

# APAC

Commercial HVAC











## Ahead of the pack

APAC Air Conditioning is an important part of the Rinnai group of companies. Headquartered in Japan, the Rinnai Corporation has an international presence through 13 subsidiaries and affiliates around the world.

Rinnai Australia was established in 1971 and since then has been providing Australians with the comfort, convenience and reliability of Rinnai appliances. Our vision is to be market leaders in the provision of innovative products and services within our target business arenas, and to meet a growing demand for value based products, environmental sustainability and renewable energy efficiency.

Rinnai Australia currently operates a number of class leading manufacturing facilities in Australia, and is proud to add APAC Air Conditioning to its existing portfolio of significant Australian brands.

**Rinnai**





## APAC Advantage

With a legacy spanning over 45 years, APAC Air Conditioning have spared Australians from enduring our ever-changing climate extremes.

Now APAC is back, bigger and better than ever. With the support of Rinnai Japan, one of the world's leading supplier of Hot Water, Heating and Cooling products, you can rest assured knowing APAC will deliver when the heat is on. Australian designed and built, the latest units are not only ready for new developments, they're also the perfect replacement for ageing APAC units nearing the end of their operating life.

Engineered with consultants, building owners, facilities managers and installers in mind, APAC's expertly crafted systems have one of the lowest costs of ownership in its class.





## Flexible

Unmatched list of factory fitted options to make the product suitable for almost any commercial or industrial projects.

## Low installed cost

A perfect match to existing APAC unit footprint, ductwork, mains power and controls without costly modifications.

## Reduced energy costs

Best in class efficiency across the entire product range for lower power bills.

## Low noise

Speed controlled fans that slow down during lower ambient temperatures for less noise.



Engineered & Built in Australia



MEPS Compliant

All units are tested, compliant and registered in accordance with the relevant AS/NZS standards



Quality Assurance

Built in a production facility with a certified quality management system to ISO9001



# Investing in Australia

APAC production facility





# Rinnai Australia

## Commercial and Domestic



### World-class manufacturing

Rinnai Australia has three world class manufacturing facilities located in Victoria and South Australia, supported by a large national sales and distribution network. The Australian business has become a 'centre of excellence' in specific technologies for Rinnai Corporation globally, and engages significant R&D and product development activity on behalf of Rinnai subsidiaries across the world. Today Rinnai has grown to become one of Australia's leading industry suppliers and innovators for Hot Water, Heating, Cooling and Commercial equipment as well as a trusted household name synonymous with reliability and quality.



Braeside, Victoria manufacturing, over 100 million invested

#### Brivis manufacturing

- Ducted Heating
- Evaporative Cooling
- Rinnai Flueing

#### APAC/Rinnai manufacturing

- APAC Commercial HVAC
- Commercial Hot Water
- VE Hot Water Storage Tanks
- Heat Pump Storage Tanks
- Add-on Cooling
- Geoflo Geothermal

### Market leader in Climate Systems

Australians have been enjoying the comfort, convenience and reliability of Rinnai appliances for over 50 years. Each system utilises global expertise to create comfort solutions suited to the Australian way of life.

Our products extend across a broad category base, covering hot water (electronic gas, electric, solar and heat pump technologies), heating and cooling systems for single rooms, whole of house and commercial buildings (ducted and static gas heating, gas space heating, reverse cycle air-conditioning).



# Product line-up



**Rooftop package unit**

12-230kW Capacity range



**Compact rooftop package unit**

28-48kW Capacity range



**Split ducted unit (low profile)**

12-45kW Capacity range



**Split ducted unit (horizontal)**

24-95kW Capacity range





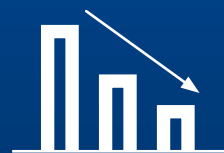
## Vertical package unit

12-45kW Capacity range



## Split ducted unit (vertical)

12-45kW Capacity range



## Up to 31% more energy efficient

High efficiency ratings with up to 31% energy savings compared to the existing APAC equivalent unit.



## Fastest changeovers

A perfect match to the APAC unit size, footprint, ductwork, mains power and controls, avoiding costly modifications.



## Quieter operation with 12db(A) sound reduction

Outdoor fans slow down when the ambient temperature falls, up to a 20% noise reduction

# APAC Technology



## Scroll compressors

Scroll type compressors for increased efficiency and reliability.



## EC plug fans

Speed controlled high static direct drive impeller with Electronically Commutated (EC) variable speed motor for lower energy use.



## EC hybrid electronically commutated axial fan

Speed controlled direct drive Electronically Commutated (EC) infinitely variable speed external rotor motor for energy usage.



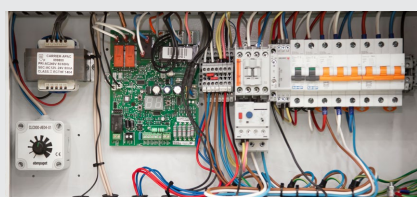
## Hybrid axial fan

Speed controlled direct drive external rotor motor with hybrid blades for improved efficiency and performance.



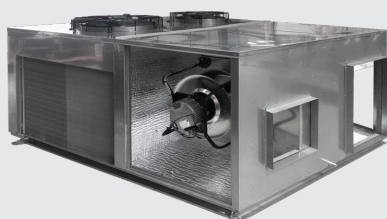
## Coil corrosion protection

Epoxy coated outdoor coils for improved corrosion resistance.



## Open controls

Compatible with all BMS control systems and simple 24-volt control circuit for easy fault diagnostics.



## Stainless Steel Options

Marine Grade 316L unpainted or powder coated 304 Stainless Steel cabinets.



## Customised Designs

Special bespoke designs to suit all applications, please contact to discuss.



## Trusted performance

APAC Air Conditioning is one of the few approved MEPS test facilities in Australia with sampling devices designed, tested and certified by a NATA approved laboratory. All APAC Air Conditioning products exceed MEPS requirements set out in the relevant AS/NZS standards. You can rest assured with proven performance in the field.

- All APAC Air Conditioning commercial products are registered with the Australian GEMS regulator
- All APAC Air Conditioning registrations are visible on the GEMS regulator website [www.energyrating.gov.au](http://www.energyrating.gov.au)
- The MEPS registration number is displayed on APAC Air Conditioning technical data sheets



# Rooftop package unit

## Features

- Scroll type compressors
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (12-45kW)
- EC hybrid axial fan (55-95kW)
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified
- BCA compliant

## Factory options customised to order

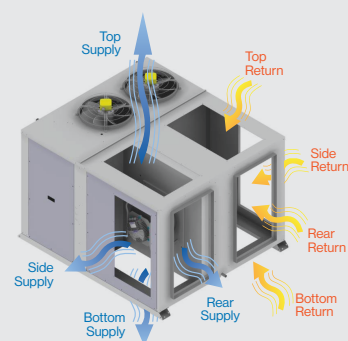
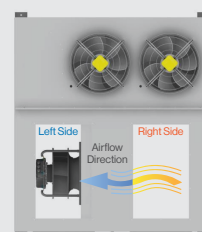
- Compressor soft starter
- High static pressure outdoor fans
- Double layered insulation to indoor section
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Indoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated.
- Discharge & suction isolation valves
- Liquid line isolation valves across filter drier
- Cable markers
- Fire relay
- APAC Supply & Return connections.
- High Level Interface (HLI) Modbus connectivity
- Integrated filter frame 50mm
- Economiser – dampers and actuators (no controls)

## Factory options engineered to order

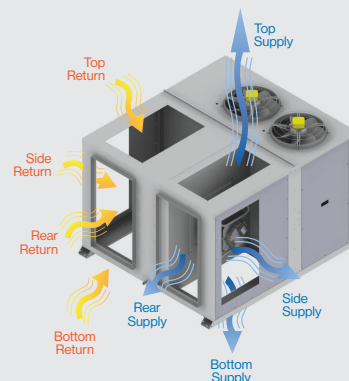
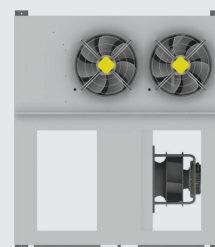
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Outdoor coil(s) copper / copper
- Indoor coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

## Handing options

### Left hand supply air (standard)



### Right hand supply air (optional)





# Specifications (12 to 95kW)

Model Number (Reverse Cycle)	Packaged Unit	P012AHR	P015AHR	P018AHR	P020AHR	P023AHR	P024AHR	P030AHR	P035AHR	P040AHR	P045AHR	P055AHR	P065AHR	P075AHR	P085AHR	P095AHR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	12.57	15.54	17.43	20.53	22.89	25.14	30.82	34.08	39.76	44.78	52.98	63.89	72.95	83.74	94.04
	Sensible <sup>3</sup>	9.70	12.09	13.58	15.99	18.20	19.38	26.23	28.49	33.32	37.57	44.29	54.5	58.51	69.34	77.49
	EER (kW/ikW) <sup>3</sup>	3.59	3.70	3.49	3.60	3.32	3.59	3.67	3.47	3.29	3.14	3.06	3.28	3.49	3.47	3.24
Rated Heating <sup>1</sup>	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	33.60	40.10	42.90	54.40	65.00	73.40	84.30	96.10
	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.59	3.61	3.61	3.77	3.40	3.61	3.59	3.60	3.60
MEPS Certified	MEPS Certified/ BCA	Yes												BCA Compliant		
Operating Range	Maximum °C	+50														
	Minimum °C	-10														
Capacity Steps	%	0/100					0/50/100									
Compressor	Type	Scroll														
	Starter	D.O.L (Optional Soft Starter)														
	Qty	1					2									
Outdoor Fan	Type	Hybrid Axial										EC Hybrid Axial				
	Speed Control	Variable Speed										Pressure Transducer				
	Qty	2														
Refrigerant System	Type	R410A														
	Charge Per Circuit kg	3.95	5.30	5.70	7.30	6.80	3.95	5.30	5.70	7.30	6.80	5.75	6.75	9.50	11.00	10.80
	No of Circuits	1					2									
Indoor Fan	Type	EC Plug														
	Speed Control	Potentiometer														
	Qty	1										2				
Airflow Indoor (L/s)	Nominal	625	800	890	1040	1190	1250	1600	1780	2080	2380	2880	3550	3750	4400	4930
	Maximum	781	1000	1113	1300	1488	1563	2000	2225	2600	2975	3600	4438	4688	5500	6163
	Minimum	469	600	668	780	893	938	1200	1335	1560	1785	2160	2663	2813	3300	3698
Available External Static Pressure	Pa	High Static Capability (See Fan Performance Curves)														
IP Rating		IP44														
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz														
Rated Load Amps <sup>4</sup>	Total	6.8	8.1	9.8	10.4	11.4	13.6	15.9	19.4	20.7	23	31.1	35.5	38.1	43.6	56.4
Full Load Amps <sup>5</sup>	Total	12.3	14.6	16.1	20.0	20.0	23.8	28.4	31.4	39.8	39.8	49.8	55.4	61.4	73.6	79.6
Dimensions (mm)	Height	1162					1190					1390	1595		1800	
	Width	1550					1850					1850	2200			
	Length	1700					2400					2400			2750	
Nominal Weight <sup>2</sup> .	kg	350	364	372	390		615	625	635	648	650	730	900	920	1060	1070
Rated Sound Power	db(A)	61.7			66.6		66.5			66.3		70.9	71.5			

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes ikW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)

# Rooftop package unit

## Features

- Scroll type compressors
- EC plug fans with high static capability up to 500pa
- EC hybrid axial fan
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified
- BCA compliant

## Factory options customised to order

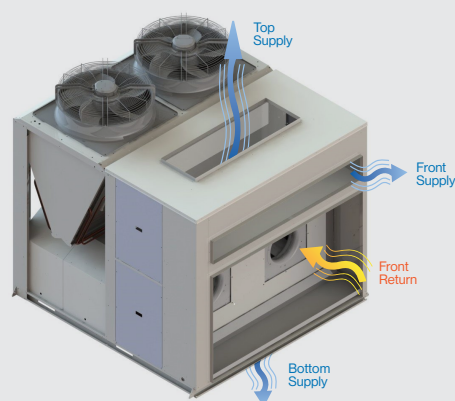
- Compressor soft starter
- High static pressure outdoor fans
- Double layered insulation to indoor section
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Indoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated.
- Discharge & suction isolation valves
- Liquid line isolation valves across filter drier
- Economiser – dampers and actuators (no controls)
- High Level Interface (HLI) Modbus connectivity
- Integrated filter frame 50mm
- APAC Supply & Return connections.
- Cable markers
- Fire relay

## Factory options engineered to order

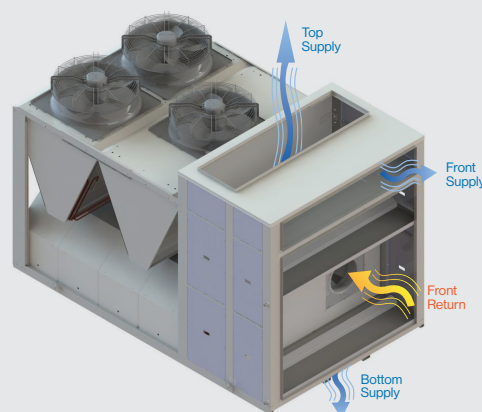
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Outdoor coil(s) copper / copper
- Indoor coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

## Handing options

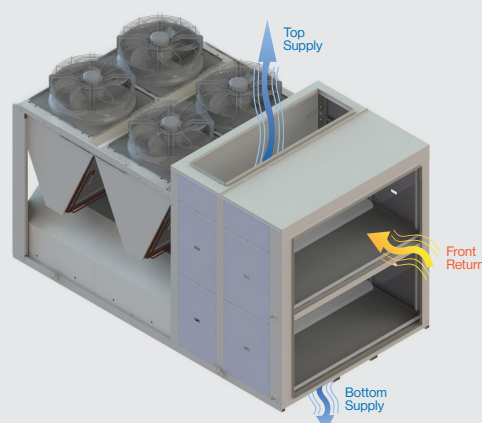
**P115AHR3SA**



**P150-170AHR3SA**



**P200-230AHR3SA**





# Specifications (115 to 230kW)

Model Number (Reverse Cycle)	Packaged Unit	P115AHR	P150AHR	P170AHR	P200AHR	P230AHR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	111.44	149.51	167.17	199.35	222.89
	Sensible <sup>3</sup>	91.16	121.25	136.74	161.67	182.32
	EER (kW/ikW) <sup>3</sup>	3.27	3.47	3.27	3.47	3.27
Rated Heating <sup>1</sup>	Total Capacity (kW)	109.10	144.28	163.64	192.37	218.19
	COP	4.00	4.01	4.00	4.01	4.00
MEPS Certified	MEPS Certified/BCA	Yes				
Operating Range	Maximum °C	+50				
	Minimum °C					
Capacity Steps	%	4	6	6	8	8
Compressor	Type	Tandem Scroll				
	Starter	D.O.L (Optional Soft Starter)				
	Qty	2	3	3	4	4
Outdoor Fan	Type	EC Axial				
	Speed Control	Pressure Transducer				
	Qty	2	3	3	4	4
Refrigerant System	Type	R410A				
	Charge Per Circuit kg	13.7	13.7	13.7	13.7	13.7
	No of Circuits	2	3	3	4	4
Indoor Fan	Type	EC Plug				
	Speed Control	Potentiometer				
	Qty	1				
Airflow Indoor (L/s)	Nominal	5750	7500	8625	10000	11500
	Maximum	7188	9375	10781	12500	14375
	Minimum	4313	5625	6467	7500	8625
Available External Static Pressure	Pa	High Static Capability (See Fan Performance Curves)				
IP Rating		IP44				
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz				
Rated Load Amps <sup>4</sup>	Total	59.4	79.9	89.2	106.5	117.8
Full Load Amps <sup>5</sup>	Total	100.4	127.8	150.6	170.4	200.8
Dimensions (mm)	Height	2381	2400		2400	
	Width	2242	2242		2242	
	Length	2400	3735		4085	
Nominal Weight <sup>2</sup> .	kg	1610	1810	2010	2210	2410
Rated Sound Power	db(A)	75.6	77.4	77.4	78.6	78.6

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes ikW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)

# Compact rooftop package unit

## Features

- Tandem scroll compressors for high system efficiency at full & part load
- 35% smaller footprint than equivalent RTU
- 25% less gas charge than equivalent RTU
- 42% less components than equivalent RTU
- EC plug fans with high static capability up to 500pa
- EC hybrid axial fan
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified

## Factory options customised to order

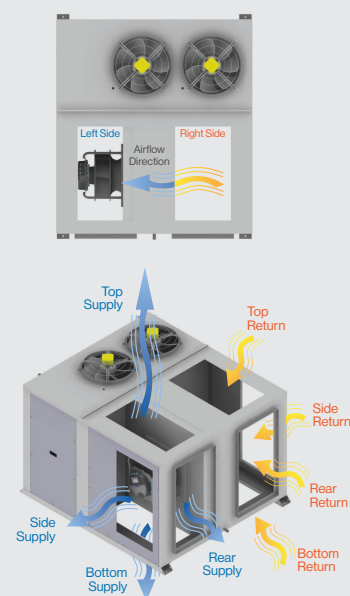
- Compressor soft starter
- High static pressure outdoor fans
- Double layered insulation to indoor section
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Indoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated
- Discharge & suction isolation valves
- Liquid line isolation valves across filter drier
- Cable markers
- Fire relay
- APAC Supply & Return connections.
- High Level Interface (HLI) Modbus connectivity
- Integrated filter frame 50mm
- Economiser – dampers and actuators (no controls)

## Factory options engineered to order

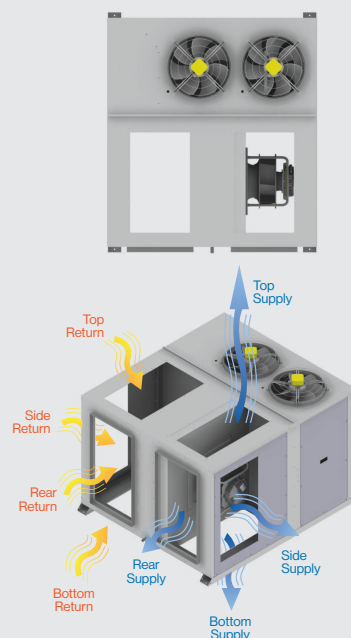
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Outdoor coil(s) copper / copper
- Indoor coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

## Handing options

### Left hand supply air (standard)



### Right hand supply air (optional)





# Specifications (28 to 48kW)

Model Number (Reverse Cycle)	Packaged Unit	P028AHR	P033AHR	P038AHR	P043AHR	P048AHR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	28.10	32.30	37.60	42.21	45.84
	Sensible <sup>3</sup>	22.89	26.65	30.42	34.70	38.09
	EER (kW/ikW) <sup>3</sup>	3.21	3.25	3.30	3.20	3.16
Rated Heating <sup>1</sup>	Total Capacity (kW)	28.48	33.00	39.58	43.93	47.48
	COP	3.60	3.67	3.66	3.62	3.65
MEPS Certified		Yes				
Operating Range	Maximum °C	+50				
	Minimum °C	-10				
Capacity Steps	%	0/50/100				
Compressor	Type	Tandem Scroll				
	Starter	D.O.L (Optional Soft Starter)				
	Qty	1				
Outdoor Fan	Type	EC Axial				
	Speed Control	Pressure Transducer				
	Qty	1				
Refrigerant System	Type	R410A				
	Charge Per Circuit kg	5.75	6.75	9.5	11	10.8
	No of Circuits	1				
Indoor Fan	Type	EC Plug				
	Speed Control	Potentiometer				
	Qty	1				
Airflow Indoor (L/s)	Nominal	1450	1775	1875	2200	2470
	Maximum	1813	2219	2344	2750	3088
	Minimum	1088	1331	1406	1650	1853
Available External Static Pressure	Pa	High Static Capability (See Performance Curves)				
IP Rating		IP44				
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz				
Rated Load Amps <sup>4</sup> .	Total	16.1	17.3	19.8	22.7	26.6
Full Load Amps <sup>5</sup> .	Total	26.8	29.3	35.7	35.8	38.2
Total Dimensions (mm)	Height	1350	1555		1760	
	Width	1550				
	Length	1850				
Nominal Weight <sup>2</sup> .	Total kg	425	470	490	540	570
Rated Sound Power	db(A)	67.9	68.5			

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes i kW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)

# Split ducted unit (Low profile)

## Features

- Low profile space saving design suitable for in-ceiling installation
- EC direct drive centrifugal blower (12-23kW)
- EC plug fans 024-045 with high static capability up to 500pa
- Hybrid axial fan (12-45kW)
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified

## Factory options customised to order

### Outdoor

- Compressor soft starter
- Copper/copper coil(s)
- Capacity modulation control
- High static pressure outdoor fans
- Outdoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated
- Discharge & suction isolation valves
- High Level Interface (HLI) Modbus connectivity
- Cable markers

### Indoor

- Double layered insulation to indoor section
- Copper/copper coil(s)
- Indoor coil(s) with anti-corrosion post-treatment

## Factory options engineered to order

### Outdoor

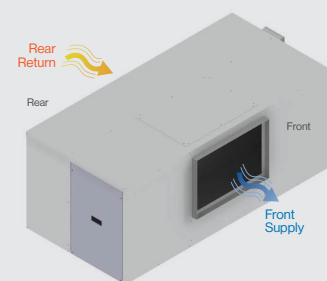
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

### Indoor

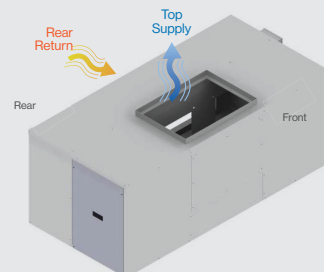
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- R22/R407C application

## Handing options (Indoor)

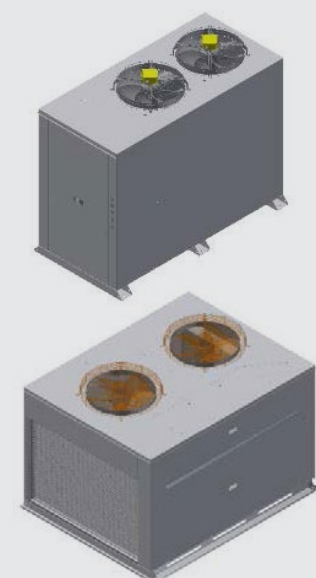
### Front supply / Rear return



### Top supply / Rear return



## Handing (Outdoor)



# Specifications (12 to 45kW)

Model Number (Reverse Cycle)	Indoor Unit	S012ILR	S015ILR	S018ILR	S020ILR	S023ILR	S024ILR	S030ILR	S035ILR	S040ILR	S045ILR
	Outdoor Unit	S012OVR	S015OVR	S018OVR	S020OVR	S023OVR	S024OVR	S030OVR	S035OVR	S040OVR	S045OVR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	12.57	15.54	17.43	20.53	22.89	25.15	31.02	34.13	39.78	45.27
	Sensible <sup>3</sup>	9.7	12.13	13.45	15.88	18.17	19.39	25.97	28.12	33.42	36.62
	EER (kW/ikW) <sup>3</sup>	3.50	3.70	3.49	3.60	3.32	3.59	3.60	3.44	3.40	3.27
Rated Heating <sup>1</sup>	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	33.60	40.10	43.50
	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.60	3.78	3.61	3.71
MEPS Certified		Yes									
Operating Range	Maximum °C	+50									
	Minimum °C	-10									
Capacity Steps	%	0/100					0/50/100				
Compressor	Type	Scroll									
	Starter	D.O.L (Optional Soft Starter)									
	Qty	1					2				
Outdoor Fan	Type	Hybrid Axial									
	Speed Control	Pressure Transducer									
	Qty	2									
Refrigerant System	Type	R410A									
	Charge Per Circuit kg	3.95	5.30	5.70	7.30	6.80	3.95	5.30	5.70	7.30	6.80
	No of Circuits	1					2				
Indoor Fan	Type	EC Centrifugal Blower					EC Plug				
	Speed Control	Variable Speed					Potentiometer				
	Qty	1					2				
Airflow Indoor (L/s)	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235
	Maximum	781	1044	1094	1238	1400	1563	2088	2188	2481	2794
	Minimum	469	626	656	743	840	938	1253	1313	1489	1676
Available External Static Pressure	Pa	+200 Pa					High Static Capability (See Fan Performance Curves)				
IP Rating		IP44									
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz									
Rated Load Amps <sup>4</sup>	Outdoor/Indoor/ Total	6.5 / 2.1/ 8.6	7.5/ 2.8/ 11.3	91/ 4.0/ 131	9.4/ 4.2/ 13.6	10.3/ 5.8/ 15.1	12.8/ 0.6/ 13.6	14.7/ 11/ 15.8	18/ 1.2/ 19.1	19.2/ 1.4/ 20.6	20.9/ 1.8/ 22.7
Full Load Amps <sup>5</sup>	Outdoor/Indoor/ Total	9.7/ 4.4/ 14.1	12/ 4.4/ 16.4	13.5/ 4.4/ 17.9	17.4/ 5.9/ 23.3		19.6/ 5.2/ 24.8	24.2/ 5.2/ 29.4	27.2/ 5.2/ 32.4		35.2/ 5.2/ 40.4
Outdoor Dimensions (mm)	Height	1162					1190				
	Width	730					1850				
	Length	1550					1425				
Indoor Dimensions (mm)	Height	444			455		690				
	Width	1225			1500		1700			2250	
	Length	655			625		820				
Indoor and Outdoor Pipe Connection Diameter	Liquid mm (inch)	9.5 (3/8") x 1			9.5 (3/8") x 1		9.5 (3/8") x 2			9.5 (3/8") x 2	
	Gas mm (inch)	19.1 (3/4") x 1			22.2 (7/8") x 1		19.1 (3/4") x 2			22.2 (7/8") x 2	
Nominal Weight <sup>2</sup> .	Outdoor kg	211	214	217	220	223	362	382	389	414	
Nominal Weight <sup>2</sup> .	Indoor kg	70			74		192	200		233	
Rated Sound Power	db(A)	61.7			66.6		66.5			68.7	

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes ikW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)



# Split ducted unit (Horizontal)

## Features

- Field configurable supply air outlet
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (12-45kW)
- EC hybrid axial fan (55-95kW)
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified
- BCA compliant

## Factory options customised to order

### Outdoor

- Compressor soft starter
- Copper/copper coil(s)
- Capacity modulation control
- High static pressure outdoor fans
- Outdoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated
- Discharge & suction isolation valves
- High Level Interface (HLI) Modbus connectivity
- Cable markers

### Indoor

- Double layered insulation to indoor section
- Copper/copper coil(s)
- Indoor coil(s) with anti-corrosion post-treatment

## Factory options engineered to order

### Outdoor

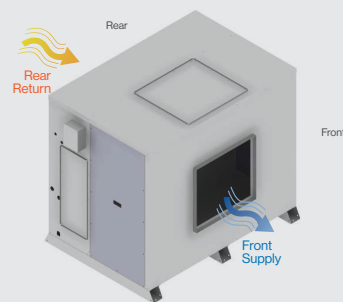
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

### Indoor

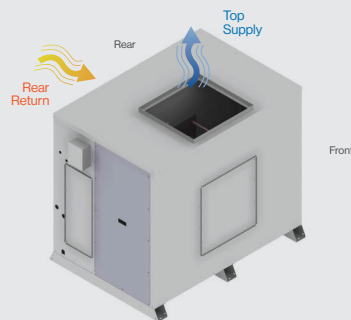
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- R22/R407C application

## Handing options (Indoor)

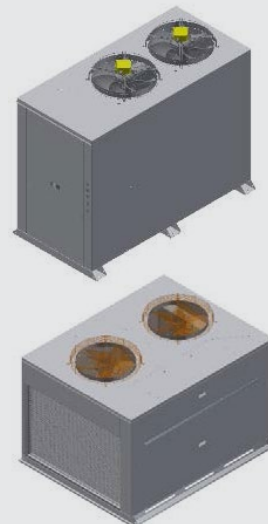
### Front supply / Rear return (Standard)



### Top supply / Rear return (Field configurable)



## Handing (Outdoor)



# Specifications (24 to 95kW)

Model Number (Reverse Cycle)	Indoor Unit	S024IHR	S030IHR	S035IHR	S040IHR	S045IHR	S055IHR	S065IHR	S075IHR	S085IHR	S095IHR
	Outdoor Unit	S024OVR	S030OVR	S035OVR	S040OVR	S045OVR	S055OVR	S065OVR	S075OVR	S085OVR	S095OVR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	25.14	31.02	34.13	39.78	45.27	52.90	63.88	72.95	83.74	94.04
	Sensible <sup>3</sup>	19.38	25.97	28.12	33.42	36.62	44.01	54.5	58.5	69.34	77.49
	EER (kW/ikW) <sup>3</sup>	3.59	3.60	3.44	3.40	3.27	3.07	3.28	3.49	3.47	3.24
Rated Heating <sup>1</sup>	Total Capacity (kW)	23.80	30.20	33.60	40.10	43.50	54.30	65.00	73.40	84.30	96.10
	COP	3.66	3.60	3.78	3.61	3.71	3.39	3.61	3.59	3.60	
MEPS Certified		Yes							BCA Compliant		
Operating Range	Maximum °C	+50									
	Minimum °C	-10									
Capacity Steps	%	0/50/100									
Compressor	Type	Scroll									
	Starter	D.O.L (Optional Soft Starter)									
	Qty	2									
Outdoor Fan	Type	Hybrid Axial					EC Hybrid Axial				
	Speed Control	Variable Speed					Pressure Transducer				
	Qty	2									
Refrigerant System	Type	R410A									
	Charge Per Circuit kg	3.95	5.30	5.70	7.30	6.80	5.75	6.75	9.50	11.00	10.80
	No of Circuits	2									
Indoor Fan	Type	EC Plug									
	Speed Control	Potentiometer									
	Qty	1					2				
Airflow Indoor (L/s)	Nominal	1250	1670	1750	1985	2235	2880	3550	3750	4400	4930
	Maximum	1563	2088	2188	2481	2794	3600	4438	4688	5500	6163
	Minimum	938	1253	1313	1489	1676	2160	2663	2813	3300	3698
Available External Static Pressure	Pa	High Static Capability (See Fan Performance Curves)									
IP Rating		IP44									
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz									
Rated Load Amps <sup>4</sup>	Outdoor/Indoor/ Total	12.9/ 1/13.6	14.8/ 1.2/ 15.9	18/1.3/19.4	19.4/ 1.3/ 20.7	211/1.7/23	28.6/2.5/31.1	32.7/2.2/34.9	35.3/2.8/38.1	40.2/3.3/43.5	52.2/4.1/56.3
Full Load Amps <sup>5</sup>	Outdoor/Indoor/ Total	19.6/4.2/23.8	24.2/4.2/28.4	27.2/4.2/31.4	35.2/4.6/39.8	35.2/4.6/39.8	45.2/4.6/49.8	47/8.4/55.4	53/8.4/61.4	65/8.6/73.6	71/8.6/79.6
Outdoor Dimensions (mm)	Height	1190					1390	1595		1800	
	Width	1850					2200				
	Length	1425									
Indoor Dimensions (mm)	Height	1195					1400	1605		1805	
	Width	1600									1850
	Length	1100									
Indoor and Outdoor Pipe Connection Diameter	Liquid mm (inch)	9.5 (3/8") x 2			9.5 (3/8") x 2		12.7 (1/2") x 2			15.9 (5/8") x 2	
	Gas mm (inch)	19.1 (3/4") x 2			22.2 (7/8") x 2		28.6 (1-1/8") x 2			28.6 (1-1/8") x 2	
Nominal Weight <sup>2</sup> .	Outdoor kg	362	382	389	414		510	600	610	761	783
Nominal Weight <sup>2</sup> .	Indoor kg	201	204		233		290	340		461	
Rated Sound Power	db(A)	66.5			66.3		70.9	71.5			

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes ikW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)

# Vertical package unit

## Features

- Scroll type compressors
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (12-45kW)
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified

## Factory options customised to order

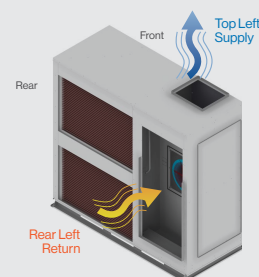
- Compressor soft starter
- High static pressure outdoor fans
- Double layered insulation to indoor section
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Indoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated
- Discharge & suction isolation valves
- Liquid line isolation valves across filter drier
- High Level Interface (HLI) Modbus connectivity
- APAC Supply & Return connections
- Cable markers
- Fire relay

## Factory options engineered to order

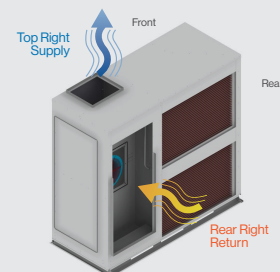
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Outdoor coil(s) copper / copper
- Indoor coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

## Handing options (Indoor)

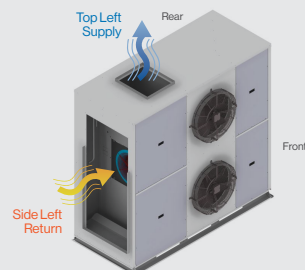
### Top left supply / Rear left return



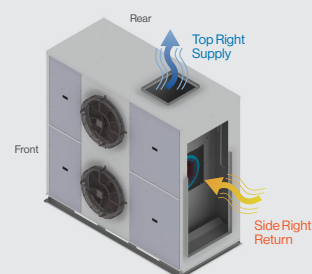
### Top right supply / Rear right return



### Top left supply / Side left return



### Top right supply / Side right return





# Specifications (12 to 45kW)

Model Number (Reverse Cycle)	Vertical Packaged	P012AVR	P015AVR	P018AVR	P020AVR	P023AVR	P024AVR	P030AVR	P035AVR	P040AVR	P045AVR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	12.30	15.50	17.50	20.00	22.80	25.14	31.00	34.13	39.78	45.27
	Sensible <sup>3</sup>	9.42	12.50	13.50	15.30	17.50	18.86	25.25	27.06	31.25	35.00
	EER (kW/ikW) <sup>3</sup>	3.52	3.60	3.43	3.39	3.28	3.59	3.60	3.44	3.40	3.27
Rated Heating <sup>1</sup>	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	34.25	40.09	43.53
	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.60	3.85	3.61	3.77
MEPS Certified		Yes									
Operating Range	Maximum °C	+50									
	Minimum °C	-10									
Capacity Steps	%	0/50/100									
Compressor	Type	Scroll									
	Starter	D.O.L (Optional Soft Starter)									
	Qty	1					2				
Outdoor Fan	Type	Hybrid Axial									
	Speed Control	Pressure Transducer									
	Qty	1					2				
Refrigerant System	Type	R410A									
	Charge Per Circuit kg	3.95	5.30	5.70	7.30	6.80	3.95	5.30	5.70	7.30	6.80
	No of Circuits	1					2				
Indoor Fan	Type	EC Plug									
	Speed Control	Potentiometer									
	Qty	1								2	
Airflow Indoor (L/s)	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235
	Maximum	781	1044	1094	1238	1400	1563	2088	2188	2481	2794
	Minimum	469	626	656	743	840	938	1253	1313	1489	1676
Available External Static Pressure	Pa	High Static Capability (See Performance Curves)									
IP Rating		IP55					IP44				
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz									
Rated Load Amps <sup>4</sup>	Total	5.60	6.88	8.50	9.72	12.40	13.90	16.10	19.80	21.20	23.50
Full Load Amps <sup>5</sup>	Total	12.40	14.70	16.20	20.20		23.80	28.40	31.40	40.50	
Dimensions (mm)	Height	1579			1965		2140				
	Width	1375			1370		2250				
	Length	850					950				
Nominal Weight <sup>2</sup>	kg	250	270		300		570	580	590	610	620
Rated Sound Power	db(A)	63.5			66.9		66.5			68.7	

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes i kW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)

# Split ducted unit (Vertical)

## Features

- Floor mounted vertical design with space saving footprint
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (12-45kW)
- TXV refrigerant control
- Condenser coil anti-corrosion protection
- Open controls
- 25mm PE closed cell insulation
- Phase fail protection relay
- MEPS certified

## Factory options customised to order

### Outdoor

- Compressor soft starter
- Copper/copper coil(s)
- High static pressure outdoor fans
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated.
- Discharge & suction isolation valves
- High Level Interface (HLI) Modbus connectivity
- Cable markers

### Indoor

- Double layered insulation to indoor section
- Copper/copper coil(s)
- Indoor coil(s) with anti-corrosion post-treatment

## Factory options engineered to order

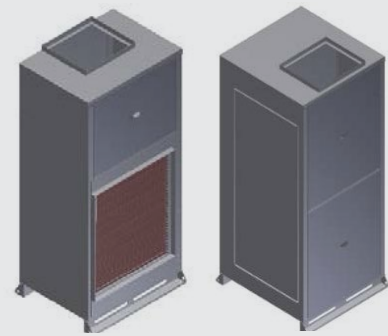
### Outdoor

- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply – no neutral (415/3/50)
- Ductable air off in lieu of standard axial

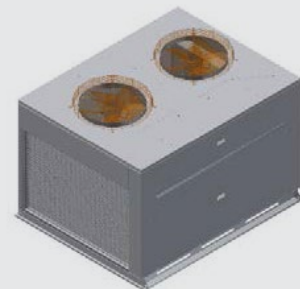
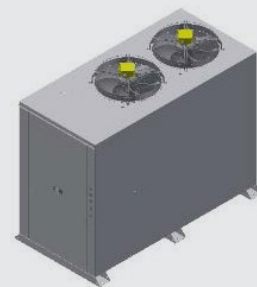
### Indoor

- Stainless steel external fixings
- Coil(s) copper / copper.
- Power supply – no neutral (415/3/50)
- R22/R407C application

## Handing options (Indoor)



## Handing (Outdoor)



# Specifications (12 to 45kW)

Model Number (Reverse Cycle)	Indoor Unit	S012IVR	S015IVR	S018IVR	S020IVR	S023IVR	S024IVR	S030IVR	S035IVR	S040IVR	S045IVR
	Outdoor Unit	S012OVR	S015OVR	S018OVR	S020OVR	S023OVR	S024OVR	S030OVR	S035OVR	S040OVR	S045OVR
Rated Cooling	Total Capacity (kW) <sup>3</sup>	12.30	15.50	17.50	20.00	22.80	25.15	31.02	34.13	39.78	45.27
	Sensible <sup>3</sup>	9.42	12.50	13.50	15.30	17.50	19.39	25.97	28.12	32.42	36.62
	EER (kW/ikW) <sup>3</sup>	3.52	3.60	3.43	3.39	3.28	3.59	3.60	3.44	3.40	3.27
Rated Heating <sup>1</sup>	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	33.60	40.10	43.50
	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.60	3.78	3.61	3.71
MEPS Certified		Yes									
Operating Range	Maximum °C	+50									
	Minimum °C	-10									
Capacity Steps	%	0/100					0/50/100				
Compressor	Type	Scroll									
	Starter	D.O.L (Optional Soft Starter)									
	Qty	1					2				
Outdoor Fan	Type	Hybrid Axial									
	Speed Control	Pressure Transducer									
	Qty	2									
Refrigerant System	Type	R410A									
	Charge Per Circuit kg	3.95	5.3	5.7	7.3	6.8	3.95	5.30	5.70	7.30	6.80
	No of Circuits	1					2				
Indoor Fan	Type	EC Plug									
	Speed Control	Potentiometer									
	Qty	1								2	
Airflow Indoor (L/s)	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235
	Maximum	781	1044	1094	1238	1400	1563	2088	2188	2481	2794
	Minimum	469	626	656	743	840	938	1253	1313	1489	1676
Available External Static Pressure	Pa	High Static Capability (See Performance Curves)									
IP Rating		IP44									
Power Supply	(Volt/Phase/Hz)	400-415V / 3Ph + N / 50Hz									
Rated Load Amps <sup>4</sup>	Outdoor/Indoor/Total	6.5/0.5/7.0	7.5/0.9/8.4	9.1/0.9/10.0	9.4/1.0/10.4	10.3/1.3/11.6	12.8/ 1.1/13.6	14.7/ 1.4/ 15.9	18/1.8/19.2	19.2/ 2/ 20.6	20.9/2.6/22.6
Full Load Amps <sup>5</sup>	Outdoor/Indoor/Total	9.7/2.6/12.3	12/2.6/14.6	13.5/2.6/16.1	17.4/2.6/20.0	17.4/2.6/16.1	19.6/4.2/23.8	24.2/4.2/28.4	27.2/4.2/31.4	35.2/5.3/40.5	35.2/5.3/40.5
Outdoor Dimensions (mm)	Height	1162					1190				
	Width	730					1850				
	Length	1550					1425				
Indoor Dimensions (mm)	Height	1580			1810		2140				
	Width	850			850		925				
	Length	625			625		950				
Indoor and Outdoor Pipe Connection Diameter	Liquid mm (inch)	9.5 (3/8") x 1			9.5 (3/8") x 1		9.5 (3/8") x 2			9.5 (3/8") x 2	
	Gas mm (inch)	19.1 (3/4") x 1			22.2 (7/8") x 1		19.1 (3/4") x 2			22.2 (7/8") x 2	
Nominal Weight <sup>2</sup> .	Outdoor kg	211	214	217	220	223	362	382	389	414	
Nominal Weight <sup>2</sup> .	Indoor kg	127	131		147		192	200		225	
Rated Sound Power	db(A)	61.7			66.6		66.5			68.7	

1. For reverse cycle model only 2. For base model only. Factory options will vary 3. Performance excludes ikW of evaporator fan motor 4. R.L.A - Run Load Amps are based on current drawn at nominal conditions 5. F.L.A - Full Load Amps are based on the overload settings [max current] of all compressor and fan motor(s)



# The perfect upgrade



Our commercial and industrial range of products are a near perfect fit for most legacy APAC units in capacity, footprint, ductwork, controls and power supply connections.

## Features

- Low installation costs. A perfect match to the APAC unit size, footprint, ductwork, mains power and controls avoiding costly modifications.
- Low noise. Fans slow down during low ambient for less noise, with up to 20% less sound.
- Low cost of ownership. High efficiency direct drive fans ensure low maintenance costs.
- Reduced energy costs. High efficiency ratings with up to 31% energy savings compared to legacy APAC equivalent products.
- Australian-made. Engineered and built to operate in Australia's toughest conditions.

# APAC Replacement Matrix

		APAC Model Numbers			
	kW's	New SA Series	AE Series	AD & AA Series	S Series
RoofTop	11-12	P012AHR3SA			S11HP/BH
	14	P015AHR3SA		P014AHR9AD	S14HP/BH
	15-16	P015AHR3SA	P015AHR9AE	P016AHR9AA	S16HP/BH
	17-18	P018AHR3SA	P018AHR9AE	P017AHR9AA	S18HP/BH
	19-20	P020AHR3SA		P019AHR9AA	S20HP/BH
	20-21	P020AHR3SA	P021AHR9AE		S21HP/BH
	23	P023AHR3SA	P024AHR9AE	P023AHR9AA	S24HP/BH
	24-25	P024AHR3SA			S25HP/BH
	26-28	P028AHR3SA		P026AHR9AA	
	30	P030AHR3SA	P030AHR9AE	P030AHR9AA	
	32-33	P033AHR3SA		P032AHR9AA	S32HP/BH
	35-36	P035AHR3SA	P036AHR9AE	P036AHR9AD	S35HP/BH
	37-38	P038AHR3SA			S37HP/BH
	40	P040AHR3SA	P040AHR9AE		
	42-43	P043AHR3SA		P042AHR9AD	
	45-46	P045AHR3SA	P046AHR9AE	P046AHR9AD	S45HP/BH
	46-48	P048AHR3SA			S46HP/BH
	51	P055AHR3SA			S51HP/BH
	55	P055AHR3SA	P055AHR9AE	P055AHR9AD	S56HP/BH
	64-65	P065AHR3SA	P064AHR9AD	P064AHR9AD	S65HP/BH
	75	P075AHR3SA	P075AHR9AD	P075AHR9AD	
	80	P085AHR3SA			S80HP/BH
	85	P085AHR3SA	P085AHR9AD	P085AHR9AD	
	95	P095AHR3SA	P096AHR9AD	P096AHR9AD	S95HP/BH
Split Ducted Horizontal	12	S012ILR			S11HP/EL
	14	S015ILR		S014IHR9AD	S14HP/ EL
	15-16	S015ILR	S015IHR9AE	S016IHR9AA	S16HP/EL
	17-18	S018ILR	S018IHR9AE	S017IHR9AA	S18HP/ EL
	19-20	S020ILR		S019IHR9AA	S20HP/EL
	20-21	S020ILR	S021IHR9AE		S21HP/EL
	23	S023ILR	S024IHR9AE	S023IHR9AA	S22-24HP/EL
	24-25	S024ILR-IHR			S25HP/EL
	26-28	S028ILR		S026IHR9AA	S28HP/EL
	30	S030ILR-IHR	S030IHR9AE	S030IHR9AA	S30HP/EL
	32-33	S033ILR		S032IHR9AA	S33HP/EL
	35-36	S035ILR-IHR	S036IHR9AE	S036IHR9AD	S35HP/EL
	38-43	S038-040-043ILR-IHR	S040IHR9AE	S042IHR9AD	S38-40HP/EL
	45-48	S045-048ILR-IHR	S046IHR9AE	S046IHR9AD	S45-46HP/EL
	51	S055IHR			S51HP/EL
	55	S055IHR	S055IHR9AE	S055IHR9AD	S56HP/EL
	64-65	S065IHR	S064IHR9AD	S064IHR9AD	S65HP/EL
	75	S075IHR	S075IHR9AD	S075IHR9AD	
	80	S085IHR			S80HP/EL
	85	S085IHR	S085IHR9AD	S085IHR9AD	
	95	S095IHR	S096IHR9AD	S096IHR9AD	S95HP/EL
Vertical Package	12	P012AVR3SA			S12HP/BV
	15	P015AVR3SA			S15HP/BV
	18	P018AVR3SA			S17HP/BV
	20	P020AVR3SA			S20HP/BV
	23	P023AVR3SA			
	24-25	P024AVR3SA			S25HP/BV
	30	P030AVR3SA			S30HP/BV
	35	P035AVR3SA			S35HP/BV
	40	P040AVR3SA			
	45	P045AVR3SA			S45HP/BV
Split Ducted Vertical	12	S012IVR			S12CEV or HP/EV
	15	S015IVR			S15CEV or HP/EV
	18	S018IVR			S17CEV or HP/EV
	20	S020IVR			S20CEV or HP/EV
	23	S023IVR			
	24-25	S024IVR			S25CEV or HP/EV
	30	S030IVR			S30CEV or HP/EV
	35	S035IVR			S35CEV or HP/EV
	40	S040IVR			
	45	S045IVR			S45CEV or HP/EV

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