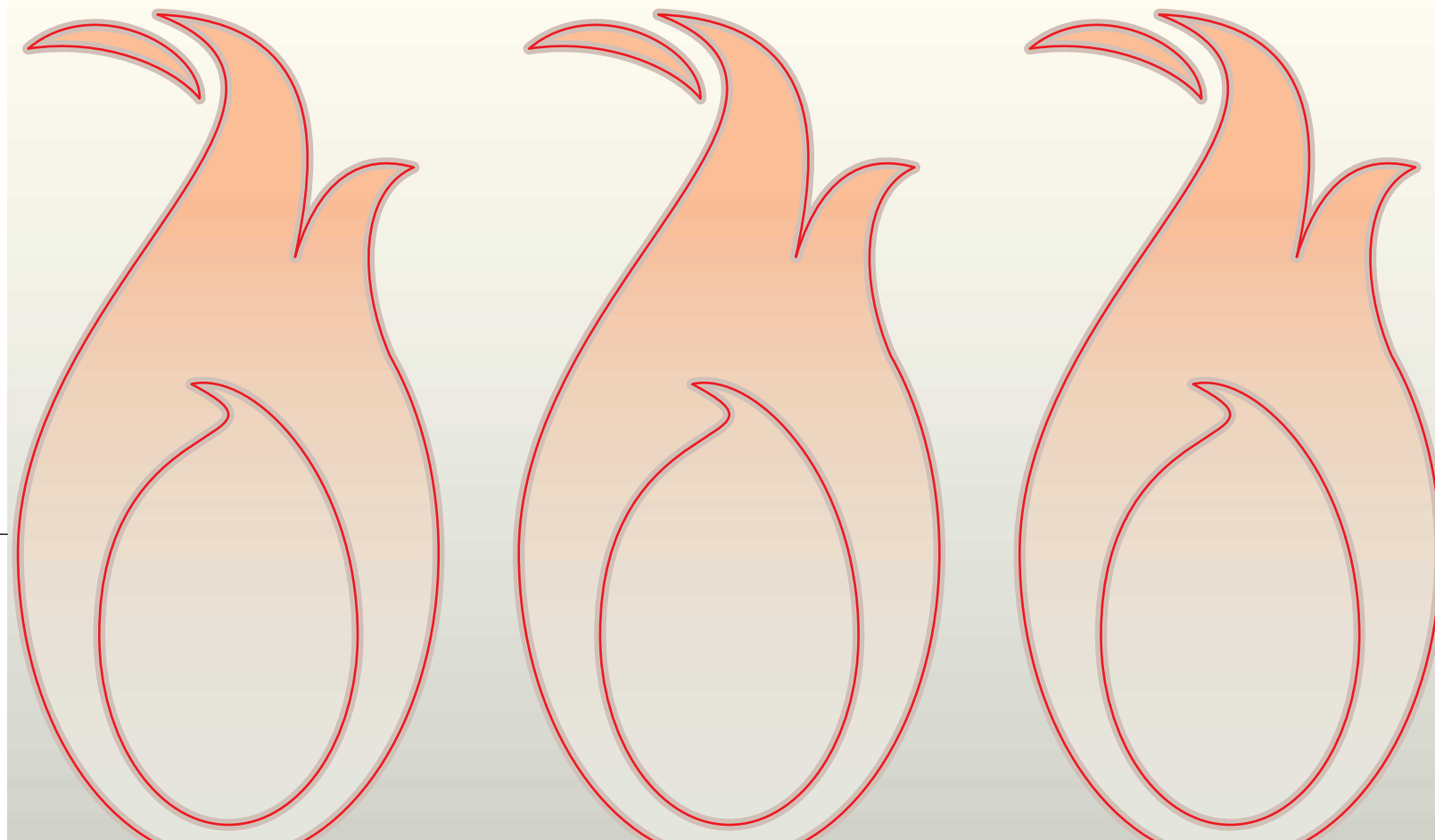
The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).

MITSUBISHI ELECTRIC CORPORATION

MITSUBISHI ELECTRIC
AIR CONDITIONING SYSTEMS

Changes for the Better

ZUBADAN CITY MULTI

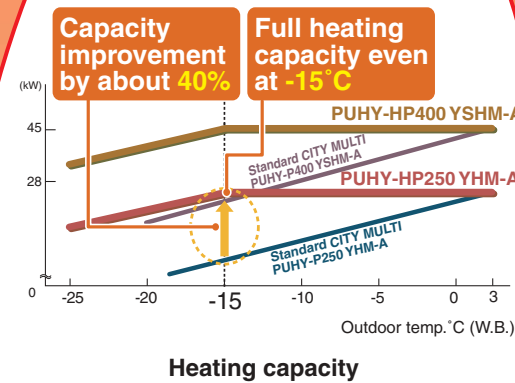


ZUBADAN



As a market leading company, we introduce CITY MULTI ZUBADAN heat pump system; it achieves an incredibly high heating performance even at low outdoor temperature. ZUBA short form of "zubato" in Japanese and meaning exactly or promptly, and DAN meaning warm, with its expanded heating capabilities, ZUBADAN sets a new standard in performance. Warm it, and sense our comfort.

Stable Heating Performance even at -15°C

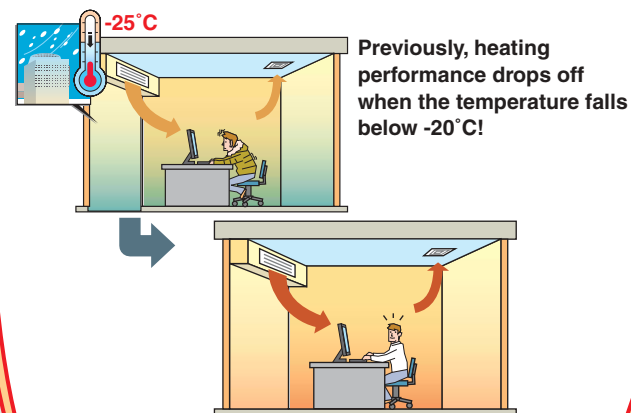
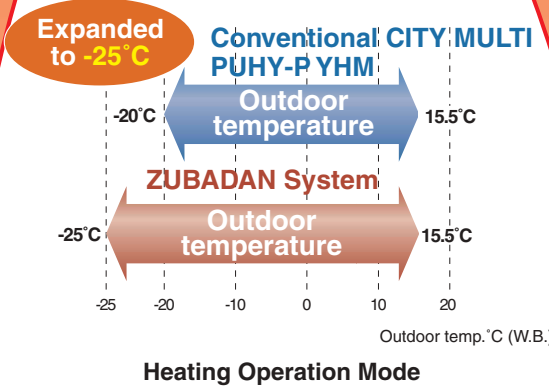


Maximum Stable Operation

By utilizing our advanced Flash Injection Circuit, the system can not only provide continuous heating for up to 250 minutes in one continuous cycle, but also significantly lessens defrost time to give an exceptionally stable heating operation.

Heating up to 250 min. straight
Reduced Defrosting time

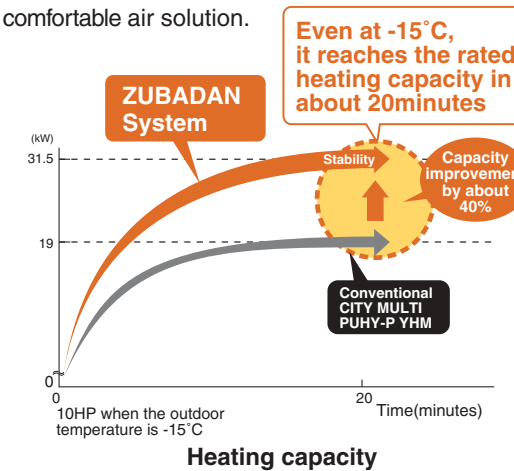
Expanded Heating Operation down to -25°C



With Hyper Heating Inverter System ...however, even at such temperatures, the new Hyper Heating Inverter System has no trouble keeping the occupants nice and toasty!

Shorter Warm-up in about 20 Min.

With its new improved startup performance, the ZUBADAN system achieves full heating capacity even when outdoor temperature is as low as -15°C. Heating capacity, about 20 minutes after startup is improved by 40% compared to the conventional model; ensuring occupants an immediate comfortable air solution.



Reliable and Long Product Life Cycle

Backup Function (HP400 and HP500 models)

Hyper Heating Inverter system ensures an exceptionally high level of reliability by utilizing a new back-up function, which can be easily operated in the case of a malfunction from an indoor unit remote controller.



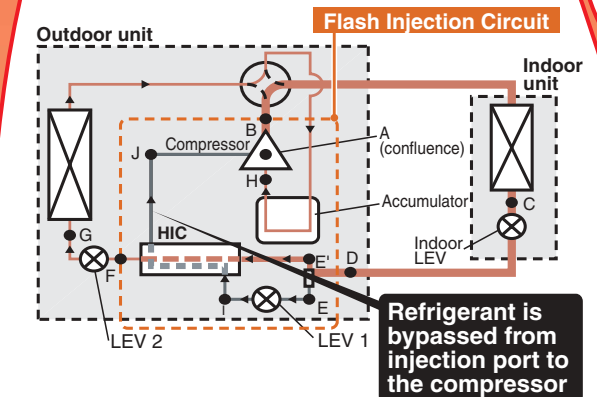
Rotation Function (HP400 and HP500 models)

Running outdoor units alternatively using its newly developed 'Rotation Function', the system is able to ensure an optimum product life cycle for both of its component units.



TECHNOLOGY

Flash Injection Circuit

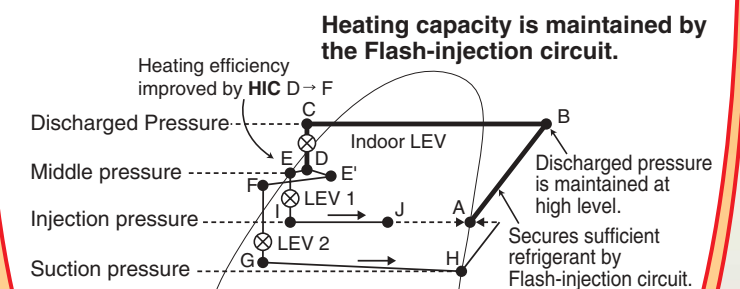


Note: Heat Interchange Circuit (HIC) Heating efficiency is improved by enhancing the recollection of heat at the outdoor unit with the low temperature refrigerant from the HIC.

Startup Comfort

One of the key factors of the units newly designed Flash Injection Circuit is that the optimal amount of refrigerant can be provided to the system via the compressor through a specially designed injection port to ensure a particularly stable operation. In simple terms, the system allows a quick startup time and continuous heating; even in low ambient conditions.

Constant Comfort



[Pressure Enthalpy diagram showing HIC]

With its new highly effective defrost feature (which prevents automatic defrosting when it is not required), the Hyper Heating Inverter System can deliver conditioned heating operation up to 250 minutes in one continuous cycle!