

# ARV Mini Series

## -All DC inverter

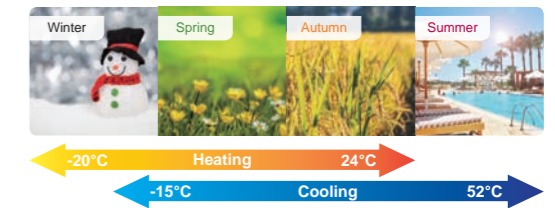
### Outdoor Units

## ARV Mini Series



### Wide Operation Range

The unit could operate perfectly between 52°C in hot summer and -15°C in cold winter making you feel like spring all year around with advanced system design and strict matching test(cooling in -15°C ).

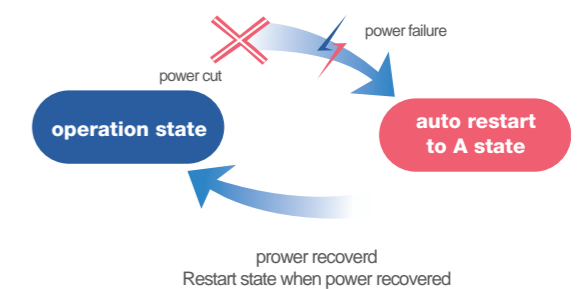


### DC Inverter Compressor

Made of rare earth permanent magnetic material, the rotor could change the motor's round speed by changing the DC voltage motor, thus overcome the electromagnetic noise and rotor loss of AC inverter compressor, then achieves high efficiency as well as low noise.

### Auto Restart Function

The AC can automatically memorize the operation setting when power is cut off accidentally. It can return to previous setting when power resumes. Recover the former operation state when power is restored , no need restart the unit manually.

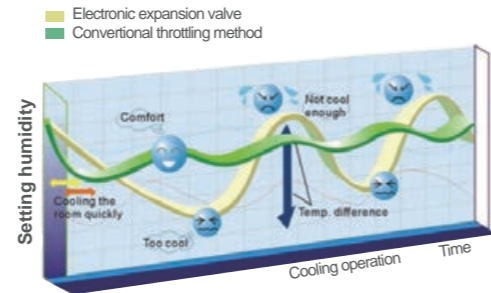


### Fast Cooling/Heating Technology

The DC Inverter Compressor system reaches full load rapidly providing less temperature fluctuation and an improved living environment, bringing great user experience.

### Accurate Temperature Control

According to change trend of indoor ambient temperature, the unit can use PI algorithm to calculate capacity demand percentage of indoor unit, control operating frequency of compressor in real time and reach accurate control of room temperature.

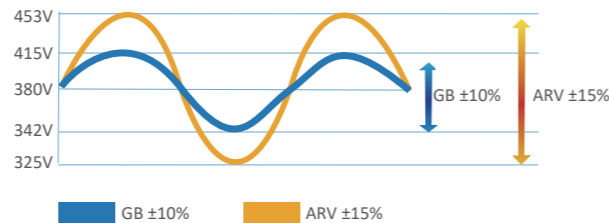


### Flexible And Diversified Matching Of Indoor And Outdoor Unit

Amrta offers a variety indoor units, more than 100 models of 7 types. Capacity ranges are from 2.2Kw to 14Kw. It is full compliance with residential and light commercial place. Our systems can operate up to 130% of capacity which allows any system to be designed to the customers and applications needs.

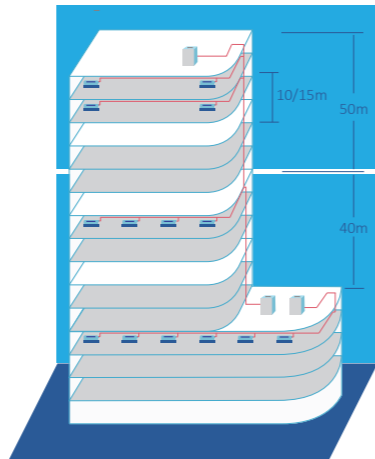
### Wide Voltage Design

In country with unstable voltage, ARV can also run stably.



### Long Piping Length

- Max. Total piping length — 100/150m
- Max. Actual piping length — 60/100m
- Max. Level difference between indoor units — 10/15m
- Max. Level difference between ODU and IDU units — 40/50m
- Max. piping length from 1st indoor branch to the farthest indoor unit — 20m/40m



## Outdoor Units



# ARV Mini Series

### All DC Inverter 50Hz/60Hz

Model	Outdoor		ARV-H080/NR1	ARV-H100/NR1	ARV-H120/NR1	ARV-H140/NR1	ARV-H160/NR1
Capacity	Cooling	kW	8.00	10.00	12.30	14.00	16.00
	Heating	kW	9.00	11.50	13.20	16.50	18.00
Electric Data	Power Supply	V~, Hz, Ph	220~240, 50/60, 1	220~240, 50/60, 1	220~240, 50/60, 1	220~240, 50/60, 1	220~240, 50/60, 1
	Cooling Power Input	kW	2.30	3.00	3.25	3.95	4.80
	Heating Power Input	kW	2.40	3.20	3.41	4.05	4.80
	Cooling Current	A	10.10	13.20	14.30	17.30	21.10
	Heating Current	A	10.50	14.00	15.00	17.80	21.10
	EER		3.48	3.33	3.78	3.54	3.33
	COP		3.75	3.59	3.87	4.07	3.75
	SEER		6.20	6.10	6.10	6.10	6.10
Performance	SCOP		4.20	4.10	4.10	4.00	4.00
	Air Flow Volume	m³/h	4154	4154	7200	7200	7200
Piping Limite	Noise Level	dB(A)	56	56	57	57	57
	Level difference between IDU and ODU	m	50	50	50	50	50
	Level difference between IDU and IDU	m	10	10	15	15	15
	Between the first brance and the Farthest IDU	m	40	40	40	40	40
Max. No. of Indoor Units	Total Pipe length	m	100	100	150	150	150
	unit		4	5	7	8	9
Connection Ratio	%		50~130	50~130	50~130	50~130	50~130
Dimension (WxDxH)	Net	mm	970x395x805	970x395x805	940x370x1325	940x370x1325	940x370x1325
	Packing	mm	1105x495x895	1105x495x895	1080x430x1440	1080x430x1440	1080x430x1440
Weight	Net	kg	66	66	86	86	93
	Gross	kg	71	71	91	91	98
Refrigerant Type			R410a	R410a	R410a	R410a	R410a
Pipe Diameter	Liquid Side	mm(inch)	9.52(3/8)	9.52(3/8)	9.52(3/8)	9.52(3/8)	9.52(3/8)
	Gas Side	mm(inch)	15.88(5/8)	15.88(5/8)	15.88(5/8)	15.88(5/8)	19.05(3/4)
Operation Range	Cooling	°C	-15~52	-15~52	-15~52	-15~52	-15~52
	Heating	°C	-15~27	-15~27	-15~27	-15~27	-15~27
Stuffing Quantity	20/40/40H	unit	44/96/144	44/96/144	26/54/54	26/54/54	26/54/54

### ARV Mini Series 50Hz

Model	Outdoor		ARV-H220/5R1A	ARV-H280/5R1A
Capacity	Cooling	kW	22.40	26.00
	Heating	kW	24.50	28.50
Electric Data	Power Supply	V~, Hz, Ph	380~415, 50, 3	380~415, 50, 3
	Cooling Power Input	kW	7.20	8.40
	Heating Power Input	kW	6.70	7.90
	Cooling Current	A	11.60	13.50
	Heating Current	A	11.00	13.00
	EER		3.11	3.10
	COP		3.66	3.61
Performance	Air Flow Volume	m³/h	9000	9000
	Noise Level	dB(A)	60	60
Piping Limit	Vertical Pipe Length	m	≤30	≤30
	Actual Pipe Length	m	45	45
	Equivalent Pipe Length	m	50	50
	Total Pipe length	m	100	100
Max. No. of Indoor Units	unit		11	12
Connection Ratio	%		50~130	50~130
Dimension (WxDxH)	Net	mm	1120x400x1510	1120x400x1510
	Packing	mm	1270x560x1710	1270x560x1710
Weight	Net	kg	150	150
	Gross	kg	170	170
Refrigerant Type			R410a	R410a
Pipe Diameter	Liquid Side	mm(inch)	9.52(3/8)	9.52(3/8)
	Gas Side	mm(inch)	22.22(7/8)	22.22(7/8)
Operation Range	Cooling	°C	-10~52	-10~52
	Heating	°C	-15~24	-15~24
Stuffing Quantity	20/40/40H	unit	17/37/37	17/37/37

- Notes:
- 1.Cooling Capacity: Indoor temperature 27°C DB/ 19°C WB; Outdoor temperature:35°C DB/ 24°C WB.
  - 2.Cooling Capacity (Tropical): Indoor temperature 27°C DB/19°C WB;Outdoor temperature:46.1°C DB.
  - 3.Heating Capacity: Indoor temperature 20°C DB; Outdoor temperature: 7°C DB/ 6°C WB.
  - 4.Piping Length: Equivalent piping length: 7.5m, level difference: 0m.
  - 5.Anechoic chamber conversion value, measured in test room. During actual operation. These values are normally somewhat higher as a result of ambient c onditions.
  - 6.The above designs and specifications are subject to change without prior notice. Final specifications please refer to technical specification provided by sales representative.