



REF-POWER

Air Cooled Condensing Unit

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INTRODUCTION

Ref-Power Air Cooled Condensing Units (RPA) are custom designed to provide the most efficient solution to your application. Each unit is tailored to meet the demands of multiple load applications required for commercial and industrial duty refrigeration applications.

Our Condensing Units are made to operate efficiently in full load as well as part load conditions. Each unit is designed to meet the needs of each customer with minimal changes to the basic design.

- The RPA is designed for both split systems and packaged systems
- RPA offers 18 unique models with a wide range of nominal capacities from 5 tons to 120 tons
- Each condensing unit is designed for the most quiet and efficient operation, meeting ASHRAE 90.1
- RPA utilizes R-410A Refrigerant which is an environmentally friendly HFC refrigerant with zero ozone depletion. The R-410a along with other features make the RPA more energy efficient than its competitors

Nomenclature

Product:	RPA	-	XX	-	X	-	X	-	X..X	-	X	-	X
			Nominal Capacity (Tons):		# of Circuits		# of Compressors		Compressor Type		# of Fans		Voltage
Ref-Power Air Cooled			(5)		1		1		F: Fixed		1		208
			(10)		2		2		Speed		2		230
			(12)		3		3		D: Digital		3		460
			(15)		4		4		Scroll		4		575
			(20)				6				6		
			(25)				8				8		
			(30)										
			(35)										
			(40)										

Date: 08/11/2017, Ref-Power

STANDARD FEATURES

Base:

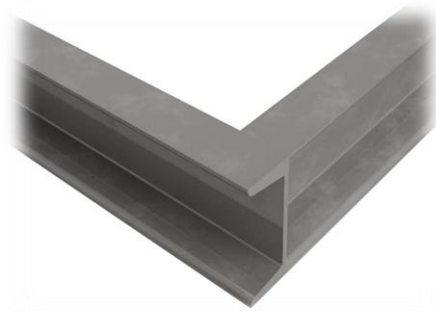
- 5" welded structural C-Channel base.
- Rigging holes provided in the full perimeter base.

Casing:

- Powder coated 16 gauge galvanized steel casing, Ref-Power Standard Grey Color.
- Removable access panel for service.

Condenser Coil:

- All Aluminum Micro-Channel Condenser Coil.
- Up to 40% higher efficiency, compared to old style fin/tube designs. Advanced Micro-Channel technology combines integrally brazed airside fins to achieve higher heat transfer rates, closer approach temperatures and lower airside pressure drops.
- Up to 20% smaller coil face depending upon the design condition which would result in an overall smaller condensing unit.
- Up to 50% less weight. This reduces shipping costs, minimizes equipment structural support, reduces labor needed for installation, and cuts shipping costs.
- Typically 40% to 60% less refrigerant charge is required.
- Due to the all aluminum construction, brazed aluminum heat exchangers are subject to significantly less galvanic corrosion than traditional fin/tube coils, because there are no dissimilar metals. Sea coast and marine use is acceptable. For applications with pollution, chemical emissions, or corrosive environments, coil coatings are available.
- Removable hail guard



Compressor:

- RCA utilizes multiple heavy duty Copeland™ Scroll/Digital Scroll Compressors.
- Compressors shall be isolated with resilient rubber isolators to decrease noise transmission.

- Copeland Scroll compressors are known for their reliability with 70 percent fewer moving parts and No complex internal suction and discharge valves for quieter operation and higher reliability.
- Modulation shall be accomplished by staging of the unit's multiple compressors for scroll compressors or by modulating the Digital Scroll.
- Superheat and Digital Scroll Controller included for Digital Scroll Compressors.
- Crankcase heaters included on all units.
- Compressor overload protection and contactors for each compressor.



Condenser Fans:

- Direct drive condenser fans.
- Condenser fans with EC (Electronically Commutated) Motors, for best efficiency and lowest acoustics.
- Head pressure control for part loads and low ambient conditions.
- Thermal overload protection for motor and electronics.
- Optimum efficiency and noise level due to well-engineered aerodynamic design of the fan blades.
- High-efficiency, energy saving designs in GreenTech EC technology with standardised integration of control functions and sensor signals.
- Numerous approvals, including VDE, UL, CSA, CE and GOST



Controls:

- Automatic reset, low pressure and high pressure switch for each circuit.
- Suction accumulator on the suction line of each circuit.
- Liquid receiver on the liquid line of each circuit.
- Ball valves with access ports for serviceability



Electrical Panel:

- NEMA 4 painted steel enclosure.
- Main Non-fused or Fused disconnect
- Pre-wired electrical controls.
- Power distribution block.
- Required transformers, fuses, and contactors.
- Terminal block for all points.
- CSA or cULus.
- Lockable enclosure



AVAILABLE FEATURES

- Custom casing color
- Custom casing material (Galvanized, Aluminum, Stainless Steel)
- Custom Dimensions
- Electronic Expansion Valve (Shipped Loose)
- Electronic Hot Gas Bypass
- Liquid line drier and sight glass/moisture indicator
- Non-fused disconnect switch
- Fused disconnect switch
- Fixed speed compressors
- Coated condenser coil
- AC condenser fans
- Fixed pressure fan cycling

DELIVERY

- Each condensing unit shall be leak tested, and charged on site. Unit shipped pre-charged with a holding charge of dry nitrogen.

WARRANTY

- Ref-Power initial warranty shall be within 12 months from start-up or 18 months from shipment, whichever occurs first.
- The warranty will cover the repair or replacement of parts due to defective materials or workmanship within the above period, excluding refrigerant.

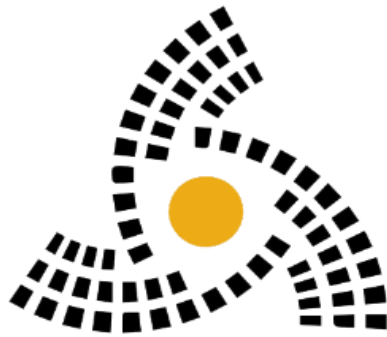


DIGITAL SCROLL AIR COOLED CONDENSING UNIT

Contact: info@ref-power.com

MODEL	CAPACITY (TONS)	MODULATION	NO. OF CIRCUITS	COMPRESSORS	QTY	FANS	QTY
RPA-5	5	10-100%	1	Digital Scroll	1	EC Motor	1
RPA-10	10	10-100%	1	Digital Scroll	1	EC Motor	1
RPA-12	12	10-100%	1	Digital Scroll	1	EC Motor	1
RPA-15	15	10-100%	1	Digital Scroll	1	EC Motor	1
RPA-20	20	5-100%	2	Digital Scroll	2	EC Motor	2
RPA-25	25	5-100%	2	Digital Scroll	2	EC Motor	2
RPA-30	30	5-100%	2	Digital Scroll	2	EC Motor	2
RPA-35	35	5-100%	2	Digital Scroll	3	EC Motor	2
RPA-40	40	3-100%	4	Digital Scroll	4	EC Motor	4
RPA-45	45	3-100%	4	Digital Scroll	4	EC Motor	4
RPA-50	50	3-100%	4	Digital Scroll	4	EC Motor	4
RPA-55	55	3-100%	4	Digital Scroll	4	EC Motor	4
RPA-60	60	3-100%	4	Digital Scroll	4	EC Motor	4
RPA-70	70	3-100%	4	Digital Scroll	6	EC Motor	4
RPA-80	80	3-100%	4	Digital Scroll	8	EC Motor	6
RPA-90	90	3-100%	3	Digital Scroll	6	EC Motor	6
RPA-100	100	3-100%	4	Digital Scroll	8	EC Motor	6
RPA-120	120	3-100%	4	Digital Scroll	8	EC Motor	6

Options		
Condenser Fans w/ AC Motor NEMA 3, NEMA 4, NEMA 4X Panel Custom Color & Dimension	Fixed Speed Compressor Non-fused Disconnect Fused Disconnect	Hail Guard Epoxy coated condenser coil cUL or CSA Certification



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