



From Japan to the World

Advanced systems in every product

Lineup

		Type	13,000 Btu/h	18,000 Btu/h	24,000 Btu/h
M-Series	Wall-mounted	Inverter type	 MSY-GT13VF	 MSY-GT18VF	 MSY-GT24VF
		Fixed Speed type	 MS-GS13VF	 MS-GS18VF	 MS-GS24VF
				18,000 Btu/h	24,000 Btu/h
P-Series	Ceiling-cassette	Inverter type		 PLY-ZM18EA	 PLY-ZM24EA
	Ceiling-suspended	Inverter type		 PCY-ZM18KA	 PCY-ZM24KA
	Ceiling-concealed	Inverter type		 PEY-ZM18JAG	 PEY-ZM24JAG
	Floor-standing	Inverter type			

*Specifications for P series are when connected to the Y models under T1 condition.

30,000 Btu/h	36,000 Btu/h	—	—	Page
 MSY-GT30VF	 MSY-GT36VF			p5
 MS-GS30VF	 MS-GS36VF			p13
30,000 Btu/h	36,000 Btu/h	45,000 Btu/h*	60,000 Btu/h*	
 PLY-ZM30EA	 PLY-ZM36EA	 PLY-ZM45EA		p19
 PCY-ZM30KA	 PCY-ZM36KA	 PCY-ZM45KA		p23
 PEY-ZM30JAG	 PEY-ZM36JAG	 PEY-ZM45JAG	 PEY-ZM60GAG	p25
 PSY-ZM30KA	 PSY-ZM36KA	 PSY-ZM45KA		p29



M

SERIES

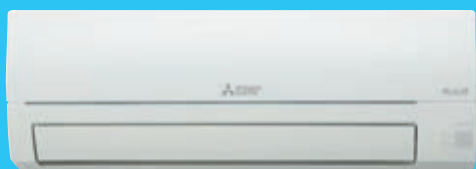
M-Series Line-up

INDOOR UNIT		
MSY-GT series  MSY-GT13VF	 MSY-GT18VF MSY-GT24VF MSY-GT30VF	 MSY-GT36VF
MS-GS series  MS-GS13VF	 MS-GS18VF MS-GS24VF	 MS-GS30VF MS-GS36VF

OUTDOOR UNIT		
MUY-GT series  MUY-GT13VF	 MUY-GT18VF MUY-GT24VF	 MUY-GT30VF MUY-GT36VF
MU-GS series  MU-GS13VF MU-GS18VF	 MU-GS24VF MU-GS30VF	 MU-GS36VF

M series <Inverter models>

MSY-GT series



MSY-GT13VF



MSY-GT18/24/30VF

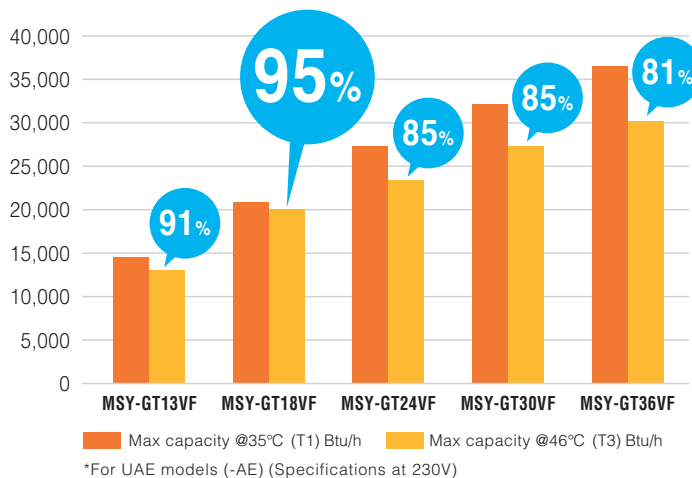


MSY-GT36VF



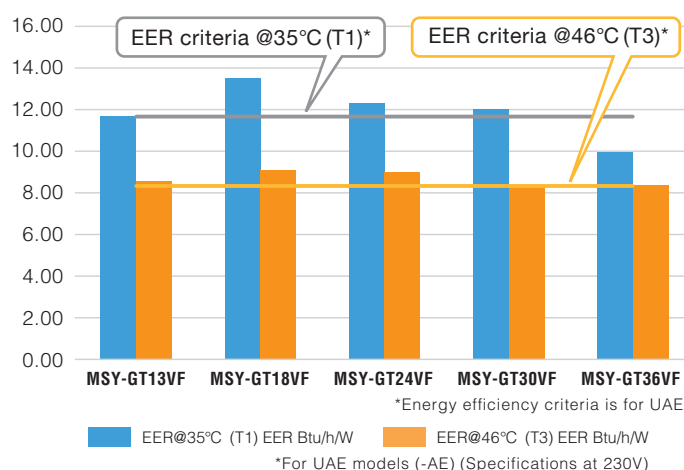
HIGH COOLING PERFORMANCE

MSY-GT series achieve strong cooling operation even at high ambient temperature. Cooling capacity (@46°C) keeps 95% compared @35°C for 18,000Btu class.*



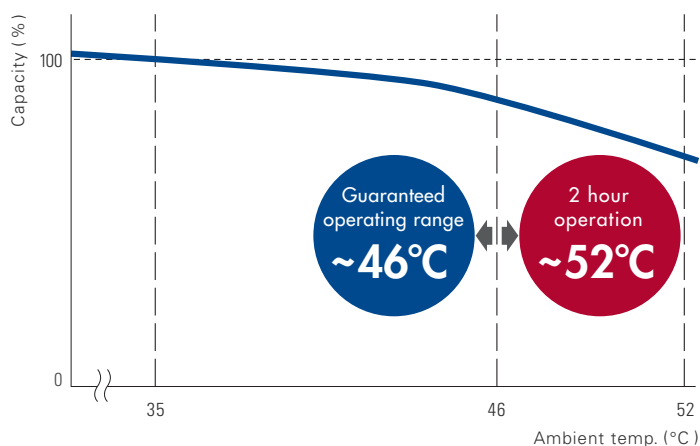
High Energy Efficiency

The classes from low-capacity (13,000Btu) to high-capacity (36,000Btu), have achieved high energy efficiency not only rated condition (@35°C), but even at high ambient 46°C.



HIGH COOLING PERFORMANCE EVEN IN TROPICAL CONDITION

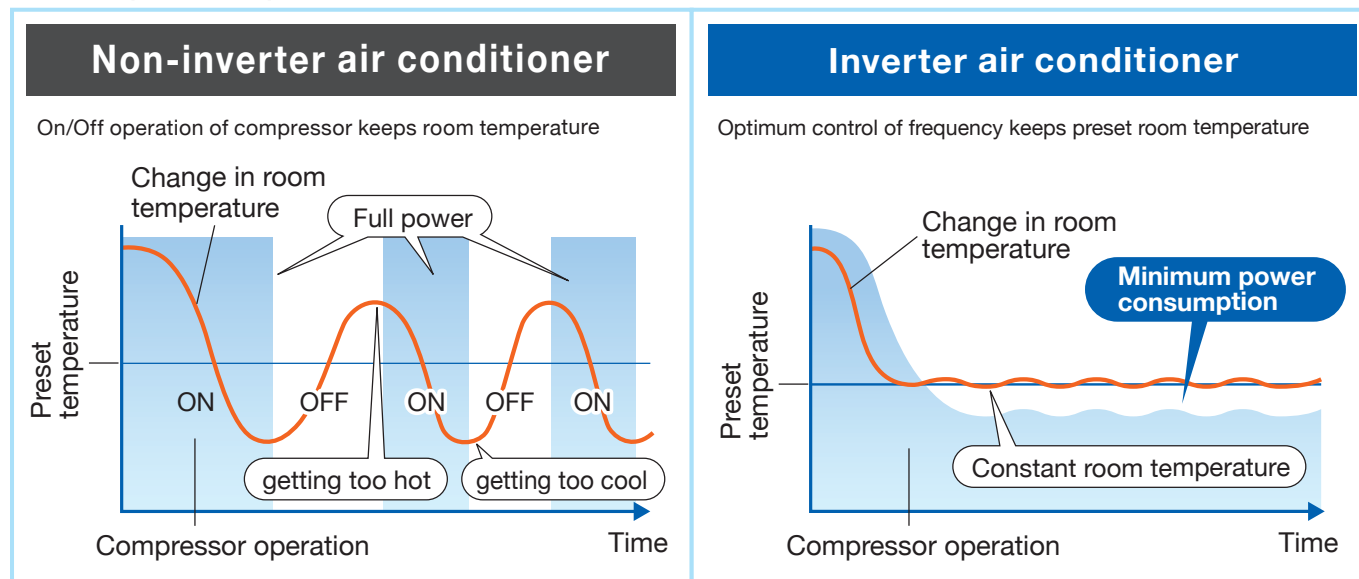
Powerful cooling performance realizes guaranteed operating range up to 46°C. In addition, it realizes to keep operating for 2 hours at 52°C.



Inverter Technology

Below is a simple comparison of air conditioner operation control with and without an inverter.

■ Inverter operation comparison



The compressors of air conditioners without an inverter start and stop repeatedly in order to maintain the preset room temperature. This repetitive on/off operation uses excessive electricity and compromises room comfort. The compressors of air conditioners equipped with an inverter run continuously; the inverter quickly optimizing the operating frequency according to changes in room temperature. This ensures energy-efficient operation and a more comfortable room.

Point 1 Quick & Powerful

Increasing the compressor motor speed by controlling the operation frequency ensures powerful output at start-up, brings the room temperature to the comfort zone faster than units not equipped with an inverter. Hot rooms are cooled, and cold rooms are heated faster and more efficiently.

Point 2 Room Temperature Maintained

The compressor motor operating frequency and the change of room temperature are monitored to calculate the most efficient waveform to maintain the room temperature in the comfort zone. This eliminates the large temperature swings common with non-inverter systems, and guarantees a pleasant, comfortable environment.

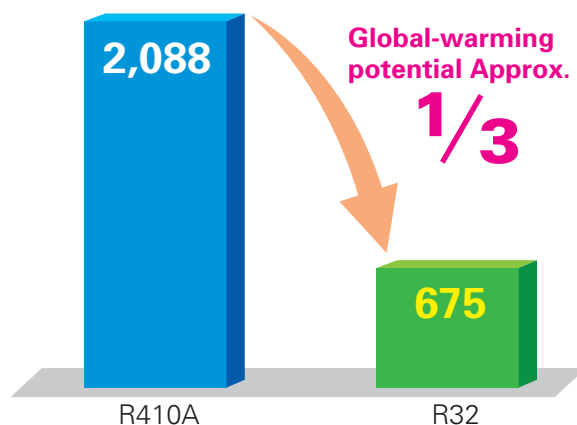
R32 refrigerant



Points for Use

The new R32 refrigerant has a global-warming potential approximately $1/3^{*1}$ that of our current refrigerant, R410A; thereby dramatically reducing the impact on global-warming more than ever.

Comparison of Global Warming Potential

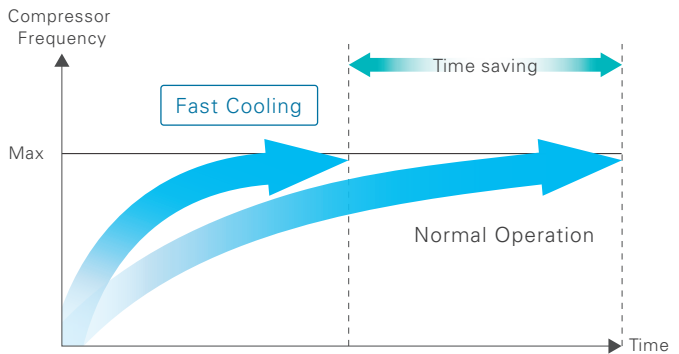


*1: Source: IPCC 4th Assessment Report, global-warming potential (GWP) 100-year value. Comparison of 2,088(R410A) and 675 (R32).

Fast Cooling

Fast Cooling is the most essential desire in air conditioner.
MITSUBISHI ELECTRIC's Fast Cooling brings
you fast refreshment in your life.

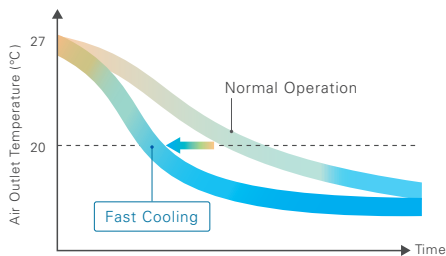
* Image



Compressor Frequency image

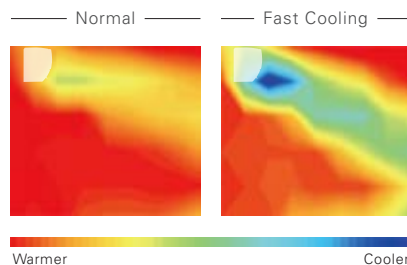
Pressing the Fast Cooling button makes the compressor reach its maximum frequency remarkably faster than in Normal Operation.

Air Outlet Temperature



Lowest the air outlet temperature faster than Inverter Normal Operation.

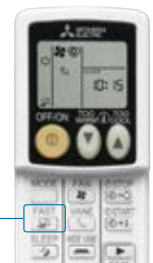
Thermography



Quickly cools the room with the highest-volume, and low-temperature airflow at 2min. after operation.

Fast Cooling button

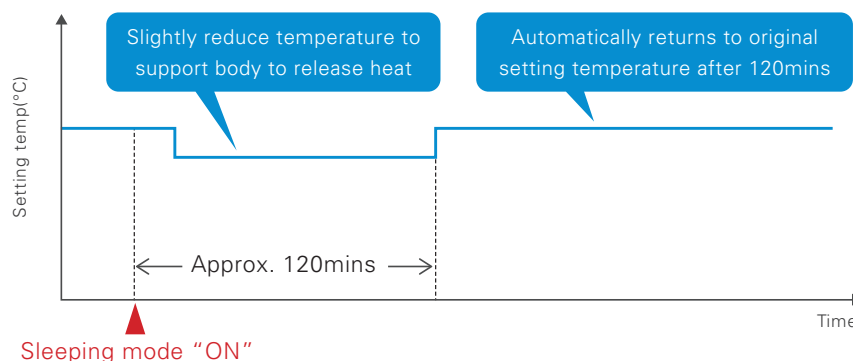
Once activated, this mode continues for 15 minutes.



Fast Cooling mode starts immediately with the push of a button. According to preference, air direction can be changed freely.

Sleep mode

Sleep mode can support body to release heat by operating slightly lower temperature than set temperature before pressing "sleep mode" button for 2 hours.

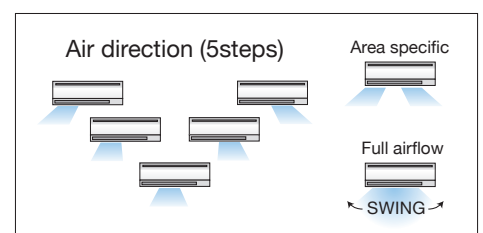


Error code display



Error codes are displayed on the remote controller for trouble shooting.

* For the details, please refer to the operating Instructions



*Manual : MSY-GT13
Auto : MSY-GT18/24/30/36

Dual Barrier Coating*

Dual Barrier Coating prevents dust and greasy dirt from getting into the air conditioner

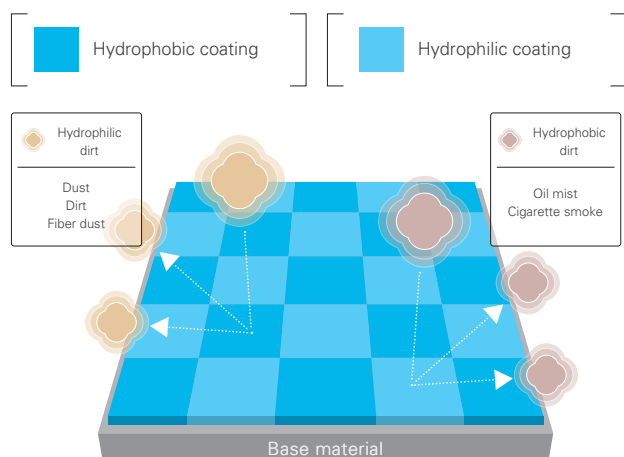
* Only for Fan

* Image



State-of-the-art coating technology

Dual Barrier repels both types of dirt



Comparison of dirt on Fan

[Fan]

Image
after 10 years



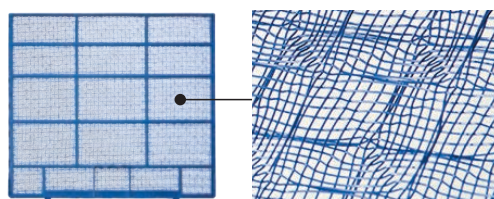
Dual Barrier
Coating used

Dirt is generally classified into two groups. Dual Barrier Coating works as a two barrier coating with blended "Hydrophobic coating" that prevent hydrophilic dirt penetration and "Hydrophilic coating" that prevent hydrophobic dirt.

Nano
Platinum

Nano platinum filter

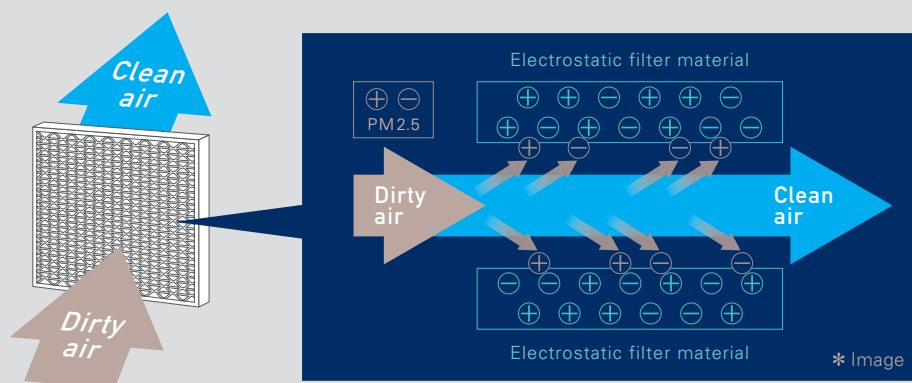
Nano Platinum Filter with the three-dimensional surface has a large capture area and incorporates nanometer-sized platinum-ceramic particles that work to break bacteria, mold, and also odours.



Bacteria Mold Odour
Suppression Removal

Microparticle Catching Filter

Effectively catches floating PM2.5 particles to maintain clean air in the room.



Electrostatic material removes PM2.5 from the air and absorbs it when passing through the filter

Model name :
MAC-EMF515FT-E (for MSY-GT13VF)
MAC-EMF615FT-E (for MSY-GT18/24/30VF)
MAC-EMF715FT-E (for MSY-GT36VF)

M series Inverter models Specification

MSY-GT series for UAE

Indoor Unit				MSY-GT13VF	MSY-GT18VF	MSY-GT24VF	MSY-GT30VF	MSY-GT36VF
Outdoor Unit				MUY-GT13VF	MUY-GT18VF	MUY-GT24VF	MUY-GT30VF	MUY-GT36VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32	R32
T1* (Specifications at 230V)	Capacity (Min-Max)	kW		3.810 (1.50 - 4.25)	5.280 (1.81 - 6.20)	7.050 (2.11 - 8.04)	8.210 (2.11 - 9.44)	10.030 (2.90 - 10.76)
		Btu/h		13,000 (5,118 - 14,502)	18,016 (6,176 - 21,155)	24,056 (7,200 - 27,434)	28,014 (7,200 - 32,211)	34,224 (9,895 - 36,715)
	Total input	kW		1.110	1.340	1.960	2.330	3.420
	EER	Btu/h/W		11.71	13.44	12.27	12.02	10.01
T3* (Specifications at 230V)	Capacity (Max)	kW		3.225 (3.85)	5.450 (5.90)	6.260 (6.87)	7.490 (8.06)	8.060 (8.90)
		Btu/h		11,004 (13,137)	18,596 (20,132)	21,360 (23,441)	25,557 (27,502)	27,502 (30,368)
	Total input	kW		1.290	2.055	2.405	3.080	3.315
	EER	Btu/h/W		8.53	9.05	8.88	8.30	8.30
Operating Current (220-230-240V)			A	5.2 - 5.0 - 5.0	6.3 - 6.0 - 5.8	9.0 - 8.6 - 8.2	10.7 - 10.2 - 9.8	15.7 - 15.0 - 14.4
Indoor Unit	Power Input	Rated	kW	0.030	0.038	0.038	0.046	0.080
	Running Current	Rated	A	0.24	0.34	0.34	0.39	0.74
	Dimension	H*W*D	mm	280*838*228	325*1100*238	325*1100*238	325*1100*238	365*1170*295
	Net weight		kg	8.9	14.7	14.7	14.7	20
	Air Volume (SLo-Lo-Med-Hi-SHi)		m3/min	5.2-7.5-9.3-11.4-13.8	9.0-11.1-13.1-15.4-20.0	9.6-11.9-14.4-16.6-20.0	7.9-11.3-13.9-17.7-21.7	10.1-14.5-17.7-22.3-27.1
	Sound level (SPL)(SLo-Lo-Med-Hi-SHi)		dB(A)	26-31-36-41-47	27-33-38-43-49	28-34-39-44-50	30-37-42-46-53	32-38-43-48-53
Outdoor Unit	Dimension	H*W*D	mm	550*800*285	714*800*285	714*800*285	880*840*330	880*840*330
	Net weight		kg	31.5	38	38	47	49
	Air Volume		m3/min	36.4	53.2	56.4	60.2	63.2
	Sound level (SPL)		dB(A)	52	55	56	57	57
	Breaker Size		A	10	16	16	20	20
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	1/4 - 1/2	1/4 - 1/2	1/4 - 5/8	1/4 - 5/8
	Max piping length	Out-In	m	20	30	30	30	30
	Max Height defference	Out-In	m	12	15	15	15	15
Guaranteed operating range (Outdoor)			°C	21 ~ 46				

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

MSY-GT series for Qatar

Indoor Unit				MSY-GT13VF	MSY-GT18VF	MSY-GT24VF	MSY-GT30VF
Outdoor Unit				MUY-GT13VF	MUY-GT18VF	MUY-GT24VF	MUY-GT30VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32
T1* (Specifications at 240V)	Capacity (Min-Max)	kW		3.810 (1.50 - 4.25)	5.280 (1.81 - 6.20)	7.050 (2.11 - 8.04)	8.210 (2.11 - 9.44)
		Btu/h		13,000 (5,118 - 14,502)	18015 (6,176 - 21,154)	24,055 (7,199 - 27,432)	28,013 (7,199 - 32,209)
	Total input	kW		1.110	1.340	1.960	2.330
	EER	Btu/h/W		11.71	13.44	12.27	12.02
T3* (Specifications at 240V)	Capacity (Max)	kW		3.225 (3.85)	5.450 (5.90)	6.260 (6.87)	7.490 (8.06)
		Btu/h		11,004 (13,137)	18,595 (20,131)	21,359 (23,440)	25,556 (27,569)
	Total input	kW		1.290	2.055	2.405	3.080
	EER	Btu/h/W		8.53	9.05	8.88	8.30
Operating Current (220-230-240V)			A	5.2 - 5.0 - 5.0	6.3 - 6.0 - 5.8	9.0 - 8.6 - 8.2	10.7 - 10.2 - 9.8
Indoor Unit	Power Input	Rated	kW	0.030	0.038	0.038	0.046
	Running Current	Rated	A	0.24	0.34	0.34	0.39
	Dimension	H*W*D	mm	280*838*228	325*1100*238	325*1100*238	325*1100*238
	Net weight		kg	8.9	14.7	14.7	14.7
	Air Volume (SLo-Lo-Med-Hi-SHi)		m3/min	5.2-7.5-9.3-11.4-13.8	9.0-11.1-13.1-15.4-20.0	9.6-11.9-14.4-16.6-20.0	7.9-11.3-13.9-17.7-21.7
	Sound level (SPL)(SLo-Lo-Med-Hi-SHi)		dB(A)	26-31-36-41-47	27-33-38-43-49	28-34-39-44-50	30-37-42-46-53
Outdoor Unit	Dimension	H*W*D	mm	550*800*285	714*800*285	714*800*285	880*840*330
	Net weight		kg	31.5	38	38	47
	Air Volume		m3/min	36.4	53.2	56.4	60.2
	Sound level (SPL)		dB(A)	52	55	56	57
	Breaker Size		A	10	16	16	20
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	1/4 - 1/2	1/4 - 1/2	1/4 - 5/8
	Max piping length	Out-In	m	20	30	30	30
	Max Height defference	Out-In	m	12	15	15	15
Guaranteed operating range (Outdoor)			°C	21 ~ 46			

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

M series Inverter models Specification

MSY-GT series for Kuwait

Indoor Unit				MSY-GT13VF	MSY-GT18VF	MSY-GT24VF	MSY-GT30VF
Outdoor Unit				MUY-GT13VF	MUY-GT18VF	MUY-GT24VF	MUY-GT30VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32
T1* (Specifications at 240V)	Capacity (Min-Max)	kW		3.810 (1.50 - 4.25)	5.280 (1.81 - 6.20)	7.050 (2.11 - 8.04)	8.210 (2.11 - 9.44)
		Btu/h		13,000 (5,118 - 14,502)	18,015 (6,176 - 21,154)	24,055 (7,199 - 27,432)	28,013 (7,199 - 32,209)
	Total input	kW		1.110	1.340	1.960	2.330
	EER	Btu/h		11.71	13.44	12.27	12.02
T4* (Specifications at 240V)	Capacity (Max)	kW		1.700	3.815	3.950	4.000
		Btu/h		5,800	13,017	13,477	13,648
	Total input	kW		0.580	1.300	1.347	1.364
	EER	Btu/h/W		10.0	10.01	10.01	10.01
Operating Current (220-230-240V)			A	5.2 - 5.0 - 5.0	6.3 - 6.0 - 5.8	9.0 - 8.6 - 8.2	10.7 - 10.2 - 9.8
Indoor Unit	Power Input	Rated	kW	0.030	0.038	0.038	0.046
	Running Current	Rated	A	0.24	0.34	0.34	0.39
	Dimension	H*W*D	mm	280*838*228	325*1100*238	325*1100*238	325*1100*238
	Net weight		kg	8.9	14.7	14.7	14.7
	Air Volume (SLo-Lo-Med-Hi-SHi)		m3/min	5.2-7.5-9.3-11.4-13.8	9.0-11.1-13.1-15.4-20.0	9.6-11.9-14.4-16.6-20.0	7.9-11.3-13.9-17.7-21.7
	Sound level (SPL)(SLo-Lo-Med-Hi-SHi)		dB(A)	26-31-36-41-47	27-33-38-43-49	28-34-39-44-50	30-37-42-46-53
Outdoor Unit	Dimension	H*W*D	mm	550*800*285	714*800*285	714*800*285	880*840*330
	Net weight		kg	31.5	38	38	47
	Air Volume		m3/min	36.4	53.2	56.4	60.2
	Sound level (SPL)		dB(A)	52	55	56	57
	Breaker Size		A	10	16	16	20
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	1/4 - 1/2	1/4 - 1/2	1/4 - 5/8
	Max piping length	Out-In	m	20	30	30	30
	Max Height defference	Out-In	m	12	15	15	15
Guaranteed operating range (Outdoor)			°C	21 ~ 46			

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T4- Condition : indoor temperature of 26.6°CDB/ 19.4°CWB, and outdoor temperature of 48°CDB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

*T4 condition is measured by the third party organization.

MSY-GT series for Bahrain

Indoor Unit				MSY-GT13VF	MSY-GT18VF	MSY-GT24VF	MSY-GT30VF
Outdoor Unit				MUY-GT13VF	MUY-GT18VF	MUY-GT24VF	MUY-GT30VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32
T1* (Specifications at 230V)	Capacity (Min-Max)	kW		3.810 (1.50 - 4.25)	5.280 (1.81 - 6.2)	7.050 (2.11 - 8.04)	8.210 (2.11 - 9.44)
		Btu/h		13,000 (5,118 - 14,502)	18,015 (6,176 - 21,154)	24,055 (7,199 - 27,432)	28,013 (7,199 - 32,209)
	Total input	kW		1.110	1.340	1.960	2.330
	EER	Btu/h/W		11.71	13.44	12.27	12.02
T3* (Specifications at 230V)	Capacity (Max)	kW		3.225 (3.85)	5.450 (5.90)	6.260 (6.87)	7.490 (8.06)
		Btu/h		11,004 (13,137)	18,595 (20,131)	21,359 (23,440)	25,556 (27,569)
	Total input	kW		1.290	2.055	2.405	3.080
	EER	Btu/h/W		8.53	9.05	8.88	8.30
Operating Current (220-230-240V)			A	5.2 - 5.0 - 5.0	6.3 - 6.0 - 5.8	9.0 - 8.6 - 8.2	10.7 - 10.2 - 9.8
Indoor Unit	Power Input	Rated	kW	0.030	0.038	0.038	0.046
	Running Current	Rated	A	0.24	0.34	0.34	0.39
	Dimension	H*W*D	mm	280*838*228	325*1100*238	325*1100*238	325*1100*238
	Net weight		kg	8.9	14.7	14.7	14.7
	Air Volume (SLo-Lo-Med-Hi-SHi)		m3/min	5.2-7.5-9.3-11.4-13.8	9.0-11.1-13.1-15.4-20.0	9.6-11.9-14.4-16.6-20.0	7.9-11.3-13.9-17.7-21.7
	Sound level (SPL)(SLo-Lo-Med-Hi-SHi)		dB(A)	26-31-36-41-47	27-33-38-43-49	28-34-39-44-50	30-37-42-46-53
Outdoor Unit	Dimension	H*W*D	mm	550*800*285	714*800*285	714*800*285	880*840*330
	Net weight		kg	31.5	38	38	47
	Air Volume		m3/min	36.4	53.2	56.4	60.2
	Sound level (SPL)		dB(A)	52	55	56	57
	Breaker Size		A	10	16	16	20
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	1/4 - 1/2	1/4 - 1/2	1/4 - 5/8
	Max piping length	Out-In	m	20	30	30	30
	Max Height defference	Out-In	m	12	15	15	15
Guaranteed operating range (Outdoor)			°C	21 ~ 46			

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

M series <Fixed speed type>

MS-GS series



MS-GS13VF



MS-GS18/24VF



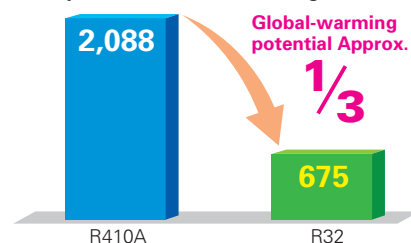
MS-GS30/36VF



R32 refrigerant



Comparison of Global Warming Potential



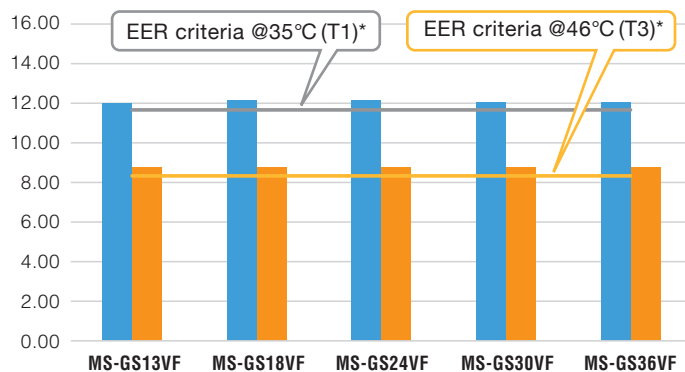
*1: Source: IPCC 4th Assessment Report, global-warming potential (GWP) 100-year value. Comparison of 2,088(R410A) and 675 (R32).

Points for Use

The new R32 refrigerant has a global-warming potential approximately 1/3*1 that of our current refrigerant, R410A; thereby dramatically reducing the impact on global-warming more than ever.

High Energy Efficiency

The classes from low-capacity (13,000Btu) to high-capacity (36,000Btu) , have achieved high energy efficiency not only rated condition (@35°C) , but even at high ambient 46°C .



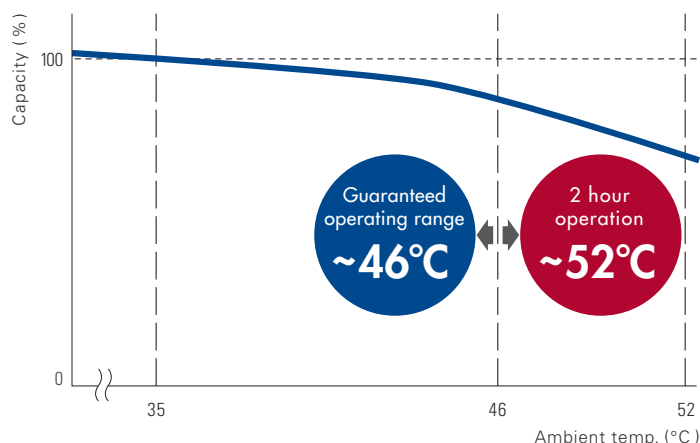
*Energy efficiency criteria is for UAE.

■ EER@35°C (T1) EER Btu/h/W ■ EER@45°C (T3) EER Btu/h/W

*For UAE models (-AE) (Specifications at 230V)

HIGH COOLING PERFORMANCE EVEN IN TROPICAL CONDITION

Powerful cooling performance realizes guaranteed operating range up to 46°C . In addition, it realizes to keep operating for 2hours at 52°C .



*Capacity curve is image

Air Volume

Airflow volume(SHI) is improved 142% from previous series and it can reach users more airflow.



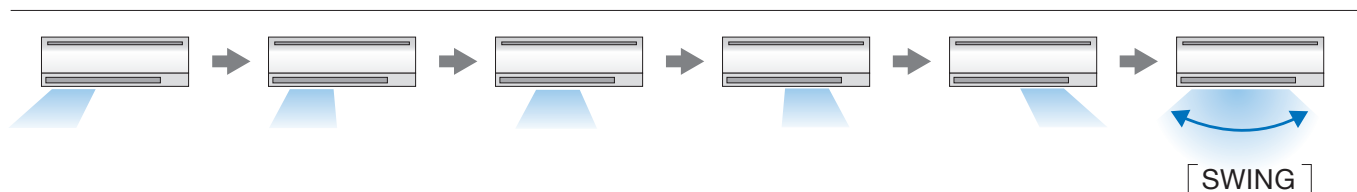
Airflow (SHI) m3/min

		Class				
		13	18	24	30	36
Previous series		10.4	18.1	22.0	21.6	23.2
New	MS-GS series	14.8	22.0	22.4	25.0	25.4
		142%	122%	102%	116%	109%

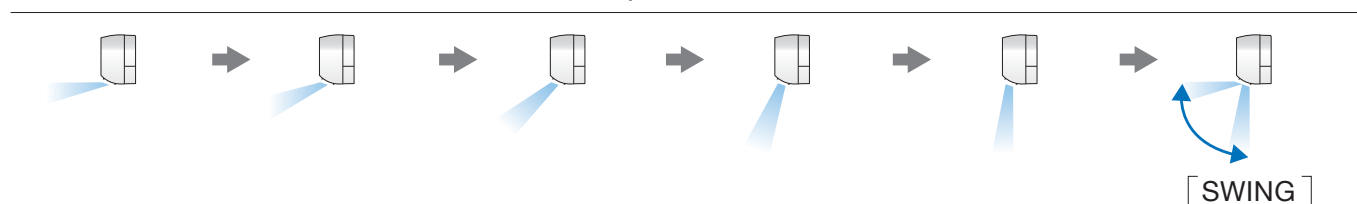
Vane Control (Up-Down & Left-Right)

MS-GS series can 5directions and swing (Up-down) and 5directions, side and swing (Left-Right). Once you select airflow direction on the remote controller, airflow will reach as you select.

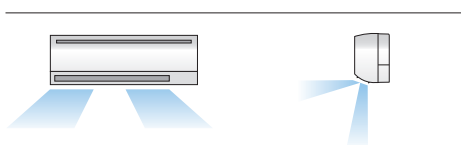
Left - Right



Up - Down



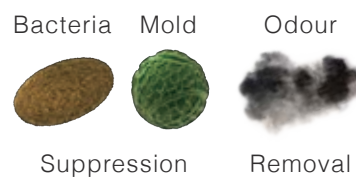
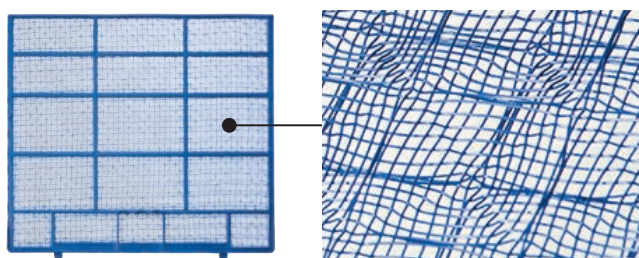
Area specific



*Manual : MS-GS13
Auto : MS-GS18/24/30/36

Nano Platinum filter

Nano Platinum Filter with the three-dimensional surface has a large capture area and incorporates nanometer-sized platinum-ceramic particles that work to break bacteria, mold, and also odours.



M series Fixed speed models Specification

MS-GS series for UAE

Indoor Unit				MS-GS13VF	MS-GS18VF	MS-GS24VF	MS-GS30VF	MS-GS36VF
Outdoor Unit				MU-GS13VF	MU-GS18VF	MU-GS24VF	MU-GS30VF	MU-GS36VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32	R32
T1* (Specifications at 230V)	Capacity	kW		3.500	5.200	6.700	8.200	9.500
		Btu/h		11,942	17,743	22,861	27,980	32,415
	Total input	kW		0.995	1.475	1.900	2.330	2.700
	EER	Btu/h/W		12.00	12.03	12.03	12.01	12.01
	CSPF			12.76	12.76	12.76	12.76	12.76
T3* (Specifications at 230V)	Capacity	kW		3.300	4.700	5.920	7.034	8.215
		Btu/h		11,260	16,037	20,200	24,001	28,031
	Total input	kW		1.310	1.865	2.350	2.790	3.260
	EER	Btu/h/W		8.6	8.6	8.6	8.6	8.6
	CSPF			10.54	10.51	10.51	10.47	10.47
Operating Current			A	4.4	6.5	8.7	10.3	12.6
Indoor Unit	Power Input	Rated	kW	0.050	0.050	0.050	0.070	0.070
	Running Current	Rated	A	0.39	0.42	0.40	0.61	0.61
	Dimension	H*W*D	mm	290*799*232	325*1,100*238	325*1,100*238	365*1,170*295	365*1,170*295
	Net weight		kg	9.2	14.9	14.9	20	20
	Air volume (Lo-Med-Hi-SHi)		m3/min	7.1-9.9-12.6-14.8	12.5-14.9-17.1-22.0	12.5-14.3-17.1-22.4	15.0-19.0-23.0-25.0	15.4-19.1-23.2-25.4
Outdoor Unit	Sound level (SPL) (Lo-Med-Hi-SHi)		dB(A)	29-37-42-48	35-41-46-53	37-42-47-53	37-42-47-53	40-45-50-53
	Dimension	H*W*D	mm	525*718*255	525*718*255	880*840*330	880*840*330	1,258*870*295
	Net Weight		kg	33.5	34.0	58.5	66.5	81.5
	Air volume		m3/min	31.7	32.4	52.0	52.0	85.8
	Sound level (SPL)		dB(A)	52	53	56	56	57
Piping	Breaker Size		A	10	15	20	20	25
	Piping diameter	Liquid-Gas	inch	1/4-3/8	1/4-1/2	1/4-5/8	1/4-5/8	3/8-3/4
	Max piping length	Out-In	m	20	30	30	30	30
Piping	Max height defference	Out-In	m	10	10	10	10	15
Guaranteed operating range (Outdoor)				°C 21 ~ 46				

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

MS-GS series for Qatar

Indoor Unit				MS-GS13VF	MS-GS18VF	MS-GS24VF	MS-GS30VF	MS-GS36VF
Outdoor Unit				MU-GS13VF	MU-GS18VF	MU-GS24VF	MU-GS30VF	MU-GS36VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32	R32
T1* (Specifications at 240V)	Capacity	kW		3.500	5.200	6.700	8.200	9.500
		Btu/h		11,942	17,742	22,860	27,978	32,414
	Total input	kW		1.000	1.480	1.910	2.340	2.790
	EER	Btu/h/W		11.94	11.99	11.97	11.96	11.62
	CSPF			12.69	12.72	12.69	12.69	12.35
T3* (Specifications at 240V)	Capacity	kW		3.300	4.700	5.920	7.034	8.215
		Btu/h		11,260	16,036	20,199	24,000	28,030
	Total input	kW		1.310	1.865	2.350	2.790	3.260
	EER	Btu/h/W		8.6	8.6	8.6	8.6	8.6
	CSPF			10.51	10.48	10.44	10.41	10.2
Operating Current			A	4.3	6.4	8.5	9.9	12.2
Indoor Unit	Power Input	Rated	kW	0.050	0.050	0.050	0.070	0.070
	Running Current	Rated	A	0.39	0.42	0.40	0.61	0.61
	Dimension	H*W*D	mm	290*799*232	325*1,100*238	325*1,100*238	365*1,170*295	365*1,170*295
	Net weight		kg	9.2	14.9	14.9	20.0	20.0
	Air volume (Lo-Med-Hi-SHi)		m3/min	7.1-9.9-12.6-14.8	12.5-14.9-17.1-22.0	12.5-14.3-17.1-22.4	15.0-19.0-23.0-25.0	15.4-19.1-23.2-25.4
Outdoor Unit	Sound level (SPL) (Lo-Med-Hi-SHi)		dB(A)	29-37-42-48	35-41-46-53	37-42-47-53	37-42-47-53	40-45-50-53
	Dimension	H*W*D	mm	525*718*255	525*718*255	880*840*330	880*840*330	1,258*870*295
	Net Weight		kg	33.5	34.0	58.5	66.5	81.5
	Air volume		m3/min	31.7	32.4	52.0	52.0	85.8
	Sound level (SPL)		dB(A)	52	53	56	56	57
Piping	Breaker Size		A	10	15	20	20	25
	Piping diameter	Liquid-Gas	inch	1/4-3/8	1/4-1/2	1/4-5/8	1/4-5/8	3/8-3/4
	Max piping length	Out-In	m	20	30	30	30	30
Piping	Max height defference	Out-In	m	10	10	10	10	15
Guaranteed operating range (Outdoor)				°C 21 ~ 46				

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011

M series Fixed speed models Specification

MS-GS series for Bahrain

Indoor Unit				MS-GS13VF	MS-GS18VF	MS-GS24VF	MS-GS30VF	MS-GS36VF
Outdoor Unit				MU-GS13VF	MU-GS18VF	MU-GS24VF	MU-GS30VF	MU-GS36VF
Power supply (Outdoor) [Single phase]		V		220-230-240	220-230-240	220-230-240	220-230-240	220-230-240
Refrigerant				R32	R32	R32	R32	R32
T1* (Specification at 230V)	Capacity		kW	3.500	5.200	6.700	8.200	9.500
			Btu/h	11,942	17,742	22,860	27,978	32,414
	Total input		kW	0.995	1.475	1.900	2.330	2.700
	EER		Btu/h/W	12.00	12.03	12.03	12.01	12.01
	CSPF			12.76	12.76	12.76	12.76	12.76
T3* (Specification at 230V)	Capacity		kW	3.300	4.700	5.920	7.034	8.215
			Btu/h	11,260	16,036	20,199	24,000	28,030
	Total input		kW	1.310	1.865	2.350	2.790	3.260
	EER		Btu/h/W	8.6	8.6	8.6	8.6	8.6
	CSPF			10.54	10.51	10.51	10.47	10.47
Operating Current			A	4.4	6.5	8.7	10.3	12.6
Indoor Unit	Power Input	Rated	kW	0.050	0.050	0.050	0.070	0.070
	Running Current	Rated	A	0.39	0.42	0.40	0.61	0.61
	Dimension	H*W*D	mm	290*799*232	325*1,100*238	325*1,100*238	365*1,170*295	365*1,170*295
	Net weight		kg	9.2	14.9	14.9	20.0	20.0
	Air volume (Lo-Med-Hi-SHi)		m3/min	7.1-9.9-12.6-14.8	12.5-14.9-17.1-22.0	12.5-14.3-17.1-22.4	15.0-19.0-23.0-25.0	15.4-19.1-23.2-25.4
Outdoor Unit	Sound level (SPL) (Lo-Med-Hi-SHi)		dB(A)	29-37-42-48	35-41-46-53	37-42-47-53	37-42-47-53	40-45-50-53
	Dimension	H*W*D	mm	525*718*255	525*718*255	880*840*330	880*840*330	1,258*870*295
	Net Weight		kg	33.5	34.0	58.5	66.5	81.5
	Air volume		m3/min	31.7	32.4	52.0	52.0	85.8
	Sound level (SPL)		dB(A)	52	53	56	56	57
Piping	Breaker Size		A	10	15	20	20	25
	Piping diameter	Liquid-Gas	inch	1/4-3/8	1/4-1/2	1/4-5/8	1/4-5/8	3/8-3/4
	Max piping length	Out-In	m	20	30	30	30	30
	Max height deffierence	Out-In	m	10	10	10	10	15
Guaranteed operating range (Outdoor)			°C	21 ~ 46				

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

*Unit is able to operate up to 52°C based on the testing condition of UAE S/ISO 5151:2011



P

SERIES

P-Series Line-up

INDOOR UNIT			
			
PLY-ZM	PCY-ZM	PEY-ZM PEY-(Z)M	PSY-ZM
4-way ceiling-cassette	Ceiling-suspended	Ceiling-concealed	Floor-standing

OUTDOOR UNIT	
	
SUY-ZM18	SUY-ZM24/30
	
PUY-ZM36	PUY-ZM45 PUY-(Z)M60

4-way ceiling- cassette

PLY SERIES (R32 MODELS)

(3Di-see Sensor: optional)



PLY-ZM18/24/30/36/45EA-AE [SA, GU]



*optional



optional



*optional



optional

* Signal receiver is required.



A sophisticated design that matches a variety of rooms and a high level of convenience enhancing your quality of life are combined in this compact, multi-functional indoor unit.

Beautiful Square Design

The beautiful design harmonizes with any interior, making it ideal for facilities such as offices and retail stores. Direct line-based square design enables designs of ceiling to match the design of direct line type illuminations, thereby creating a beautiful space.



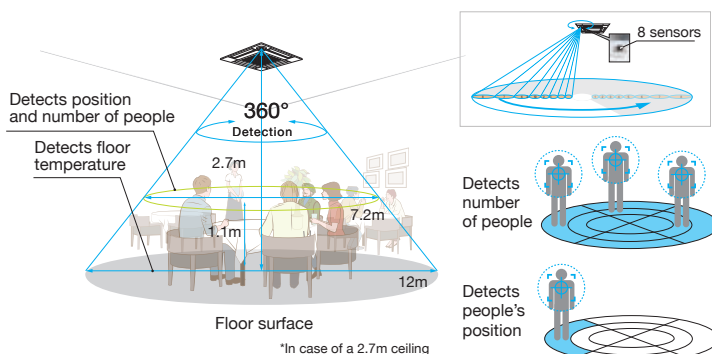
3D i-see Sensor



The "3D i-see Sensor" built into the optional corner panel eliminates uneven temperature distribution and reduces electricity consumption.

Highly Accurate Motion Detection

A total of eight sensors rotate a full 360° in intervals. In addition to detecting body temperature, our original algorithm also detects the number of occupants in the room and their positions.



"3D i-see Sensor" temperature-sensing technology improves energy efficiency and enhances room comfort

The "3D i-see Sensor" is an innovative Mitsubishi Electric technology that uses a radiation-based sensor to monitor temperature throughout an entire room. When connected to the air conditioner control panel, the "3D i-see Sensor" works to maximize room comfort.

Sensible temperature control prevents excessive cooling through pioneering control technology

By measuring the inlet temperature and floor temperature, temperatures felt by the human body (sensible temperature) are computed. This allows the proper sensible temperature to always be maintained through the suppression of excessive cooling.

Detects Number of People (3D i-see Sensor: optional)

Room occupancy energy-saving mode

The 3D i-see Sensor detects the number of people in the room. It then calculates the occupancy rate based on the maximum number of people in the room up to that point in time in order to save air-conditioning power. When the occupancy rate is approximately 30%, air-conditioning power equivalent to 1°C during cooling operation is saved. The temperature is controlled according to the number of people.

No occupancy energy-saving mode

When 3D i-see Sensor detects that no one is in the room, the system is switched to a pre-set power-saving mode. If the room remains unoccupied for more than 60min, air-conditioning power equivalent to 2°C during cooling operation is saved. This contributes to preventing waste in terms of cooling.

No occupancy Auto-Off mode

When the room remains unoccupied for a pre-set period of time, the air conditioner turns off automatically, thereby providing even greater power savings. The time until operation is stopped can be set in intervals of 10min, ranging from 60 to 180 min.

Room occupancy energy-saving mode



100%



30%

1°C power savings

No occupancy energy-saving mode



100%



0%

2°C power savings

No occupancy Auto-Off mode



100%



0%

Auto-Off

*PAR-41MAA is required for each setting
**% is room occupancy rate.

Detect People's Position (3D i-see Sensor: optional)

Direct/Indirect settings

Some people do not like the feel of wind, some want to be cool from head to toe. People's likes and dislikes vary. With the 3D i-see Sensor, it is possible to choose to block or not block to the wind for each vane.

Direct (Downward)



Indirect (Horizontal)



Direct Airflow



Indirect Airflow



*Only available for models equipped with 3D i-see Sensor.

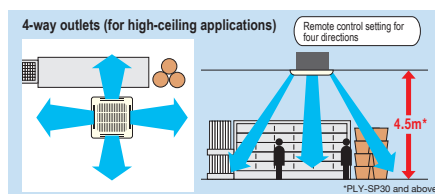
*PAR-41MAA or PAR-SL100A-E is required for each setting.

Vane Control Applications

For Shopping Malls

Wide airflow coverage down to the floor even in expansive spaces like large factory-outlet centers or shopping malls with high ceilings.

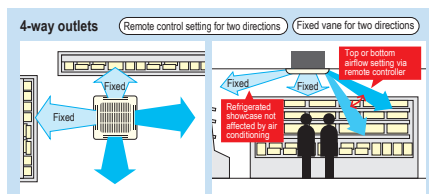
The unique airflow design of the powerful ceiling-cassette models reduces pressure loss and provides wide cool-air coverage from high ceilings to the floor even in expansive spaces like shopping malls with ceilings over 4 metres in height.



For Retail Outlets (e.g. grocery stores)

These units are ideal for maintaining constant temperatures in environments that have equipment such as refrigerated showcases.

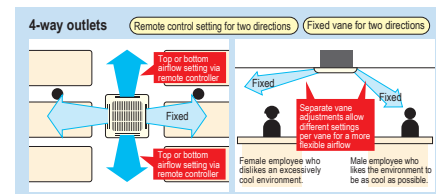
Individual vane angle adjustment enables precise airflow control to specific areas of the store to reduce unnecessary air conditioning of areas such as refrigerated showcases.



For Offices

Flexible and pleasant airflow eliminates annoying drafts within the office environment.

In office environments, annoying drafts can be bothersome, leading to discomfort and reduced productivity. Precise vane control helps to eliminate this problem.



Easy Installation and Maintainance

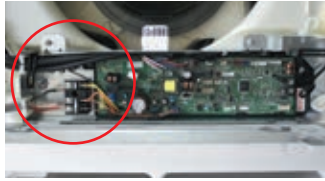
Electrical box wiring

After reviewing the power supply terminal position in the electrical box, the structure was redesigned to improve connectivity. This has made previously complex wiring work easier.

■ Previous model (PLY-P**BA)



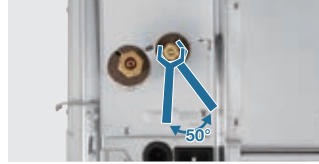
■ New model (PLY-ZM**EA)



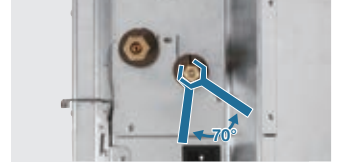
Increased space for plumbing work

The top and bottom positions of the liquid and gas pipes have been reversed to allow the gas pipe work, which requires more effort, to be completed first. Further, through structural innovations related to the space around the pipes, the area where the spanner can be moved has been increased, thus improving liquid pipe work and enabling it to be completed smoothly.

■ Previous model (PLY-P**BA)



■ New model (PLY-ZM**EA)



Temporary hanging hook

The structure of the panel has been revised and is now equipped with a temporary hanging hook. This has improved work efficiency during panel installation.



No need to remove screws

Installation is possible without removing the screws for the corner panel and the control box, simply loosen them. This lowers the risk of losing screws.

■ Corner panel

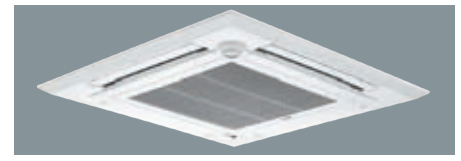


■ Control box cover



Lightweight decorative panel

After reviewing the structure and materials, weight has been reduced approximately 20% compared to the previous model, reducing the burden of installation.



Automatic Grille Lowering Function (PLP-6EAJ)

An automatic grille lowering function is available for easy filter maintenance. Special wired and wireless remote controllers can be used to lower the intake grille for maintenance.



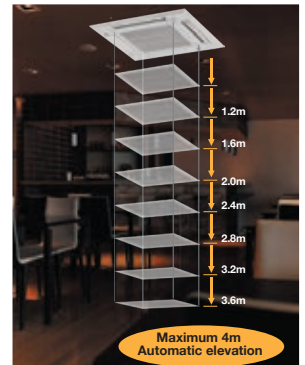
Grille Elevation Remote Controller
(comes with the automatic elevation panel)



Wired Remote Controller
PAR-41MAA



Wireless Remote Controller
PAR-SL101A-E



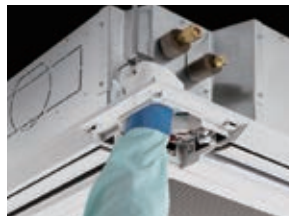
Fresh-air Intake

Indoor air quality is significantly enhanced by the direct intake of fresh air from outside. An optional multi-function casement (PAC-SJ41-TM-E) is also available for the intake of a larger volume of air.

Fresh-air Intake

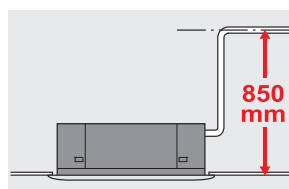
Handy Corner Pocket Design Simplifies Maintenance

By using the handy pockets equipped on the four corners of the grille, maintenance work such as drain pan cleaning and height adjustments can be accomplished without removing the grille.



Drain Water Lifting Mechanism

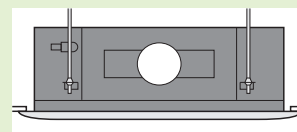
A high-performance drain pump on the drain water lifting mechanism allows the drain water pipe to be routed as high as 850mm from the ceiling surface.



Compatible with Round and Rectangular Ducts

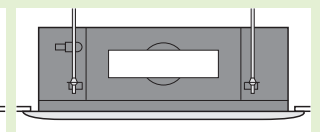
For easy connection to branch ducts, knock-out holes are designed to fit both round and rectangular ducts. Matching the shape of the duct fringe provides more flexibility during installation.

Connecting to round ducts



150mm diameter cutout

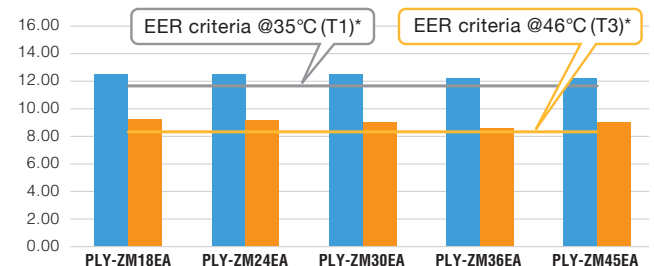
Connecting to rectangular ducts



350mm x 100mm cutout

High Energy Efficiency

The classes from low-capacity (18,000Btu) to high-capacity (45,000Btu), have achieved high energy efficiency not only rated condition (35°C), but even at high ambient 46°C.



*Energy efficiency criteria is for UAE.

■ EER@35°C (T1) EER Btu/h/W

■ EER@46°C (T3) EER Btu/h/W

*For UAE models (-AE) (Specifications at 230V)

P series Inverter models Specification

4-way ceiling-cassette (-AE, -SA, -GU)

Indoor				PLY-ZM18EA	PLY-ZM24EA	PLY-ZM30EA	PLY-ZM36EA	PLY-ZM45EA	
Outdoor			-AE	SUY-ZM18VA	SUY-ZM24VA	SUY-ZM30VA	PUY-ZM36VKA	PUY-ZM45VKA	PUY-ZM45YKA
			-GU					-	
			-SA	SUY-ZM18NA	SUY-ZM24NA	SUY-ZM30NA	PUY-ZM36NKA	PUY-ZM45NKA	PUY-ZM45XKA
Power supply (Outdoor)		-AE, -GU	V/Phase/	220 - 240 / Single / 50					380-415/Three/50
		-SA	Hz	220 / Single / 60					380 / Three / 60
Refrigerant				R32					
T1		Capacity (Min-Max)	kW	5.31 (2.80-5.40)	7.10 (3.60-8.90)	8.80 (4.10-9.70)	10.60 (4.10-10.70)	13.20 (6.20-15.00)	
			Btu/h	18,100 (9,554-18,425)	24,200 (12,283-30,367)	30,000 (13,989-33,096)	36,200 (13,989-36,508)	45,000 (21,154-51,180)	
		Total input	kW	1.448	1.936	2.400	2.979	3.704	
		EER	Btu/h/W	12.50			12.15		
T3		Capacity	kW	4.77	6.39	7.50	9.55	11.90	
			Btu/h	16,300	21,800	25,600	32,600	40,600	
		Total input	kW	1.753	2.370	2.844	3.820	4.511	
		EER	Btu/h/W	9.30	9.20	9.00	8.55	9.00	
Operating Current		-AE	A	7.90	10.60	12.90	17.20	20.20	7.60
		-SA		8.20	11.10	13.50	17.90	21.10	8.00
		-GU		6.30	8.40	10.60	13.00	16.10	6.20
Indoor Unit	Power Input	Rated	kW	0.03	0.04	0.09			
	Running Current	Rated	A	0.33	0.43	0.91		0.99	
	Dimension<Panel>	H*W*D	mm	258*840*840 <40*950*950>		298*840*840 <40*950*950>			
	Net weight<Panel>		kg	19 <5>	21 <5>	27 <5>			
	Air Volume (Slo-Lo-Med-Hi-SHi)		m³/min	14-16-17-18	16-17-19-21	21-25-28-31		24-26-29-32	
	Sound level (SPL)(Slo-Lo-Med-Hi-SHi)		dB(A)	27-29-31-32	28-30-32-35	32-37-41-43		36-39-42-44	
Outdoor Unit	Dimension	H*W*D	mm	714*800*285	880*840*330		981*1050*330	1338*1050*330	
	Net weight		kg	38	48	46	65	100	102
	Air Volume		m³/min	56.4	66.6		87	116	
	Sound level (SPL)		dB(A)	51	54		55		
	Breaker Size		A	16	20		25	40	25
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	3/8 - 5/8				
	Max piping length	Out-In	m	30		50		55	
	Max Height defference	Out-In	m	20	25	30		30	
Guaranteed Operation Range (Outdoor)				18-52					

* Specifications are based on the following condition.

T1 - Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3 - Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011

* T1 and T3 of Single phase are specification at 230V.

* T1 and T3 of Three phase are specification at 400V.

* Operating current specifications are at 220-230-240V.

Ceiling-suspended

PCY SERIES (R32 MODELS)



PCY-ZM18/24/30/36/45KA-AE [GU]



optional



*optional



*optional



* Signal receiver is required.



A stylish indoor unit design and airflow settings for both high- and low-ceiling interiors expand installation possibilities

Stylish Indoor Unit Design

A stylish rectangular design is adopted for the indoor units of all models. As a result, the units blend in better with the ceiling.



PCY-ZM**KA

Optional Drain Pump for Full-capacity Models

The pumping height of the optional drain pump has been increased from 400mm to 600mm, expanding flexibility in choosing unit location during installation work.

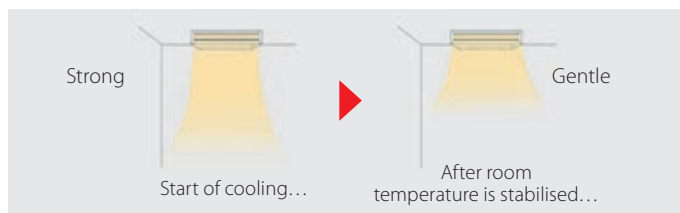
Drain pump installation possible

Drainage outlet can be 600mm above ceiling surface



Automatic Air-speed Adjustment

In addition to the conventional 4-speed settings, units are now equipped with an automatic air-speed adjustment mode. This setting automatically adjusts the air-speed to conditions that match the room environment. At the start of cooling operation, the airflow is set to high-speed to quickly cool the room. When the room temperature reaches the desired setting, the airflow speed is decreased automatically for stable, comfortable cooling operation.



Fresh-air Intake

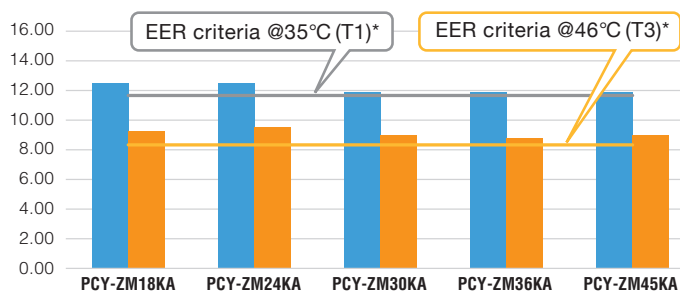
Units are equipped with a knock-out hole that enables the induction of fresh air from outside.

Flockless Vanes

With the adoption of flockless vanes, dirt and other impurities can be cleaned off easily using a mild household detergent.

High Energy Efficiency

The classes from low-capacity (18,000Btu) to high-capacity (45,000Btu), have achieved high energy efficiency not only rated condition (35°C), but even at high ambient 46°C.



*Energy efficiency criteria is for UAE.

■ EER@35°C (T1) EER Btu/h/W ■ EER@46°C (T3) EER Btu/h/W

*For UAE models (-AE) (Specifications at 230V)

P series Inverter models Specification

Ceiling-suspended (-AE, -GU)

Indoor				PCY-ZM18KA	PCY-ZM24KA	PCY-ZM30KA	PCY-ZM36KA	PCY-ZM45KA	
Outdoor			-AE, -GU	SUY-ZM18VA	SUY-ZM24VA	SUY-ZM30VA	PUY-ZM36VKA	PUY-ZM45VKA	PUY-ZM45YKA
									-
Power supply (Outdoor)			-AE, -GU	V/Phase/Hz	220 - 240 / Single / 50				380-415/Three/50
Refrigerant				R32					
T1		Capacity (Min-Max)	kW	5.31 (2.80-5.40)	7.10 (3.60-8.90)	8.80 (4.10-9.70)	10.60 (4.10-10.70)	13.20 (6.20-15.00)	
			Btu/h	18,100 (9,554-18,425)	24,200 (12,283-30,367)	30,000 (13,989-33,096)	36,200 (13,989-36,508)	45,000 (21,154-51,180)	
		Total input	kW	1.448	1.936	2.510	3.029	3.766	
		EER	Btu/h/W	12.50		11.95		11.95	
T3		Capacity	kW	4.77	6.39	7.50	9.55	11.90	
			Btu/h	16,300	21,800	25,600	32,600	40,600	
		Total input	kW	1.753	2.271	2.844	3.672	4.511	
		EER	Btu/h/W	9.30	9.60	9.00	8.90	9.00	
Operating Current			-AE	6.7	8.8	11.6	13.9	17.1	6.5
			-GU	6.4	8.5	11.2	13.4	16.4	6.3
Indoor Unit	Power Input	Rated	kW	0.07	0.08	0.16		0.16	
	Running Current	Rated	A	0.61	0.72	1.35		1.35	
	Dimension	H*W*D	mm	230*1280*680			230*1600*680		
	Net weight		kg	32			40		
	Air Volume (low-med2-med1-high)		m³/min	16-17-18-20	16-18-20-22	27-29-32-34			
	Sound level(SPL)(low-med2-med1-high)		dB(A)	34-36-38-40	34-36-40-42	42-44-46-48			
Outdoor Unit	Dimension	H*W*D	mm	714*800*285	880*840*330		981*1050*330	1338*1050*330	
	Net weight		kg	38	48	46	65	100	102
	Air Volume		m³/min	56.4	66.6		87	116	
	Sound level (SPL)		dB(A)	51	54		55		
	Breaker Size		A	16	20		25	40	25
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2	3/8 - 5/8				
	Max piping length	Out-In	m	30		50		55	
	Max Height defference	Out-In	m	20	25	30		30	
Guaranteed Operation Range (Outdoor)				18-52					

* Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011

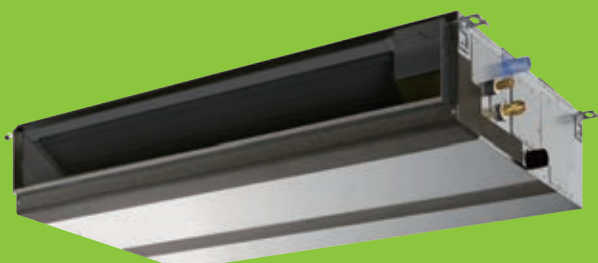
* T1 and T3 of Single phase are specification at 230V.

* T1 and T3 of Three phase are specification at 400V.

* Operating current specifications are at 220-230-240V.

Ceiling-concealed

PEY SERIES (MODELS)



PEY-ZM18/24/30/36/45JAG-AE [SA, GU]



PEY-(Z)M60GAG-AE
PEY-ZM60GAG-SA [GU]



optional



*optional(60)



*optional(18-45)



* Signal receiver is required.



The thin, ceiling-concealed indoor units of the PEY series are the perfect answer for the air-conditioning requirements of buildings with minimum ceiling installation space and wide-ranging external static pressure. Energy-saving efficiency has been improved, thereby reducing electricity consumption and contributing to a further reduction in operating cost.

Compact Indoor Units*

The unit height is unified to 250mm.

which makes installation in low ceilings with minimal clearance space possible.

*PEY-ZM18/24/30/36/45JAG

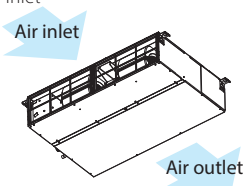


250mm

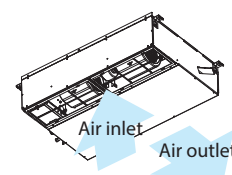
Air Inlet

Units with bottom inlets make more noise than those with rear inlets. It is recommended that the rear inlet be selected when installing a unit in a room that should be quiet, such as a bedroom.

(1) Rear inlet



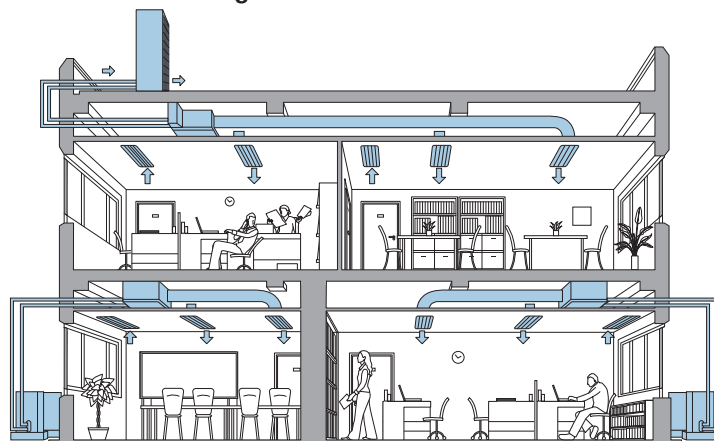
(2) Bottom inlet



Wide Selection of Fan Speeds and External Static Pressure

Five-stage external static pressure conversions and three fan speed*¹ selections are available. Capable of being set to a maximum of 150Pa*², units are applicable to a wide range of building types. *¹ PEY-ZM18/24/30/36/45JAG *² PEY-ZM60GAG

Flexible duct design



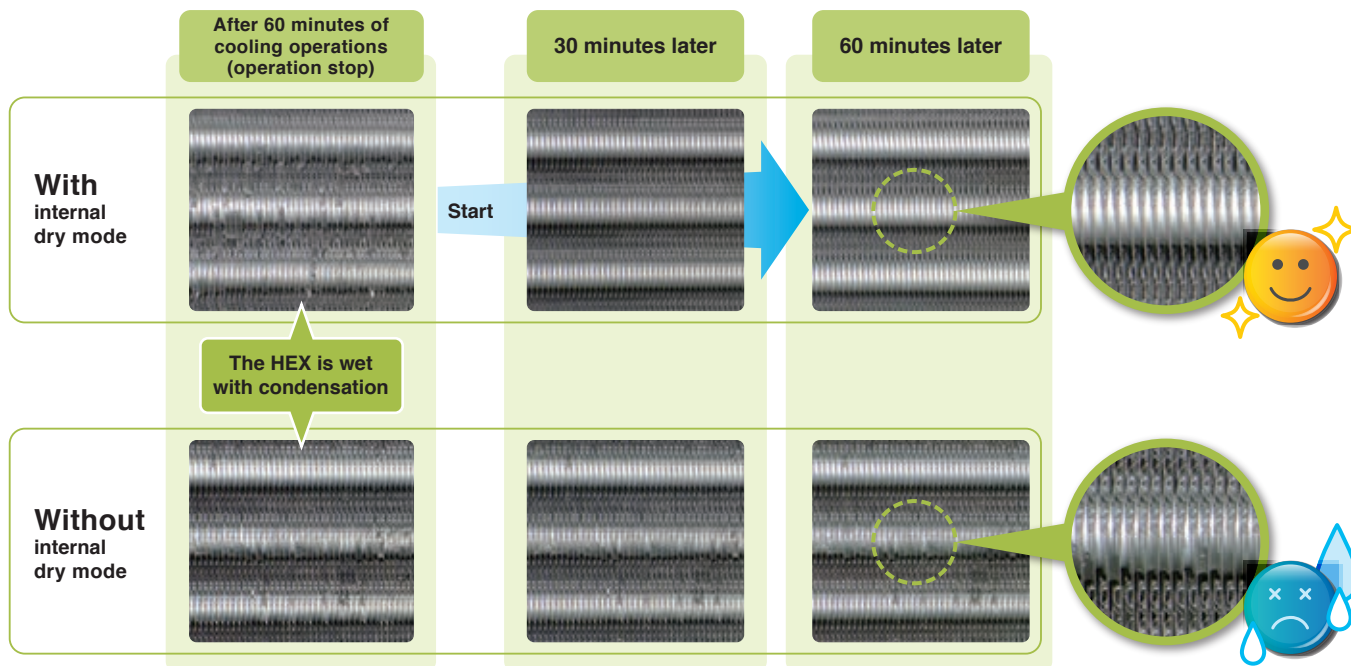
External static pressure setting

PEY-ZM18/24/30/36/45JAG	35/50/70/100/125Pa
PEY-ZM60GAG	50/100/150Pa

Internal Dry Mode (for PEY-ZM18/24/30/36/45JAG)

To dry the heat exchanger (HEX), the unit will operate in the fan mode at high speed after cooling or drying operation has stopped. The drying time is selectable from 30 or 60 minutes.

■ Operating Sample



*Under normal cooling conditions (Indoor) (27CD.B./19°CW.B.) *Results will vary depending on indoor temperature and humidity conditions.

High Power Fan Speed Mode (for PEY-ZM18/24/30/36/45JAG)

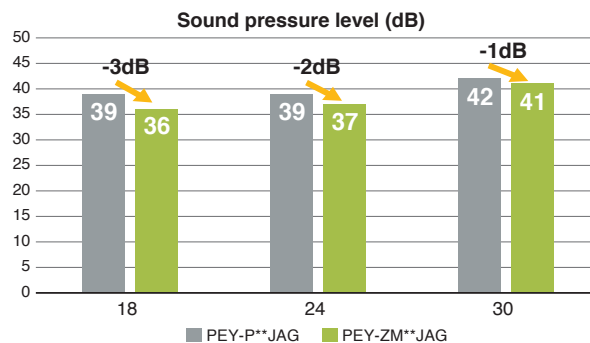
This start-up mode is run with the increased fan speed for a maximum of 15 minutes to rapidly cool or heat the space (after the first Thermo-ON operation).

*Power consumption and sound pressure level will increase in this mode.

*High power fan speed mode is not available when the external static pressure is set to 125 Pa.

Reduced Noise Level

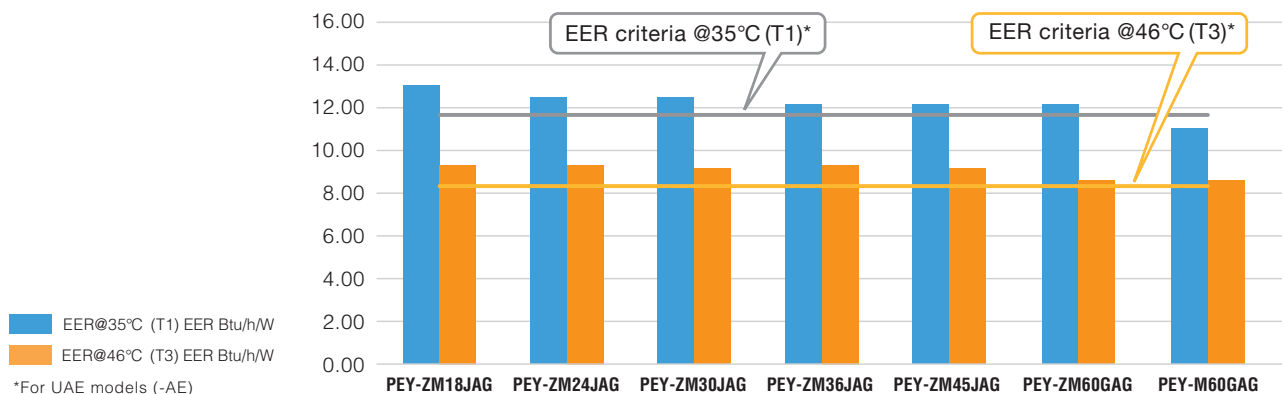
The noise levels of low capacity models (ZM18/24/30) are reduced compared to conventional models. The ZM18 model achieves 3dB reduction in noise level.



*Specifications reported are figures of high notch sound pressure level.

High Energy Efficiency

The classes from low-capacity (18,000Btu) to high-capacity (60,000Btu), have achieved high energy efficiency not only rated condition (35°C), but even at high ambient 46°C.



*For UAE models (-AE)
(Specifications at 230V)

*Energy efficiency criteria is for UAE.

P series Inverter models Specification

Ceiling-concealed (-AE, -SA, -GU)

Indoor				PEY-ZM18JAG	PEY-ZM24JAG	PEY-ZM30JAG	PEY-ZM36JAG	PEY-ZM45JAG		
Outdoor			-AE	SUY-ZM18VA	SUY-ZM24VA	SUY-ZM30VA	PUY-ZM36VKA	PUY-ZM45VKA	PUY-ZM45YKA	
			-GU							
			-SA	SUY-ZM18NA	SUY-ZM24NA	SUY-ZM30NA	PUY-ZM36NKA	PUY-ZM45NKA	PUY-ZM45XKA	
Power supply (Outdoor)		-AE, -GU	V/Phase/Hz	220 - 240 / Single / 50						380-415/Three/50
		-SA		220 / Single / 60						380 / Three / 60
Refrigerant				R32						
T1		Capacity (Min-Max)	kW	5.31 (2.80-5.40)	7.10 (3.60-8.90)	8.80 (4.10-9.70)	10.60 (4.10-10.70)	13.20 (6.20-15.00)		
			Btu/h	18,100 (9,554-18,425)	24,200 (12,283-30,367)	30,000 (13,989-33,096)	36,200 (13,989-36,598)	45,000 (21,154-40,944)		
		Total input	kW	1.387	1.936	2.400	2.979	3.704		
		EER	Btu/h/W	13.05	12.50		12.15			
T3		Capacity	kW	4.77	6.39	7.90	9.55	11.90		
			Btu/h	16,300	21,800	27,000	32,600	40,600		
		Total input	kW	1.772	2.370	3.000	3.544	4.511		
		EER	Btu/h/W	9.20	9.20	9.00	9.20	9.00		
Operating Current		-AE	A	6.4	8.8	10.9	13.6	16.7	6.3	
		-SA		6.7	9.2	11.4	14.2	17.5	6.6	
		-GU		6.1	8.4	10.5	13	16.1	6.1	
Indoor Unit	Power Input	Rated	kW	0.09	0.14	0.19	0.32			
	Running Current	Rated	A	0.69	0.95	1.25	1.98			
	Dimension	H*W*D	mm	250*900*732	250*1100*732	250*1400*732				
	Net weight		kg	26.0	29.5	36.5	38.0			
	Air Volume (Lo-Med-Hi)		m³/min	12.0-14.5-17.0	17.5-21.0-25.0	24.0-29.0-34.0	29.5-35.5-42.0			
	External Static Pressure		Pa	50						
	Sound level (SPL) (Lo-Med-Hi)		dB(A)	28 - 32 - 36	29 - 33 - 37	33 - 37 - 41	36 - 40 - 44			
Outdoor Unit	Dimension	H*W*D	mm	714*800*285	880*840*330		981*1050*330	1338*1050*330		
	Net weight		kg	38	48	46	65	100	102	
	Air Volume		m³/min	56.4	66.6		87	116		
	Sound level (SPL)		dB(A)	51	54		55			
	Breaker Size		A	16	20		25	40	25	
Piping	Piping diameter	Liquid-Gas	inch	1/4 - 1/2		3/8 - 5/8				
	Max piping length	Out-In	m	30		50		55		
	Max Height defference	Out-In	m	20	25	30				
Guaranteed Operation Range (Outdoor)			°C	18-52						

* Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011

* T1 and T3 of Single phase are specification at 230V.

* T1 and T3 of Three phase are specification at 400V.

* Operating current specifications are at 220-230-240V.

Indoor				PEY-ZM60GAG		PEY-M60GAG		
Outdoor				-AE	PUY-ZM60VKA	PUY-ZM60YKA	PUY-M60VKA	PUY-M60YKA
				-GU		-	-	-
				-SA	PUY-ZM60NKA	PUY-ZM60XKA	-	-
Power supply (Outdoor)		-AE, -GU	V/Phase/Hz	220-240/Single/50	380-415/Three/50	220-240/Single/50	380-415/Three/50	
		-SA		220 / Single / 60	380 / Three / 60	220 / Single / 60	380 / Three / 60	
Refrigerant				R32				
T1		Capacity (Min-Max)	kW	15.00 (6.30-17.60)		17.60 (6.30-17.60)		
			Btu/h	51,200 (21,496-60,051)		60,000 (21,496-60,051)		
		Total input	kW	4.213		6.678		
		EER	Btu/h/W	12.15		9.00		
T3		Capacity	kW	14.95				
			Btu/h	51,000				
		Total input	kW	5.965				
		EER	Btu/h/W	8.55				
Operating Current		-AE	A	20.1	7.1	30.8	10.5	
		-SA		20.8	7.4	—	—	
		-GU		19.4	6.8	—	—	
Indoor Unit	Power Input	Rated	kW	0.49				
	Running Current	Rated	A	3.82				
	Dimension	H*W*D	mm	400*1400*634				
	Net weight		kg	63.0				
	Air Volume (Lo-Med-Hi)		m³/min	48.0-60.0				
	External Static Pressure		Pa	50				
	Sound level (SPL) (Lo-Med-Hi)		dB(A)	42 - 45				
Outdoor Unit	Dimension	H*W*D	mm	1338*1050*330				
	Net weight		kg	100	102	100	102	
	Air Volume		m³/min	122				
	Sound level (SPL)		dB(A)	55		56		
	Breaker Size		A	40	25	40	25	
Piping	Piping diameter	Liquid-Gas	inch	3/8 - 5/8				
	Max piping length	Out-In	m	55				
	Max Height defference	Out-In	m	30				
Guaranteed Operation Range (Outdoor)			°C	18-52				

* Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011

* T1 and T3 of Single phase are specification at 230V.

* T1 and T3 of Three phase are specification at 400V.

* Operating current specifications are at 220-230-240V.

Floor-standing

PSY SERIES (R32 MODELS)



PSY-ZM30/36/45KA-AE



*optional



*optional

* Signal receiver is required.



A Streamlined, Lightweight Design

The PSY Series has a streamlined design and takes up very little floor space. Adding to this appeal, the unit weight has been significantly reduced for easier handling.

Whisper-quiet Performance

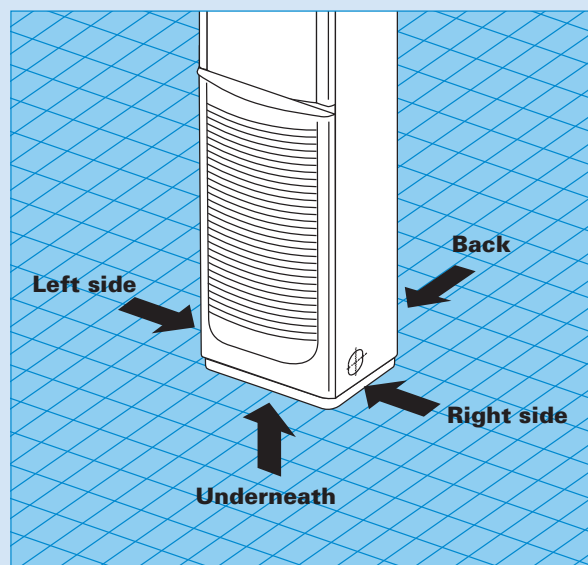
To ensure extra comfort, the PSY Series offers whisper-quiet operation thanks to a newly developed low-noise fan and improved air-duct design.

Less Installation Time; 4-way Pipe Directions

To reduce installation time, the piping connection position has been raised to simplify the arrangement of pipes. Piping can also be easily installed in four directions — left side, back, from underneath and on the right side of the unit. Even in the corner of a room is easy installation.

4-way pipe work connections enable greater freedom in installation

Remarkable freedom in choosing installation sites is allowed by providing piping connection to the indoor unit in four places: left side, back, from underneath and on the right side of the unit. Even installation in the corner of a room is easy.



Flockless Vanes

With the adoption of new flockless vanes, dirt and other impurities can be cleaned off easily using a mild household detergent.

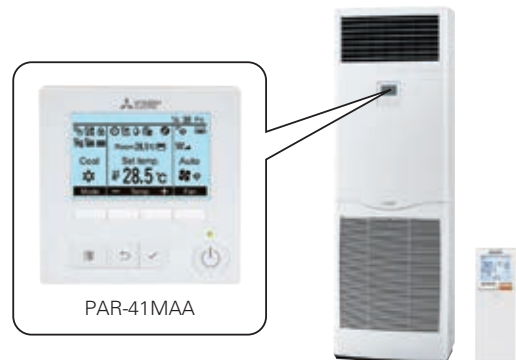
A Slim Design

With a width of only 600mm, this slim unit can fit neatly into narrow spaces.



Built-in MA Smart Remote Controller

The large and easy-to-read LCD makes it easy to perform a variety of functions. Equipped with PAR-41MAA, the latest wired remote controller. Offering excellent readability and a diverse range of functions, the remote controller increases user-friendliness and boosts user satisfaction.

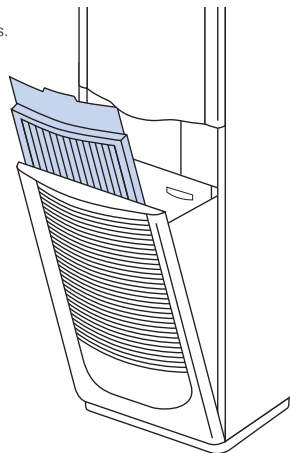


Equipped with a Long-life Filter as Standard

Indoor units are equipped with a long-life filter that has a maximum service life of 2,500hr* (based on use under average office conditions). Filter cleaning is drastically reduced. Furthermore, the adoption of an "open-and-close grille" makes it easy to take the filter out to clean off dust and particulates.

*May vary according to operating conditions.

Easy maintenance



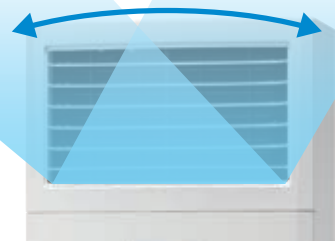
A Wide Airflow Range with Horizontal Swinging

The horizontal swinging function can be turned on or off via the remote controller to deliver comfort over a wider area.

Automatic swinging in the horizontal direction

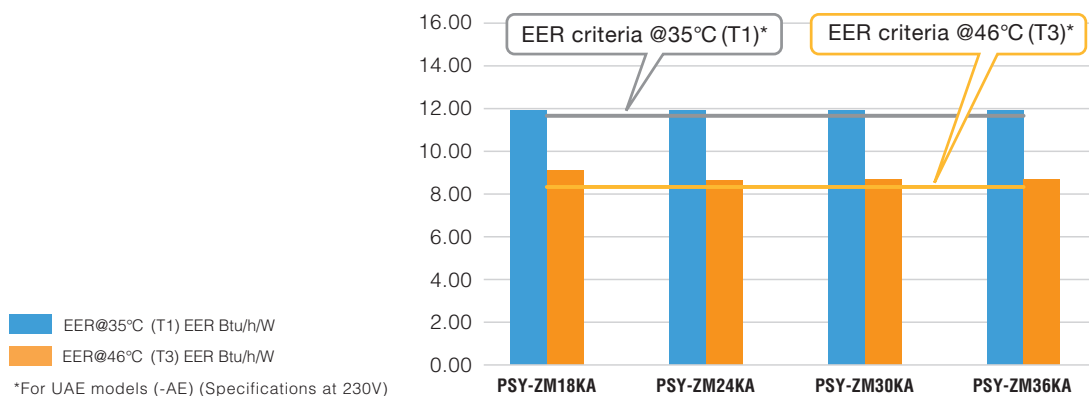
The horizontal-swinging louvers provide wide coverage to improve comfort.

Airflow can also be adjusted manually in the vertical direction.



High Energy Efficiency

The classes from low-capacity (30,000Btu) to high-capacity (45,000Btu), have achieved high energy efficiency not only rated condition (@35°C), but even at high ambient 46°C.



P series Inverter models Specification

Floor-standing (-AE)

Indoor				PSY-ZM30KA	PSY-ZM36KA	PSY-ZM45KA	
Outdoor -AE				SUY-ZM30VA	PUY-ZM36VKA	PUY-ZM45VKA	PUY-ZM45YKA
Power supply (Outdoor)			V/Phase/Hz	220 - 240 / Single / 50			
Refrigerant				R32			
T1	Capacity (Min-Max)	kW	8.80 (4.10-9.70)	10.60 (4.10-10.70)	12.00 (6.20-15.00)		
		Btu/h	30,000 (13,989-33,096)	36,200 (13,989-36,508)	41,000 (21,154-51,180)		
	Total input	kW	2.510	3.029	3.430		
	EER	Btu/h/W	11.95				
T3	Capacity	kW	7.50	9.00	11.20		
		Btu/h	25,600	30,800	38,200		
	Total input	kW	2.844	3.601	4.442		
	EER	Btu/h/W	9.00	8.55	8.60		
Operating Current			A	16.0	20.0	26.5	11.5
Indoor Unit	Power Input	Rated	kW	0.11			
	Running Current	Rated	A	0.73			
	Dimension	H*W*D	mm	1900*600*360			
	Net weight		kg	48			
	Air Volume (Lo-Med-Hi)		m³/min	25-28-31			
	Sound level (SPL) (Lo-Med-Hi)		dB(A)	45-49-51			
Outdoor Unit	Dimension	H*W*D	mm	880*840*330	981*1050*330	1338*1050*330	
	Net weight		kg	46	65	100	102
	Air Volume		m³/min	66.6	87	116	
	Sound level (SPL)		dB(A)	54		55	
	Breaker Size		A	20	25	40	25
Piping	Piping diameter	Liquid-Gas	inch	3/8 - 5/8			
	Max piping length	Out-In	m	50		55	
	Max Height deffierence	Out-In	m	30			
Guaranteed Operation Range (Outdoor)				18-52			

*Specifications are based on the following condition.

T1- Condition : indoor temperature of 27°CDB/ 19°CWB, and outdoor temperature of 35°CDB/24°CWB.

T3- Condition : indoor temperature of 29°CDB/ 19°CWB, and outdoor temperature of 46°CDB/24°CWB.

* Unit is able to operate up to 52 deg C based on the testing condition of UAE S/ISO 13253:2011

* T1 and T3 of Single phase are specification at 230V.

* T1 and T3 of Three phase are specification at 400V.

* Operating current specifications are at 220-230-240V.

Outdoor Unit



SUY-ZM18VA-AE [GU]
SUY-ZM18NA-SA



SUY-ZM24/30VA-AE [GU]
SUY-ZM24/30NA-SA



PUY-ZM36VKA-AE [GU]
PUY-ZM36NKA-SA

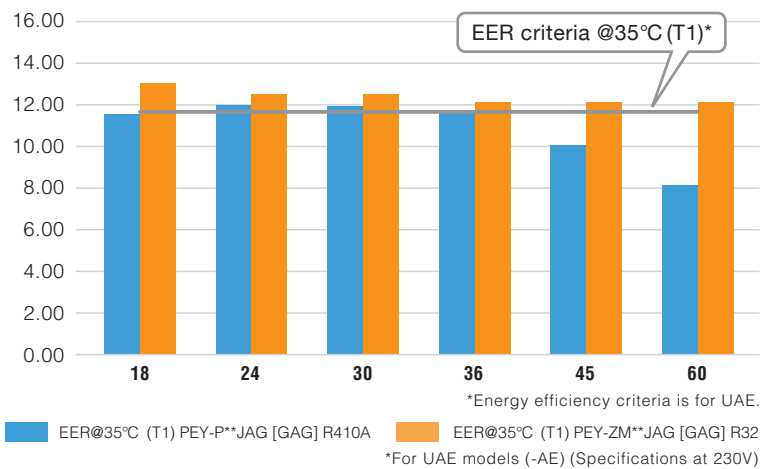


PUY-ZM45/60VKA-AE [GU]
PUY-ZM45/60YKA-AE
PUY-M60V[Y]KA-AE
PUY-ZM45/60N[X]KA-SA

Improved Energy Efficiency

Introduction of new R32 refrigerant realises improved cooling efficiency.

Introduction of new R32 refrigerant reduces energy consumption and realizes energy savings.

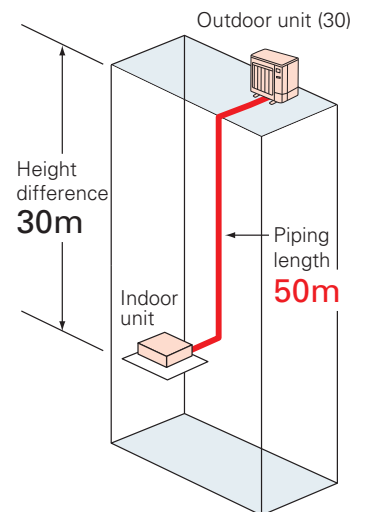


Longer Piping (18/24/30/36/45)

Piping length and height difference (18/24/30) are longer than R410A models. Installation flexibility increases widely. Piping length (36/45) are also longer.

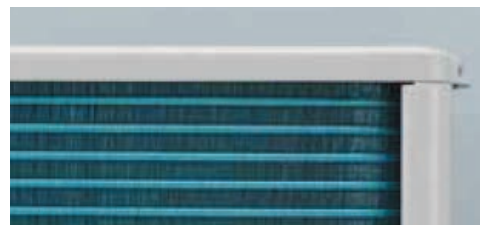
Capacity Class	Max. Piping Length (m)		Max. Height Difference (m)	
	R410A SUY/PUY-P	R32 SUY/PUY-ZM	R410A SUY/PUY-P	R32 SUY/PUY-ZM
18	20	30	12	20
24	30	30	15	25
30	30	50	15	30
36	30	50	15	30
45	50	55	30	30

*SUY-P : SUY-P**VA3 SUY-ZM : SUY/PUY-ZM**VA



Blue Fin Condenser

A special coating is applied to the heat exchanger to increase corrosion toughness.



CONTROL TECHNOLOGIES

User-friendly Deluxe Remote Controller with Excellent Operability and Visibility



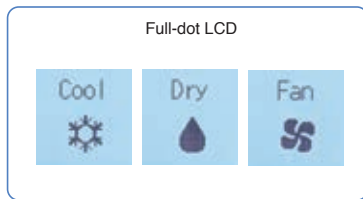
PAR-41MAA (Optional)

Full-dot Liquid-crystal Display Adopted

Easier to read thanks to use of a full-dot liquid-crystal display with backlight, and easier to use owing to the adoption of a menu format that enabled the number of operating buttons to be reduced.

Display Example [Operation Mode]

PAR-41MAA



Easy-to-Read & Easy-to-Use

Inverted display screen

The screen background color can be set to black to suit the atmosphere of the installation location.



Energy-efficient Control

Operation Control Functions

Auto-return

Prevents wasteful operation by automatically returning to the preset temperature after specified operating time

After adjusting the initial temperature on a hot day, it is easy to forget to return the temperature setting to its original value. The Auto-return function automatically resets the temperature back to the original setting after a specified period of time, thereby preventing overcooling. The Auto-return activation time can be set in 10-minute units, in a range between 30 and 120 minutes.

*Auto-return cannot be used when Temperature Range Restriction is in use.

Night Setback

Keep desired room temperatures automatically

This function monitors the room temperature and automatically activates the cooling mode when the temperature rises above the preset maximum temperature setting.

Temperature Range Restriction

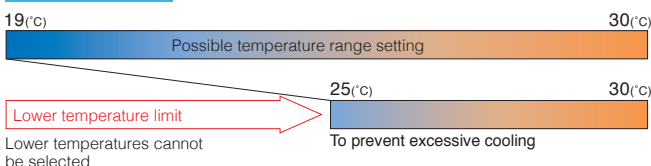
Temperature Range Restriction prevents overcooling

Using a temperature that is 1°C higher for cooling results in a 10% reduction in power consumption.* Temperature Range Restriction limits the maximum and minimum temperature settings, contributing to the prevention of overcooling.

*In-house calculations

Cooling/Dry

(Setting example of minimum temp. at 25°C)



Recommended for Office Restaurant

Auto-off Timer

Turns cooling off automatically after preset time elapses

When using Auto-off Timer, even if one forgets to turn off the unit, operation stops automatically after the preset time elapses, thereby preventing wasteful operation. Auto-off Timer can be set in 10-minute units, in a range between 30 minutes and 4 hours. Eliminates all anxiety about forgetting to turn off the unit.

Recommended for Meeting room Changing room

Operation Lock

Fixed temperature setting promotes energy savings

In addition to operation start/stop, the operation mode, temperature setting and airflow direction can be locked. Unwanted adjustment of temperature settings is prevented and an appropriate temperature is constantly maintained, leading to energy savings. This feature is also useful in preventing erroneous operation or tampering.

Recommended for Office School Public hall Hospital Computer server facility

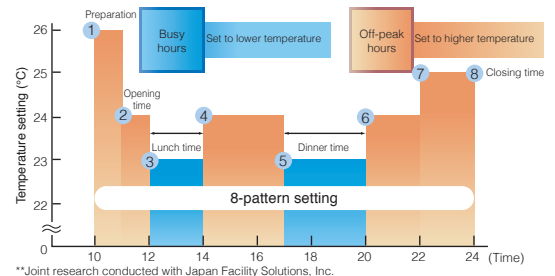
Weekly Timer

Set up to 8 patterns per day including temperature control

The Weekly Timer enables the setting of operation start and stop times and adjusting the temperature as standard features. Up to 8 patterns per day can be set, providing operation that matches the varying conditions of each period, such as the number of customers in the store.

*Weekly Timer cannot be used when On/Off Timer is in use.

Setting Example (restaurant in summer time)



Manual Vane Angle Setting (4-way ceiling cassette)

Direction of vertical airflow for each vane can be set

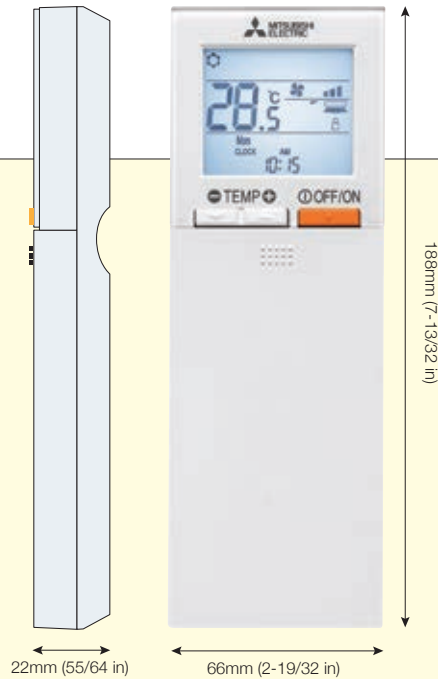
Setting the vertical airflow direction for each individual vane can be performed simply via illustrated display. Seasonal settings such as switching between cooling and heating are easily changed as well.

Auto-descending Panel Operation

Easily raise/lower panels using the remote controller

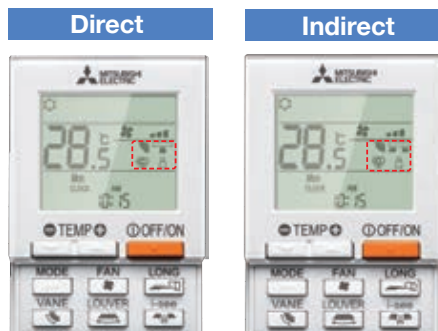
Auto-descending panel operation is available as an option. Panels can be raise/lower using a button on the wired remote controller. Filter cleaning can be performed easily.

Wireless Remote Controller PAR-SL101A-E



3D i-see Sensor* (Direct/Indirect Airflow)

Pressing the i-see button enables direct or indirect setting of all vanes.



*Only for 4-way ceiling cassette.



Weekly Timer

The Weekly Timer enables the setting of operation start and stop times and adjusting the temperature as standard features.



Backlight

Backlight function incorporated, making screen easy to read in the dark. Even in dimly lit rooms, the screen can be seen clearly for trouble-free remote controller operation.



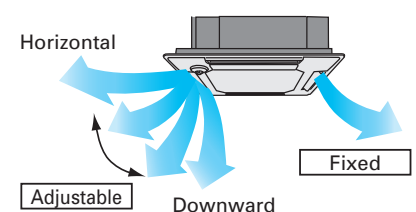
Battery Replacement Indicator

Previous wireless remote controllers were not able to check when the battery was low. Beginning with the PAR-SL100A-E, a battery charge indicator that shows the charge status is included in the LCD so it can be seen when the battery is low and needs to be changed.



Individual Vane Settings*

The airflow directions of the four vanes can each be adjusted independently. Easily set the optimum airflow according to the room setting.



*Only for 4-way ceiling cassette.

Inverter Technologies

Mitsubishi Electric inverters ensure superior performance including the optimum control of operation frequency. As a result, optimum power is applied in all heating/cooling ranges and maximum comfort is achieved while consuming minimal energy. Fast, comfortable operation and amazingly low running cost — That's the Mitsubishi Electric promise.

INVERTERS — HOW THEY WORK

Inverters electronically control the electrical voltage, current and frequency of electrical devices such as the compressor motor in an air conditioner. They receive information from sensors monitoring operating conditions, and adjust the revolution speed of the compressor, which directly regulates air conditioner output. Optimum control of operation frequency results in eliminating the consumption of excessive electricity and providing the most comfortable room environment.

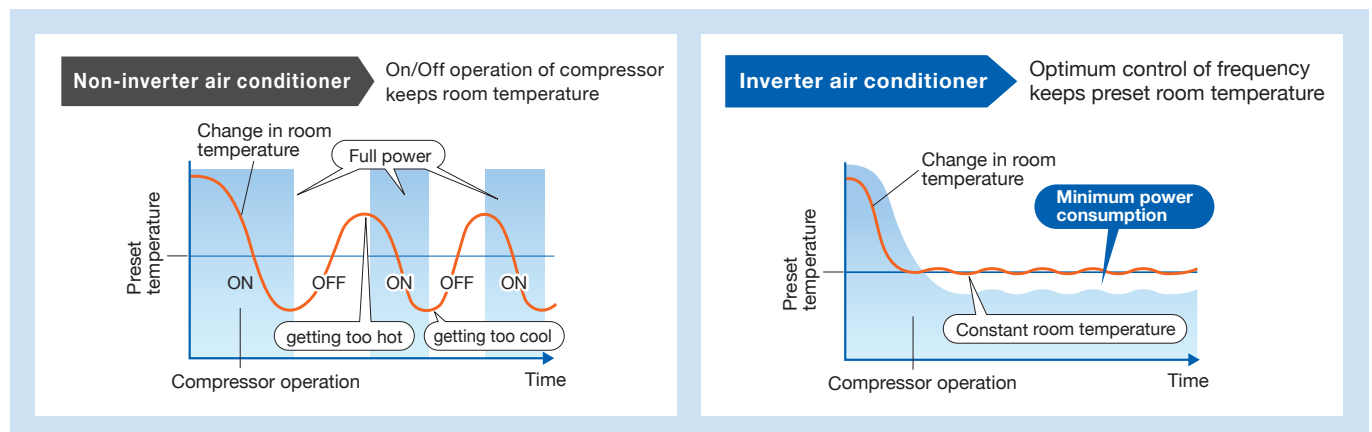
ECONOMIC OPERATION

Impressively low operating cost is a key advantage of inverter air conditioners. We've combined advanced inverter technologies with cutting-edge electronics and mechanical technologies to achieve a synergistic effect that enables improvements in heating/cooling performance efficiency. Better performance and lower energy consumption are the result.

TRUE COMFORT

Below is a simple comparison of air conditioner operation control with and without an inverter.

■ Inverter operation comparison



The compressors of air conditioners without an inverter start and stop repeatedly in order to maintain the preset room temperature. This repetitive on/off operation uses excessive electricity and compromises room comfort. The compressors of air conditioners equipped with an inverter run continuously; the inverter quickly optimizing the operating frequency according to changes in room temperature. This ensures energy-efficient operation and a more comfortable room.

Point 1 Quick & Powerful

Increasing the compressor motor speed by controlling the operation frequency ensures powerful output at start-up, brings the room temperature to the comfort zone faster than units not equipped with an inverter. Hot rooms are cooled, and cold rooms are heated faster and more efficiently.

Point 2 Room Temperature Maintained

The compressor motor operating frequency and the change of room temperature are monitored to calculate the most efficient waveform to maintain the room temperature in the comfort zone. This eliminates the large temperature swings common with non-inverter systems, and guarantees a pleasant, comfortable environment.

KEY TECHNOLOGIES

Our Rotary Compressor

Our rotary compressors use our original "Poki-Poki Motor" and "Heat Caulking Fixing Method" to realise downsizing and higher efficiency, and are designed to match various usage scenes in residential to commercial applications. Additionally, development of an innovative production method known as "Divisible Middle Plate" realises further size/weight reductions and increased capacity while also answering energy-efficiency needs.

Our Scroll Compressor

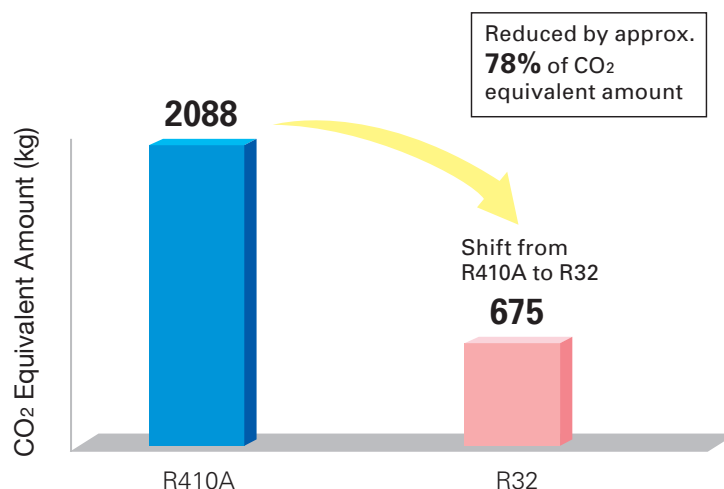
Our scroll compressors are equipped with an advanced frame compliance mechanism that allows self-adjustment of the position of the orbiting scroll according to pressure load and the accuracy of the fixed scroll position. This minimises gas leakage in the scroll compression chamber, maintains cooling capacity and reduces power loss.

Mitsubishi Electric takes on the challenge of creating new value and contribute to a sustainable future in order to solve various environmental problems.

Preventing Global Warming

Mitsubishi Electric is actively introducing R32 refrigerant which has a global warming potential approximately 1/3 that of R410A refrigerant. Not only by shifting from R410A to R32 but by decreasing the diameter of refrigerant piping, we are also striving to reduce the amount of refrigerant usage. Through these activities, we have achieved significant reduction in CO₂ equivalent amount compared to conventional models and realised minimizing the negative impact to the environment more than ever.

Reducing the amount of refrigerant usage



*1 Source: IPCC 4th Assessment Report, Global Warming Potential 100-year value.
 *2 Reduction rate differs model by model.

Effective use of materials (Reduce & Recycle)

1. Accelerating the downsizing technology to reduce material use while balancing energy saving performance.
2. Designing products that are easy to separate and recycle.
3. All models are designed for WEEE and RoHS (II) compliance.*

*WEEE and RoHS directive: The Waste Electrical and Electronic Equipment (WEEE) Directive is a recycling directive for this type of equipment, while the Restrictions of Hazardous Substances (RoHS) Directive is an EU directive restricting the use of ten specified substances in electronic and electrical devices. In the EU, it is no longer possible (from July 2019) to sell products containing any of the ten substances.

Balancing comfort and ecology

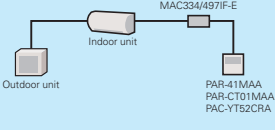
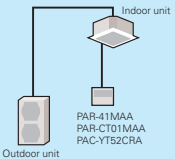
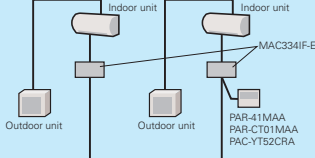
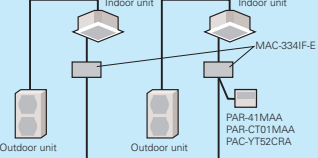
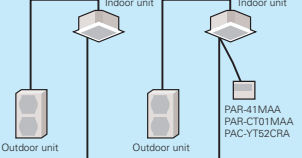
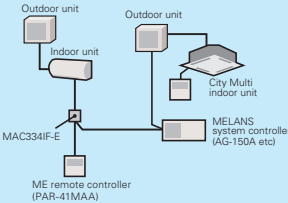
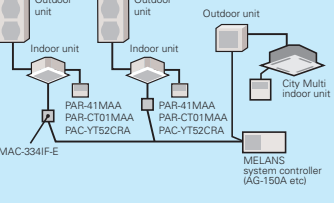
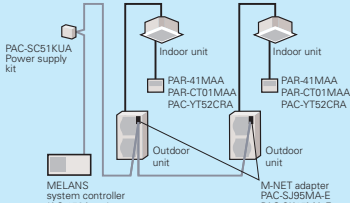
Mitsubishi Electric develops technologies to balance comfort and ecology, achieving greater efficiency in heat pump operation.

	Comfort	Ecology
1. Inverter	Faster start-up and more stable indoor temperature than non-inverter units	Fewer On/Off operations than with non-inverter, saving energy
2. 3D i-see Sensor	Since the positions of people can be detected, airflow can be set to personal taste, such as in airflow path or protected from the wind. The ability to adjust to individual preferences realizes more comfortable air conditioning.	Since the number of people in a room can be detected, energy-saving operation is adjusted or the power is turned off automatically. Efficient air conditioning with less waste is realized.
3. Dual Barrier Coating Dual Barrier Material	Prevents the indoor unit from getting dirty, delivering you clean air.	Keeping the inside of air conditioner clean leads to efficient operation and energy saving.

SYSTEM CONTROL

Versatile system controls can be realised using optional parts, relay circuits, control panels, etc.

MAJOR SYSTEM CONTROL

	System Examples		
Indoor Unit	M Series Indoor Unit	P Series Indoor Unit	P Series
Outdoor Unit	M Series Outdoor	Series Outdoor	P Series Outdoor
 PAR-41MAA Control PAC-YT52CRA Control			
Details	Wired remote controller can be connected to indoor unit	Standard equipment (for indoor units compatible with wired remote controllers)	
Major Optional Parts Required	- MAC334/497IF-E (Interface) - PAR-41MAA (Wired remote controller) - PAR-CT01MAA (Wired remote controller) - PAC-YT52CRA (Wired remote controller)	- PAR-41MAA (Wired remote controller) - PAR-CT01MAA (Wired remote controller) - PAC-YT52CRA (Wired remote controller)	
 System Group Control			
Details	- One remote controller can control plural air conditioners with the same settings simultaneously. - One remote controller can control up to 16 refrigerant systems. - Up to two remote controller can be connected. - PAR-SL101A cannot be used when connected through the MAC-334IF-E or when group control is used.		
Major Optional Parts Required	- MAC334IF-E (Interface) - PAR-41MAA (Wired remote controller) - PAR-CT01MAA (Wired remote controller) - PAC-YT52CRA (Wired remote controller)		- PAR-41MAA (Wired remote controller) - PAR-CT01MAA (Wired remote controller) - PAC-YT52CRA (Wired remote controller)
 M-NET Connections			
Details	Group of air conditioners can be controlled by MELANS system controller (M-NET).		
Major Optional Parts Required	- MAC334IF-E (M-NET Interface) - MELANS System controller		- PAC-SJ95MA-E (M-NET converter) - MELANS System controller

OTHERS

For M Series Indoor Units (New A-control Models Only)

	System Examples	Connection Details	Control Details	Major Optional Parts Required
1 Remote On/Off Operation Air conditioner can be started/stopped remotely. (1 and 2 can be used in combination)	MAC-334IF-E Indoor unit Outdoor unit Remote control section (to be purchased locally)	Connect the interface to the air conditioner. Then connect the locally purchased remote controller to the terminal in the interface.	On/Off operation is possible from a remote location.	- MAC-334IF-E (Interface) - Parts for circuit such as relay box, lead wire, etc. (to be purchased locally)
2 Remote Display of Operation Status The On/Off status of air conditioners can be confirmed remotely. (1 and 2 can be used in combination)	MAC-334IF-E Indoor unit Outdoor unit Remote monitor section (to be purchased locally) Power supply Resistance LED	Connect the interface to the air conditioner. Then connect the locally purchased remote monitor to the terminal in the interface.	The operation status (On/Off) or error signals can be monitored from a remote location.	- MAC-334IF-E (Interface) - External power source (12V DC) is required when using MAC-334IF-E.

For P Series Indoor Units

	System Examples		Details	Major Optional Parts Required
	Wired remote controller	Wireless remote controller		
A 2-remote Controller Control With two remote controllers, control can be performed locally and remotely from two locations.	PAR-41MAA PAC-YT52CRA * Set "Main" and "Sub" remote controllers. (Example of 1 : 1 system)	PAR-41MAA PAC-YT52CRA PAR-SL97/101A-E * When using wired and wireless remote controllers	- Up to two remote controllers can be connected to one group. - Both wired and wireless remote controllers can be used in combination.	- Wired Remote Controller PAR-41MAA PAC-YT52CRA - Wireless Remote Controller PAR-SL97A-E/PAR-SL101A-E (only for SLZ)
B Operation Control by Level Signal Air conditioner can be started/stopped remotely. In addition, On/Off operation by local remote controller can be prohibited/permitted.	Relay box (to be purchased locally) Remote control panel Wired remote controller Adapter for remote On/Off (Example of 1 : 1 system x 2)	Relay box (to be purchased locally) Remote control panel PAR-SL97/101A-E Adapter for remote On/Off (Example of 1 : 1 system x 2)	- Operation other than On/Off (e.g., adjustment of temperature, fan speed, and airflow) can be performed even when remote controller operation is prohibited. - Timer control is possible with an external timer.	- Adapter for remote On/Off PAC-SE55RA-E - Relay box (to be purchased locally) - Remote control panel (to be purchased locally)
C Operation Control by Pulse Signal	Relay box (to be purchased locally) Remote control panel Wired remote controller Connector cable for remote display (Example of 1 : 1 system x 2)	Relay box (to be purchased locally) Remote control panel PAR-SL97/101A-E Connector cable for remote display (Example of 1 : 1 system x 2)	- The pulse signal can be turned On/Off. - Operation/emergency signal can be received at a remote location.	- Connector cable for remote display PAC-SA88HA-E/PAC-725AD (10 pcs. x PAC-SA88HA-E) - Relay box (to be purchased locally) - Remote control panel (to be purchased locally)
D Remote Display of Operating Status Operating status can be displayed at a remote location.	Remote display panel Remote operation adapter/Connector cable for remote display + Relay box PAR-41MAA/PAR-CT01MAA/PAC-YT52CRA (Example of 1 : 1 system)	Remote display panel Remote operation adapter/Connector cable for remote display + Relay box PAR-SL97/101A-E	Operation/emergency signal can be received at a remote location (when channeled through the PAC-SF40RM-E → no-voltage signal, when channeled through the PAC-SA88HA-E → DC 12V signal).	- Remote display panel (to be purchased locally) - Connector cable for remote display PAC-SA88HA-E/PAC-725AD (10 pcs. x PAC-SA88HA-E) - Relay box (to be purchased locally) - Remote operation adapter PAC-SF40RM-E *Unable to use with wireless remote controller
E Timer Operation Allows On/Off operation with timer *For control by an external timer, refer to [B] Operation Control by Level Signal.	PAR-41MAA/PAR-CT01MAA (Example of 1 : 1 system)		Weekly Timer: On/Off and up to 8 pattern temperatures can be set for each calendar day. (Initial setting) On/Off Timer: On/Off can be set once each within 72 hr in intervals of 5-minute units. Auto-off Timer: Operation will be switched off after a certain time elapse. Set time can be changed from 30 min. to 4 hr. at 10 min. intervals. *Simple Timer and Auto-off Timer cannot be used at the same time.	Standard functions of PAR-41MAA / PAR-CT01MAA

Major Functions

Air Distribution



Horizontal Vane

The air outlet vane swings up and down so that the airflow is spread evenly throughout the room.



Vertical Vane

The air outlet fin swings from side to side so that the airflow reaches every part of the room.



High Ceiling Mode

In the case of rooms with high ceilings, the outlet-air volume can be increased to ensure that air is circulated all the way to the floor.



Low Ceiling Mode

If the room has a low ceiling, the airflow volume can be reduced for less draft.



Auto Fan Speed Mode

The airflow speed mode adjusts the fan speed of the indoor unit automatically according to the present room conditions.

Filters & Cleaning Functions



Fresh-air Intake

Indoor air quality is enhanced by the direct intake of fresh exterior air.



High-efficiency Filter

This high-performance filter has a much finer mesh compared to standard filters, and is capable of capturing minute particulates floating in the air that were not previously caught.



Air Purifying Filter

The filter has a large capture area and also generates antibacterial, antifungal, and deodorant effects.



Oil Mist Filter

The oil mist filter prevents oil mist from penetrating into the inner part of the air conditioner.



Long-life Filter

A special process for the entrapment surface improves the filtering effect, making the maintenance cycle longer than that of units equipped with conventional filters.



Filter Check Signal

Air conditioner operating time is monitored, and the user is notified when filter maintenance is necessary.



Nano Platinum Filter

This filter has a large capture area and incorporates nanometer-sized platinum-ceramic particles that work to kill bacteria and deodorize the circulating air.



Microparticle Catching Filter

The Filter effectively catches floating PM2.5 particles to maintain clean air in the room.



Electrostatic Anti-Allergy Enzyme Filter

This filter is charged with static electricity, enabling it to attract and capture dust particles that regular filters cannot capture. This filter can also trap allergens such as molds and bacteria and decompose them using enzymes retained in the filter.

Functions



On/Off Operation Timer

Use the remote controller to set the times of turning the air-conditioner On/Off.



Sleep Mode

Sleep mode can support to release heat by operating slightly lower temperature than set temperature for 2 hours.



Self-Diagnostic Function (Check Code Display)

Check codes are displayed on the remote controller or the operation indicator to inform the user of malfunctions detected.



Failure Recall Function

Operation failures are recorded, allowing confirmation when needed.

Function List for M-Series

		MSY-GT series					MS-GS series				
		13	18	24	30	36 (only AE1)	13	18	24	30	36
	Refrigerant	R32					R32				
	Power supply	220 - 230 - 240V, 50Hz, 1 Phase					220 - 230 - 240V, 50Hz, 1 Phase				
	Type	Inverter					Fixed Speed				
	Function	Cooling Only					Cooling Only				
Technology	DC Inverter	●	●	●	●	●					
	DC Fan motor	●	●	●	●	●	● (Indoor)	● (Indoor)	● (Indoor)	● (Indoor)	● (Indoor)
	PAM	●	●	●	●	●	—	—	—	—	—
	Heat caulking (compressor)	●	●	●	●	●	—	—	—	—	—
	Grooved Piping	●	●	●	●	●	●	●	●	●	●
Air quality	Dual barrier coating	● (FAN)					—	—	—	—	—
	Nano-platinum filter	●	●	●	●	●	●	●	●	●	●
	Microparticle catching filter	OPT					—	—	—	—	—
	Electro static anti-allergy enzyme filter	OPT					OPT				
Air distribution	Auto horizontal vane	●	●	●	●	●	●	●	●	●	●
	Auto vertical vane	—	●	●	●	●	—	●	●	●	●
	Double horizontal vane	—	●	●	●	●	—	●	●	●	●
	Auto fan speed adjustment	●	●	●	●	●	●	●	●	●	●
	Fan speed level	5 speed					4-speed				
Convenience	On/off timer	●	●	●	●	●	●	●	●	●	●
	Auto restart	●	●	●	●	●	●	●	●	●	●
	Fast cooling	●	●	●	●	●	—	—	—	—	—
	Sleep mode	●	●	●	●	●	—	—	—	—	—
	I feel	●	●	●	●	●	●	●	●	●	●
	Powerful cool mode	—	—	—	—	—	●	●	●	●	●
Installation	Econo cool	—	—	—	—	—	●	●	●	●	●
	Cleaning-free pipe reuse	●	●	●	●	●	●	●	●	●	●
Maintenance	Flare connection	●	●	●	●	●	●	●	●	●	●
	Self-diagnose function (Error code)	● (1-way)					—	—	—	—	—
	Failure recall function	●	●	●	●	●	●	●	●	●	●
	Blue fin condenser	●	●	●	●	●	—	—	—	—	—

Function List for P-Series

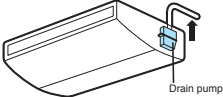
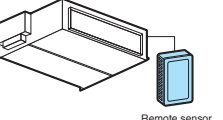
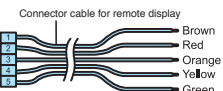
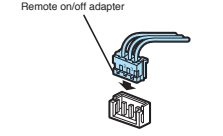
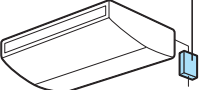
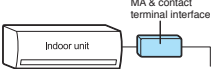
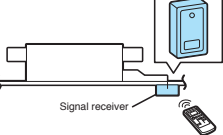
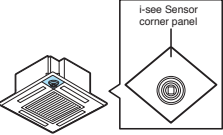
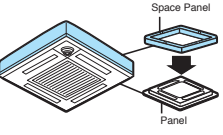
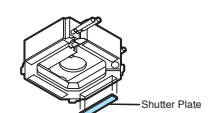
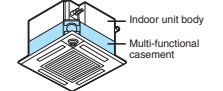
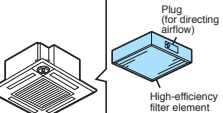
Category	Icon						
	Combination	Indoor unit	PLY-ZM18/24/30/36/45EA		PCY-ZM18/24/30/36/45KA		
		Outdoor unit	SUY-ZM18/24/30VA	PUY-ZM36VKA PUY-ZM45V(Y)KA	SUY-ZM18/24/30VA	PUY-ZM36VKA PUY-ZM45V(Y)KA	
Technology		DC Inverter	●	●	●	●	
		Joint Lap DC Motor	●		●		
		Magnetic Flux Vector Sine Wave Drive		●		●	
		Reluctance DC Rotary Compressor	●	●	●	●	
		Heating Caulking (Compressor)	●	36	●	36	
		DC Fan Motor	●	●	●	●	
		Vector-Wave Eco Inverter		●		●	
		Pulse Amplitude Modulation (PAM)	●	36,45V	●	36,45V	
		Power Receiver and Twin LEV Control		45		45	
		Grooved Piping	●	●	●	●	
Functions	Energy Saving	Felt Temperature Control (3D i-see Sensor)	Opt	Opt			
		Demand Function		Opt		Opt	
	Attractive	Auto Vane	●	●	●	●	
	Air Quality	Fresh-air Intake	●	●	●	●	
		High-efficiency Filter	Opt	Opt	Opt	Opt	
		Long-life Filter	●	●	●	●	
		Filter Check Signal	●	●	●	●	
	Air Distribution	Horizontal Vane	●	●	●	●	
		Vertical Vane					
		High Ceiling Mode	●	●	●	●	
		Low Ceiling Mode	●	●	●	●	
		Auto Fan Speed Mode	●	●	●	●	
	Convenience	On/Off Operation Timer	●	●	●	●	
		Auto Restart	●	●	●	●	
		Low-noise Operation (outdoor unit)		●		●	
		Operation Lock					
		Built-in Weekly Timer Function					
		Rotation, Back-up and 2nd Stage Cut-in Functions		Opt		Opt	
	System control	PAR-41MAA Control	Opt	Opt	Opt	Opt	
		Centralised On/Off Control	Opt	Opt	Opt	Opt	
		System Group Control	Opt	Opt	Opt	Opt	
		M-NET Connection	Opt	Opt	Opt	Opt	
	Installation	Cleaning-free Pipe Reuse	●	●	●	●	
		Reuse of Existing Wiring		Opt		Opt	
		Drain Pump	●	●	Opt	Opt	
		Pump Down Switch		●		●	
		Flare Connection	●	●	●	●	
	Maintenance	Self-Diagnostic Function (Check Code Display)	●	●	●	●	
		Failure Recall Function	●	●	●	●	

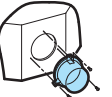
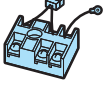
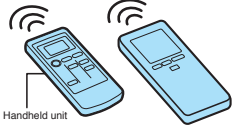
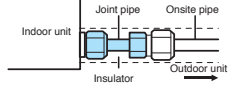
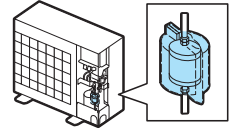
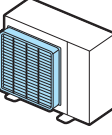
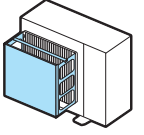
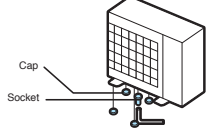
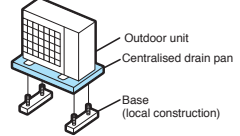
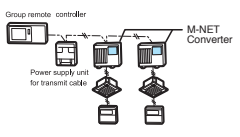
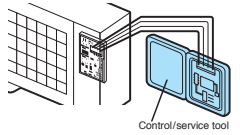
*Opt: Optional parts must be purchased.

*1 Able to use by setting with remote controller.

P-Series					
	PEY-ZM18/24/30/36/45JAG		PEY-(Z)M60GAG	PSY-ZM30/36/45KA	PSY-ZM30/36/45KA
	SUY- ZM18/24/30VA	PUY-ZM36VKA PUY-ZM45V(Y)KA	PUY-(Z)M60V(Y)KA	SUY- ZM18/24/30VA	PUY-ZM36VKA, 45V/YKA
	●	●	●	●	●
	●			●	
		●	●		●
	●	●	●	●	●
	●	36		●	36
	●	●	●	●	●
		●	●		●
	●	36,45V	60V	36,45V	36,45V
		45	●	45	45
	●	●	●	●	●
		Opt	Opt		Opt
				●	●
	●	●	●	●	●
				●	●
				●	●
				●	●*1
				●	●*1
				●	●*1
	●	●	●	●	●
	●	●	●	●	●
		●	●		●
				●*1	●*1
				●*1	●*1
		Opt	Opt	●*1	●*1
	Opt	Opt	Opt	●	●
	Opt	Opt	Opt	●	●
	Opt	Opt	Opt		
	Opt	Opt	Opt		
	●	●	●	●	●
		Opt	Opt		Opt
	Opt	Opt	Opt		
		●	●		●
	●	●	●	●	●
	●	●	●	●	●
	●	●	●	●	●

Major Optional Parts

Part Name	Description
Drain Pump Pumps drain water to a point higher than that where the unit is installed.	 *for ceiling-suspended units
Remote Sensor Sensor to detect the room temperature at remote positions.	 Remote sensor
Connector Cable for Remote Display Connector used to display the operation status and control on/off function from a distance.	 Connector cable for remote display Brown Red Orange Yellow Green
Remote On/Off Adapter Connector for receiving signals from the local system to control the on/off function.	 Remote on/off adapter
Remote Operation Adapter Adapter to display the operation status and control on/off function from a distance.	 Remote operation adapter
MA Interface Interface for connecting with the PAR-41MAA remote controller and PAC-YT52CRA.	 MA & contact terminal interface Indoor unit
Wireless Remote Controller Signal Receiver Receives operation signals from the wireless remote controller handheld unit.	 Signal receiver
3D i-see Sensor Corner Panel for PLA Corner panel holding the 3D i-see Sensor.	 i-see Sensor corner panel
Space Panel Decorative cover for the installation when the ceiling height is low.	 Space Panel Panel
Shutter Plate Plate for blocking an air outlet of the 4-way cassette (PLA) indoor unit.	 Shutter Plate
Multi-functional Casement Casement for fresh-air intake and attaching the high-efficiency filter element (optional).	 Indoor unit body Multi-functional casement
High-efficiency Filter Element Element for high-efficiency filter. Removes fine dust particles from the air.	 Plug (for directing airflow) High-efficiency filter element *For 4-way cassette units (PLA)

Part Name	Description
Fresh-air Intake Duct Flange Flange attachment for adding a duct to take in fresh air from outside.	 *For 4-way cassette units (PLA)
Power Supply Terminal Kit Terminal bed to change the power supply from outdoor power supply to separate indoor/outdoor power supplies.	
Wired Remote Controller Advanced deluxe remote controller with full-dot liquid-crystal display and backlight. Equipped with convenient functions like night-setback.	
Wireless Remote Controller Signal Sender Handheld unit for sending operation signals to the indoor unit.	 Handheld unit
Joint Pipe Part for connecting refrigerant pipes of different diameters.	 Joint pipe Onsite pipe Indoor unit Outdoor unit Insulator
Liquid Refrigerant Dryer Removes water and minute particles from refrigerant pipes.	
Air Discharge Guide Changes the direction of air being exhausted from the outdoor unit.	
Air Protection Guide Protects the outdoor unit from the wind.	
Drain Socket A set of caps to cover unnecessary holes at the bottom of the outdoor unit, and a socket to guide drain water to the local drain pipe.	 Cap Socket
Centralised Drain Pan Catches drain water generated by the outdoor unit.	 Outdoor unit Centralised drain pan Base (local construction)
M-NET Converter Used to connect P Series A-control models to M-NET controllers.	 Group remote controller Power supply unit for transmit cable M-NET Converter
Control/Service Tool Monitoring tool to display operation and self-diagnosis data.	 Control/service tool

Optional Parts List for M-Series

		MSY-GT series					MS-GS series				
		13	18	24	30	36 (only AE1)	13	18	24	30	36
Microparticle catching filter (PM2.5)	MAC-EMF515FT-E	●									
	MAC-EMF615FT-E		●	●	●						
	MAC-EMF715FT-E					●					
Electro static anti-allergy enzyme filter	MAC-2310FT-E		●	●	●			●	●		
	MAC-2320FT	●					●				
	MAC-3310FT-E					●				●	●

Optional Parts List for P-series (Indoor unit)

		4-way cassette PLY-ZM 18/24/30/36/45EA	Ceiling-suspended PCY-ZM 18/24/30/36/45KA	Ceiling-concealed PEY-ZM 18/24/30/36/45JAG	PEY-(Z)M 60GAG	Floor-standing PSY-ZM 30/36/45KA
Drain pump	PAC-SJ92DM-E		18			
	PAC-SJ93DM-E		24/30/36/45			
	PAC-DRP20DP-E			●		
Remote sensor	PAC-SE41TS-E	●	●	●	●	●
Connector cable for remote display	PAC-SA88HA-E	●	●	●	●	●
Multiple remote controller adaptor	PAC-725AD	●	●	●	●	
Remote on/off adaptor	PAC-SE55RA-E	●	●	●	●	●
Remote operation adaptor	PAC-SF40RM-E	●	●	●	●	●
M-NET and Terminal interface	MAC-334IF-E	●	●	●	●	
Wireless remote controller signal receiver	PAR-SE9FA-E	●				
	PAR-SA9CA-E			●*1	●*1	●*1
3D i-see sensor corner panel	PAC-SE1ME-E	●				
Space panel	PAC-SJ65AS-E	●				
Shutter plate	PAC-SJ37SP-E	●				
Multi-function casement	PAC-SJ41TM-E	●				
High-efficiency filter element	PAC-SH59KF-E	●				
Flange for fresh-air intake	PAC-SH65OF-E	●				
Power supply terminal kit	PAC-SJ39HR-E	●				
	PAC-SG96HR-E					●
High-efficiency filter	PAC-SH89KF-E		18/24			
	PAC-SH90KF-E		30/36/45			
Filter box	PAC-KE92TB-E			18		
	PAC-KE93TB-E			24		
	PAC-KE94TB-E			30/36/45		
Thermister for Outlet-air	PAC-SE10TC-J			●		
Wired Remote Controller	PAR-21MAA	●		●		
	PAR-41MAA	●	●	●	●	
Wireless Controller	PAR-SL97A-E					●*2
	PAR-SL101A-E	●	●	●*2	●*2	●*2

*1 Unable to use with wireless remote controller. *2 Need wire less remote controller signal receiver.

Optional Parts List for P-series (Outdoor unit)

		SUY SUY-ZM 18/24/30VA	PUY PUY-ZM 36VKA	PUY PUY-ZM 45V(Y)KA	PUY PUY-ZM 60V(Y)KA
Joint pipe	PAC-SG73RJ-E		●	●	●
	PAC-SG75RJ-E		●	●	●
Filter dryer for liquid pipe	PAC-SG82DR-E		●	●	●
Air protection guide	PAC-SH95AG-E		●	●	●
Air outlet guide	PAC-SH96SG-E		●	●	●
Drain Socket	PAC-SG61DS-E		●	●	●
Centralized drain pan	PAC-SH97DP-E		●	●	●
M-NET converter	PAC-SJ95MA-E		●	●	●
Control/Service tool	PAC-SK52ST		●	●	●
External/Input adapter	PAC-SC36NA-E		●	●	●

M-series

Specifications and installation

Total input based on the indicated voltage (indoor/outdoor)

	Indoor	Outdoor
50Hz	Single-phase, 220-240V	Single-phase, 220-240V

Guaranteed operating range

Cooling	Indoor	Outdoor
Upper limit	32°CDB/23°CWB	46°CDB
Lower limit	21°CDB/15°CWB	21°CDB

*DB: Dry bulb WB: Wet bulb

Sound pressure level

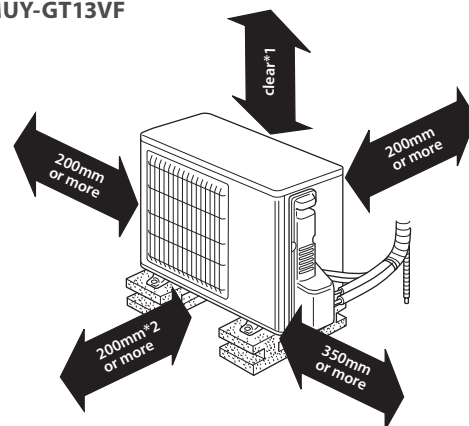
- Sound pressure measurements were conducted in an anechoic chamber.
- The actual noise level depends on the distance from the unit and the acoustic environment.

Refrigerant piping length

Models	Between indoor and outdoor units	
	Max. height difference (m)	Max. piping length (m)
MU-GS13VF	10	20
MUY-GT13VF	12	20
MU-GS18/24/30VF	10	30
MUY-GT18/24/30/36VF MU-GS36VF	15	30

Outdoor unit installation space requirements

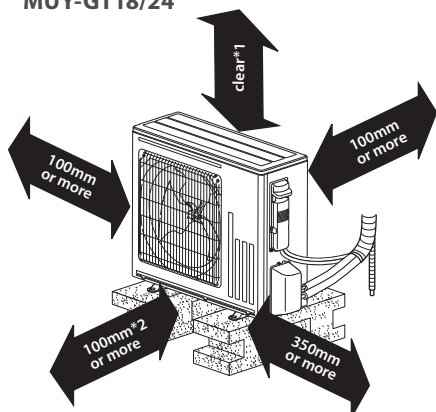
MUY-GT13VF



*1 200mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

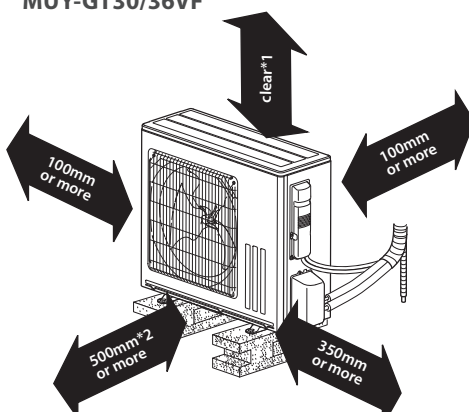
MUY-GT18/24



*1 100mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

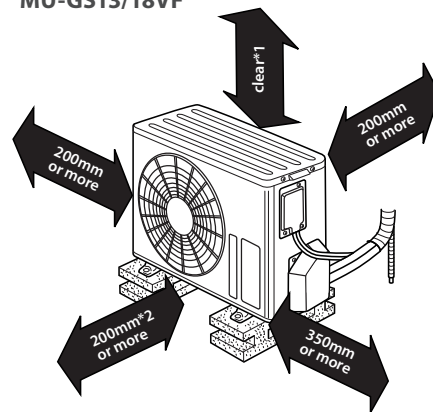
MUY-GT30/36VF



*1 500mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

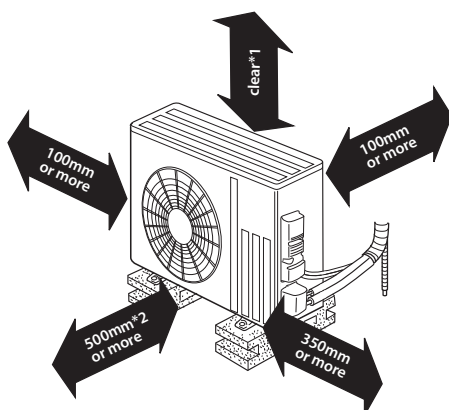
MU-GS13/18VF



*1 200mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

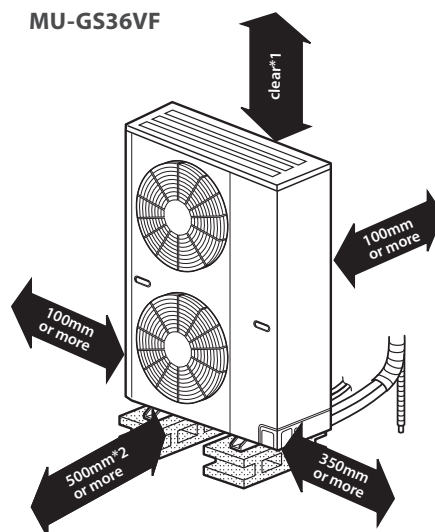
MU-GS24/30VF



*1 500mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

MU-GS36VF



*1 500mm or more when front and sides of unit are clear

*2 When any 2sides of left, right and rear of unit are clear.

Notice: If there is any obstruction around the unit, check the condition details in the Data Book.

P-series

Specifications and installation

Notes for All Specifications

Rating conditions

Cooling – Indoor: 27°C DB, 19°C WB Outdoor: 35°C DB

Refrigerant piping length (one-way): 7.5m (25ft)

Total input based on the indicated voltage (indoor/outdoor)

	Indoor	Outdoor	
		42/48V	45/60Y
50Hz	Single-phase, 220-240V	Single-phase, 220-240V	Three-phase, 380-415V
60Hz	Single-phase, 220V	Single-phase, 220V	Three-phase, 380V

Guaranteed Operating Range (Cooling)

Cooling	Indoor	Outdoor	
		SUY-ZM18/24/30/36VA	PUY-(Z)M45/60V/YKA
Upper limit	32°CDB/23°CWB	52°CDB	
Lower limit	21°CDB/15°CWB	18°CDB	

*DB: Dry Bulb WB: Wet Bulb

Sound Pressure Level

- Sound pressure measurements were conducted in an anechoic chamber.
- The actual noise level depends on the distance from the unit and the acoustic environment.

Refrigerant Piping Length

Models	Between indoor and outdoor units	
	Max. height difference (m)	Max. piping length (m)
SUY-ZM18	20	30
SUY-ZM24	25	30
SUY-ZM30/36	30	50
PUY-ZM45/60	30	55

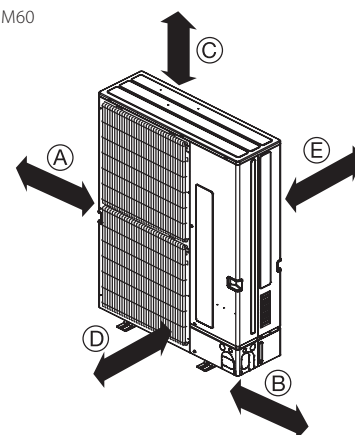
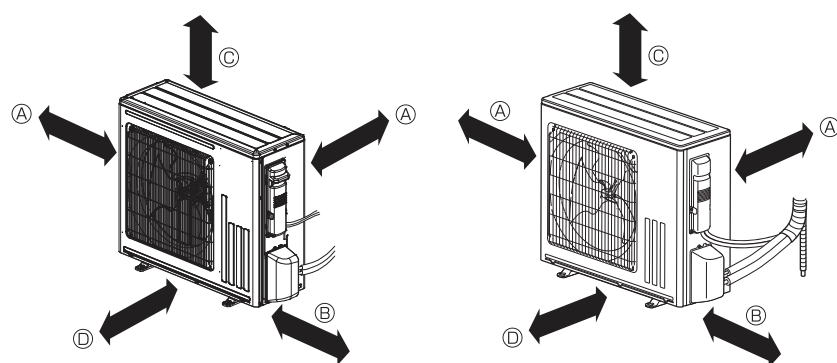
Outdoor unit installation space requirements

■ SUY-ZM18

■ SUY-ZM24/30

■ PUY-ZM36/45

■ PUY-(Z)M60



	SUY-ZM18	SUY-ZM24/30
(A)	100mm or more	
(B)	350mm or more	
(C)	Basically open 100mm or more without any obstruction in front and on both sides of the unit.	500mm or more
(D)	200mm or more (Open two sides of left, right, or rear side.)	—

*Please refer detailed information in Installation Manual.

	PUY-ZM36/45/60 PUY-(Z)M60
(A)	200mm or more
(B)	200mm or more
(C)	Free
(D)	1,000mm or more
(E)	300mm or more

*Please refer detailed information in Installation Manual.

Notice: If there is any obstruction around the unit, check the condition details in the Data Book.

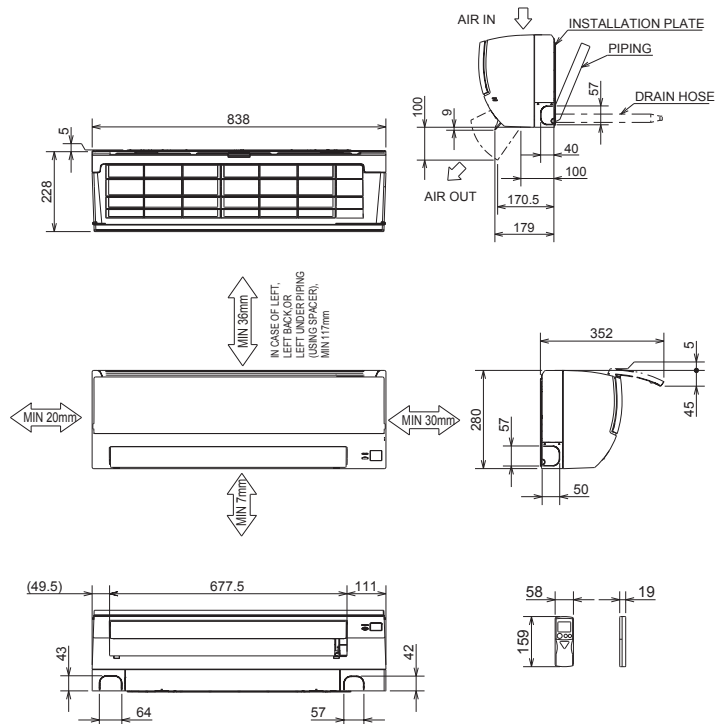
External Dimensions

M SERIES

Unit: mm

MSY-GT13VF

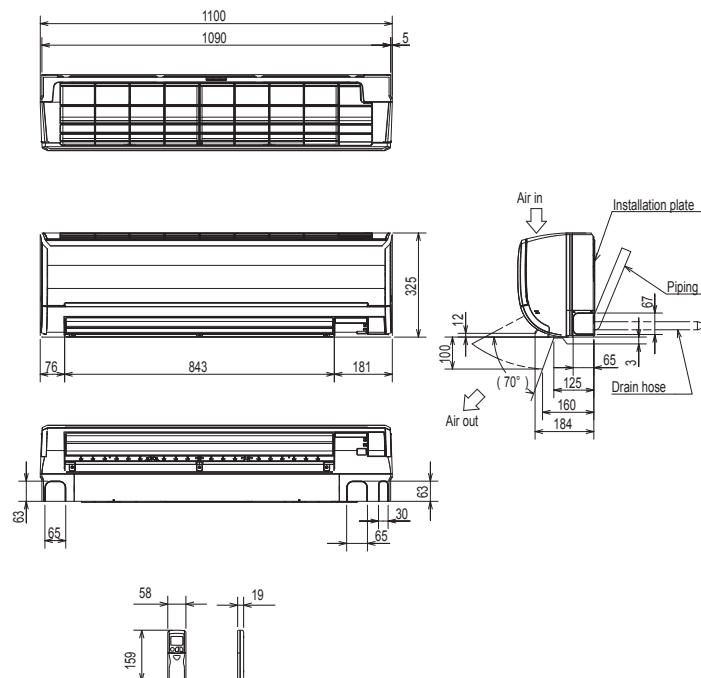
INDOOR UNIT



Piping	Insulation	ø37 O.D
	Liquid line	ø7 - 0.39m (Flared connection ø6.35)
	Gas line	ø9.52 - 0.34m (Flared connection ø12.7)
Drain hose	Insulation	ø29 Connected part ø16 O.D

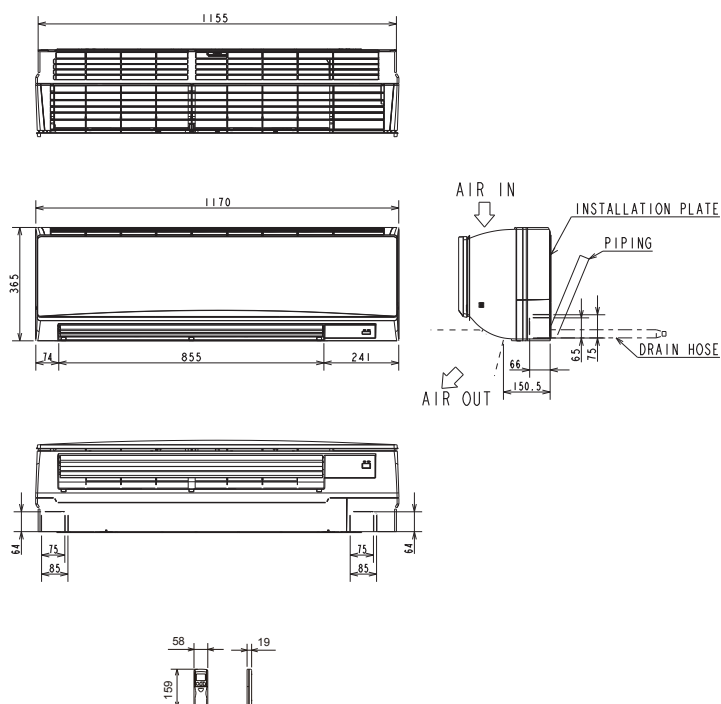
MSYGT18VF MSY-GT24VF MSYGT30VF MS-GS18VF MS-GS24VF

INDOOR UNIT



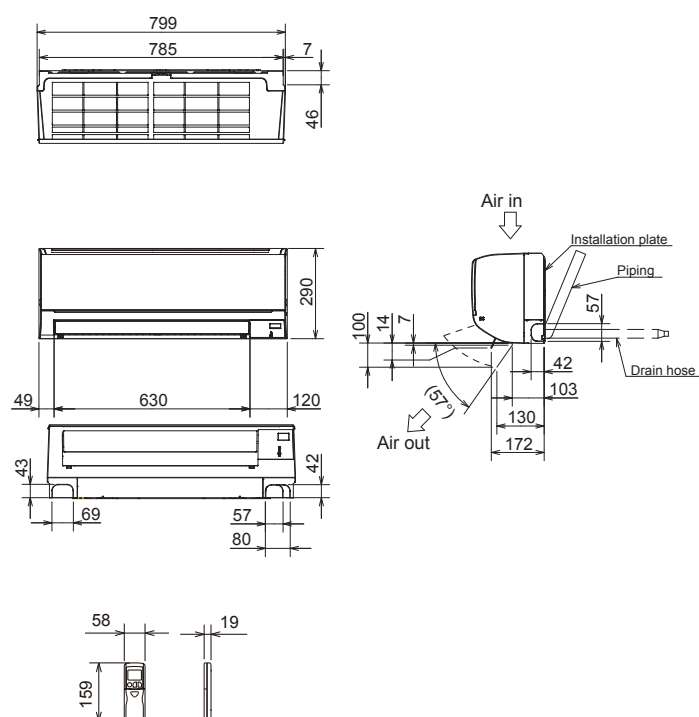
MSY-GT36VF MS-GS30VF MS-GS36VF

INDOOR UNIT



MS-GS13VF

INDOOR UNIT

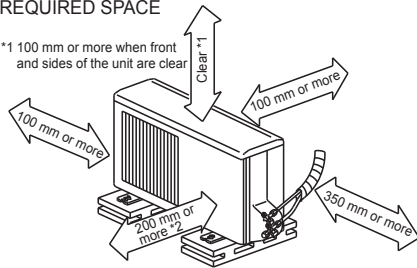


MUY-GT13VF

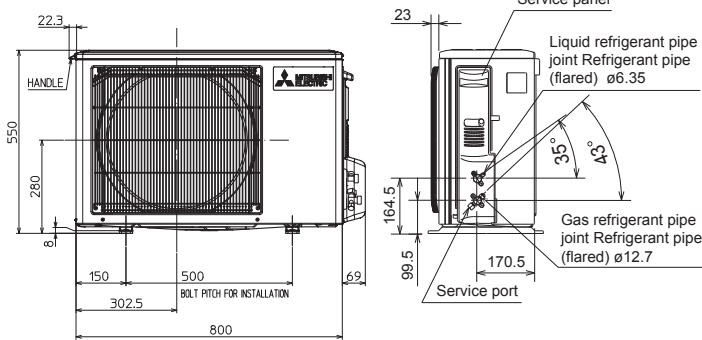
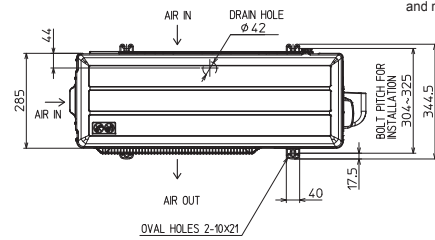
OUTDOOR UNIT

REQUIRED SPACE

*1 100 mm or more when front and sides of the unit are clear



*2 When any 2 sides of left, right and rear of the unit are clear

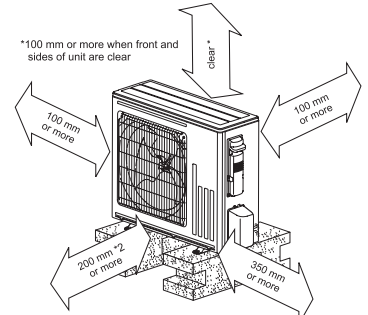


MUY-GT18VF MUY-GT24VF

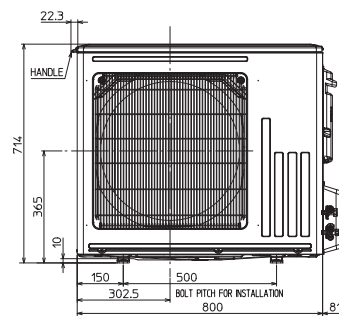
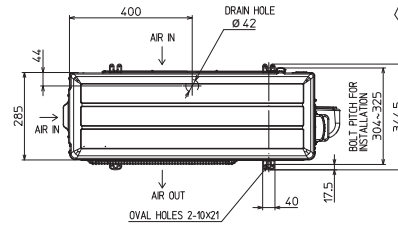
OUTDOOR UNIT

REQUIRED SPACE

*100 mm or more when front and sides of unit are clear



*2 When any 2 sides of left, right and rear of unit are clear

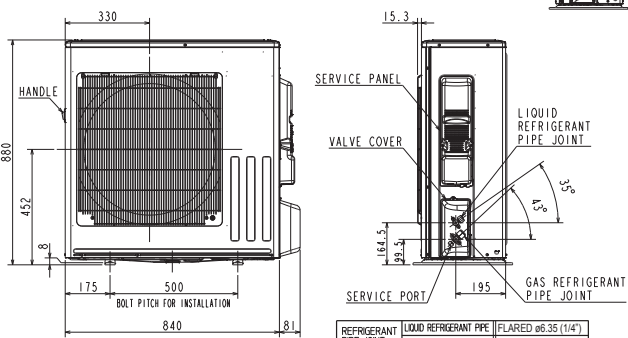
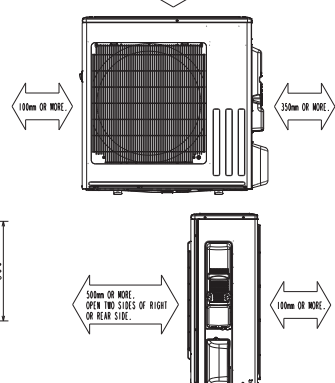


REFRIGERANT PIPE JOINT	LIQUID REFRIGERANT PIPE	FLARED 6.35(1/4")
	GAS REFRIGERANT PIPE	FLARED 12.7(1/2")

MUY-GT30VF MUY-GT36VF

OUTDOOR UNIT

REQUIRED SPACE



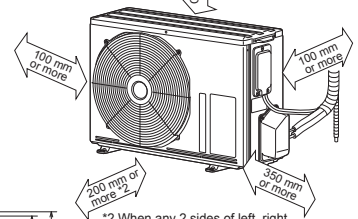
REFRIGERANT PIPE JOINT	LIQUID REFRIGERANT PIPE	FLARED ø6.35 (1/4")
	GAS REFRIGERANT PIPE	FLARED ø15.88 (5/8")

MU-GS13VF MU-GS18VF

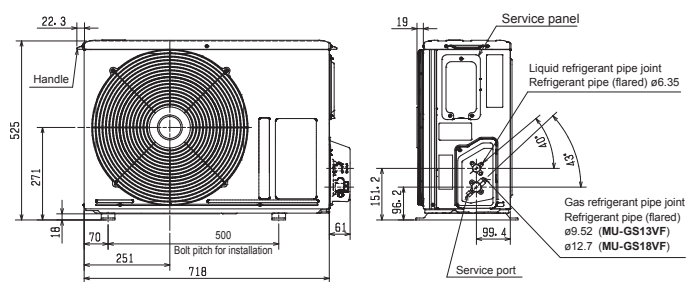
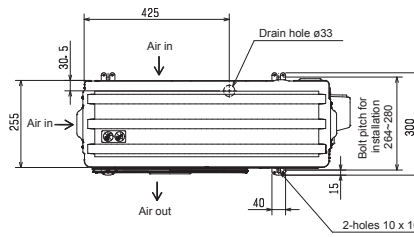
OUTDOOR UNIT

REQUIRED SPACE

*1 100 mm or more when front and sides of the unit are clear



*2 When any 2 sides of left, right and rear of the unit are clear



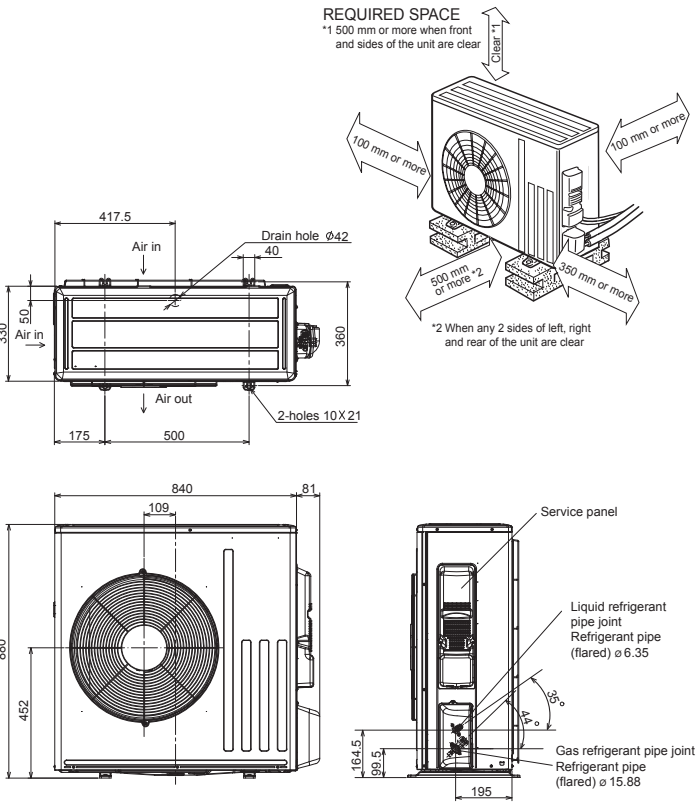
External Dimensions

M SERIES

Unit : mm

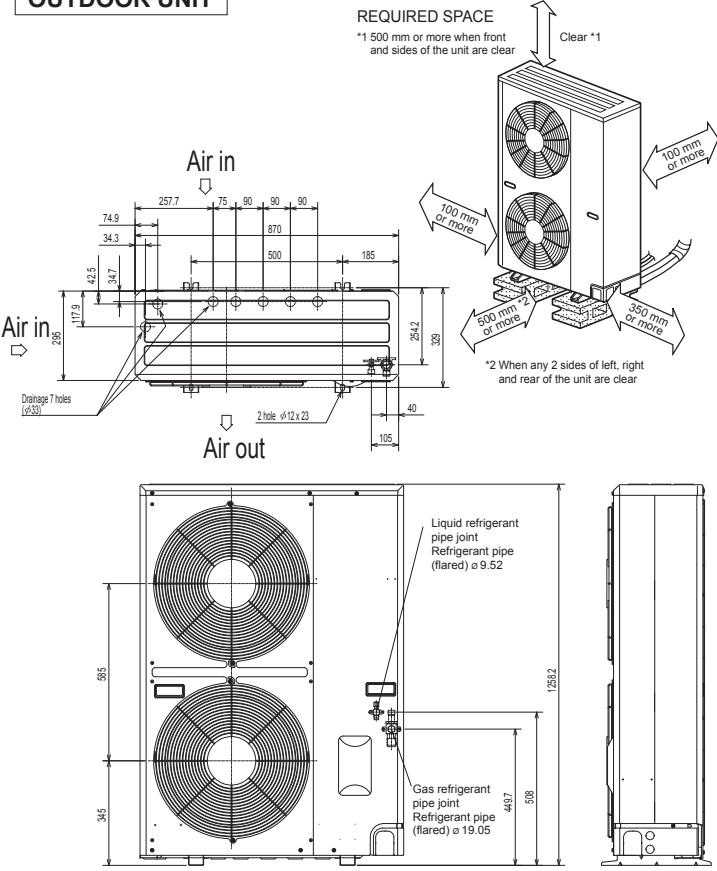
MU-GS24VF MU-GS30VF

OUTDOOR UNIT



MU-GS36VF

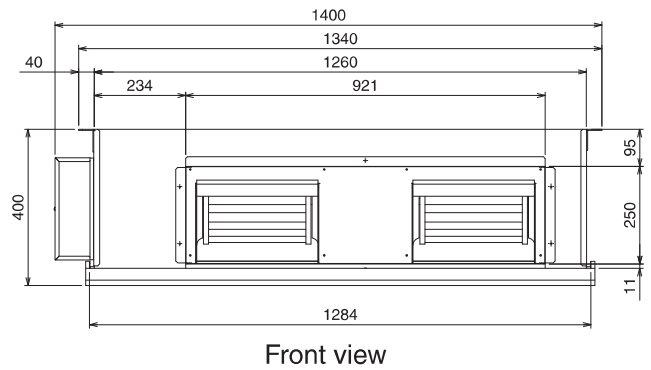
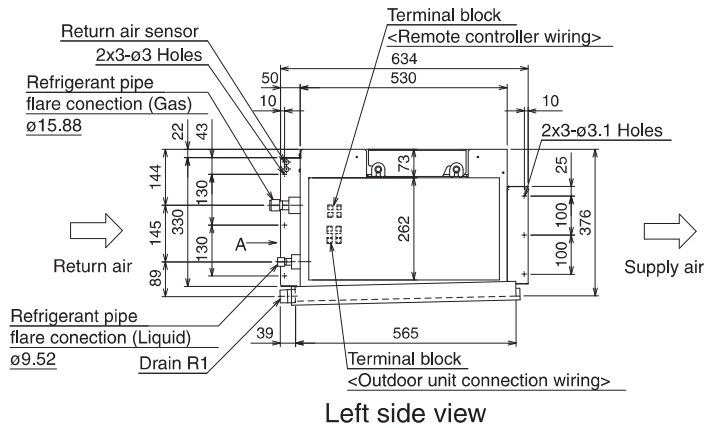
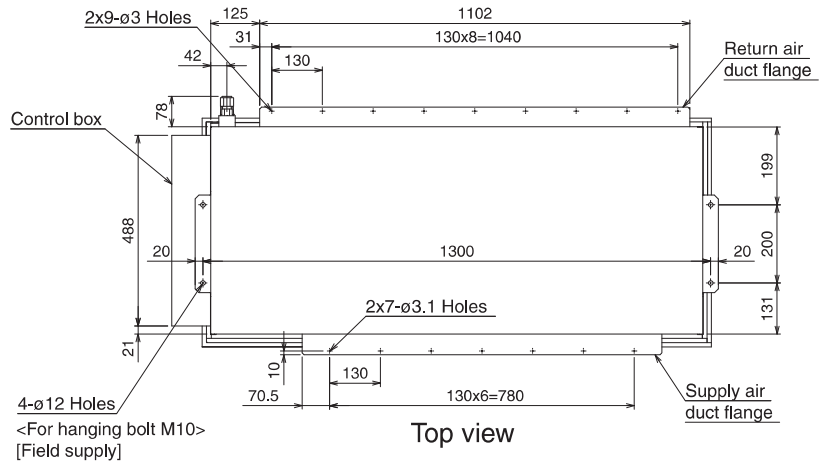
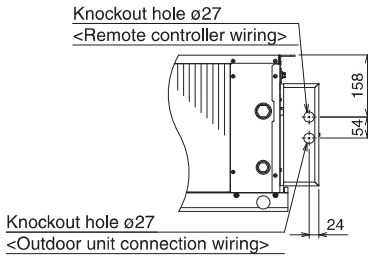
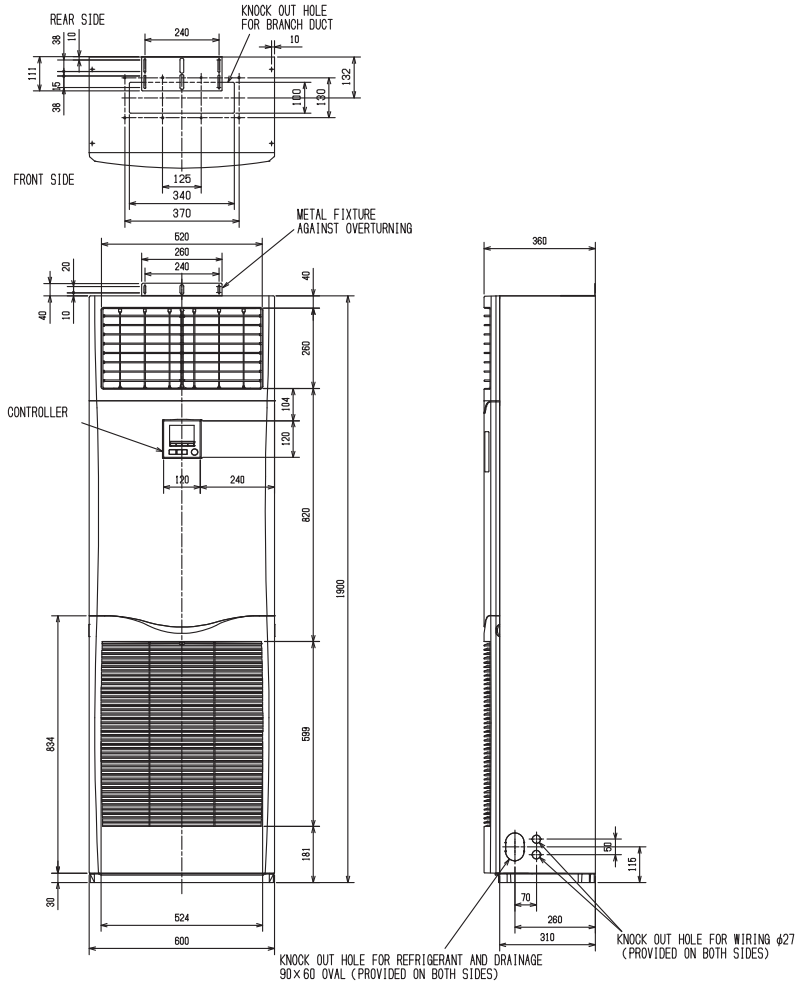
OUTDOOR UNIT



PEY-ZM60GAG PEY-M60GAG**INDOOR UNIT**

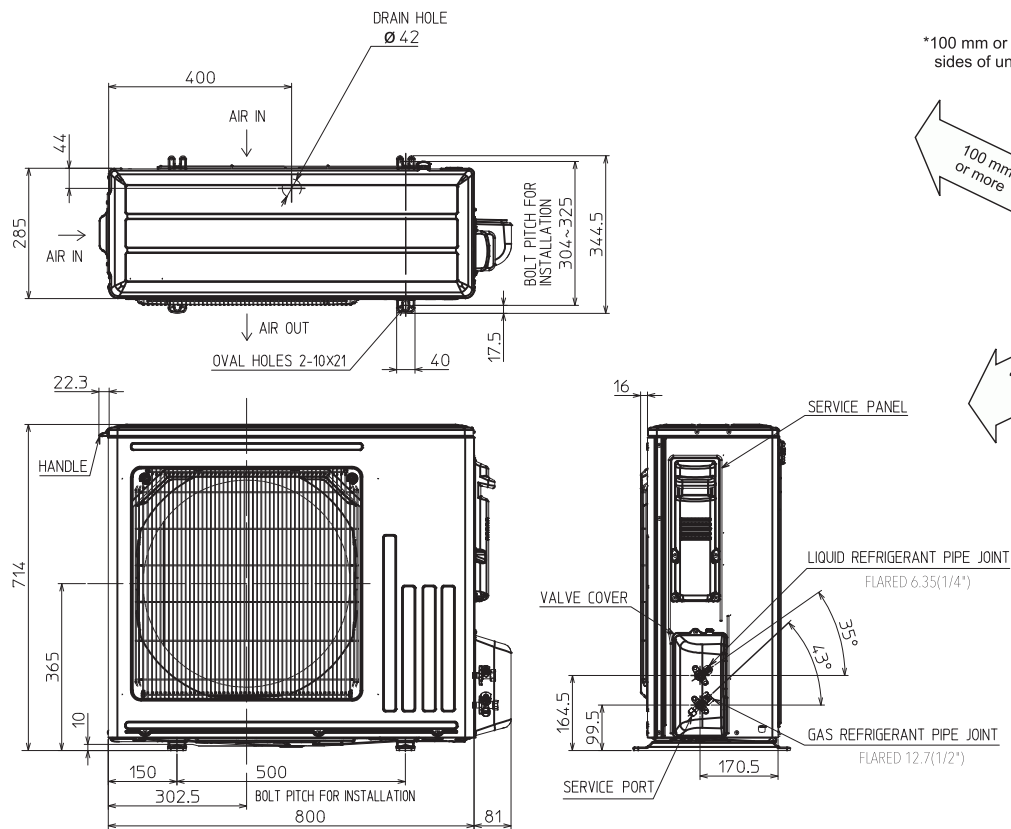
<Accessory>

- Pipe cover.....2pcs.
(For dew condensation prevention of local piping and unit connection.)

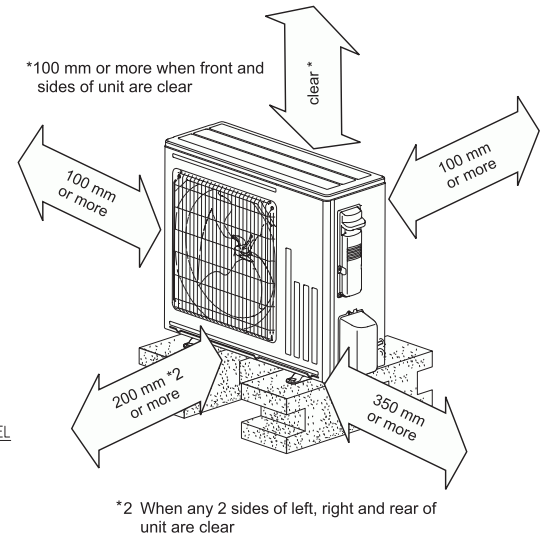
**PSY-ZM30/36/45KA-AE****INDOOR UNIT**

SUY-ZM18VA SUY-ZM18NA

OUTDOOR UNIT

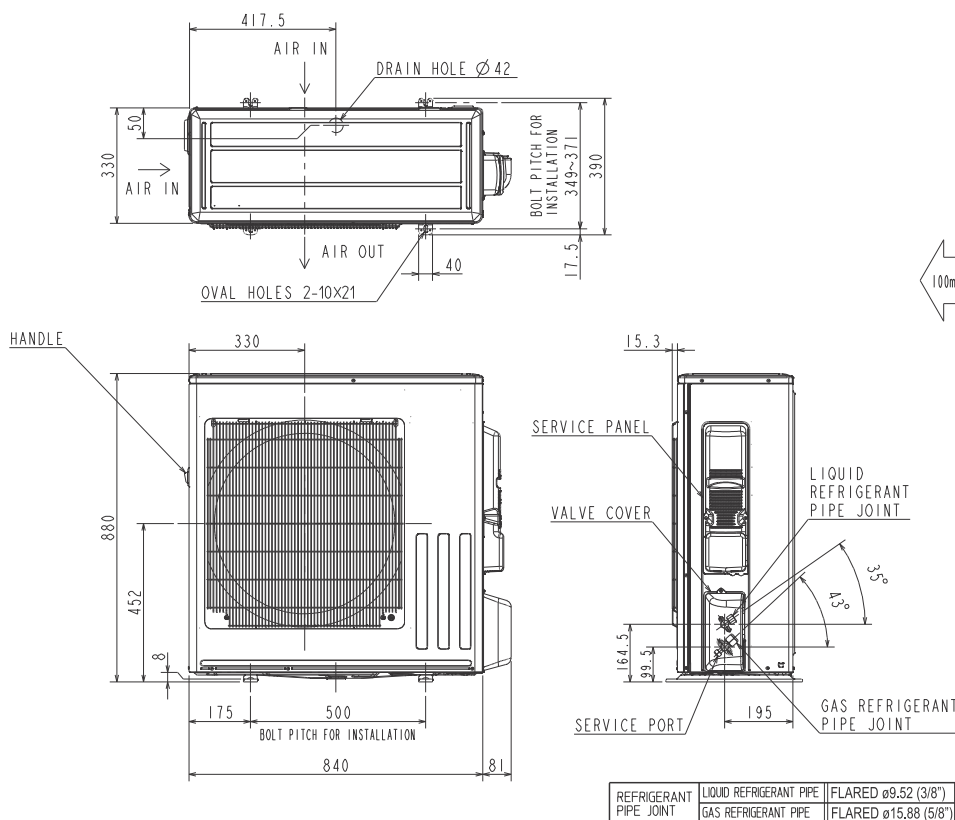


REQUIRED SPACE

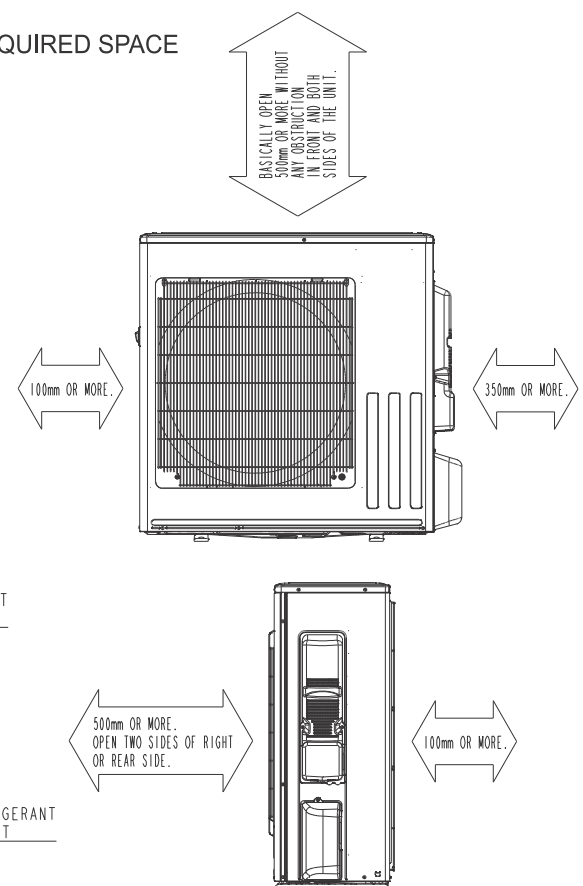


SUY-ZM24VA SUY-ZM24NA
SUY-ZM30VA SUY-ZM30NA

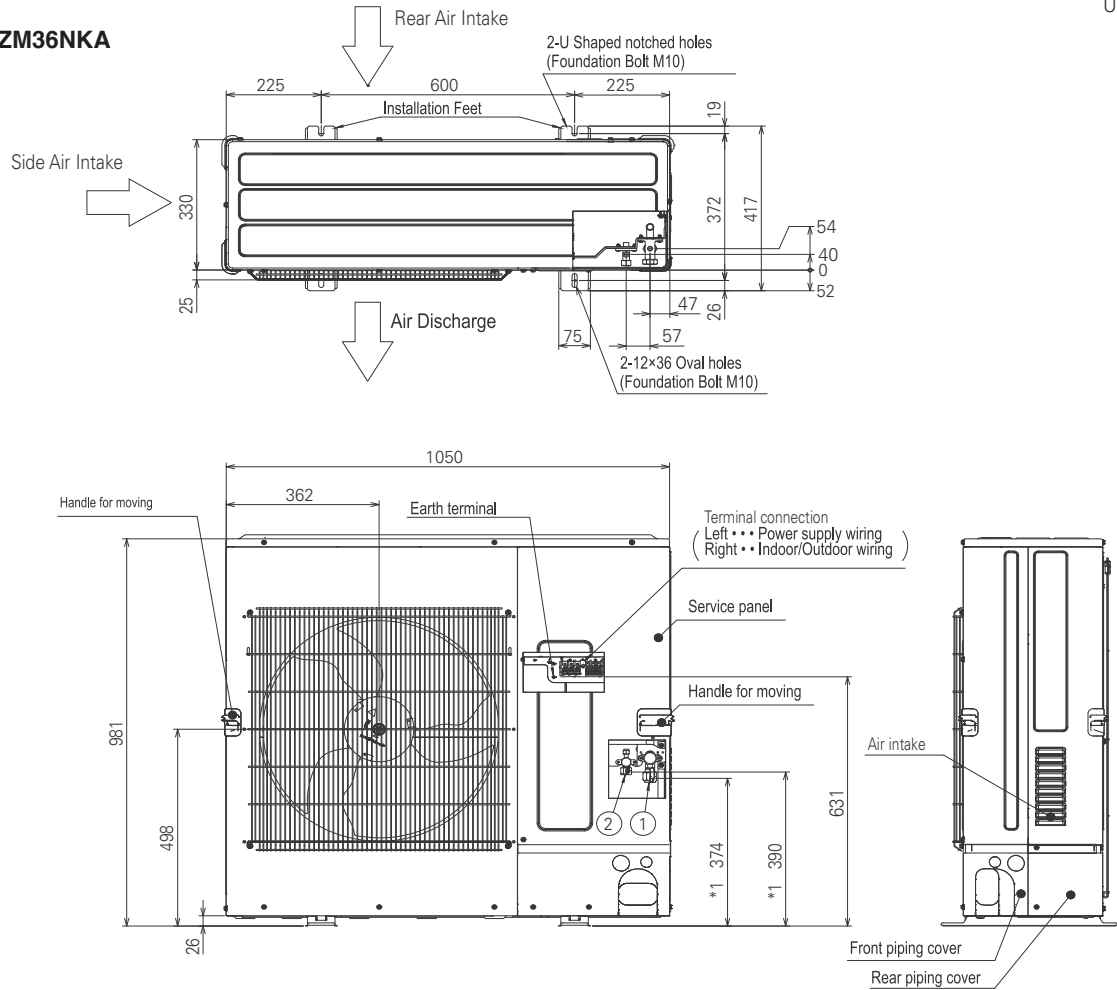
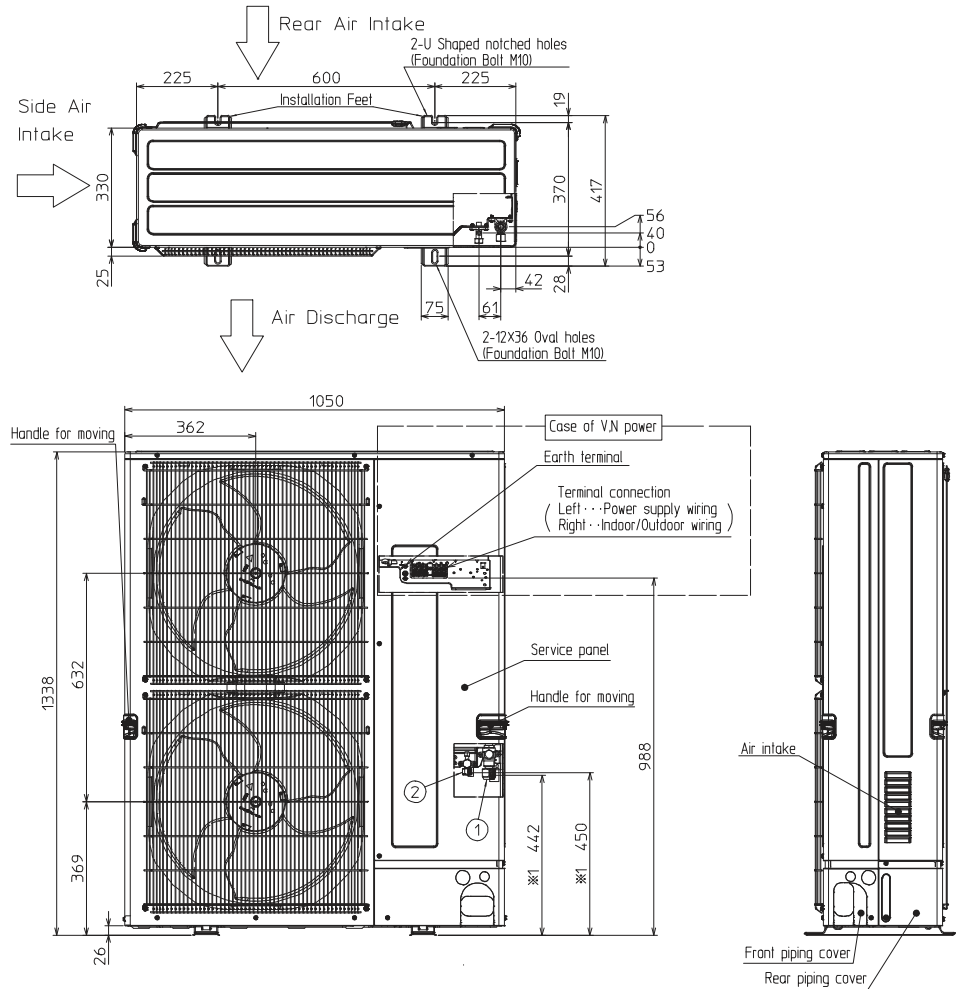
OUTDOOR UNIT



REQUIRED SPACE



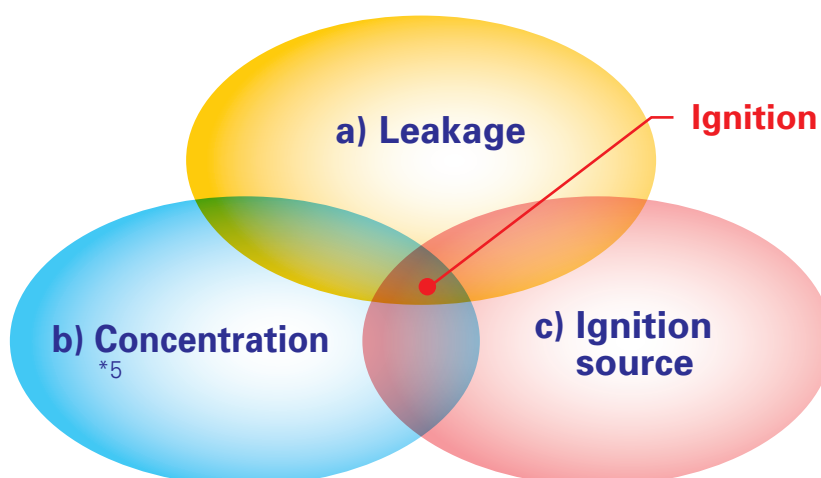
REFRIGERANT PIPE JOINT	LIQUID REFRIGERANT PIPE	FLARED Ø9.52 (3/8")
	GAS REFRIGERANT PIPE	FLARED Ø15.88 (5/8")

PUY-ZM36VKA PUY-ZM36NKA**OUTDOOR UNIT**
PUY-ZM45VKA PUY-ZM45NKA
PUY-ZM45YKA PUY-ZM45XKA
PUY-ZM60VKA PUY-ZM60NKA
PUY-ZM60YKA PUY-ZM60XKA
PUY-M60VKA PUY-M60YKA
OUTDOOR UNIT

R32 REFRIGERANT

R32 REFRIGERANT PROPERTIES

Under the conditions shown below, there is a possibility that R32 could ignite.



	R32	R410A	R22
Chemical formula	CH ₂ F ₂	CH ₂ F ₂ /CHF ₂ CF ₃	CHClF ₂
Composition (blend ratio wt. %)	Single composition	R32/R125 (50/50 wt %)	Single composition
Ozone depletion potential (ODP)	0	0	0.055
Global warming potential (GWP) *1	675	2088	1810
LFL(vol.%) *2	13.3	–	–
UFL(vol.%) *3	29.3	–	–
Flammability *4	Lower flammability (2L)	No flame propagation (1)	No flame propagation (1)

*1 IPCC 4th assessment report.

*2 LFL : Lower flammable limit

*3 UFL : Upper flammable limit

*4 ISO 817:2014

*5 R32 consistency is higher than LFL*1 and lower than UFL*2.

Although R32 is classified as low flammability, the possibility of igniting can be eliminated by ensuring the following three points.

a) Do not leak refrigerant.

- <Installation> ·Vacuum drying should be done. Air purging is prohibited.
- Follow "4. Installation Points of Refrigerant Piping Work".
- <Repair/Relocation/Removal> ·Pump down or recovering refrigerant should be done.

b) Prevent concentration.

- Ventilate during installation and servicing, such as open the door or window and use a fan.
- Follow "2. Installation Restrictions".

c) Keep ignition source away from the unit.

- Do not braze pipe and unit which contain refrigerant. Before brazing, refrigerant should be recovered.
- Do not install unit while the electricity is turned on. Turn off electricity at the fuse box and check the wiring using a tester.
- Do not smoke when working or during transportation of the product.

Note

Both R32 / R410A emit a toxic gas when coming into contact with an open flame.

INSTALLATION RESTRICTIONS

In order to prevent the refrigerant from igniting, use the following instructions during installation.

1) Indoor Units

Install in a room with a floor area of A_{min}^* or more, corresponding to refrigerant quantity M.

(M = factory-charged refrigerant + locally added refrigerant)

Install the indoor unit so that the height from the floor to the bottom of the indoor unit is h_0^* .

* Refer to table and drawings below.

< M Series >

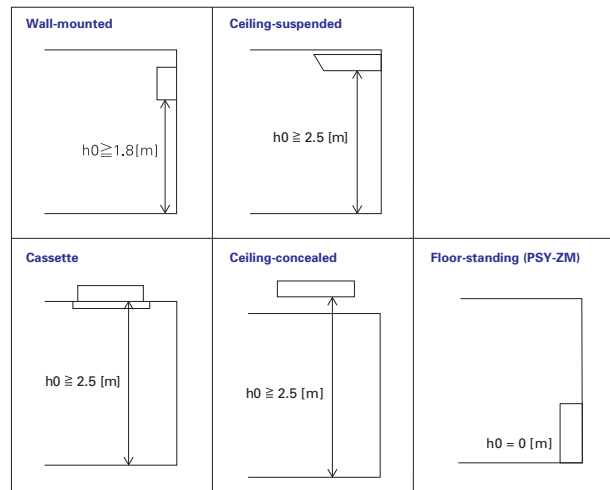
M [kg]	$A_{min}[m^2]$
0.2 < M ≤ 0.3	0.8
0.4	1.0
0.5	1.3
0.6	1.5
0.7	1.7
0.8	2.0
0.9	2.2
1.0	2.5
1.1	2.7
1.2	2.9
1.3	3.2
1.4	3.4
1.5	3.7
1.6	3.9
1.7	4.2
1.8	4.4
1.9	4.6
2.0	4.9
2.1	5.1
2.2	5.4
2.3	5.6
2.4	5.8
2.5	6.0
2.6	6.5
2.7	7.0
2.8	7.5
2.9	8.1
3.0	8.6

< P Series >

M [kg]	$A_{min}[m^2]$
1.0	4
1.5	6
2.0	8
2.5	10
3.0	12
3.5	14
4.0	16
4.5	20
5.0	24
5.5	29
6.0	35
6.5	41
7.0	47
7.5	54

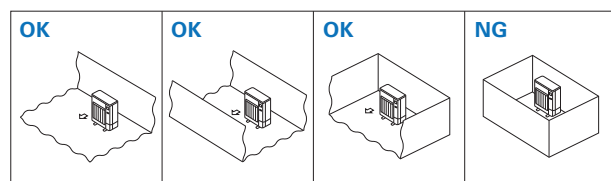
< Only for PSY-ZM >

M [kg]	$A_{min}[m^2]$
< 1.84	No requirements
1.84	6
2.0	6
2.5	7
3.0	9
3.5	10
4.0	11
4.5	13
5.0	14
5.5	15
6.0	17
6.5	18
7.0	20
7.5	21
8.0	22
8.5	24
9.0	25
9.5	26



2) Outdoor Units

Install outdoor units in a place where at least one of the four sides is open or in a sufficiently large space without depressions.



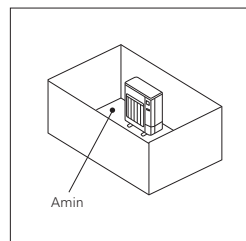
If you unavoidably install a unit in a space where all four sides are blocked or there are depressions, confirm that one of these situations (A, B or C) is satisfied.

A Secure sufficient installation space (minimum installation area A_{min}).

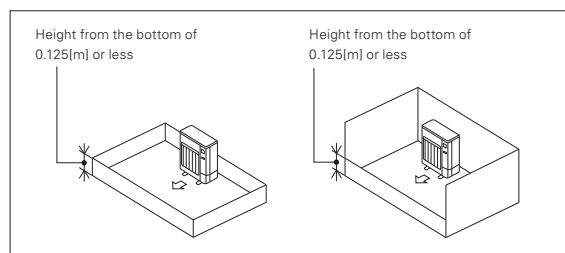
Install in a space with an installation area of A_{min}^* or more, corresponding to refrigerant quantity M. (M = factory-charged refrigerant + locally added refrigerant)

* Refer to table and drawings below.

M[kg]	$A_{min}[m^2]$
1.0	12
1.5	17
2.0	23
2.5	28
3.0	34
3.5	39
4.0	45
4.5	50
5.0	56
5.5	62
6.0	67
6.5	73
7.0	78
7.5	84

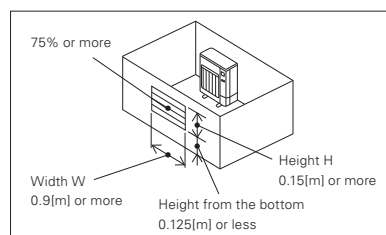


B Install in a space with a depression height of $\leq 0.125[m]$.



C Create an appropriate open ventilation area.

Make sure that the width of the open area is 0.9[m] or more and the height of the open area is 0.15[m] or more. However, the height from the bottom of the installation space to the bottom edge of the open area should be 0.125[m] or less. More than 75% of the ventilation area should be open to allow air circulation.



Note

These countermeasures (A, B or C) are for keeping safety not for specification guarantee.

EXCELLENT QUALITY

Development

Taking into account the various harsh environments around the world, at MITSUBISHI ELECTRIC we have established uniquely strict quality control standards and various quality evaluation tests for our products.



Anechoic Chamber Noise Test



Dropping Test



Electromagnetic Compatibility Test



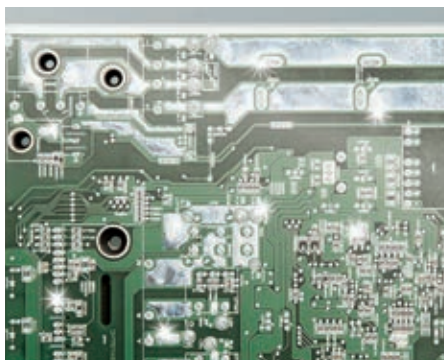
Salt Spray Test

Design

In order to ensure our customers can use our products with peace of mind and for a long time, we select high-quality durable parts, and invest great care when designing and assembling our products.



Ensure its reliable operation and preventing fire accident in case of short circuit.



Special coating prevents any damages from humidity and insects.



Anti-rust coating and galvanized steel protect cabinet even under harsh environment.

Production

MITSUBISHI ELECTRIC makes full use of advanced production technology to efficiently produce top quality products. All of our products are inspected by experienced professionals.



Pipe brazing by experienced professionals



Indoor assembly and inspection



Outdoor assembly



NOTICE

- Our air-conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R32.

MITSUBISHI ELECTRIC CORPORATION

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