







#### 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.







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

**APAC/Rinnai manufacturing** 

#### 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**



Roof top package unit 012-230kW Capacity range



Compact roof top package unit 028-048kW Capacity range



Vertical package unit 012-045kW Capacity range



**Split ducted unit (low profile)** 012-045kW Capacity range



Split ducted unit (horizontal) 024-095kW Capacity range



Split ducted unit (vertical) 012-045kW 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.



### **Coil corrosion protection**

Epoxy coated outdoor coils for improved corrosion resistance.



**Stainless Steel Options** 

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



## Hybrid axial fan

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



### **Open controls**

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



#### **Customised Designs** Special bespoke designs to suit all applications, please contact to discuss.

- with the Australian GEMS regulator
- GEMS regulator website www.energyrating.gov.au
- APAC Air Conditioning technical data sheets



# Roof top package unit

## Specifications (012 to 095kW)

		<u> </u>														
Model Number (Reverse Cycle)	Packaged Unit	P012AHR	P015AHR	P018AHR	P020AHR	P023AHR	P024AHR	P030AHR	P035AHR	P040AHR	P045AHR	P055AHR	P065AHR	P075AHR	P085AHR	P095AHR
	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
Rated Cooling	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
	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
Rated Heating <sup>1</sup>	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						Y	es						B	CA Complia	ant
	Maximum °C								+50							
Operating Range	Minimum °C								-10							
Capacity Steps	%			0/100							0/50	/100				
	Туре								Scroll							
Compressor	Starter							D.O.L (O	ptional Sof	t Starter)						
	Qty			1							:	2				
	Туре					Hybri	d Axial						EC	C Hybrid Ax	cial	
Outdoor Fan	Speed Control					Variable	eSpeed						Pres	sure Transo	ducer	
	Qty								2							
	Туре								R410A							
Refrigerant System	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				
	Туре								EC Plug							
Indoor Fan	Speed Control							P	otentiomet	er						
	Qty						1							:	2	
	Nominal	625	800	890	1040	1190	1250	1600	1780	2080	2380	2880	3550	3750	4400	4930
Airflow Indoor (L/s)	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 Stat	ic Capability	y (See Fan	Performanc	e Curves)					
IP Rating									IP44							
Power Supply	(Volt/Phase/Hz)							400-41	5V/3Ph+1	N/50Hz						
Rated Load Amps⁴	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 Amps⁵	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
	Height			1162					1190			1390	15	95	18	00
Dimensions (mm)	Width			1550					1850			1850		22	00	
	Length			1700					2400				2400		27	50
Nominal Weight <sup>2</sup> .	kg	350	364	372	39	90	615	625	635	648	650	730	900	920	1060	1070
Rated Sound Power	db(A)		61.7		66	3.6		66.5		66	3.3	70.9		7	1.5	

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)

#### **Features**

- Scroll type compressors
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (012-045kW)
- EC hybrid axial fan (055-095kW)
- 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)

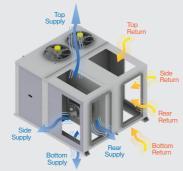
### Factory options engineered to order

- 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

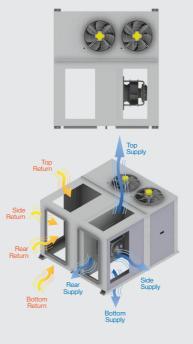
### Handing options

Left hand supply air (standard)





Right hand supply air (optional)



# Roof top package unit

## Specifications (115 to 230kW)

-													
Model Number (Reverse Cycle)	Packaged Unit	P115AHR	P150AHR	P170AHR	P200AHR	P230AHR							
	Total Capacity (kW) <sup>3</sup>	111.44	149.51	167.17	199.35	222.89							
Rated Cooling	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							
	Total Capacity (kW)	109.10	144.28	163.64	192.37	218.19							
Rated Heating <sup>1</sup>	COP	4.00	4.01	4.00	4.01	4.00							
MEPS Certified	MEPS Certified/BCA			Yes									
	Maximum °C	+50											
Operating Range	Minimum °C												
Capacity Steps	%	4	6	6	8	8							
	Туре			Tandem Scroll									
Compressor	Starter	D.O.L (Optional Soft Starter)											
	Qty	2	3	3	4	4							
	Туре	EC Axial											
Outdoor Fan	Speed Control			Pressure Transducer									
	Qty	2	3	3	4	4							
	Туре			R410A									
efrigerant System	Charge Per Circuit kg	13.7	13.7	13.7	13.7	13.7							
	No of Circuits	2	3	3	4	4							
	Туре			EC Plug									
idoor Fan	Speed Control	Potentiometer											
	Qty	1											
	Nominal	5750	7500	8625	10000	11500							
irflow Indoor (L/s)	Maximum	7188	9375	10781	12500	14375							
	Minimum	4313	5625	6467	7500	8625							
vailable External tatic Pressure	Pa		High Static C	Capability (See Fan Perform	ance Curves)								
Rating				IP44									
ower Supply	(Volt/Phase/Hz)			400-415V/3Ph+N/50Hz									
Rated Load Amps⁴	Total	59.4	79.9	89.2	106.5	117.8							
ull Load Amps⁵	Total	100.4	127.8	150.6	170.4	200.8							
	Height	2381		00	24	100							
imensions (mm)	Width	2242		242		242							
	Length	2400		735		)85							
Iominal 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)

#### **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

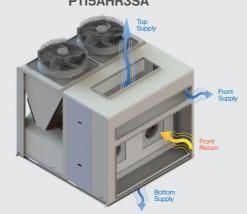
### Factory options customised to order

- 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

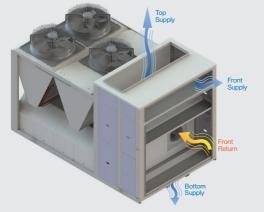
#### Factory options engineered to order

- 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

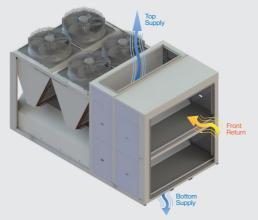
#### Handing options P115AHR3SA



P150-170AHR3SA



P200-230AHR3SA



# **Compact roof top package unit**

#### **Features**

- Tandem scoll 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)

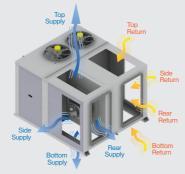
#### Factory options engineered to order

- 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

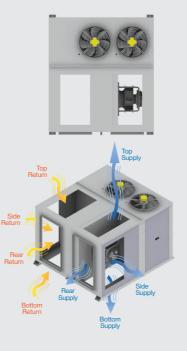
### Handing options

Left hand supply air (standard)





Right hand supply air (optional)



## Specifications (028 to 048kW)

Model Number (Reverse Cycle)	Packaged Unit	P028AHR	P033AHR	P038AHR	P043AHR	P048AHR						
	Total Capacity (kW) <sup>3</sup>	28.10	32.30	37.60	42.21	45.84						
Rated Cooling	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						
	Total Capacity (kW)	28.48	33.00	39.58	43.93	47.48						
Rated Heating <sup>1</sup>	COP	3.60	3.67	3.66	3.62	3.65						
VEPS Certified				Yes								
	Maximum °C	+50										
Operating Range	Minimum °C			-10								
Capacity Steps	%			0/50/100								
	Туре			Tandem Scroll								
Compressor	Starter	D.O.L (Optional Soft Starter)										
	Qty			1								
	Туре			EC Axial								
Outdoor Fan	Speed Control			Pressure Transducer								
	Qty			1								
	Туре			R410A								
lefrigerant System	Charge Per Circuit kg	5.75 6.75 9.5 11 10.8										
	No of Circuits	1										
	Туре	EC Plug										
door Fan	Speed Control	Potentiometer										
	Qty	1										
	Nominal	1450	1775	1875	2200	2470						
irflow Indoor (L/s)	Maximum	1813	2219	2344	2750	3088						
	Minimum	1088	1331	1406	1650	1853						
vailable External tatic Pressure	Pa		High Stati	c Capability (See Performan	ce Curves)							
Rating				IP44								
ower Supply	(Volt/Phase/Hz)			400-415V/3Ph+N/50Hz	:							
lated Load Amps <sup>4</sup> .	Total	16.1	17.3	19.8	22.7	26.6						
ull Load Amps⁵.	Total	26.8	29.3	35.7	35.8	38.2						
	Height	1350	15	55	17	'60						
otal imensions (mm)	Width			1550								
	Length			1850								
Iominal Weight <sup>2</sup> .	Total kg	425	470	490	540	570						
Rated Sound Power	db(A)	67.9		68	3.5							

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)

# Split ducted unit (Low profile)

#### **Features**

- Low profile space saving design suitable for in-ceiling installation
- EC direct drive centrifugal blower (012-023)
- EC plug fans 024-045 with high static capability up to 500pa
- Hybrid axial fan (012-045kW)
- 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

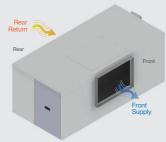
- Outdoor
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply no neutral (415/3/50)
- Ductable air off in lieu of standard axial

#### Indoor

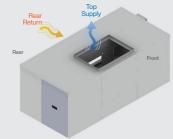
- Stainless steel external fixings
- Coil(s) copper / copper
- Power supply no neutral (415/3/50)
- R22/R407C application

## Handing options (Indoor)

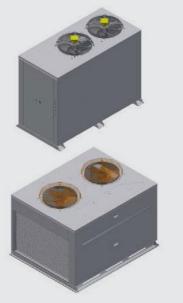
Front supply / Rear return



Top supply / Rear return



Handing (Outdoor)



## Specifications (012 to 045kW)

Model Number	Indoor Unit	S012ILR	S015ILR	S018ILR	S020ILR	S023ILR	S024ILR	S030ILR	S035ILR	S040ILR	S045ILR				
(Reverse Cycle)	Outdoor Unit	S012OVR	S015OVR	S018OVR	S0200VR	S023OVR	S024OVR	S0300VR	S035OVR	S0400VR	S0450VR				
	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				
Rated Cooling	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				
	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	33.60	40.10	43.50				
Rated Heating <sup>1</sup>	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.60	3.78	3.61	3.71				
MEPS Certified						Y	'es								
	Maximum °C					+:	50								
Operating Range	Minimum °C					-	10								
Capacity Steps	%			0/100					0/50/100						
	Туре	Scroll													
Compressor	Starter		D.O.L (Optional Soft Starter)												
	Qty			1					2						
	Туре		Hybrid Axial												
Outdoor Fan	Speed Control	Pressure Transducer													
	Qty		2												
	Туре					R4	10A								
Refrigerant System	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						
	Туре		EC	Centrifugal Blo	wer				EC Plug						
Indoor Fan	Speed Control			Variable Speed	ł				Potentiomete	r					
	Qty			1			2								
	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235				
Airflow Indoor (L/s)	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 Capabi	lity (See Fan Pe	erformance Cu	rves)				
IP Rating						IP	44								
Power Supply	(Volt/Phase/Hz)					400-415V/3	Ph+N/50Hz								
Rated Load Amps <sup>4</sup>	Outdoor/Indoor/ Total	6.5/2.1/8.6	7.5/2.8/11.3	9.1/4.0/13.1	9.4/4.2/13.6	10.3/5.8/15.1	12.8/ 0.6/13.6	14.7/ 1.1/ 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				
	Height			1162					1190						
Outdoor Dimensions (mm)	Width			730			1850								
	Length			1550					1425						
	Height		444		45	55			690	125					
Indoor Dimensions (mm)	Width		1225		15	00		1700		22	50				
	Length		655		62	25			820						
Indoor and Outdoor	Liquid mm (inch)		9.5 (3/8") x1		9.5 (3/	/8") x1		9.5 (3/8") x 2		9.5 (3/	8") x2				
Pipe Connection Diameter	Gasmm (inch)		19.1 (3/4") x 1		22.2 (7	/8") x1		19.1 (3/4") × 2		22.2 (7	/8") x2				
		211	214	217	220	223	362	382	389	4	14				
Nominal Weight <sup>2</sup> .	Outdoor kg	211	214	211	LLO	220	002	002	000	-					
Nominal Weight <sup>2</sup> . Nominal Weight <sup>2</sup> .	Outdoor kg	211	70	211		4	192		00		33				

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 (012-045kW)
- EC hybrid axial fan (055-095kW)
- 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

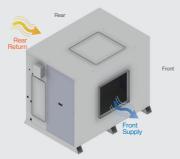
## Factory options engineered to order

#### 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 (024 to 095kW)

Model Number	Indoor Unit	S024IHR	S030IHR	S035IHR	S040IHR	S045IHR	S055IHR	S065IHR	S075IHR	S085IHR	S095IHR				
(Reverse Cycle)	Outdoor Unit	S024OVR	S0300VR	S035OVR	S0400VR	S0450VR	S055OVR	S065OVR	S075OVR	S085OVR	S095OVR				
	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				
Rated Cooling	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				
	Total Capacity (kW)	23.80	30.20	33.60	40.10	43.50	54.30	65.00	73.40	84.30	96.10				
Rated Heating <sup>1</sup>	COP	3.66	3.60	3.78	3.61	3.71	3.39	3.61	3.59	3.	60				
MEPS Certified					Yes				I	BCA Complian	ıt				
	Maximum °C					+5	50								
Operating Range	Minimum °C					-1	0								
Capacity Steps	%					0/50	)/100								
	Туре					Sc	roll								
Compressor	Starter	D.O.L (Optional Soft Starter)													
	Qty		2												
	Туре			Hybrid Axial				I	EC Hybrid Axia	al					
Outdoor Fan	Speed Control		,	Variable Spee	d			Pre	essure Transdu	icer					
	Qty		2												
	Туре					R4 <sup>-</sup>	10A								
Refrigerant System	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													
	Туре	EC Plug													
Indoor Fan	Speed Control	Potentiometer													
	Qty				1				:	2					
	Nominal	1250	1670	1750	1985	2235	2880	3550	3750	4400	4930				
Airflow Indoor (L/s)	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 Performa	nce Curves)							
IP Rating						IP	44								
Power Supply	(Volt/Phase/Hz)					400-415V/3	Ph+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	21.1/1.7/23	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 Amps⁵	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				
	Height			1190			1390	15	95	18	00				
Outdoor Dimensions (mm)	Width			18	50				22	00					
	Length					14	25								
	Height			1195			1400	16	05	18	05				
Indoor Dimensions (mm)	Width				160	00				18	50				
	Length					110	00								
Indoor and Outdoor	Liquid mm (inch)		9.5 (3/8") x 2		9.5 (3/	8") x2		12.7 (1/2") x 2	15.9 (5	/8") x 2					
Pipe Connection Diameter			19.1 (3/4") x 2		22.2 (7)	/8") x2	28.6 (1-1/8") × 2 28.6 (1-1/8") × 2				1/8") x 2				
	Gas mm (inch)														
	Gas mm (inch) Outdoor kg	362	382	389	41	14	510	600	610	761	783				
Diameter		362 201		389 04	41		510 290		610 40		783 61				

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

## Specifications (012 to 045kW)

Model Number (Reverse Cycle)	Vertical Packaged	P012AVR	P015AVR	P018AVR	P020AVR	P023AVR	P024AVR	P030AVR	P035AVR	P040AVR	P045AVR			
	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			
Rated Cooling	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			
<b>D</b>	Total Capacity (kW)	11.90	14.70	16.70	20.60	22.50	23.80	30.20	34.25	40.09	43.53			
Rated Heating <sup>1</sup>	COP	3.66	3.87	3.71	3.81	3.63	3.66	3.60	3.85	3.61	3.77			
MEPS Certified						Ye	es							
On anation Danasa	Maximum°C					+{	50							
Operating Range	Minimum °C		-10											
Capacity Steps	%		0/50/100											
	Туре					Sc	roll							
Compressor	Starter		D.O.L (Optional Soft Starter)											
	Qty			1					2					
	Туре					Hybri	d Axial							
Outdoor Fan	Speed Control					Pressure 1	Fransducer		2					
	Qty			1					2					
	Туре	R410A												
Refrigerant System	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					
	Туре					EC	Plug							
Indoor Fan	Speed Control		Potentiometer											
	Qty				1	1				:	2			
	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235			
Airflow Indoor (L/s)	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	Ра				High Stati	c Capability (S	ee Performand	ce Curves)						
IP Rating				IP55					IP44					
Power Supply	(Volt/Phase/Hz)					400-415V/3	Ph+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			
	Height		1579		19	65			2140					
Dimensions (mm)	Width		1375		13	70			2250					
	Length			850					950					
Nominal Weight <sup>2</sup>	kg	250	2	70	30	00	570	580	590	610	620			
Rated Sound Power	db(A)		63.5		66	5.9		66.5		68	3.7			

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)

#### **Features**

- Scroll type compressors
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (012-045kW)
- 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

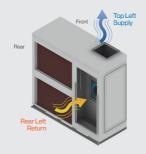
- Compressor soft starter
- High static pressure outdoor fans
- Double layered insulation to indoor section
- Capacity modulation control
- Outdoor coil(s) with anti-corrosion post-treatment
- Indoor coil(s) with anti-corrosion post-treatment
- Outdoor coil guards, powder coated
- Discharge & suction 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

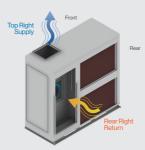
- 316 stainless steel cabinet, unpainted
- 304 stainless steel cabinet, powder coated
- Stainless steel external fixings
- Outdoor coil(s) copper / copper
- Indoor coil(s) copper / copper
- Power supply no neutral (415/3/50)Ductable air off in lieu of standard axial

## Handing options (Indoor)

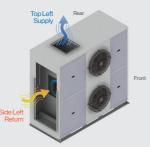
Top left supply / Rear left return



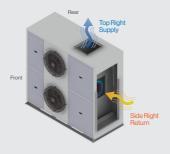
Top right supply / Rear right return



Top left supply / Side left return



Top right supply / Side right return



# Split ducted unit (Vertical)

## Specifications (012 to 045kW)

-	Indoor Unit	S012IVR	S015IVR	S018IVR	S020IVR	S023IVR	S024IVR	S030IVR	S035IVR	S040IVR	S045IVR				
Model Number (Reverse Cycle)								S0300VR							
	Outdoor Unit	S012OVR	S015OVR	S018OVR	S0200VR	S0230VR	S024OVR		S0350VR	S0400VR	S0450VR				
Datad Casting	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				
Rated Cooling	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					2	10								
Capacity Steps	%			0/100					0/50/100						
	Туре					Sc	roll								
Compressor	Starter		D.O.L (Optional Soft Starter)												
	Qty			1					2						
	Туре					Hybri	d Axial								
Outdoor Fan	Speed Control		Pressure Transducer												
	Qty		2												
	Туре					R4	10A								
Refrigerant System	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						
	Туре					EC	Plug								
Indoor Fan	Speed Control	Potentiometer													
	Qty					1					2				
	Nominal	625	835	875	990	1120	1250	1670	1750	1985	2235				
Airflow Indoor (L/s)	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 Stati	c Capability (S	ee Performand	ce Curves)							
IP Rating						IP	44								
Power Supply	(Volt/Phase/Hz)					400-415V/3	Ph+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 Amps⁵	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				
	Height			1162					1190						
Outdoor Dimensions (mm) Height Width Length	Width			730					1850						
	Length			1550					1425						
	Height		1580		18	10			2140						
Indoor	Width		850		85	50			925						
Dimensions (mm)	Length		625			25			950						
Indoor and Outdoor	Liquid mm (inch)		9.5 (3/8") x1		9.5 (3/			9.5 (3/8") x 2		9.5 (3)	/8") x2				
Pipe Connection Diameter	Gas mm (inch)		19.1 (3/4") x 1			/8") x1		19.1 (3/4") x 2		7/8") x2					
Nominal Weight <sup>2</sup> .	Outdoor kg	211	214	217	220	223	362	382	389		14				
Nominal Weight <sup>2</sup> .	Indoor kg	127		31	14		192		00		25				
Rated Sound Power	db(A)	141	61.7			6.6	102	66.5			8.7				
naleu Souriu Power	UD(A)		01.7		60	0.0		00.0		0	5.1				

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)

#### **Features**

- Floor mounted vertical design with space saving footprint
- EC plug fans with high static capability up to 500pa
- Hybrid axial fan (012-045kW)
- 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)



# The perfect upgrade

### **APAC Replacement Matrix**

		APAC Mod	el Numbers	
kW's	New SA Series	AE Series	AD & AA Series	S Series
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	I OL INTITIONE		S25HP/BH
26~28	P028AHR3SA		P026AHB9AA	020117011
30	P030AHR3SA	P030AHR9AE	PO30AHR9AA	
		FUSUARINGAE		S32HP/BH
32~33	P033AHR3SA	DOGGALIDOAE	P032AHR9AA	
35~36 37~38	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
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	SO20ILR	001011110712	S019IHR9AA	S20HP/EL
20~21	S020ILR	S021IHR9AE		S21HP/EL
23	S023ILR	S024IHR9AE	S023IHR9AA	S22~24HP/EL
	S023ILR	3024IHN9AE	SUZSINNSAA	S25HP/EL
24~25				
26~28	S028ILR		S026IHR9AA	S28HP/EL
24-25 26-28 30 32-33 35-36 38-43 45-48	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
	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
12	P012AVR3SA			S12HP/BV
15	P015AVR3SA			S15HP/BV
	P018AVR3SA			S17HP/BV
20	P020AVR3SA			S20HP/BV
23	P023AVR3SA			
18   20   23   24-25   30   35	P024AVR3SA			S25HP/BV
30	P030AVR3SA			S30HP/BV
35	P035AVR3SA			S35HP/BV
40	P040AVR3SA			000111707
45	P045AVR3SA			S45HP/BV
40				
12	S012IVR			S12CEV or HP/EV
<b>1</b> 5	S015IVR			S15CEV or HP/EV
ž 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
18   20   23   24-25   30   35	S035IVR			S35CEV or HP/EV
40	S040IVR			



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.

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