Ruud *Commercial Achiever®* Series Package Air Conditioner

***Unit shown with optional louver panels installed.**

RLPN- 14 SEER Series

Featuring Industry Standard R-410A Refrigerant
Nominal Sizes 3-5 Tons [10.6-17.6 kW]

RLQN- 15 SEER Series

Featuring Industry Standard R-410A Refrigerant
Nominal Sizes 3-5 Tons [10.6-17.6 kW]

ENERGY STAR
(15 SEER/12.0 EER ONLY)

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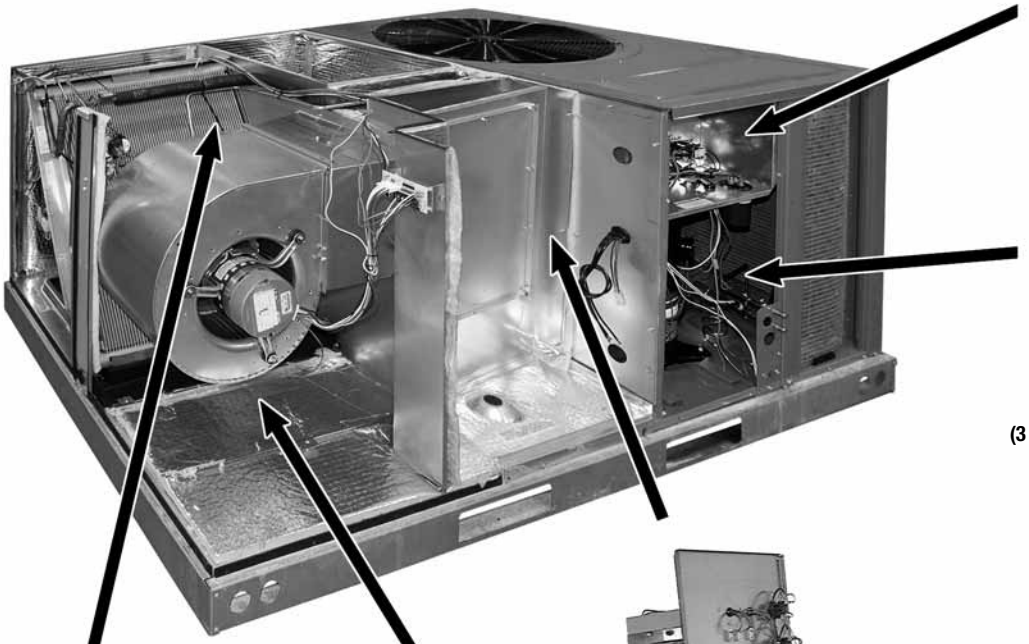
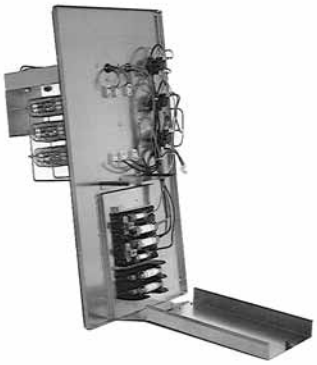
Control Box Access

Compressor Access
(3 to 5 Ton [10.6 to 17.6 kW] Models)





Optional Electric Heater Kit

Evaporator Coil/Filter Access

- Return air filters, normally provided, are removed in this photo.

- Non-corrosive plastic condensate pan

Blower Access

- Belt drive model shown. (Available on 3-phase models only.)

[ ] Designates Metric Conversions

RLPN - A036, A048, A060
RLQN - A036, A048, A060

STANDARD FEATURES INCLUDE:

- R-410A HFC refrigerant.
- Complete factory charged, wired and run tested.
- Scroll compressors with internal line break overload and high-pressure protection.
- Single stage compressor on all models. (Except 5 ton 15 SEER) which utilizes two stage scroll.
- Convertible airflow.
- TXV refrigerant metering system.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier.
- Single slab, Micro Channel designed evaporator coil facilitates easy cleaning for maintained high efficiencies.
- Cooling operation up to 125 degree F ambient.
- Easily removable filter, blower, gas heat, and compressor/ control access panels permits prompt service.
- Powder Paint Finish meets ASTMB117 steel coated on each side for maximum protection. G90 galvanized.
- One piece top cover and one piece base pan with drawn supply and return opening for superior water management.
- Externally mounted refrigerant gauge ports for easy service diagnostics.
- Factory or field-installed electric heat kits available up to 24 kW.
- Easy to install plug-in; slip in, 100% fully modulating economizer.
- Forkable base rails for easy handling and lifting.
- Single point electrical connections.
- Direct drive or high performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- Permanently lubricated evaporator, condenser and gas heat inducer motors.
- Condenser motors are internally protected, totally enclosed with shaft down design.
- 1 inch filter standard with slide out design.
- Colored and labeled wiring.
- MicroChannel coils.
- Molded compressor plug.
- Micro Channel evaporator and condenser delivers superior performance with less refrigerant charge and less weight than conventional copper tube/aluminum fin coils. In addition the all aluminum construction has superior protection against formicary corrosion and aluminum tube rubbing potential. Its easier to clean and has a more robust surface.

SELECTION PROCEDURES

1. **Determine cooling and heating requirements at design conditions.**
   Example:
   Power supply.....208/230 - 3 Phase
   Total cooling capacity .....42,500 BTUH [12.44 kW]
   Sensible cooling capacity .....34,000 BTUH [9.96 kW]
   Heating capacity .....None
   Condenser entering air .....95°F [35°C]
   Evaporator entering air.....63°F [17°C] wb/76°F [24°C] db
   Indoor air flow .....1600 CFM [755 L/s]
   External static pressure.....1.1 in wg
   Required efficiency .....13 SEER

2. **Select unit to meet cooling requirements.**
   Since total cooling is within the range of 4 ton [14.07 kW] unit and requires 13 SEER efficiency level, enter cooling performance from the RLPN-A048 table, at 95°F [35°C] outdoor temperature, 63°F [17°C] wb entering indoor air, and 1600 CFM [755 L/s]:
   Total capacity .....45,100 BTUH [13.21 kW]
   Power supply .....44,100 BTUH [12.91 kW]
   Power input.....3.6 kW

   And also, at 76°F [24°C] db indoor entering air, and using the formula at the bottom of the page:
   Sensible capacity .....38,327 BTUH [11.22 kW]

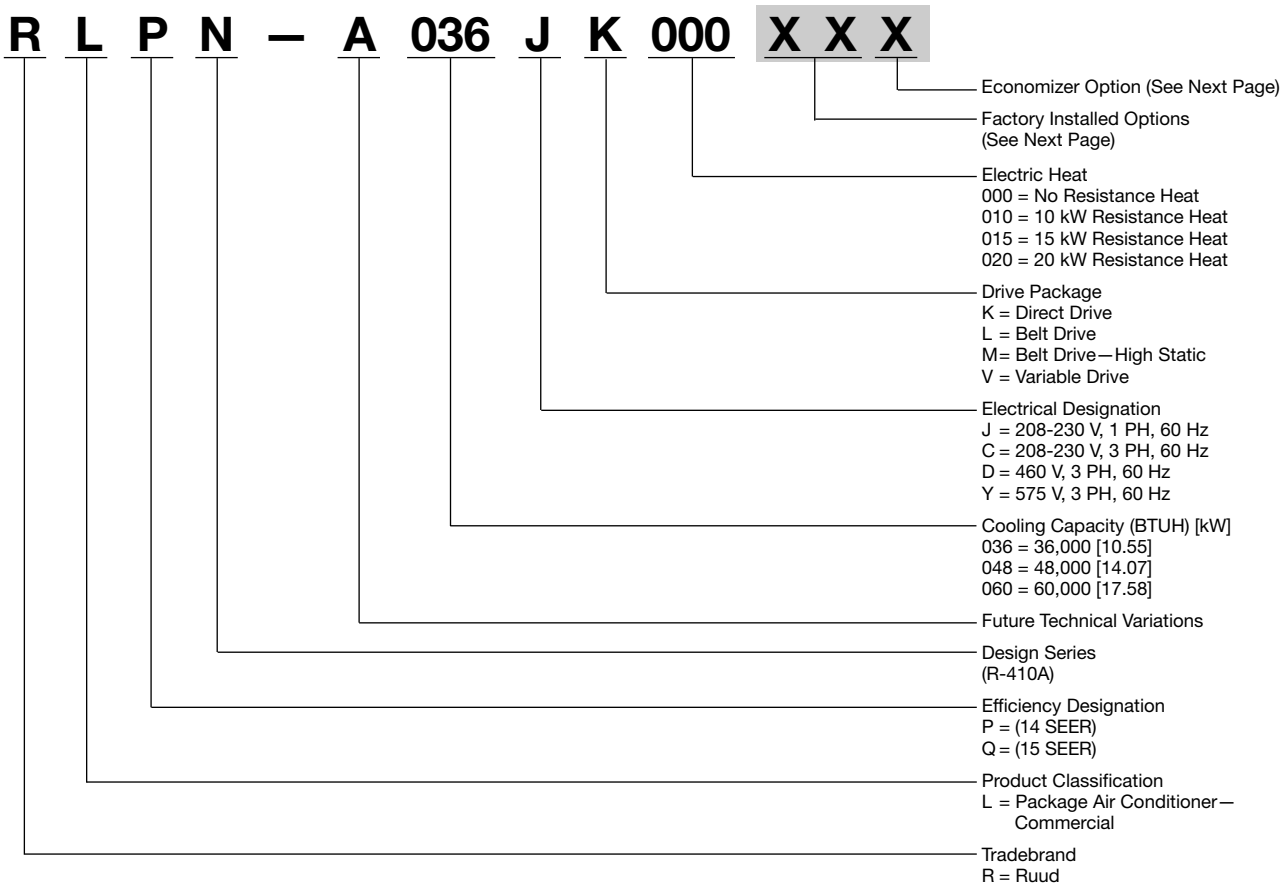
3. **Determine blower speed and power to meet the system requirements.**
   At the given external static pressure of 1.1 in wg, the belt model must be selected. Enter the belt drive blower performance table at 1600 CFM [755 L/s] and 1.1 in wg ESP:
   RPM 1195
   Watts.....755
   Drive .....M

4. **Calculate indoor blower BTUH heat effect.**
   BTUH = Watts x 3.413 = 2577

5. **Calculate net cooling capacities.**
   Net total cooling = 45,100 – 2577 = 42,523 BTUH [12.45 kW]
   Net sensible cooling = 36,908 – 2577 = 35,750 BTUH [10.06 kW]

6. **Select Model**
   RLPN-A048CM000

[ ] Designates Metric Conversions



[ ] Designates Metric Conversions

FACTORY INSTALLED OPTION CODES FOR RLPN- (3-5 Ton) [10.6-17.6 kW] (A036, A048, A060)

Option Code	Hail Guard	Non-Powered Conv. Outlet	Low Ambient/ Freeze Stat	Hinged Doors
AA	NO OPTIONS			
AD	X			
AG		X		
AP			X	
AV				X
BY	X		X	
BJ	X	X		
JC		X	X	
JK	X			X
JL		X		X
JP			X	X
CX	X	X	X	
KD	X	X		X
KG	X		X	X
KK		X	X	X
DS	X	X	X	X

Example: RLPN-A060JK000XXX (where XX is factory installed option)

Example: No Options

RLPN-A060JK000

Example: No Options with Factory Installed Economizer

RLPN-A060JK000AAF

Example: Options with Stainless Steel Heat Exchanger and no Factory Installed Economizer

RLPN-A060JK000ADA

Example: Options same as above with Factory Installed Economizer

RLPN-A060JK000ADF

ECONOMIZER SELECTION FOR RLPN- (3-5 Ton) [10.6-17.6 kW] (A036, A048, A060)

Option Code	No Economizer	Economizer No Smoke Detector	Economizer With Smoke Detector
A	X		
F		X	
G			

"X" indicates factory installed option.

[ ] Designates Metric Conversions

NOMINAL SIZES 3-5 TONS [10.6-17.6 kW]

Model RLPN- Series	A036DL	A036DM	A036JK	A036YL
Cooling Performance[1]				CONTINUED →
Gross Cooling Capacity Btu [kW]	36,200 [10.61]	36,200 [10.61]	36,200 [10.61]	36,200 [10.61]
EER/SEER[2]	11.6/14	11.6/14	11.6/14	11.6/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1250 [566/590]	1200/1250 [566/590]	1200/1250 [566/590]	1200/1250 [566/590]
AHRI Net Cooling Capacity Btu [kW]	34,600 [10.14]	34,600 [10.14]	34,600 [10.14]	34,600 [10.14]
Net Sensible Capacity Btu [kW]	25,300 [7.41]	25,300 [7.41]	25,300 [7.41]	25,300 [7.41]
Net Latent Capacity Btu [kW]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]
Net System Power [kW]	2.95	2.95	2.95	2.95
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)[3]	78	78	78	78
Outdoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.7 [18]	0.7 [18]	0.7 [18]	0.7 [18]
Face Area sq. ft. [sq. m]	13.9 [1.29]	13.9 [1.29]	13.9 [1.29]	13.9 [1.29]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil—Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25]	1 [25]	1 [25]	1 [25]
Face Area sq. ft. [sq. m]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]	4.8 [0.45]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan—Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]	1/24 [609.6]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3680 [1737]	3680 [1737]	3680 [1737]	3680 [1737]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1075	1075	1075	1075
Indoor Fan—Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]	1/10x10 [254x254]
Drive Type	Belt (Adjustable)	Belt (Adjustable)	Direct	Belt (Adjustable)
No. Speeds	Single	Single	Multiple	Single
No. Motors	1	1	1	1
Motor HP	1/2	1/2	1/2	3/4
Motor RPM	1725	1725	1075	1725
Motor Frame Size	48	56	48	56
Filter—Type	Disposable	Disposable	Disposable	Disposable
Furnished	Yes	Yes	Yes	Yes
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]	(1)1x16x25 [25x406x635] (1)1x16x25 [25x406x635]
Refrigerant Charge Oz. [g]	54 [1531]	54 [1531]	54 [1531]	54 [1531]
Weights				
Net Weight lbs. [kg]	471 [214]	471 [214]	453 [206]	471 [214]
Ship Weight lbs. [kg]	478 [217]	478 [217]	460 [209]	478 [217]

See Page 22 for Notes.

[ ] Designates Metric Conversions

ELECTRICAL DATA – RLPN SERIES

		A036CK	A036CL	A036CM	A036DK	A036DL	A036DM	A036JK	A036YL	A036YM
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	414-506	414-506	414-506	187-253	517-633	517-633
	Volts	208/230	208/230	208/230	460	460	460	208/230	575	575
	Minimum Circuit Ampacity	17/17	16/16	16/16	11	10	10	24/24	7	7
	Minimum Overcurrent Protection Device Size	20/20	20/20	20/20	15	15	15	30/30	15	15
	Maximum Overcurrent Protection Device Size	25/25	20/20	20/20	15	15	15	35/35	15	15
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	208/230	575	575
	Phase	3	3	3	3	3	3	1	3	3
	RPM	3450	3450	3450	3450	3450	3450	3450	3450	3450
	HP, Compressor 1	3	3	3	3	3	3	3	3	3
	Amps (RLA), Comp. 1	9/9	9/9	9/9	5.6	5.6	5.6	14.1/14.1	3.8	3.8
	Amps (LRA), Comp. 1	71/71	71/71	71/71	38	38	38	77/77	36.5	36.5
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	208/230	575	575
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5/1.5	1.5/1.5	1.5/1.5	1	1	1	1.5/1.5	0.8	0.8
	Amps (LRA, each)	3/3	3/3	3/3	1.9	1.9	1.9	3/3	1.9	1.9
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	460	460	460	208/230	575	575
	Phase	1	3	3	1	3	3	1	3	3
	HP	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4
	Amps (FLA, each)	4/4	2.8/2.8	2.8/2.8	2	1.4	1.6	4/4	1.3	1.3
	Amps (LRA, each)	6.7/6.7	11.3/11.3	16.8/16.8	3.6	6.2	8.4	6.7/6.7	6	6

1. Horsepower Per Compressor.
2. Amp Draw Per Motor. Multiply Value By Number of Motors to Determine Total Amps.