

TOSHIBA



Multi

RESIDENTIAL PRODUCT LINE

MULTI

Technology in multi-split systems.



When it is necessary to air condition more than just one room, the line-up of Toshiba's multi-split systems is the perfect solution for every requirement.

One outdoor unit is capable of operating 2, 3 or 4 indoor units of your choice, all indoor styles are designed to compliment any interior.

The multi-split systems have several capacity steps and electronic capacity control that ensure user comfort and ease of control.

Toshiba Multisplit systems offer a wide range of possibilities to create all the comfort you desire.

The full range of internal units satisfies every requirement, including ducted ceiling units and high wall models that incorporate advanced filtration and air cleaning characteristics to improve indoor air quality.



HUGE ENERGY SAVINGS

PRECISE CAPACITY CONTROL

MAXIMUM ENVIRONMENTAL COMPATIBILITY

COMPACT AND MODERN DESIGN

The inverter company.

The efficiency of an inverter air conditioner is determined by the efficiency of each component it contains: the control electronics, the motor, and the compressor. Toshiba has focused its attention on all of these components.

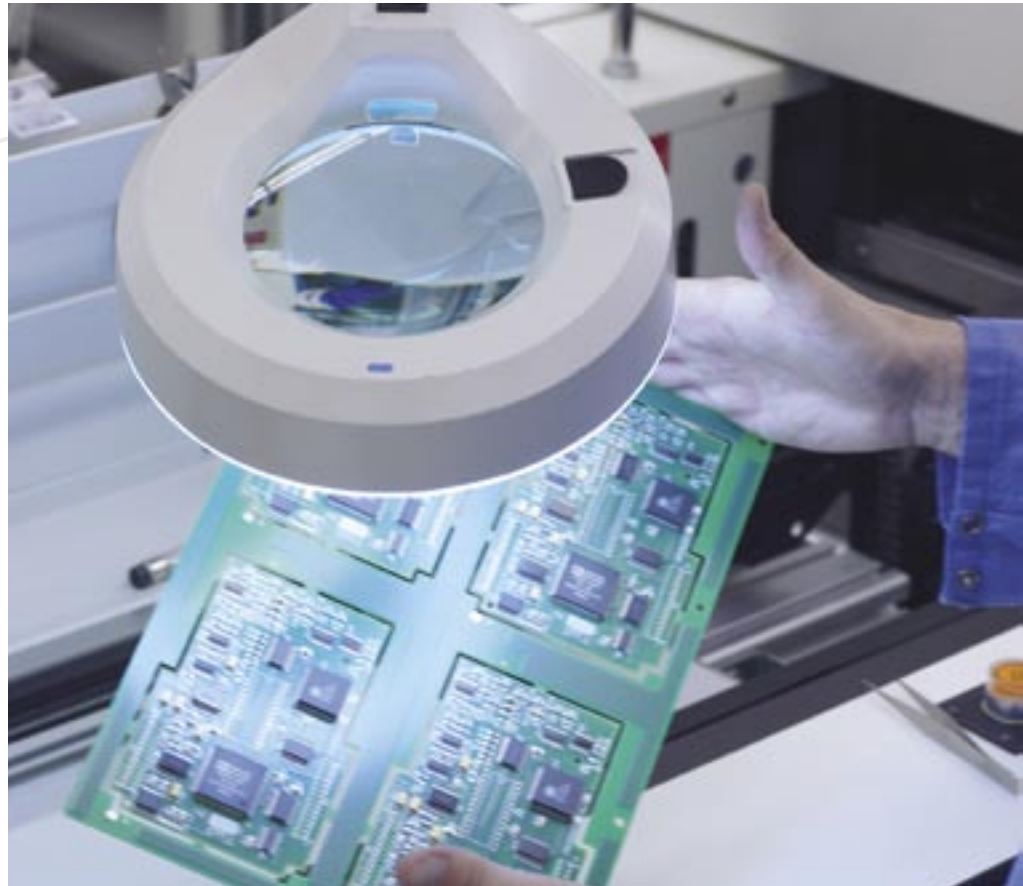
Control electronics.

Toshiba's deep understanding of the functional characteristics of inverters has allowed it to refine the idea of energy savings along with continuous improvements in key areas, such as the power factor.

Power Factor

The power factor of an electrical load, such as a motor, is its power output compared to the energy it consumes, both measured in watts. Ideally, the electrical current and voltage are "in phase", and the power factor is 100%.

Actual operating conditions cause an inverter system to deviate from this ideal. Under a high load, the continuous alternative of wave peaks, the switching PAM is the best control method because the power



factor reaches 99%.

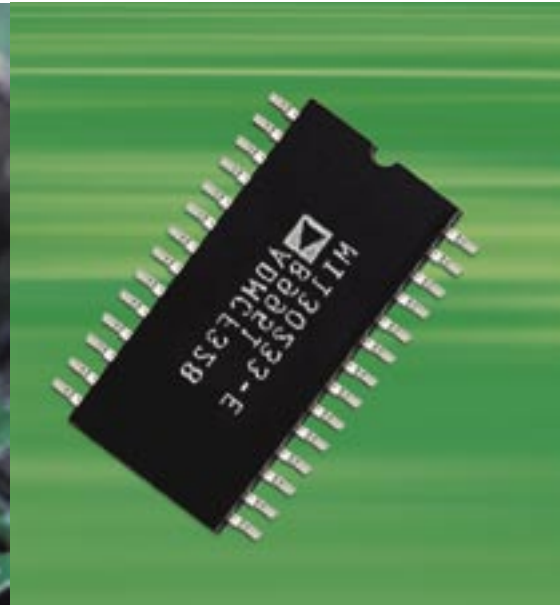
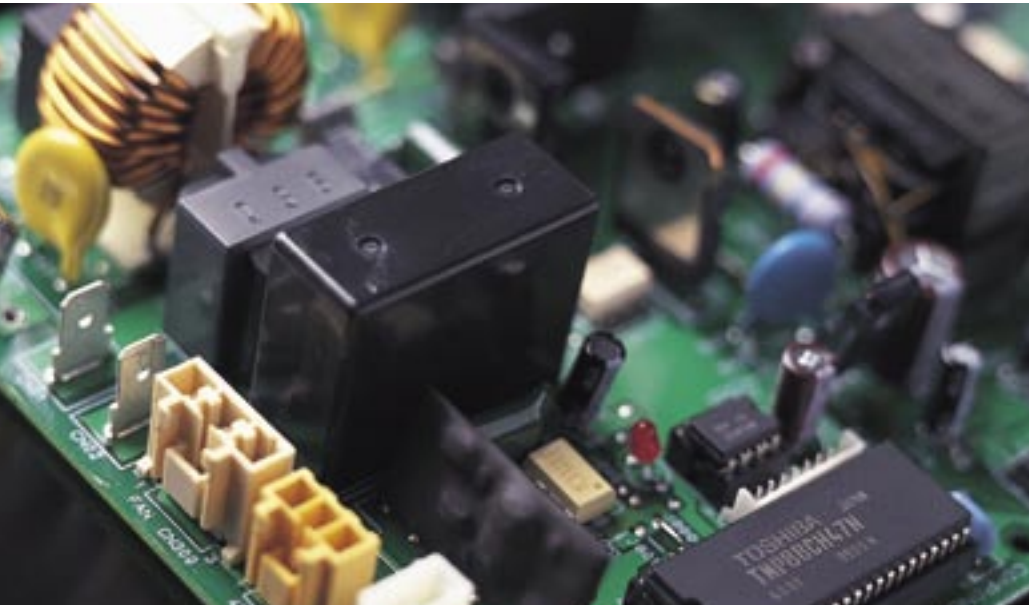
With a reduced load however, the PAM control method due to its switching results in significant energy losses. For this situation, the "PWM" control method yields higher efficiency and reduced energy consumption.

Only Toshiba has combined the two technologies, creating the "DC Hybrid Inverter", that chooses automatically the best control.

This solution provides high capacity when it is necessary. For very cold winter days or hot summer days use the PAM method, and for very low energy consumption when conditions are less severe use the PWM method. Given that maximum capacity is not often required, and that high efficiency is always desirable, the result is a greatly reduced annual energy consumption.

	Shape of the supply wave	Features
PWM	<p>Supply voltage maintained at 325 volts.</p>	High efficiency
PAM	<p>The supply voltage is increased automatically to 360 volts to increase the capacity supplied</p>	High power Network voltage: 230V

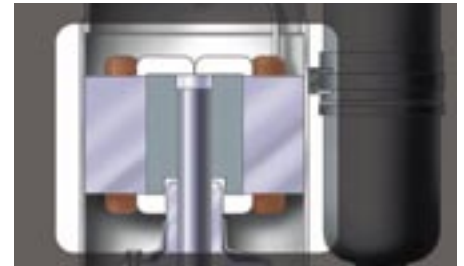
Shape of the supply wave		Capacity needed
		LOW
		MEDIUM
		HIGH For example: 1 - at start 2- severe temperature



The driver of technology.

The motor that drives the revolutions of the air conditioner is a concentration of mechanical technology and electromagnetic engineering. The most advanced methods of modelling were used to determine the best configuration of the permanent magnets of the DC motor. A perfect choice for the shape and materials for the permanent magnets allows the best synchronisation with the frequency

of the voltage applied by the control circuit. The rpm is therefore precisely selected to match the ambient conditions.



The twin rotary compressor.

The compressor is the third extra-thermodynamic element in which Toshiba has continuously improved, finally arriving at the solution called the DC Twin Rotary Compressor. It is a double cam rotary compressor having several features that increase its performance and reliability.

The opposed, double blade design yields mechanical stability and less vibration that could cause stress

on other components. In fact, being able to reduce the rpm without causing instability enables improved temperature control when less capacity is required.

An added benefit offered by the DC Twin Rotary Compressor is its low noise level compared to normal rotary compressors, and with refrigerant R410A, it is more efficient than scroll compressors.





Daiseikai Indoor unit

The 3-in-1 Daiseikai High-wall unit is not only one of the best air conditioners on the market, it is also an air purifier and an ioniser.

With its elegant design, exceptional EER levels and superior air quality features, Daiseikai launches a new era in air conditioning.

PLASMA AIR PURIFIER

CATECHIN PRE-FILTER

SELF-CLEANING FUNCTION

ZEOLITE PLUS FILTER

AIR IONISER



GKV Indoor unit

Innovative technology, new features and attractive design - Toshiba's GKV raises the standard of air conditioning.

A new level of comfort with the whisper-quiet operation, the optimum airflow management system, and a the new filtration system.

ZEOLITE + SASA FILTERS

BYO-ENZYME + GINGKO FILTERS

ONE TOUCH PRE-SET MEMORY

HI POWER

LOW NOISE LEVEL



Ducted Indoor unit

The ducted indoor unit allows discrete air conditioning where you want to get the benefit of a pleasing cooling and heating effect without the presence of visible indoor units. Its slim design makes it suitable for easy installation in any false ceiling spaces.

ONLY 230 mm HIGH

FLEXIBLE AIR RETURN




HIGH STATIC PRESSURE

UP TO 63.7 Pa STATIC PRESSURE

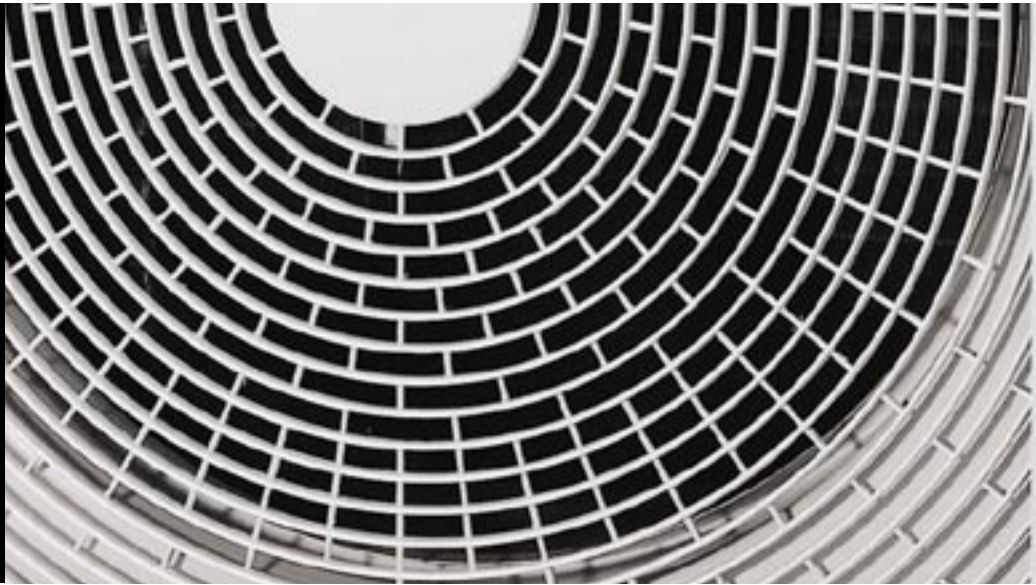
INFRA-RED REMOTE CONTROL

Residential range - Multisplit - Matching table

Outdoor Units					
					Sizes
14	18	26	23	27	
2 ROOMS		3 ROOMS		4 ROOMS	
HP	CO	HP	CO	HP	CO

Available indoor units					
					
Daiseikai		GKV		Ducted	
HP	CO	HP	CO	HP	CO
RAS B10GKVP-E	RAS M10GKCVP-E	RAS M10GKV-E	RAS M10GKCV-E	RAS M10GDCV-E	RAS M10GDV-E
RAS B13GKVP-E	RAS M13GKCVP-E	RAS M13GKV-E	RAS M13GKCV-E	RAS M13GDCV-E	RAS M13GDV-E
RAS B16GKVP-E	RAS M16GKCVP-E	RAS M16GKV-E	RAS M16GKCV-E	RAS M16GDCV-E	RAS M16GDV-E





- R410A
- DC HYBRID INVERTER



- MULTISPLIT
- LIGHT WEIGHT
- UP TO 70 M OF PIPE RUN

Outdoor Multisplit residential.

Features

Toshiba multisplits are equipped with Toshiba DC Hybrid Inverter, which is an enhanced air conditioning system that offers greater performance and reliability.

Thanks to the efficient DC compressors, this unit provides quick achieving and precise temperature management, along with superior energy savings, 40-50% compared to Fixed-speed systems.

Key features

Wider range of indoor units available: High-Wall, Ducted and the innovative Daiseikai, for 2-room Multi split outdoors.

A perfect combination of DC Twin Rotary compressor, DC Hybrid Inverter and R-410A Refrigerant.

Superior reliability, due to the reduction of the compressor ON/OFF cycles.

Compact and light: The smallest outdoor unit in the industry at 695 x 780 x 270 mm.

Extremely quiet: it operates at only 48 dB(A).

Each room can contain maximum up to 25m piping length (4 rooms multi).

Outdoor unit can use up to:

- 30m of piping for 2 rooms multi
- 40m of piping for 3 rooms multi
- 70m of piping for 4 rooms multi.

Technical specifications cooling only

Outdoor unit			2-room Multi-split		3-room Multi-split	4-room Multi-split
			RAS-M14GACV-E	RAS-M18GACV-E	3M23GACV-E	4M27GACV-E
Cooling capacity	kW	CO	4.0	5.2	6.7	8.0
Cooling capacity (min. - max.)	kW	CO	1.1 - 4.5	1.1 - 6.2	1.4 - 7.0	1.4 - 9.2
Power input	kW	CO	1.08	1.60	2.15	2.50
EER	W/W	CO	3.70	3.25	3.12	3.20
Energy efficiency class		CO	A	A	B	A
Air flow	m ³ /h - l/s		1820 - 505	2100 - 583	3000 - 833	3000 - 833
Sound pressure level	dB(A)	CO	46	48	48	48
Sound power level	dB(A)	CO	59	61	61	61
Operating range	°C	CO	5 - 43°C	5 - 43°C	10 - 43°C	10 - 43°C
Dimensions (HxWxD)	mm		550 x 780 x 290	550 x 780 x 290	695 X 900 X 320	795 X 900 X 320
Weight	kg		36	40	48	65
Compressor type			DC Twin rotary	DC Twin rotary	DC Twin rotary	DC Twin rotary
Flare connections						
Gas	in		3/8 x 2	3/8 x 2	3/8 x 2 + 1/2	3/8 x 3 + 1/2
Liquid	in		1/4 x 2	1/4 x 2	1/4 x 3	1/4 x 4
Maximum pipe length (per unit/total)	m		20/30	20/30	20/40	25/70
Maximum height difference	m		10	10	10	15
Pre-charged pipe length	m		20	20	40	70
Power supply	V-ph-Hz		220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50

Technical specifications heat pump

Outdoor unit			2-room Multi-split		3-room Multi-split	4-room Multi-split
			RAS-M14GAV-E	RAS-M18GAV-E	3M26GAV-E	4M27GAV-E
Cooling capacity	kW	CO	4.0	5.2	7.5	8.0
Cooling capacity (min. - max.)	kW	CO	1.1 - 4.5	1.1 - 6.2	1.4 - 8.9	1.4 - 9.2
Power input	kW	CO	1.08	1.60	2.25	2.50
EER	W/W	CO	3.70	3.25	3.33	3.20
Energy efficiency class		CO	A	A	A	B
Heating capacity	kW	HP	4.4	6.7	9.0	9.0
Heating capacity (min. - max.)	kW	HP	0.5 - 5.2	0.7 - 8.5	0.8 - 10.8	0.8 - 11.0
Power input	kW	HP	1.01	1.85	2.55	2.25
COP	W/W	HP	4.35	3.62	3.53	4.00
Energy efficiency class		HP	A	A	B	A
Air flow	m ³ /h - l/s		1820 - 505	2100 - 583	3000 - 833	3000 - 833
Sound pressure level	dB(A)	CO	46	48	48	48
Sound power level	dB(A)	CO	59	61	61	61
Operating range	°C	CO	5 - 43°C	5 - 43°C	10 - 43°C	10 - 43°C
Sound pressure level	dB(A)	HP	48	50	48	48
Sound power level	dB(A)	HP	61	63	61	61
Operating range	°C	HP	-10 - 24°C	-10 - 24°C	-10 - 21°C	-10 - 21°C
Dimensions (HxWxD)	mm		550 x 780 x 290	550 x 780 x 290	795 x 900 x 320	795 x 900 x 320
Weight	kg		36	40	64	65
Compressor type			DC Twin rotary	DC Twin rotary	DC Twin rotary	DC Twin rotary
Flare connections						
Gas	in		3/8 x 2	3/8 x 2	3/8 x 2 + 1/2	3/8 x 3 + 1/2
Liquid	in		1/4 x 2	1/4 x 2	1/4 x 3	1/4 x 4
Minimum pipe length	m		2	2	2	2
Maximum pipe length (per unit/total)	m		20/30	20/30	25/50	25/70
Maximum height difference	m		10	10	15	15
Pre-charged pipe length	m		20	20	50	70
Power supply	V-ph-Hz		220/240-1-50	220/240-1-50	220/240-1-50	220/240-1-50

Cooling, 230V

Combination ratings (size 14) **cooling only**

Operating status	Combination		Unit capacity (kW)		Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	2.5	-	1.1	2.5	3.2	170	570	880	1.06	2.92	4.11
	13	-	3.5	-	1.1	3.5	3.8	170	1100	1280	1.06	5.03	5.80
2 unit operation	10	10	1.95	1.95	1.4	3.9	4.4	230	1070	1290	1.43	4.90	5.84
	13	10	2.33	1.67	1.4	4.0	4.5	230	1080	1300	1.43	4.94	5.89

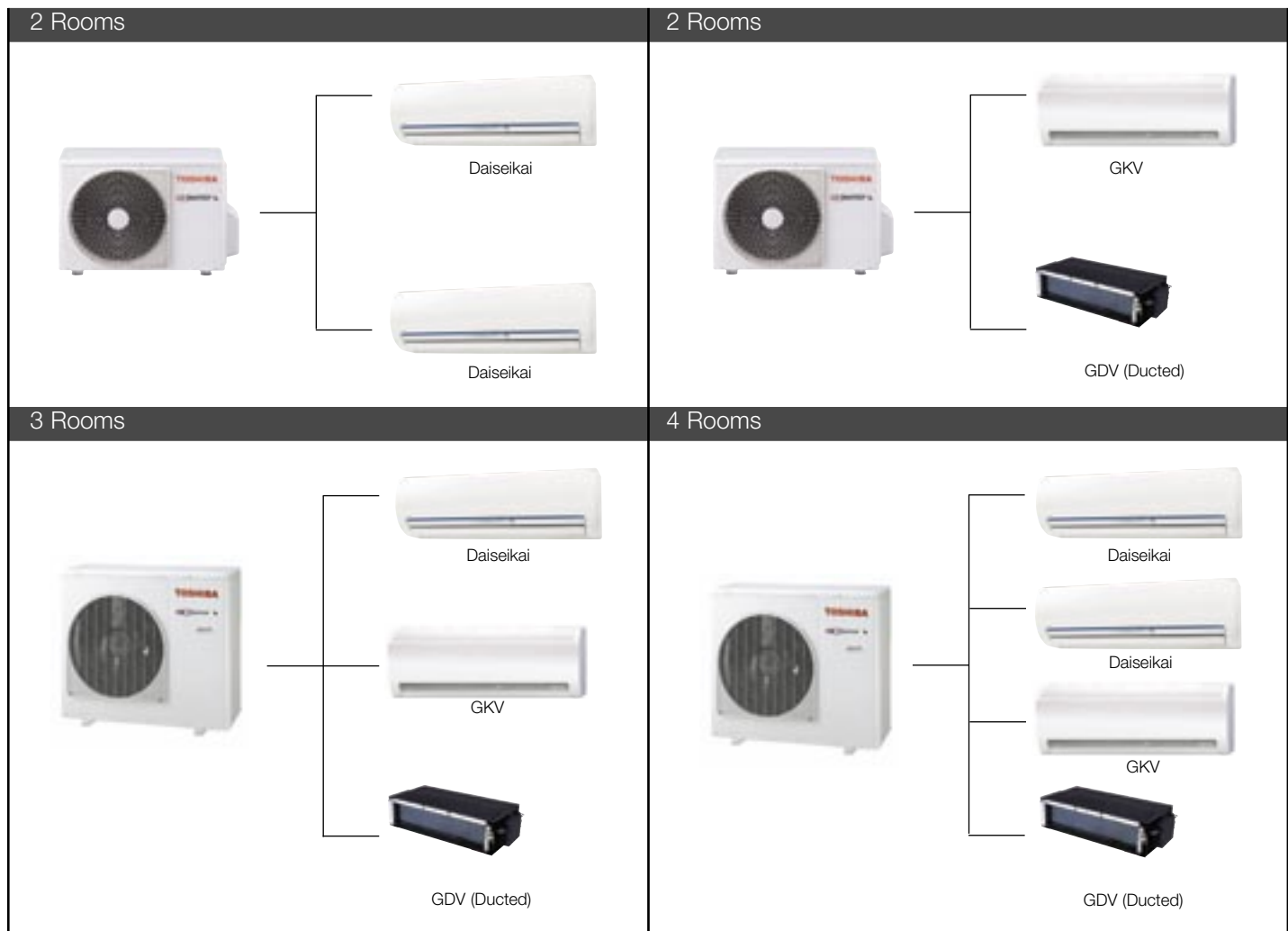
Outdoor unit: RAS-M14GACV-E | Indoor units: Daiseikai, GKV, Ducted | RAS-MxxGKCVP-E (sizes 10 and 13), RAS-MxxGKCV-E (sizes 10 and 13), RAS-MxxGDCV-E (sizes 10 and 13)

Cooling, 230V

Combination ratings (size 18) **cooling only**

Operating status	Combination		Unit capacity (kW)		Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	2.7	-	1.1	2.7	3.2	220	600	800	1.37	2.90	3.66
	13	-	3.7	-	1.1	3.7	4.2	220	1100	1400	1.37	4.88	6.21
	16	-	4.5	-	1.1	4.5	4.9	220	1500	1700	1.37	6.65	7.54
2 unit operation	10	10	2.55	2.55	1.4	5.1	6.1	260	1550	2150	1.61	6.88	9.54
	13	10	2.85	2.35	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63
	13	13	2.60	2.60	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63
	16	10	3.25	1.95	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63

Outdoor unit: RAS-M18GACV-E | Indoor units: Daiseikai, GKV, Ducted | RAS-MxxGKCVP-E (sizes 10, 13 and 16), RAS-MxxGKCV-E (sizes 10, 13 and 16), RAS-MxxGDCV-E (sizes 10, 13 and 16)



The schemes are exemplifying. In dual, tri and quadri Multi-split the indoor units Daiseikai, GKV and Ducted are interchangeable.

Cooling, 230V

Combination ratings (size 23) cooling only

Operating status	Combination			Unit capacity (kW)			Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	-	2.7	-	-	1.4	2.7	3.2	320	770	950	1.99	3.94	4.86
	13	-	-	3.7	-	-	1.4	3.7	4.4	320	1200	1470	1.99	6.07	7.18
	16	-	-	4.5	-	-	1.4	4.5	4.9	320	1600	1750	1.99	7.32	8.01
2 unit operation	10	10	-	2.7	2.7	-	1.8	5.4	6.0	360	1500	1880	2.24	6.86	8.6
	10	13	-	2.45	3.35	-	1.8	5.8	6.3	360	1800	1970	2.24	8.24	9.02
	10	16	-	2.21	3.69	-	1.8	5.9	6.4	360	1830	2000	2.24	8.38	9.15
	13	13	-	2.95	2.95	-	1.8	5.9	6.4	360	1830	2000	2.24	8.38	9.15
	13	16	-	2.71	3.29	-	1.8	6	6.4	360	1850	2000	2.24	8.5	9.15
3 unit operation	16	16	-	3.05	3.05	-	1.8	6.1	6.5	360	1870	2050	2.24	8.56	9.38
	10	10	10	2.13	2.13	2.13	2.2	6.4	7.0	420	1880	2300	2.61	8.6	10.53
	10	10	13	1.99	1.99	2.72	2.2	6.7	7.0	420	2150	2300	2.61	9.84	10.53
	10	13	13	1.8	2.45	2.45	2.2	6.7	7.0	420	2150	2300	2.61	9.84	10.53
	10	10	16	1.83	1.83	3.04	2.2	6.7	7.0	420	2150	2300	2.61	9.84	10.53

Outdoor unit: RAS-3M23GACV-E | Indoor units: Daiseikai RAS-MxxGKCV-E (sizes 10, 13 and 16)
 GKV RAS-MxxGKCV-E (sizes 10, 13 and 16)
 Ducted RAS-MxxGDCV-E (sizes 10, 13 and 16)

Cooling, 230V

Combination ratings (size 27) cooling only

Operating status	Combination				Unit capacity (kW)				Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	-	-	2.7	-	-	-	1.4	2.7	3.2	640	750	950	3.52	3.71	4.44
	13	-	-	-	3.7	-	-	-	1.4	3.7	4.4	640	1200	1520	3.52	5.49	6.88
	16	-	-	-	4.5	-	-	-	1.4	4.5	5	640	1650	2000	3.52	7.47	8.87
2 unit operation	10	10	-	-	2.7	2.7	-	-	2.5	5.4	6.3	640	1530	2040	3.48	6.79	9.05
	13	10	-	-	3.41	2.49	-	-	2.7	5.9	6.6	660	1810	2220	3.59	8.03	9.85
	16	10	-	-	3.94	2.36	-	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	13	13	-	-	3.15	3.15	-	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	16	13	-	-	3.73	3.07	-	-	3	6.8	7.2	690	2320	2570	3.75	10.29	11.40
	16	16	-	-	3.6	3.6	-	-	3.2	7.2	7.5	700	2550	2750	3.8	11.31	12.2
3 unit operation	10	10	10	-	2.53	2.53	2.53	-	3.8	7.6	8.2	950	2400	2720	4.59	10.65	12.07
	13	10	10	-	3.13	2.28	2.28	-	3.9	7.7	8.3	960	2410	2740	4.64	10.69	12.16
	16	10	10	-	3.5	2.1	2.1	-	4	7.7	8.5	960	2410	2790	4.64	10.69	12.38
	13	13	10	-	2.82	2.82	2.06	-	4	7.7	8.5	960	2410	2790	4.64	10.69	12.38
	16	13	10	-	3.22	2.65	1.93	-	4.1	7.8	8.6	970	2430	2810	4.69	10.78	12.47
	13	13	13	-	2.6	2.6	2.6	-	4.1	7.8	8.6	970	2430	2810	4.69	10.78	12.47
	16	16	10	-	3.04	3.04	1.82	-	4.1	7.9	8.7	970	2440	2830	4.69	10.83	12.56
	16	13	13	-	2.99	2.46	2.46	-	4.1	7.9	8.7	970	2440	2830	4.69	10.83	12.56
	16	16	13	-	2.8	2.8	2.3	-	4.2	7.9	8.9	970	2440	2880	4.69	10.83	12.78
	16	16	16	-	2.67	2.67	2.67	-	4.3	8	9	980	2450	2900	4.73	10.87	12.87
4 unit operation	10	10	10	10	1.98	1.98	1.98	1.98	4	7.9	8.7	930	2450	2800	4.49	10.87	12.42
	13	10	10	10	2.48	1.81	1.81	1.81	4.1	7.9	8.8	940	2450	2820	4.54	10.87	12.51
	16	10	10	10	2.86	1.71	1.71	1.71	4.1	8	9	940	2500	2860	4.54	11.09	12.69
	13	13	10	10	2.31	2.31	1.69	1.69	4.1	8	9	940	2500	2860	4.54	11.09	12.69
	16	13	10	10	2.65	2.18	1.59	1.59	4.2	8	9.1	950	2500	2880	4.59	11.09	12.78
	13	13	13	10	2.14	2.14	2.14	1.57	4.2	8	9.1	950	2500	2880	4.59	11.09	12.78
	16	13	13	10	2.47	2.03	2.03	1.48	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87
	13	13	13	13	2	2	2	2	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87
	16	16	10	10	2.5	2.5	1.5	1.5	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87

Outdoor unit: RAS-4M27GACV-E | Indoor units: Daiseikai RAS-MxxGKCV-E (sizes 10, 13 and 16)
 GKV RAS-MxxGKCV-E (sizes 10, 13 and 16)
 Ducted RAS-MxxGDCV-E (sizes 10, 13 and 16)

Combination ratings (size 14) heat pump

Cooling, 230V

Operating status	Combination		Unit capacity (kW)		Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	2.5	-	1.1	2.5	3.2	170	570	880	1.06	2.92	4.11
	13	-	3.5	-	1.1	3.5	3.8	170	1100	1280	1.06	5.03	5.80
2 unit operation	10	10	1.95	1.95	1.4	3.9	4.4	230	1070	1290	1.43	4.90	5.84
	13	10	2.33	1.67	1.4	4	4.5	230	1080	1300	1.43	4.94	5.89

Heating, 230V

Operating status	Combination		Unit capacity (kW)		Heating capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	3.2	-	0.7	3.2	4	130	850	1280	0.81	3.89	6.41
	13	-	4.2	-	0.7	4.2	4.4	130	1250	1350	0.81	5.60	6.86
2 unit operation	10	10	2.15	2.15	0.9	4.3	4.6	170	980	1230	1.06	4.39	5.51
	13	10	2.5	1.9	0.9	4.4	4.7	170	1010	1250	1.06	4.53	5.60

Outdoor unit:	RAS-M14GAV-E	Indoor units:	Daiseikai GKV Ducted	RAS-BxxGKVP-E (sizes 10 and 13) RAS-MxxGKV-E (sizes 10 and 13) RAS-MxxGDV-E (sizes 10 and 13)
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Combination ratings (size 18) heat pump

Cooling, 230V

Operating status	Combination		Unit capacity (kW)		Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	2.7	-	1.1	2.7	3.2	220	600	800	1.37	2.90	3.66
	13	-	3.7	-	1.1	3.7	4.2	220	1100	1400	1.37	4.88	6.21
	16	-	4.5	-	1.1	4.5	4.9	220	1500	1700	1.37	6.65	7.54
2 unit operation	10	10	2.55	2.55	1.4	5.1	6.1	260	1550	2150	1.61	6.88	9.54
	13	10	3.01	2.19	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63
	13	13	2.6	2.6	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63
	16	10	3.25	1.95	1.4	5.2	6.2	260	1600	2170	1.61	7.10	9.63

Heating, 230V

Operating status	Combination		Unit capacity (kW)		Heating capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit A	Unit B	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	4	-	0.7	4	5.2	170	1200	1700	1.06	5.32	7.54
	13	-	5	-	0.7	5	6.5	170	1800	2530	1.06	7.99	11.22
2 unit operation	16	-	5.5	-	0.7	5.5	6.9	170	1900	2530	1.06	8.43	11.22
	10	10	3.2	3.2	0.9	6.4	8.3	200	1800	2390	1.24	7.99	10.60
	13	10	3.72	2.98	0.9	6.7	8.7	200	1850	2450	1.24	8.21	10.87
	13	13	3.35	3.35	0.9	6.7	8.7	200	1850	2450	1.24	8.21	10.87
	16	10	3.88	2.82	0.9	6.7	8.7	200	1850	2450	1.24	8.21	10.87

Outdoor unit:	RAS-M18GAV-E	Indoor units:	Daiseikai GKV Ducted	RAS-BxxGKVP-E (sizes 10, 13 and 16) RAS-MxxGKV-E (sizes 10, 13 and 16) RAS-MxxGDV-E (sizes 10, 13 and 16)
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Combination ratings (size 26) heat pump

Cooling, 230V

Operating status	Combination			Unit capacity (kW)			Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	-	2.7	-	-	1.4	2.7	3.2	640	750	950	3.52	3.71	4.44
	13	-	-	3.7	-	-	1.4	3.7	4.4	640	1200	1520	3.52	5.49	6.88
	16	-	-	4.5	-	-	1.4	4.5	5	640	1650	2000	3.52	7.47	8.87
2 unit operation	10	10	-	2.7	2.7	-	2.5	5.4	6.3	640	1530	2040	3.48	6.79	9.05
	13	10	-	3.41	2.49	-	2.7	5.9	6.6	660	1810	2220	3.59	8.03	9.85
	16	10	-	3.94	2.36	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	13	13	-	3.15	3.15	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	16	13	-	3.73	3.07	-	3	6.8	7.2	690	2320	2570	3.75	10.29	11.4
	16	16	-	3.6	3.6	-	3.2	7.2	7.5	700	2550	2750	3.8	11.31	12.2
3 unit operation	10	10	10	2.47	2.47	2.47	3.6	7.4	8.2	950	2230	2720	4.59	9.89	12.07
	13	10	10	3.01	2.2	2.2	3.9	7.4	8.3	950	2230	2750	4.59	9.89	12.2
	16	10	10	3.36	2.02	2.02	4	7.4	8.5	950	2230	2820	4.59	9.89	12.51
	13	13	10	2.71	2.71	1.98	4	7.4	8.5	950	2230	2820	4.59	9.89	12.51
	16	13	10	3.1	2.55	1.86	4	7.5	8.6	980	2250	2850	4.73	9.98	12.64
	13	13	13	2.5	2.5	2.5	4	7.5	8.6	980	2250	2850	4.73	9.98	12.64
	16	16	10	2.88	2.88	1.73	4.1	7.5	8.8	980	2250	2920	4.73	9.98	12.95
	16	13	13	2.84	2.33	2.33	4.1	7.5	8.8	980	2250	2920	4.73	9.98	12.95
	16	16	13	2.66	2.66	2.19	4.2	7.5	8.9	980	2250	2950	4.73	9.98	13.09

Heating, 230V

Operating status	Combination			Unit capacity (kW)			Heating capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit C	Unit A	Unit B	Unit C	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	-	4	-	-	0.8	4	5.2	300	1500	1980	1.79	6.65	8.78
	13	-	-	5	-	-	0.8	5	6.5	310	2050	2750	1.85	9.09	12.2
	16	-	-	5.5	-	-	0.8	5.5	6.9	310	2400	3000	1.85	10.65	13.31
2 unit operation	10	10	-	3.6	3.6	-	1.5	7.2	10	320	2050	3200	1.86	9.09	14.2
	13	10	-	4.22	3.38	-	1.5	7.6	10.1	320	2240	3210	1.86	9.94	14.24
	16	10	-	4.57	3.33	-	1.5	7.9	10.1	320	2380	3230	1.86	10.56	14.33
	13	13	-	3.95	3.95	-	1.5	7.9	10.1	320	2380	3230	1.86	10.56	14.33
	16	13	-	4.35	3.95	-	1.5	8.3	10.2	320	2560	3240	1.86	11.36	14.37
	16	16	-	4.3	4.3	-	1.5	8.6	10.2	320	2700	3250	1.86	11.98	14.42
3 unit operation	10	10	10	2.87	2.87	2.87	2	8.6	10.4	380	2300	2750	2.07	10.2	12.2
	13	10	10	3.35	2.68	2.68	2	8.7	10.5	380	2360	2760	2.07	10.47	12.24
	16	10	10	3.59	2.61	2.61	2	8.8	10.6	380	2430	2780	2.07	10.78	12.33
	13	13	10	3.14	3.14	2.51	2	8.8	10.6	380	2430	2780	2.07	10.78	12.33
	16	13	10	3.34	3.03	2.43	2	8.8	10.6	380	2430	2780	2.07	10.78	12.33
	13	13	13	2.93	2.93	2.93	2	8.8	10.6	380	2430	2780	2.07	10.78	12.33
	16	16	10	3.26	3.26	2.37	2	8.9	10.7	380	2490	2790	2.07	11.05	12.38
	16	13	13	3.16	2.87	2.87	2	8.9	10.7	380	2490	2790	2.07	11.05	12.38
	16	16	13	3.09	3.09	2.81	2	9	10.8	380	2550	2800	2.07	11.31	12.42

Outdoor unit:

RAS-3M26GAV-E

Indoor units:

 Daiseikai
GKV
Ducted

 RAS-BxxGKVP-E (sizes 10, 13 and 16)
RAS-MxxGKV-E (sizes 10, 13 and 16)
RAS-MxxGDV-E (sizes 10, 13 and 16)

Combination ratings (size 27) heat pump

Cooling, 230V

Operating status	Combination				Unit capacity (kW)				Cooling capacity (kW)			Power input (W)			Operating current (A)		
	Unit A	Unit B	Unit C	Unit D	Unit A	Unit B	Unit C	Unit D	Min.	Rated	Max.	Min.	Rated	Max.	Min.	Rated	Max.
1 unit operation	10	-	-	-	2.7	-	-	-	1.4	2.7	3.2	640	750	950	3.52	3.71	4.44
	13	-	-	-	3.7	-	-	-	1.4	3.7	4.4	640	1200	1520	3.52	5.49	6.88
	16	-	-	-	4.5	-	-	-	1.4	4.5	5	640	1650	200	3.52	7.47	8.87
2 unit operation	10	10	-	-	2.7	2.7	-	-	2.5	5.4	6.3	640	1530	2040	3.48	6.79	9.05
	13	10	-	-	3.41	2.49	-	-	2.7	5.9	6.6	660	1810	2220	3.59	8.03	9.85
	16	10	-	-	3.94	2.36	-	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	13	13	-	-	3.15	3.15	-	-	2.9	6.3	6.9	670	2040	2400	3.64	9.05	10.65
	16	13	-	-	3.73	3.07	-	-	3	6.8	7.2	690	2320	2570	3.75	10.29	11.4
	16	16	-	-	3.6	3.6	-	-	3.2	7.2	7.5	700	2550	2750	3.8	11.31	12.2
3 unit operation	10	10	10	-	2.53	2.53	2.53	-	3.6	7.6	8.2	950	2400	2720	4.59	10.65	12.07
	13	10	10	-	3.13	2.28	2.28	-	3.9	7.7	8.3	960	2410	2740	4.64	10.69	12.16
	16	10	10	-	3.5	2.1	2.1	-	4	7.7	8.5	960	2410	2790	4.64	10.69	12.38
	13	13	10	-	2.82	2.82	2.06	-	4	7.7	8.5	960	2410	2790	4.64	10.69	12.38
	16	13	10	-	3.22	2.65	1.93	-	4.1	7.8	8.6	970	2430	2810	4.69	10.78	12.47
	13	13	13	-	2.6	2.6	2.6	-	4.1	7.8	8.6	970	2430	2810	4.69	10.78	12.47
	16	16	10	-	3.04	3.04	1.82	-	4.1	7.9	8.7	970	2440	2830	4.69	10.83	12.56
	16	13	13	-	2.99	2.46	2.46	-	4.1	7.9	8.7	970	2440	2830	4.69	10.83	12.56
	16	16	13	-	2.8	2.8	2.3	-	4.2	7.9	8.9	970	2440	2880	4.69	10.83	12.78
	16	16	16	-	2.67	2.67	2.67	-	4.3	8	9	980	2450	2900	4.73	10.87	12.87
4 unit operation	10	10	10	10	1.98	1.98	1.98	1.98	4	7.9	8.7	930	2450	2800	4.49	10.87	12.42
	13	10	10	10	2.48	1.81	1.81	1.81	4.1	7.9	8.8	940	2450	2820	4.54	10.87	12.51
	16	10	10	10	2.86	1.71	1.71	1.71	4.1	8	9	940	2500	2860	4.54	11.09	12.69
	13	13	10	10	2.31	2.31	1.69	1.69	4.1	8	9	940	2500	2860	4.54	11.09	12.69
	16	13	10	10	2.65	2.18	1.59	1.59	4.2	8	9.1	950	2500	2880	4.59	11.09	12.78
	13	13	13	10	2.14	2.14	2.14	1.57	4.2	8	9.1	950	2500	2880	4.59	11.09	12.78
	16	13	13	10	2.47	2.03	2.03	1.48	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87
	13	13	13	13	2	2	2	2	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87
	16	16	10	10	2.5	2.5	1.5	1.5	4.2	8	9.2	950	2500	2900	4.59	11.09	12.87

Two rooms Capacity management

You can match the M14 outdoor unit with up to two indoor units size 10 and 13. The cooling capacity is managed differently according to the working conditions of the two indoor units, as illustrated in the examples below.

ON **13** - up to 3.8 kW
OFF **10**

In case of a single unit operation, with a small capacity demand, all the available power from the outdoor unit can be used for the indoor unit turned on. The system adjust its own demand according to the room conditions.

OFF **13**
ON **10** - up to 3.2 kW

ON **13** - up to 1.3 kW
ON **10** - up to 3.2 kW

In case of two units operation, both indoor units work simultaneously. The power is distributed accordingly to the room needs. The room with highest demand of capacity will be served with more power.

ON **13** - up to 3.8 kW
ON **10** - up to 0.7 kW

ON **13** - up to 2.5 kW
ON **10** - up to 2.0 kW

In case of a full capacity demand in both rooms, the cooling power will be proportionally shared between the indoor units. The unit with more nominal capacity will get more power.



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