

The Renewable Solutions Provider

# Making a World of Difference

M Series MXZ Multi-Split Systems



**M**series



Air Conditioning | Commercial Heating  
Domestic Heating | Photovoltaics





**The New M Series Multi Split-Systems**  
are highly efficient and extremely versatile

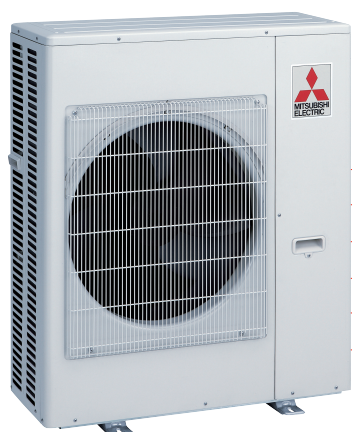
# MXZ Multi-Split Heat Pump System

MXZ multi-split heat pump systems allow up to eight individually controlled indoor units to be connected directly to a single outdoor unit and are available between 5.2 and 15.5kW in size.

The indoor units can be wall mounted, ceiling cassette, ducted, floor or ceiling mounted types and can be selected from both our M Series and Mr Slim ranges (see page 10). This wide choice allows different types of indoor units at different capacities to be used on the same system, enabling the ideal unit type and size to be specified for each individual room or location.

By installing a system in this way installation space, costs and time are all significantly reduced. Indoor units may then also be added within the capacity of the system as future requirements change, **making the MXZ extremely flexible.**

Example of a 6-way  
MXZ system



## Inverter Technology

**Inverter technology saves energy and thus costs for two main reasons:**

**One:** The compressor varies its speed to match the cooling or heating load and therefore consumes only the power necessary to match the exact requirement of the room.

**Two:** When an inverter driven air conditioner is operating at partial load, the energy efficiency of the system is significantly higher than at full load.

In a typical application, partial load conditions prevail for more than 90% of operation time.

All MXZ outdoor units use inverter technology and have an **energy label of 'A'**

## Replace Technology

**In general the upgrading of existing R22 & R407c systems to modern efficient R410A systems has been a difficult or expensive option.**

This is because the existing pipework would either have to be replaced, or cleaned with dedicated equipment. These actions were necessary as the chlorine residue from R22 system pipework caused chemical reactions with the lubricating oils used in HFC compressors, the result being poor performance and system failure.

MXZ-C models incorporate **'Replace Technology'** to allow the upgrade of systems using existing pipework, without the need to apply any special cleaning machines. These multi-split models use the Mitsubishi Electric patented Hard Alkyl Benzene (HAB) oil, a unique oil that is more tolerant of contamination. By combining this oil with developments in oil separator technology it is possible for MXZ-C models to use existing pipework without any special operations.



# MXZ Multi-Split Features

## Individual Control of Units

All indoor units that form part of an MXZ system can be **individually controlled (On/Off and Setpoint)** according to the need of the room or location it is installed. This saves energy where rooms are maybe out of use, as well as allowing for individual preference on room temperature.

## Current Limit Adjustment

**Low starting and operating currents** are a feature of all MXZ models. In addition though, the range also benefits from a built in **current limit adjustment function**. This allows the installer to set the maximum electrical operating current, making it useful for managing energy costs of a building.

## Error Notification

Size 80, 100 and 120 models benefit from a **wiring / piping correction function**. At the press of a single button the system is analysed for potential piping and wiring errors, which can then be rectified.

## Controls Systems

Connection to the Mitsubishi Electric **M-NET system** is possible via a **MAC-399IF interface** (one per indoor unit is needed).



AT50 Controller



# MXZ Power Multi Systems

The larger MXZ-B Power Multi systems take the multi-split range to the next level and incorporate highly efficient Mitsubishi Electric Power Inverter technology.

Available in 14kW single phase as well as a 15.5kW 3-phase version, up to 8 individually controlled indoor units are able to be connected to these single outdoor units.

## Branch Boxes

Featuring all the benefits of the smaller MXZ models, in addition the Power Multi range also make use of two types of **branch box**, a 3 way and a 5 way option that can be used singularly or in tandem.

The benefit of using branch boxes are that pipe lengths are significantly reduced along with the subsequent installation time and cost. The Power Multi range is therefore an energy efficient, highly flexible solution appropriate for many types of application.

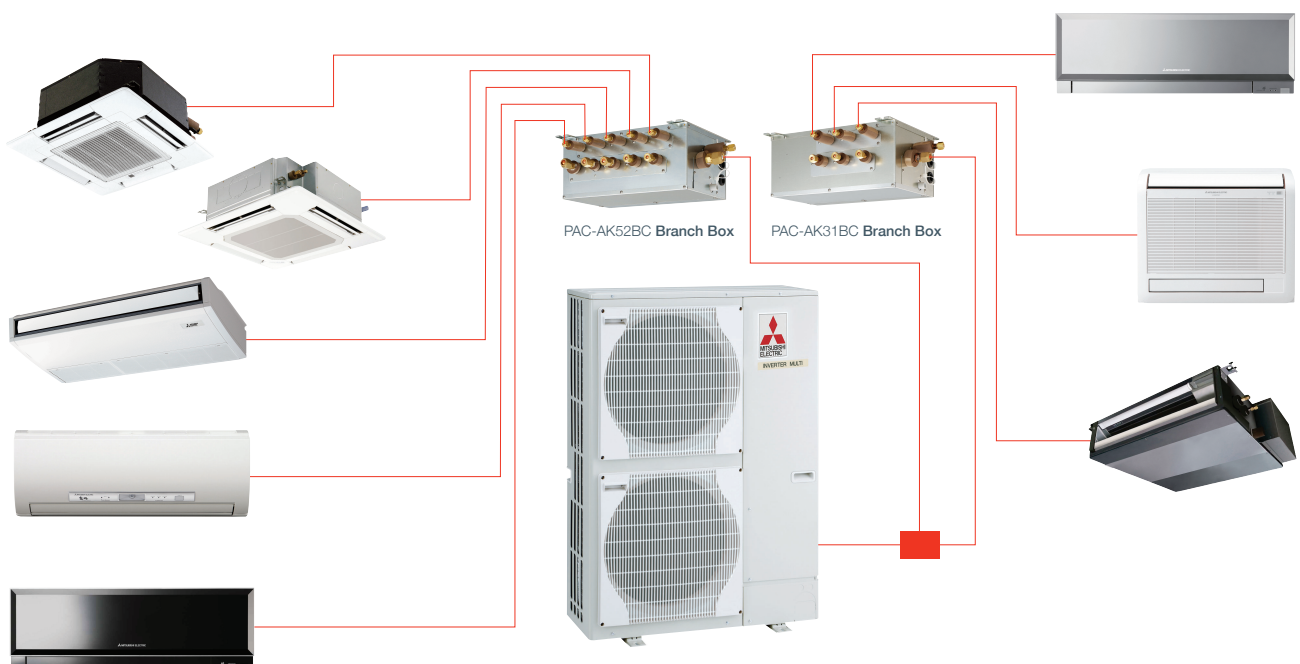
## Versatile System Design

The total piping length of an MXZ Power Multi system is an impressive **115m**. With a maximum height difference of 30m also, the system is an ideal choice for small commercial properties desiring a **flexible and effective solution** with regards to system design.

## High Capacity Indoor units

Using an optional PAC-AK52YP-E connection pipe with a PAC-AK52BC Branch Controller, the Power Multi models are able to connect to **10kW Mr Slim ceiling cassettes**, allowing the system to be applied to larger rooms.

## Example of an 8-way MXZ Power Multi system

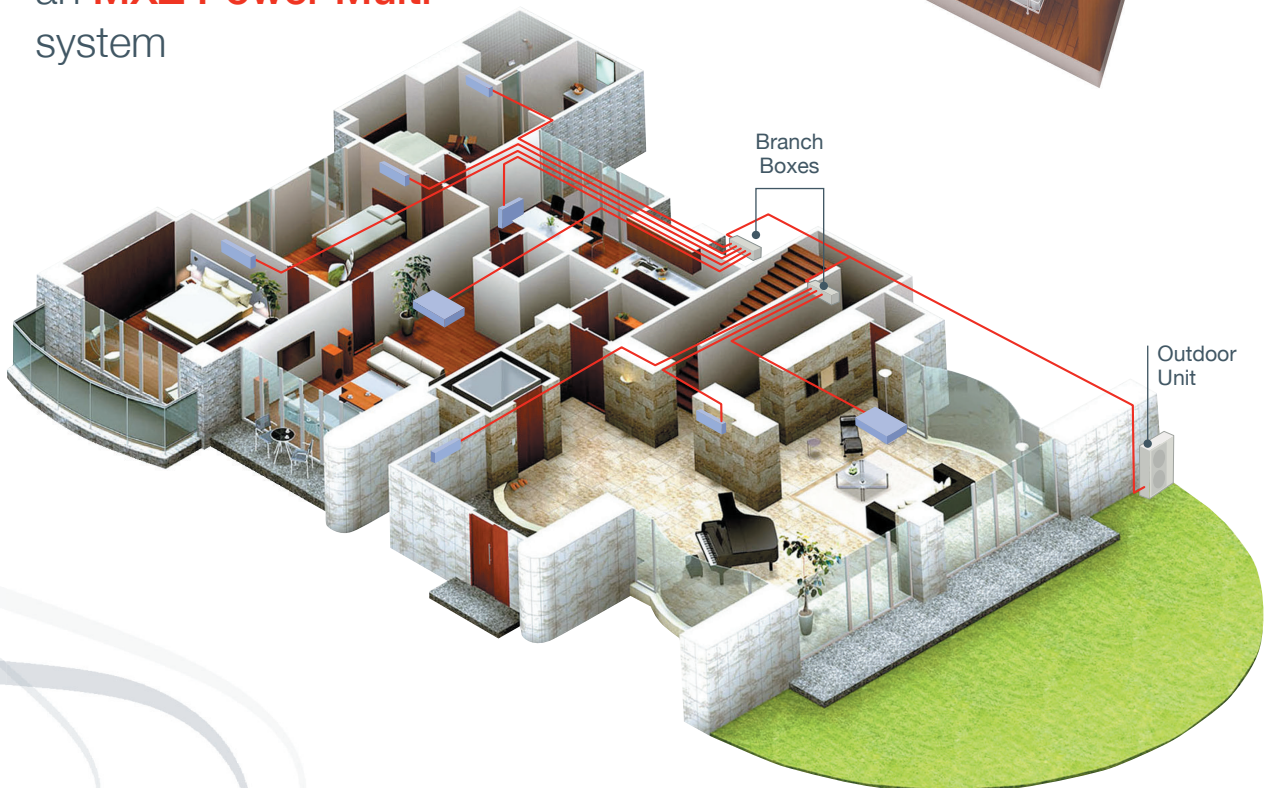


# Application Examples

Example of an office using an **MXZ Multi-Split** system



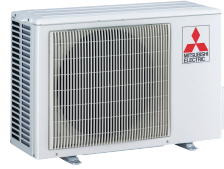
Example of an executive suite using an **MXZ Power Multi** system





## Outdoor Units

MXZ-2C52VA



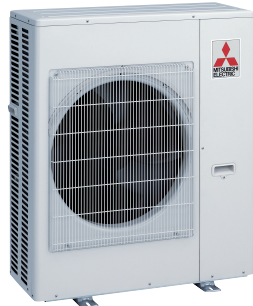
MXZ-3C54VA  
MXZ-4C71VA



MXZ-4C80VA  
MXZ-5C100VA



MXZ-6C120VA



### Power Multi

MXZ-8B140VA  
MXZ-8B160YA



## Indoor Units

### Wall Mounted

MSZ-EF-VEB



MSZ-GE-VA



MSZ-EF-VES



MSZ-FD-VA



MSZ-EF-VEW



### Floor Mounted

MFZ-KA-VA

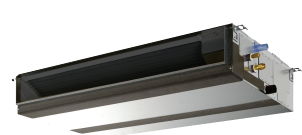


### Ceiling Concealed Ducted

SEZ-KD-VAQ



PEAD-RP-JAQ



### Ceiling Cassette

SLZ-KA-VAQ



PLA-RP-BA(2)(3)



### Ceiling Suspended

PCA-RP-KAQ



# Compatibility Table

Model	MXZ-2C52VA	MXZ-3C54VA	MXZ-4C71VA	MXZ-4C80VA	MXZ-5C100VA	MXZ-6C120VA	MXZ-8B140VA	MXZ-8B160YA
<b>Wall Mounted</b>								
MSZ-GE22VA	●	●	●	●	●	●	●	●
MSZ-GE25VA	●	●	●	●	●	●	●	●
MSZ-GE35VA	●	●	●	●	●	●	●	●
MSZ-GE50VA		●	●	●	●	●	●	●
MSZ-GE60VA			●	●	●	●	●	●
MSZ-GE71VA				●	●	●	●	●
MSZ-FD25VA	●	●	●	●	●	●	●	●
MSZ-FD35VA	●	●	●	●	●	●	●	●
MSZ-EF25VEB	●	●	●	●	●	●	●	●
MSZ-EF35VEB	●	●	●	●	●	●	●	●
MSZ-EF50VEB		●	●	●	●	●	●	●
MSZ-EF25VES	●	●	●	●	●	●	●	●
MSZ-EF35VES	●	●	●	●	●	●	●	●
MSZ-EF50VES		●	●	●	●	●	●	●
MSZ-EF25VEW	●	●	●	●	●	●	●	●
MSZ-EF35VEW	●	●	●	●	●	●	●	●
MSZ-EF50VEW		●	●	●	●	●	●	●
<b>Floor Mounted</b>								
MFZ-KA25VA	●	●	●	●	●	●	●	●
MFZ-KA35VA	●	●	●	●	●	●	●	●
MFZ-KA50VA		●	●	●	●	●	●	●
<b>Ceiling Concealed Ducted</b>								
SEZ-KD25VAQ	●	●	●	●	●	●	●	●
SEZ-KD35VAQ	●	●	●	●	●	●	●	●
SEZ-KD50VAQ		●	●	●	●	●	●	●
SEZ-KD60VAQ			●	●	●	●	●	●
SEZ-KD71VAQ				●	●	●	●	●
PEAD-RP50JAQ*1		●	●	●	●	●	●	●
PEAD-RP60JAQ*1				●	●	●	●	●
PEAD-RP71JAQ*1				●	●	●	●	●
<b>Ceiling Cassette</b>								
SLZ-KA25VAQ	●	●	●	●	●	●	●	●
SLZ-KA35VAQ	●	●	●	●	●	●	●	●
SLZ-KA50VAQ		●	●	●	●	●	●	●
PLA-RP35BA							●	●
PLA-RP50BA		●	●	●	●	●	●	●
PLA-RP60BA			●	●	●	●	●	●
PLA-RP71BA				●	●	●	●	●
PLA-RP71BA2				●	●	●	●	●
PLA-RP100BA*2							●	●
PLA-RP100BA3*2							●	●
<b>Ceiling Suspended</b>								
PCA-RP50KAQ		●	●	●	●	●		
PCA-RP60KAQ			●	●	●	●		
PCA-RP71KAQ				●	●	●		

\*1 Total capacity of indoor units must not exceed 100% if PEAD-RP is used. \*2 Can only be connected using a PAC-AK52BC with a PAC-AK52YP-E connection pipe.

MXZ-C-VA - OUTDOOR UNITS		MXZ-2C52VA	MXZ-3C54VA	MXZ-4C71VA	MXZ-4C80VA	MXZ-5C100VA	MXZ-6C120VA
NUMBER OF CONNECTABLE INDOOR UNITS		2	2 - 3	2 - 4	2 - 4	2 - 5	2 - 6
CAPACITY (KW)	Heating (nominal)	6.4 (1.0-7.0)	7.0 (2.6-9.0)	8.6 (3.4-10.7)	9.4 (3.4-11.6)	12.0 (4.1-14.0)	14.0 (3.5-16.5)
	Cooling (nominal)	5.2 (1.1-6.0)	5.4 (2.9-6.8)	7.1 (3.7-8.8)	8.0 (3.7-9.2)	10.0 (3.9-11.0)	12.0 (3.5-13.5)
	Heating (UK)	5.3 (0.85-5.8)	5.8 (2.15-7.5)	7.15 (2.85-8.9)	7.8 (2.85-9.65)	9.95 (3.4-11.65)	11.65 (2.9-13.7)
	Cooling (UK)	5.15 (1.1-5.95)	5.35 (2.9-6.75)	7.05 (3.65-8.75)	7.95 (3.65-9.15)	9.9 (3.85-10.9)	11.9 (3.45-13.4)
COP / EER (nominal)	Outdoor Only	3.98 / 4.00	5.04 / 4.23	4.78 / 4.54	4.87 / 4.09	4.23 / 3.57	3.88 / 3.21
ENERGY LABEL	Heating/Cooling	A / A	A / A	A / A	A / A	A / A	A / A
MAX AIRFLOW (m3/min)	Heating/Cooling	33.3 / 32.9	43 / 42.1	43 / 42.1	43.8 / 42.2	59.3 / 56.6	59.5 / 69.9
NOISE (dBA)	Heating/Cooling - Sil-Hi	49-50 / 46-49	48-51 / 45-47	48-52 / 45-48	46-48 / 44-46	47-54 / 46-51	53-57 / 51-55
DIMENSIONS (mm)	Width	800	840	840	900	900	900
	Depth	285	330	330	320	320	320
	Height	550	710	710	900	900	1070
WEIGHT (kg)		38	57	58	67	68	88
ELECTRICAL SUPPLY		220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz	220-240v, 50Hz
POWER INPUT (kW)	Heating/Cooling (nominal)	1.61 / 1.30	1.465 / 1.19	1.705 / 1.68	1.93 / 1.955	2.835 / 2.88	3.47 / 3.61
	Heating/Cooling (UK)	1.47 / 1.04	1.33 / 0.95	1.55 / 1.34	1.76 / 1.56	2.58 / 2.30	3.16 / 2.89
STARTING CURRENT (A)		7.22	6.43	7.49	8.59	12.45	15.85
RUNNING CURRENT (A) [MAX]	Heating/Cooling	7.22 / 5.83 [10.2]	6.43 / 5.23 [15]	7.49 / 7.38 [15]	8.48 / 8.59 [17.4]	12.45 / 12.30 [18.4]	15.24 / 15.85 [27]
INTERCONNECTING CABLE No. CORES		4 Core	4 Core	4 Core	4 Core	4 Core	4 Core
TOTAL PIPE LENGTH (m)		30	50	60	70	80	80
MAX PIPE LENGTH PER INDOOR UNIT (m)		20	25	25	25	25	25
MAX HEIGHT DIFFERENCE (m)		15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)	15 (10 if OU higher than IU)
CHARGE R410A (kg) [Precharged Length]		1.3 [20m]	2.7 [40m]	2.7 [40m]	3.5 [40m]	4.0 [40m]	5.0 [60m]
FUSE RATING (BS88) - HRC (A)		16	25	25	25	25	40

MXZ-B-VA/YA - OUTDOOR UNITS		MXZ-8B140VA	MXZ-8B160YA
NUMBER OF CONNECTABLE INDOOR UNITS		2 - 8	2 - 8
CAPACITY (KW)	Heating (nominal)	16.0	18.0
	Cooling (nominal)	14.0	15.5
	Heating (UK)	13.3	14.95
	Cooling (UK)	13.9	15.4
COP / EER (nominal)	Outdoor Only	3.91 / 3.52	3.61 / 3.21
ENERGY LABEL	Heating/Cooling	A / A	A / A
MAX AIRFLOW (m3/min)	Heating/Cooling	100	106
NOISE (dBA)	Heating/Cooling - Sil-Hi	52 / 47-50	54 / 48-51
DIMENSIONS (mm)	Width	950	950
	Depth	330	330
	Height	1350	1350
WEIGHT (kg)		129	139
ELECTRICAL SUPPLY		220-240v, 50Hz	380-415v, 50Hz
PHASE		Single	3
POWER INPUT (kW)	Heating/Cooling (nominal)	3.90 / 3.79	4.80 / 4.64
	Heating/Cooling (UK)	3.55 / 3.03	4.37 / 3.71
STARTING CURRENT (A)		14	7
RUNNING CURRENT (A) [MAX]	Heating/Cooling	17.05 / 16.55 [29.5]	7.00 / 6.77 [13]
INTERCONNECTING CABLE No. CORES		4 Core	4 Core
TOTAL PIPE LENGTH (m)		115	115
MAX PIPE LENGTH PER INDOOR UNIT (m)		15 (from Branch Box)	15 (from Branch Box)
FURTHEST PIPE LENGTH - Outdoor to Indoor (m)		70	70
MAX HEIGHT DIFFERENCE - Outdoor to Indoor (m)		30 (20 if OU lower than IU)	30 (20 if OU lower than IU)
MAX HEIGHT DIFFERENCE - Indoor to Indoor (m)		12	12
CHARGE R410A (kg) - 40m		8.5	8.5
FUSE RATING (BS88) - HRC (A)		40	25

PAC-AK31BC - BRANCH BOX		PAC-AK31BC
NUMBER OF CONNECTABLE INDOOR UNITS		1 - 3
POWER SUPPLY TO BRANCH BOX		From Outdoor Unit
POWER SUPPLY TO INDOOR UNITS		From Branch Box
PIPE SIZE mm(in) Main Outdoor Side - Gas		15.88(5/8")
PIPE SIZE mm(in) Main Outdoor Side - Liquid		9.52(3/8")
MAX PIPE LENGTH - Outdoor Unit to Branch Box (m)		55
TOTAL PIPE LENGTH - Branch Boxes to Indoor Unit (m)		60
MAX HEIGHT DIFFERENCE - Outdoor Unit to Branch Box (m)		30
MAX HEIGHT DIFFERENCE - Branch Box to Indoor Unit (m)		15
DIMENSIONS (mm)	Width	450
	Depth	280
	Height	198

PAC-AK52BC - BRANCH BOX		PAC-AK52BC
NUMBER OF CONNECTABLE INDOOR UNITS		1 - 5
POWER SUPPLY TO BRANCH BOX		From Outdoor Unit
POWER SUPPLY TO INDOOR UNITS		From Branch Box
PIPE SIZE mm(in) Main Outdoor Side - Gas		15.88(5/8")
PIPE SIZE mm(in) Main Outdoor Side - Liquid		9.52(3/8")
MAX PIPE LENGTH - Outdoor Unit to Branch Box (m)		55
TOTAL PIPE LENGTH - Branch Boxes to Indoor Unit (m)		60
MAX HEIGHT DIFFERENCE - Outdoor Unit to Branch Box (m)		30
MAX HEIGHT DIFFERENCE - Branch Box to Indoor Unit (m)		15
DIMENSIONS (mm)	Width	450
	Depth	280
	Height	198

### ACCESSORIES / OPTIONAL EXTRAS

#### MXZ-8B Connection Pipe

**PAC-AK52YP-E** - Y shaped pipe for MXZ-8B models enabling size 100 connection (PLA-RP)

#### Interface

**MAC-399IF** - For connection to M-NET system

#### Air Outlet Guides

**MAC-889SG** - for MXZ-2C52VA

**MAC-856SG** - for MXZ-3C54VA, MXZ-4C71VA, MXZ-4C80VA & MXZ-5C100VA

**PAC-SG59SG-E** - for MXZ-8B140VA, MXZ-8B160YA



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